

**Zooplankton Data Collected with BIOMASS Programme  
at Syowa Station in 1982 by JARE-23**

**II. "NIPR-I" Samples : Stn. 5**

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As part of the International BIOMASS (Biological Investigations of Marine Antarctic Systems and Stocks) programme, the Japanese Antarctic Research Expedition (JARE) conducted a three-year programme of marine biological investigations in the fast ice area near Syowa Station between 1982 (JARE-23) and 1984 (JARE-25). Zooplankton was sampled at six stations using three kinds of nets ( i.e. Norpac net, Parasol net and "NIPR-I " sampler ). Details of the sampling methods and the sampling frequencies are published in JARE Data Reports, No. 98 (Fukuchi *et al.*, 1985).

This report summarizes the data on zooplankton collected with "NIPR-I" sampler at Stn. 5 during the JARE-23 overwintering programme in 1982 (Fig. 1). A total of 180 samples were obtained with modified "NIPR-I" sampler from 10 layers between 0 and 150 m depths during April through December in 1982 (Fukuchi *et al.*, 1985). The sampling system of the modified "NIPR-I" sampler is shown in Fig. 2. The results of the primary sorting are presented here.

Zooplankton were sorted into 29 categories as shown in the attached tables. Copepoda (Category 9) were comprised of Calanoida, Cyclopoida and Harpacticoida. Euphausiacea were counted separately for the nauplius stages (Category 24) and the other stages (Category 15). Eggs (Category 23) include those of crustacean and benthic invertebrates, etc. Planktonic larval forms (Category 27) includes benthic invertebrate larvae other than Polychaeta (Category 6). Sample processing and treatment of the data were the same as

described in preceding reports (Tanimura *et al.*, 1989, 1990, 1991). Specimens for each category were sorted into individual vials and preserved with formalin (3% in seawater). These are retained at the National Institute of Polar Research, Tokyo.

We hope that this publication and the curated specimens will be of use other scientists. Further details about data and specimens can be obtained from:

Department of Biological Data  
Division of Data Collection and Processing  
National Institute of Polar Research  
9-10, Kaga 1-chome, Itabashi-ku, Tokyo 173

#### References

- Fukuchi, M., Tanimura, A., Ohtsuka, H. and Hoshiai, T. (1985): Marine biological data of BIOMASS programme at Syowa Station in the 1982 winter (JARE-23). JARE Data Rep., 98 (Mar. Biol. 6), 113p.
- Tanimura, A., Fukuchi, M., Ohtsuka, H. and Hoshiai, T. (1989): Zooplankton data collected with BIOMASS programme at Syowa Station in 1982 by JARE-23. I. Norpac net samples. JARE Data Rep., 147 (Mar. Biol. 15), 162p.
- Tanimura, A., Fukuchi, M., Ohtsuka, H. and Hoshiai, T. (1990): Zooplankton data collected with BIOMASS programme at Syowa Station in 1982 by JARE-23. II. "NIPR-I" samples: Stn.1. JARE Data Rep., 158 (Mar. Biol. 17), 75p.
- Tanimura, A., Fukuchi, M., Ohtsuka, H. and Hoshiai, T. (1991): Zooplankton data collected with BIOMASS programme at Syowa Station in 1982 by JARE-23. II. "NIPR-I" samples: Stn.3. JARE Data Rep., 162 (Mar. Biol. 18), 275p.

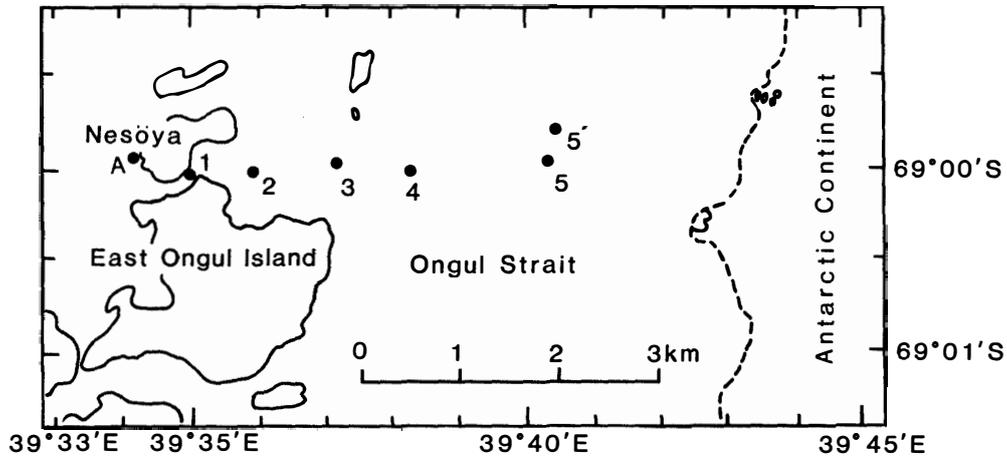


Fig. 1. Sampling locations for routine observations during JARE-23. The results of the primary sorting of the zooplankton collected at Stn. 5 from Ongul Strait are reported here.

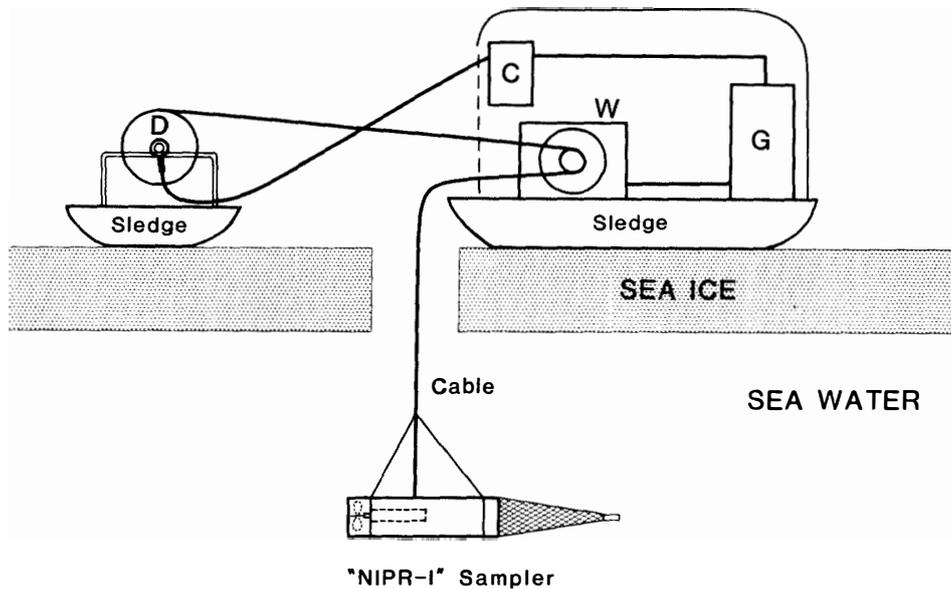


Fig. 2. Modified "NIPR-I" sampler for zooplankton collection under the sea ice.  
 C: Control box for the sampler; G: Electric generator to drive winch and sampler; W: Winch; D: Cable drum

ZOOPLANKTON RECORD SHEET

Series No. NIPR-345

1. Sample No. ....	2305001	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	0
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2862
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.55
7. Date & time(LMT) Apr. 5 '82, 12:50-12:53		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	280
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I -1	13					13	3
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I -9-1	3					3	1
Cyclopoida Copepoda	I -9-2	40	II -9-2	99			535	118
Harpacticoida Copepoda	I -9-3	19					19	4
10. Copepoda, nauplius					III -10	70	700	154
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I -18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I -21	1					1	+
22. Thaliacea							0	0
23. Egg	I -23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		79		99		70	1274	280

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-346

1. Sample No. .... 2305002  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Apr. 5 '82, 12:55-12:58  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2736  
 16. Volume of water filtered(m3) 4.35  
 calculated by Flow-meter  
 17. Wet weight(mg) per m3 .....  
 18. Settling volume(cc) per m3 ..  
 19. Total number per m3 ..... 328

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	31					31	7
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	9					9	2
Cyclopoida Copepoda	I-9-2	62	II-9-2	110			612	141
Harpacticoida Copepoda	I-9-3	23					23	5
10. Copepoda, nauplius			II-10	149			745	171
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		130		259		0	1425	328

+ : less than 1 indiv./m3

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-347

1. Sample No. ....	2305003	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	2
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2768
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.4
7. Date & time(LMT) Apr. 5 '82, 13:00-13:03		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	263
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	23					23	5
2. Siphonophora							0	0
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	3					3	1
Cyclopoida Copepoda	I-9-2	52	II-9-2	99			547	124
Harpacticoida Copepoda	I-9-3	20					20	5
10. Copepoda, nauplius			II-10	110			550	125
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	11					11	3
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		112		209		0	1157	263

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-348

1. Sample No. .... 2305004  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth (m) .... 675  
 7. Date & time (LMT) Apr. 5 '82, 13:05-13:08  
 (GMT)  
 8. Net used ..... Modified NIPR-1 (100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out (m) .....  
 12. Wire angle (°) .....  
 13. Depth of haul (m) \* ..... 5  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2674  
 16. Volume of water filtered (m<sup>3</sup>) 4.26  
 calculated by Flow-meter  
 17. Wet weight (mg) per m<sup>3</sup> .....  
 18. Settling volume (cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 342

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/2 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	24					24	6
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	3					3	1
Cyclopoida Copepoda			II-9-2	57	III-9-2	60	714	168
Harpacticoida Copepoda	I-9-3	18					18	4
10. Copepoda, nauplius					III-10	69	690	162
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	6					6	1
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		52		57		129	1456	342

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-349

1. Sample No. 2305005 11. Wire run out (m)                       
 2. JARE 23 12. Wire angle (°)                       
 3. Area Syowa Station 13. Depth of haul (m) \* 10  
 4. Station No. 5 estimated by         
 5. Position 68° 59' 57" S 14. Flow-meter used GO 2030  
39° 40' 25" E 15. Flow-meter reading 2752  
 6. Sea depth (m) 675 16. Volume of water filtered (m<sup>3</sup>) 4.38  
 7. Date & time (LMT) Apr. 5 '82, 13:11-13:14 calculated by Flow-meter  
 (GMT)                      17. Wet weight (mg) per m<sup>3</sup>                       
 8. Net used Modified NIPR-1 (100 μm) 18. Settling volume (cc) per m<sup>3</sup>                       
 9. Method of haul Layered 19. Total number per m<sup>3</sup> 423  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	48					48	11
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	15					15	3
Cyclopoida Copepoda			II-9-2	67	III-9-2	78	1003	229
Harpacticoida Copepoda	I-9-3	14					14	3
10. Copepoda, nauplius					III-10	76	760	174
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	8					8	2
22. Thaliacea							0	0
23. Eggs							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		88		67		154	1851	423

+ : less than 1 indiv./m<sup>3</sup>  
 \* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-350\_

1. Sample No. .... 2305006  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Apr. 5 '82, 13:18-13:21  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(°) .....  
 13. Depth of haul(m)※ ..... 25  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2719  
 16. Volume of water filtered(m<sup>3</sup>) 4.33  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 384

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>	
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial			
1. Foraminifera	I-1	35					35	8	
2. Siphonophora							0	0	
3. Other medusae							0	0	
4. Ctenophora							0	0	
5. Chaetognatha							0	0	
6. Polychaeta							0	0	
7. Cladocera							0	0	
8. Ostracoda							0	0	
9. Calanoida Copepoda	I-9-1	8					8	2	
Cyclopoida Copepoda			II-9-2	280			933	215	
Harpacticoida Copepoda	I-9-3	13					13	3	
10. Copepoda, nauplius			II-10	197			657	152	
11. Cumacea							0	0	
12. Isopoda							0	0	
13. Amphipoda							0	0	
14. Mysidacea							0	0	
15. Euphausiacea							0	0	
16. Decapoda							0	0	
17. Other Crustacea							0	0	
18. Heteropoda/Pteropoda	I-18	3					3	1	
19. Cephalopoda							0	0	
20. Other Mollusca							0	0	
21. Appendicularia	I-21	9					9	2	
22. Thaliacea							0	0	
23. Egg	I-23	1					1	+	
24. Euphausiacea, nauplius							0	0	
25. Nematoda							0	0	
26. Fish larvae							0	0	
27. Planktonic larval forms							0	0	
28. Unidentified forms	I-28	1					1	+	
29. Radiolaria	I-29	1					1	+	
Total		71		477			0	1661	384

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-351

1. Sample No. .... <u>2305007</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>50</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>2314</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>3.69</u>
7. Date & time(LMT) <u>Apr. 5 '82, 13:25-13:28</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>215</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	19					19	5
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	12					12	3
Cyclopoida Copepoda	I-9-2	503					503	136
Harpacticoida Copepoda	I-9-3	12					12	3
10. Copepoda, nauplius	I-10	243					243	66
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>795</b>		<b>0</b>		<b>0</b>	<b>795</b>	<b>215</b>

+ ; less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-352\_

1. Sample No. ....	2305008	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2833
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.51
7. Date & time(LMT) Apr. 5 '82, 13:36-13:39		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	448
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	35					35	8
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	24					24	5
Cyclopoida Copepoda			II-9-2	121			1210	268
Harpacticoida Copepoda	I-9-3	17					17	4
10. Copepoda, nauplius			II-10	73			730	162
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		82		194		0	2022	448

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-353

1. Sample No. .... <u>2305009</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
	15. Flow-meter reading .....
6. Sea depth (m) ....	16. Volume of water filtered (m <sup>3</sup> ) .....
7. Date & time (LMT) <u>Apr. 5 '82, 13:48-13:51</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight (mg) per m <sup>3</sup> .....
8. Net used .....	18. Settling volume (cc) per m <sup>3</sup> ..
9. Method of haul ..	19. Total number per m <sup>3</sup> .....
10. Duration of haul <u>3 min</u>	<u>539</u>

Proportion of Sample sorted	I/1 Sample [ Sort I ]		I/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	33					33	7
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	33					33	7
Cyclopoida Copepoda			II-9-2	156			1560	329
Harpacticoida Copepoda	I-9-3	12					12	3
10. Copepoda, nauplius			II-10	90			900	190
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	10					10	2
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>94</b>		<b>246</b>		<b>0</b>	<b>2554</b>	<b>539</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-354

1. Sample No. .... 2305010	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... 5	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	15. Flow-meter reading .....
39° 40' 25" E	16. Volume of water filtered (m <sup>3</sup> ) .....
6. Sea depth (m) .... 675	17. Wet weight (mg) per m <sup>3</sup> .....
7. Date & time (LMT) Apr. 5 '82, 14:04-14:07	calculated by .....
(GMT)	18. Settling volume (cc) per m <sup>3</sup> .....
8. Net used .....	19. Total number per m <sup>3</sup> .....
9. Method of haul .. Layered	
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	44					44	9
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	48					48	10
Cyclopoida Copepoda	I-9-2	1217					1217	258
Harpacticoida Copepoda	I-9-3	13					13	3
10. Copepoda, nauplius	I-10	471					471	100
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	18					18	4
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>1813</b>		<b>0</b>		<b>0</b>	<b>1813</b>	<b>385</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-355

1. Sample No. .... <u>2305011</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>0</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>0</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.62</u>
7. Date & time(LMT) <u>Apr. 22 '82, 11:22-11:25</u>	calculated by <u>Assumption</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>763</u>
10. Duration of haul <u>3 min</u>	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	43					43	9
Cyclopoida Copepoda	I-9-2	50	II-9-2	169			1740	377
Harpacticoida Copepoda	I-9-3	216					216	47
10. Copepoda, nauplius			II-10	152			1520	329
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>313</b>		<b>321</b>		<b>0</b>	<b>3523</b>	<b>763</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-356

1. Sample No. ....	2305012	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	1
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	0
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.62
7. Date & time(LMT) Apr. 22 '82, 11:27-11:30		calculated by	Assumption
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	947
10. Duration of haul	3 min		

Proportion of Sample sorted	I/1 Sample [ Sort I ]		I/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	12					12	3
Cyclopoida Copepoda	I-9-2	61	II-9-2	186			1921	416
Harpacticoida Copepoda	I-9-3	43					43	9
10. Copepoda, nauplius			II-10	239			2390	517
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		126		425		0	4376	947

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-357

1. Sample No. ....	<u>2305013</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m)※ .....	<u>2</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u> <u>39° 40' 25" E</u>	14. Flow-meter used .....	<u>GO 2030</u>
6. Sea depth(m) ....	<u>675</u>	15. Flow-meter reading .....	<u>2775</u>
7. Date & time(LMT) .....	<u>Apr. 22 '82, 11:30-11:33</u>	16. Volume of water filtered(m <sup>3</sup> ) .....	<u>4.42</u>
(GMT)		calculated by	<u>Flow-meter</u>
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	17. Wet weight(mg) per m <sup>3</sup> .....	_____
9. Method of haul .....	<u>Layered</u>	18. Settling volume(cc) per m <sup>3</sup> .....	_____
10. Duration of haul .....	<u>3 min</u>	19. Total number per m <sup>3</sup> .....	<u>1212</u>

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	5					5	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	37					37	8
Cyclopoida Copepoda			II-9-2	53	III-9-2	247	2647	599
Harpacticoida Copepoda	I-9-3	46					46	10
10. Copepoda, nauplius					III-10	261	2610	590
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		98		53		508	5355	1212

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-358

1. Sample No. .... 2305014  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Apr. 22 '82, 11:35-11:38  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 5  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2907  
 16. Volume of water filtered(m<sup>3</sup>) 4.62  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 1187

Proportion of Sample sorted	1/1 Sample [ Sort I ]		2/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	12					12	3
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	72					72	16
Cyclopoida Copepoda			II-9-2	58	III-9-2	172	1865	404
Harpacticoida Copepoda	I-9-3	33					33	7
10. Copepoda, nauplius					III-10	349	3490	755
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	2
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		124		58		521	5479	1187

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-359

1. Sample No. ....	2305015	11. Wire run out (m) .....	
2. JARE .....	23	12. Wire angle (°) .....	
3. Area .....	Syowa Station	13. Depth of haul (m) * .....	10
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2724
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.34
7. Date & time (LMT) Apr. 22 '82, 11:41-11:44		calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	989
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		2/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	5					5	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	60					60	14
Cyclopoida Copepoda			II-9-2	50	III-9-2	204	2165	499
Harpacticoida Copepoda	I-9-3	58					58	13
10. Copepoda, nauplius					III-10	200	2000	461
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	5					5	1
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		128		50		404	4293	989

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-360

1. Sample No. .... 2305016	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 25
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 2943
6. Sea depth(m).... 675	16. Volume of water filtered(m3) 4.68
7. Date & time(LMT) Apr. 22 '82, 11:47-11:50	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m3.....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m3..
9. Method of haul.. Layered	19. Total number per m3..... 1018
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	11					11	2
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	72					72	15
Cyclopoida Copepoda			II-9-2	49	III-9-2	193	2175	465
Harpacticoida Copepoda	I-9-3	36					36	8
10. Copepoda, nauplius					III-10	246	2460	526
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>130</b>		<b>49</b>		<b>439</b>	<b>4765</b>	<b>1018</b>

+ : less than 1 indiv./m3

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-361

1. Sample No. .... 2305017	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	50
5. Position .....	estimated by ....
6. Sea depth (m) ....	14. Flow-meter used .....
7. Date & time (LMT) Apr. 22 '82, 11:54-11:57	15. Flow-meter reading .....
(GMT)	16. Volume of water filtered (m <sup>3</sup> ) 4.87
8. Net used .....	calculated by Flow-meter
9. Method of haul ..	17. Wet weight (mg) per m <sup>3</sup> .....
10. Duration of haul 3 min	18. Settling volume (cc) per m <sup>3</sup> ..
	19. Total number per m <sup>3</sup> .....
	1009

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	13					13	3
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	85					85	17
Cyclopoida Copepoda			II-9-2	275			2750	565
Harpacticoida Copepoda	I-9-3	23					23	5
10. Copepoda, nauplius			II-10	203			2030	417
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		134		478		0	4914	1009

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-362

1. Sample No. .... 2305018 11. Wire run out(m) ..... \_\_\_\_\_  
 2. JARE ..... 23 12. Wire angle(') ..... \_\_\_\_\_  
 3. Area ..... Syowa Station 13. Depth of haul(m) \* ..... 75  
 4. Station No. .... 5 estimated by .... \_\_\_\_\_  
 5. Position ..... 68° 59' 57" S 14. Flow-meter used ..... G0 2030  
                   39° 40' 25" E 15. Flow-meter reading ..... 3079  
 6. Sea depth(m) .... 675 16. Volume of water filtered(m<sup>3</sup>) 4.89  
 7. Date & time(LMT) Apr. 22 '82, 12:01-12:04 calculated by Flow-meter  
                   (GMT) 17. Wet weight(mg) per m<sup>3</sup> ..... \_\_\_\_\_  
 8. Net used ..... Modified NIPR-1(100 μm) 18. Settling volume(cc) per m<sup>3</sup> .. \_\_\_\_\_  
 9. Method of haul .. Layered 19. Total number per m<sup>3</sup> ..... 815  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	9					9	2
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	76					76	16
Cyclopoida Copepoda			II-9-2	229			2290	468
Harpacticoida Copepoda	I-9-3	12					12	2
10. Copepoda, nauplius			II-10	159			1590	325
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	1
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		106		388		0	3986	815

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-363

1. Sample No. ....	2305019	11. Wire run out (m) .....	
2. JARE .....	23	12. Wire angle (°) .....	
3. Area .....	Syowa Station	13. Depth of haul (m) * .....	100
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2635
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.2
7. Date & time (LMT) Apr. 22 '82, 12:08-12:11		calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	607
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	8					8	2
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	74					74	18
Cyclopoida Copepoda			II-9-2	197			1970	469
Harpacticoida Copepoda	I-9-3	7					7	2
10. Copepoda, nauplius			II-10	47			470	112
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria	I-29	8					8	2
Total		106		244		0	2546	607

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No.NIPR-364

1. Sample No. .... 2305020  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Apr. 22 '82, 12:17-12:20  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 150  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3088  
 16. Volume of water filtered(m<sup>3</sup>) 4.91  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 121

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	44					44	9
Cyclopoida Copepoda	I-9-2	467					467	95
Harpacticoida Copepoda	I-9-3	4					4	1
10. Copepoda, nauplius	I-10	75					75	15
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		595		0		0	595	121

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-365\_

1. Sample No. ....	2305021	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	0
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2760
6. Sea depth(m) .....	675	16. Volume of water filtered(m <sup>3</sup> )	4.39
7. Date & time(LMT) May 11 '82, 11:04-11:07		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	726
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	46					46	10
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	27					27	6
Cyclopoida Copepoda			II-9-2	53	III-9-2	162	1885	429
Harpacticoida Copepoda	I-9-3	121					121	28
10. Copepoda, nauplius					III-10	109	1090	248
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	4					4	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	11					11	3
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		212		53		271	3187	726

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-366

1. Sample No. .... 2305022  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) May 11 '82, 11:09-11:12  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3113  
 16. Volume of water filtered(m<sup>3</sup>) 4.95  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 785

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	28					28	6
Cyclopoida Copepoda			II-9-2	60	III-9-2	177	2070	418
Harpacticoida Copepoda	I-9-3	14					14	3
10. Copepoda, nauplius					III-10	177	1770	358
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		46		60		354	3886	785

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-367\_

1. Sample No. ....	2305023	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	2
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3153
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.01
7. Date & time(LMT)	May 11 '82, 11:14-11:17	calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	814
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	33					33	7
Cyclopoida Copepoda			II-9-2	65	III-9-2	180	2125	424
Harpacticoida Copepoda	I-9-3	7					7	1
10. Copepoda, nauplius					III-10	191	1910	381
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		42		65		371	4077	814

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-368

1. Sample No. .... 2305024	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... 5	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	GO 2030
39° 40' 25" E	15. Flow-meter reading .....
6. Sea depth (m) .... 675	2910
7. Date & time (LMT) May 11 '82, 11:19-11:22	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	4.63
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
Modified NIPR-1 (100 μm)	calculated by Flow-meter
9. Method of haul .. Layered	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul 3 min	19. Total number per m <sup>3</sup> .....
	871

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	8					8	2
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	66					66	14
Cyclopoida Copepoda			II-9-2	235			2350	508
Harpacticoida Copepoda	I-9-3	17					17	4
10. Copepoda, nauplius			II-10	159			1590	343
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>94</b>		<b>394</b>		<b>0</b>	<b>4034</b>	<b>871</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-369

1. Sample No. ....	2305025	11. Wire run out (m) .....	_____
2. JARE .....	23	12. Wire angle (°) .....	_____
3. Area .....	Syowa Station	13. Depth of haul (m) ※ .....	10
4. Station No. ....	5	estimated by .....	_____
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3019
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.8
7. Date & time (LMT)	May 11 '82, 11:25-11:28	calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	_____
8. Net used .....	Modified NIPR-1 (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	843
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	137					137	29
Cyclopoida Copepoda			II-9-2	273			2730	569
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	117			1170	244
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		146		390		0	4046	843

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-370

1. Sample No. .... 2305026 11. Wire run out(m).....  
 2. JARE..... 23 12. Wire angle(').....  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 25  
 4. Station No. .... 5 estimated by ....  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... G0 2030  
39° 40' 25" E 15. Flow-meter reading..... 3121  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 4.96  
 7. Date & time(LMT) May 11 '82, 11:32-11:35 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>.....  
 8. Net used..... Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>..  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 708  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	177					177	36
Cyclopoida Copepoda			II-9-2	247			2470	498
Harpacticoida Copepoda	I-9-3	12					12	2
10. Copepoda, nauplius			II-10	85			850	171
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria	I-29	1					1	+
Total		191		332		0	3511	708

+ : less than 1 indiv./m<sup>3</sup>  
 ※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-371

1. Sample No. .... <u>2305027</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) <u>May 11 '82, 11:40-11:43</u>	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by <u>Flow-meter</u>
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul .....	18. Settling volume (cc) per m <sup>3</sup> .....
10. Duration of haul <u>3 min</u>	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	121					121	28
Cyclopoida Copepoda					III-9-2	216	2160	501
Harpacticoida Copepoda	I-9-3	8					8	2
10. Copepoda, nauplius			II-10	63			315	73
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>130</b>		<b>63</b>		<b>216</b>	<b>2605</b>	<b>604</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-372

1. Sample No. .... 2305028	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 75
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3023
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.81
7. Date & time(LMT) May 11 '82, 11:47-11:50	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 607
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	126					126	26
Cyclopoida Copepoda					III-9-2	253	2530	526
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	51			255	53
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>137</b>		<b>51</b>		<b>253</b>	<b>2922</b>	<b>607</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-373

1. Sample No. ....	2305029	11. Wire run out(■).....	
2. JARE.....	23	12. Wire angle(').....	
3. Area.....	Syowa Station	13. Depth of haul(■)※.....	100
4. Station No. ....	5	estimated by ....	
5. Position.....	68° 59' 57" S	14. Flow-meter used.....	GO 2030
	39° 40' 25" E	15. Flow-meter reading.....	2957
6. Sea depth(■)....	675	16. Volume of water filtered(■3)	4.7
7. Date & time(LMT) May 11 '82, 11:55-11:58		calculated by Flow-meter	
(GMT)		17. Wet weight(■g) per ■3.....	
8. Net used.....	Modified NIPR-1(100μ■)	18. Settling volume(cc) per ■3..	
9. Method of haul..	Layered	19. Total number per ■3.....	636
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		2/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per ■3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	88					88	19
Cyclopoida Copepoda					III-9-2	276	2760	587
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius			II-10	54			135	29
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		93		54		276	2988	636

+ : less than 1 indiv./■3

※ Depth from ■ beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-374

1. Sample No. .... 2305030	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) ※ .....
4. Station No. ....	150
5. Position .....	estimated by ....
68° 59' 57" S	14. Flow-meter used .....
39° 40' 25" E	15. Flow-meter reading .....
6. Sea depth (m) ....	GO 2030
675	16. Volume of water filtered (m <sup>3</sup> ) .....
7. Date & time (LMT) May 11 '82, 12:03-12:06	3017
(GMT)	17. Wet weight (mg) per m <sup>3</sup> .....
8. Net used .....	4.8
Modified NIPR-1 (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..
9. Method of haul .. Layered	calculated by Flow-meter
10. Duration of haul 3 min	19. Total number per m <sup>3</sup> .....
	517

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	152					152	32
Cyclopoida Copepoda			II-9-2	224			2240	467
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	81					81	17
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>241</b>		<b>224</b>		<b>0</b>	<b>2481</b>	<b>517</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-375

1. Sample No. 2305031 11. Wire run out(m)                       
 2. JARE 23 12. Wire angle(')                       
 3. Area Syowa Station 13. Depth of haul(m)※ 0  
 4. Station No. 5 estimated by         
 5. Position 68° 59' 57" S 14. Flow-meter used GO 2030  
39° 40' 25" E 15. Flow-meter reading 2806  
 6. Sea depth(m) 675 16. Volume of water filtered(m<sup>3</sup>) 4.46  
 7. Date & time(LMT) May 25 '82, 12:18-12:21 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>                       
 8. Net used Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>                       
 9. Method of haul Layered 19. Total number per m<sup>3</sup> 674  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	5					5	1
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	105					105	24
Cyclopoida Copepoda			II-9-2	192			1920	430
Harpacticoida Copepoda	I-9-3	45					45	10
10. Copepoda, nauplius			II-10	91			910	204
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda	I-13	2					2	+
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	4					4	1
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	15					15	3
29. Radiolaria							0	0
Total		177		283		0	3007	674

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-376\_

1. Sample No. .... 2305032	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 1
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 1
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.4
7. Date & time(LMT) May 25 '82, 12:23-12:26	calculated by Assumption
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 611
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	117					117	27
Cyclopoida Copepoda			II-9-2	191			1910	434
Harpacticoida Copepoda	I-9-3	10					10	2
10. Copepoda, nauplius			II-10	65			650	148
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		127		256		0	2687	611

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-377

1. Sample No. ....	2305033	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	2
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2687
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.28
7. Date & time(LMT) May 25 '82, 12:29-12:32		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	744
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	253					253	59
Cyclopoida Copepoda			II-9-2	219			2190	512
Harpacticoida Copepoda	I-9-3	10					10	2
10. Copepoda, nauplius			II-10	73			730	171
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		263		292		0	3183	744

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-378

1. Sample No. ....	<u>2305034</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m)※ .....	<u>5</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>770</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>4.4</u>
7. Date & time(LMT)	<u>May 25 '82, 12:35-12:38</u>	calculated by	<u>Assumption</u>
(GMT)	_____	17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-1(100μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>409</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	118					118	27
Cyclopoida Copepoda			II-9-2	246			1230	280
Harpacticoida Copepoda	I-9-3	20					20	5
10. Copepoda, nauplius			II-10	85			425	97
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		142		331		0	1797	409

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-379

1. Sample No. ....	2305035	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	10
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	93
6. Sea depth(m) ....	675	16. Volume of water filtered(m3)	4.4
7. Date & time(LMT) May 25 '82, 12:43-12:46		calculated by	Assumption
(GMT)		17. Wet weight(mg) per m3 .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m3 ..	
9. Method of haul ..	Layered	19. Total number per m3 .....	702
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	464					464	105
Cyclopoida Copepoda			II-9-2	204			2040	464
Harpacticoida Copepoda	I-9-3	13					13	3
10. Copepoda, nauplius			II-10	57			570	130
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		478		261		0	3088	702

+ : less than 1 indiv./m3

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-380

1. Sample No. .... 2305036  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) May 25 '82, 12:50-12:53  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 25  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2788  
 16. Volume of water filtered(m<sup>3</sup>) 4.44  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 715

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	156					156	35
Cyclopoida Copepoda					III-9-2	283	2830	637
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius			II-10	55			183	41
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		162		55		283	3175	715

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-381

1. Sample No. .... <u>2305037</u>	11. Wire run out(m)..... _____
2. JARE..... <u>23</u>	12. Wire angle(')..... _____
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>50</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>2616</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.17</u>
7. Date & time(LMT) <u>May 25 '82, 12:58-13:01</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> ..... _____
8. Net used..... <u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> .. _____
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>901</u>
10. Duration of haul <u>3 min</u>	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	211					211	51
Cyclopoida Copepoda					III-9-2	328	3280	787
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius			II-10	51			255	61
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>220</b>		<b>51</b>		<b>328</b>	<b>3755</b>	<b>901</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-382

1. Sample No. ....	2305038	11. Wire run out (m) .....	
2. JARE .....	23	12. Wire angle (°) .....	
3. Area .....	Syowa Station	13. Depth of haul (m) * .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2924
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.65
7. Date & time (LMT) May 25 '82, 13:06-13:09		calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1 (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	464
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/2 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	70					70	15
Cyclopoida Copepoda					III-9-2	195	1950	419
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	59			118	25
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	8					8	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria	I-29	1					1	+
Total		88		59		195	2156	464

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-383

1. Sample No. .... 2305039  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) May 25 '82, 13:15-13:18  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 100  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2731  
 16. Volume of water filtered(m<sup>3</sup>) 4.35  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 1317

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	191					191	44
Cyclopoida Copepoda			II-9-2	489			4890	1124
Harpacticoida Copepoda	I-9-3	10					10	2
10. Copepoda, nauplius			II-10	62			620	143
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	11					11	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		220		551		0	5730	1317

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-384

1. Sample No. .... 2305040	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
	15. Flow-meter reading .....
6. Sea depth (m) ....	16. Volume of water filtered (m <sup>3</sup> ) .....
7. Date & time (LMT) May 25 '82, 13:30-13:33	calculated by .....
(GMT)	17. Wet weight (mg) per m <sup>3</sup> .....
8. Net used .....	18. Settling volume (cc) per m <sup>3</sup> .....
9. Method of haul ..	19. Total number per m <sup>3</sup> .....
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	91					91	21
Cyclopoida Copepoda			II-9-2	99			990	223
Harpacticoida Copepoda	I-9-3	8					8	2
10. Copepoda, nauplius	I-10	51					51	12
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>159</b>		<b>99</b>		<b>0</b>	<b>1149</b>	<b>260</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-385

1. Sample No. .... 2305041	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) June 13 '82, 10:14-10:17	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by <u>Flow-meter</u>
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul <u>3 min</u>	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		2/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	101					101	21
Cyclopoida Copepoda			II-9-2	49	III-9-2	126	1383	283
Harpacticoida Copepoda	I-9-3	52					52	11
10. Copepoda, nauplius					III-10	94	940	193
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria	I-29	1					1	+
<b>Total</b>		<b>159</b>		<b>49</b>		<b>220</b>	<b>2482</b>	<b>509</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-386

1. Sample No. .... 2305042  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) June 13 '82, 10:19-10:22  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul ..... Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3015  
 16. Volume of water filtered(m<sup>3</sup>) 4.79  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 514

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	135					135	28
Cyclopoida Copepoda			II-9-2	48	III-9-2	118	1420	296
Harpacticoida Copepoda	I-9-3	25					25	5
10. Copepoda, nauplius					III-10	87	870	182
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	9					9	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms							0	0
29. Radiolaria	I-29	1					1	+
Total		173		48		205	2463	514

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-387

1. Sample No. .... <u>2305043</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... <u>5</u>	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	15. Flow-meter reading .....
39° 40' 25" E	16. Volume of water filtered (m <sup>3</sup> ) .....
6. Sea depth (m) .... <u>675</u>	17. Wet weight (mg) per m <sup>3</sup> .....
7. Date & time (LMT) <u>June 13 '82, 10:24-10:27</u>	calculated by .....
(GMT)	18. Settling volume (cc) per m <sup>3</sup> .....
8. Net used .....	19. Total number per m <sup>3</sup> .....
9. Method of haul .. <u>Layered</u>	.....
10. Duration of haul <u>3 min</u>	.....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	133					133	28
Cyclopoida Copepoda			II-9-2	309			1545	324
Harpacticoida Copepoda	I-9-3	23					23	5
10. Copepoda, nauplius					III-10	58	580	122
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria	I-29	1					1	+
<b>Total</b>		<b>158</b>		<b>309</b>		<b>58</b>	<b>2283</b>	<b>479</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-388

1. Sample No. .... 2305044  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) June 13 '82, 10:29-10:32  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 5  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3135  
 16. Volume of water filtered(m<sup>3</sup>) 4.98  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 542

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I -9-1	163					163	33
Cyclopoida Copepoda			II -9-2	67	III -9-2	154	1763	354
Harpacticoida Copepoda	I -9-3	12					12	2
10. Copepoda, nauplius					III -10	75	750	151
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I -23	10					10	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I -28	1					1	+
29. Radiolaria	I -29	1					1	+
Total		187		67		229	2700	542

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-389

1. Sample No. ....	2305045	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	10
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3057
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.86
7. Date & time(LMT)	June 13 '82, 10:34-10:37	calculated by Flow-meter	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	499
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	187					187	38
Cyclopoida Copepoda			II-9-2	56	III-9-2	124	1520	313
Harpacticoida Copepoda	I-9-3	12					12	2
10. Copepoda, nauplius					III-10	70	700	144
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		203		56		194	2423	499

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-390

1. Sample No. .... 2305046	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) .....	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul .....	18. Settling volume (cc) per m <sup>3</sup> .....
10. Duration of haul .....	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	97					97	23
Cyclopoida Copepoda			II-9-2	322			3220	759
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	48			480	113
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>109</b>		<b>370</b>		<b>0</b>	<b>3809</b>	<b>898</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-391

1. Sample No. .... 2305047	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) ....	15. Flow-meter reading .....
7. Date & time (LMT) June 13 '82, 10:45-10:48	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul 3 min	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/2 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	250					250	59
Cyclopoida Copepoda					III-9-2	436	4360	1023
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	59			118	28
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	5					5	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>267</b>		<b>59</b>		<b>436</b>	<b>4745</b>	<b>1114</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-392

1. Sample No. .... 2305048  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) June 13 '82, 10:52-10:55  
 (GMT)  
 8. Net used ..... Modified NIPR-I (100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 75  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2975  
 16. Volume of water filtered(m<sup>3</sup>) 4.23  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 914

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	150					150	35
Cyclopoida Copepoda					III-9-2	343	3430	811
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	54			270	64
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	9					9	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		168		54		343	3868	914

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-393

1. Sample No. ....	<u>2305049</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>100</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>2703</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>4.3</u>
7. Date & time(LMT)	<u>June 13 '82, 11:01-11:04</u>	calculated by	<u>Flow-meter</u>
(GMT)	_____	17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>830</u>
10. Duration of haul	<u>3 min</u>		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	220					220	51
Cyclopoida Copepoda					III-9-2	315	3150	733
Harpacticoida Copepoda	I-9-3	8					8	2
10. Copepoda, nauplius			II-10	53			177	41
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	6					6	1
29. Radiolaria	I-29	2					2	+
Total		242		53		315	3569	830

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-394

1. Sample No. ....	2305050	11. Wire run out(m).....	
2. JARE.....	23	12. Wire angle(').....	
3. Area.....	Syowa Station	13. Depth of haul(m)※.....	150
4. Station No. ....	5	estimated by ....	
5. Position.....	68° 59' 57" S	14. Flow-meter used.....	GO 2030
	39° 40' 25" E	15. Flow-meter reading.....	3111
6. Sea depth(m)....	675	16. Volume of water filtered(m <sup>3</sup> )	4.94
7. Date & time(LMT) June 13 '82, 11:12-11:15		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used.....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul..	Layered	19. Total number per m <sup>3</sup> .....	328
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/2 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	178					178	36
Cyclopoida Copepoda					III-9-2	133	1330	269
Harpacticoida Copepoda	I-9-3	7					7	1
10. Copepoda, nauplius			II-10	50			100	20
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		192		50		133	1622	328

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-395

1. Sample No. .... <u>2305051</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) ....	15. Flow-meter reading .....
7. Date & time (LMT) .....	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul .....	18. Settling volume (cc) per m <sup>3</sup> .....
10. Duration of haul .....	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	3					3	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	379					379	85
Cyclopoida Copepoda			II-9-2	335			3350	755
Harpacticoida Copepoda	I-9-3	135					135	30
10. Copepoda, nauplius			II-10	101			1010	227
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>519</b>		<b>436</b>		<b>0</b>	<b>4879</b>	<b>1099</b>

+ : less than 1 indiv./m<sup>3</sup>  
 \* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-396

1. Sample No. .... 2305052  
 2. JARE..... 23  
 3. Area..... Syowa Station  
 4. Station No. .... 5  
 5. Position..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m).... 675  
 7. Date & time(LMT) June 13 '82, 21:51-21:54  
 (GMT)  
 8. Net used..... Modified NIPR-I(100 μm)  
 9. Method of haul.. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m).....  
 12. Wire angle(').....  
 13. Depth of haul(m)※..... 1  
 estimated by ....  
 14. Flow-meter used..... GO 2030  
 15. Flow-meter reading..... 3479  
 16. Volume of water filtered(m<sup>3</sup>) 5.52  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup>.....  
 18. Settling volume(cc) per m<sup>3</sup>..  
 19. Total number per m<sup>3</sup>..... 926

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	245					245	44
Cyclopoida Copepoda			II-9-2	409			4090	741
Harpacticoida Copepoda	I-9-3	11					11	2
10. Copepoda, nauplius			II-10	76			760	138
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		262		485		0	5112	926

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-397

1. Sample No. .... <u>2305053</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>2</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>2861</u>
6. Sea depth (m) .... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>4.55</u>
7. Date & time (LMT) <u>June 13 '82, 21:56-21:59</u>	calculated by <u>Flow-meter</u>
(GMT) _____	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-1 (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>1120</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	235					235	52
Cyclopoida Copepoda			II-9-2	373			3730	820
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	112			1120	246
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>246</b>		<b>485</b>		<b>0</b>	<b>5096</b>	<b>1120</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-398

1. Sample No. .... 2305054	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... 5	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	15. Flow-meter reading .....
39° 40' 25" E	16. Volume of water filtered (m <sup>3</sup> ) .....
6. Sea depth (m) .... 675	17. Wet weight (mg) per m <sup>3</sup> .....
7. Date & time (LMT) June 13 '82, 22:02-22:05	18. Settling volume (cc) per m <sup>3</sup> .....
(GMT)	19. Total number per m <sup>3</sup> .....
8. Net used .....	
9. Method of haul .. Layered	
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	312					312	61
Cyclopoida Copepoda			II-9-2	362			3620	708
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	90			900	176
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>324</b>		<b>452</b>		<b>0</b>	<b>4844</b>	<b>948</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-399

1. Sample No. .... <u>2305055</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>10</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>3069</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.88</u>
7. Date & time(LMT) <u>June 13 '82, 22:07-22:10</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>659</u>
10. Duration of haul <u>3 min</u>	

Proprtion of Sample sorted	I/1 Sample [ Sort I ]		I/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	335					335	69
Cyclopoida Copepoda			II-9-2	234			2340	480
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	53			530	109
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>345</b>		<b>287</b>		<b>0</b>	<b>3215</b>	<b>659</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-400

1. Sample No. .... 2305056  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth (m) .... 675  
 7. Date & time (LMT) June 13 '82, 22:12-22:15  
 (GMT)  
 8. Net used ..... Modified NIPR-I (100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out (m) .....  
 12. Wire angle (°) .....  
 13. Depth of haul (m) \* ..... 25  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 2979  
 16. Volume of water filtered (m<sup>3</sup>) 4.74  
 calculated by Flow-meter  
 17. Wet weight (mg) per m<sup>3</sup> .....  
 18. Settling volume (cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 803

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	256					256	54
Cyclopoida Copepoda			II-9-2	293			2930	618
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	61			610	129
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
Total		268		354		0	3808	803

+ : less than 1 indiv./m<sup>3</sup>  
 \* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-401

1. Sample No. .... 2305057 11. Wire run out(m).....  
 2. JARE..... 23 12. Wire angle(').....  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 50  
 4. Station No. .... 5 estimated by ....  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... GO 2030  
39° 40' 25" E 15. Flow-meter reading..... 3146  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 5  
 7. Date & time(LMT) June 13 '82, 22:19-22:22 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>.....  
 8. Net used..... Modified NIPR-1(100 μm) 18. Settling volume(cc) per m<sup>3</sup>..  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 1070  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	285					285	57
Cyclopoida Copepoda			II-9-2	446			4460	892
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius			II-10	59			590	118
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	8					8	2
29. Radiolaria							0	0
Total		300		505		0	5350	1070

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-402

1. Sample No. ....	2305058	11. Wire run out (m) .....	
2. JARE .....	23	12. Wire angle (°) .....	
3. Area .....	Syowa Station	13. Depth of haul (m) * .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3089
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.91
7. Date & time (LMT) June 13 '82, 22:27-22:30		calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	969
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	258					258	53
Cyclopoida Copepoda			II-9-2	401			4010	817
Harpacticoida Copepoda	I-9-3	7					7	1
10. Copepoda, nauplius			II-10	45			450	92
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	15					15	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	15					15	3
29. Radiolaria							0	0
Total		297		446		0	4757	969

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-403

1. Sample No. .... <u>2305059</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>100</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>2810</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.47</u>
7. Date & time(LMT) <u>June 13 '82, 22:35-22:38</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>522</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	124					124	28
Cyclopoida Copepoda			II-9-2	202			2020	452
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	158					158	35
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	8					8	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	16					16	4
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>314</b>		<b>202</b>		<b>0</b>	<b>2334</b>	<b>522</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-404

1. Sample No.	2305060	11. Wire run out(m)	
2. JARE	23	12. Wire angle(°)	
3. Area	Syowa Station	13. Depth of haul(m)※	150
4. Station No.	5	estimated by	
5. Position	68° 59' 57" S	14. Flow-meter used	GO 2030
	39° 40' 25" E	15. Flow-meter reading	2831
6. Sea depth(m)	675	16. Volume of water filtered(m <sup>3</sup> )	4.5
7. Date & time(LMT)	June 13 '82, 22:47-22:50	calculated by	Flow-meter
	(GMT)	17. Wet weight(mg) per m <sup>3</sup>	
8. Net used	Modified NIPR-I(100μm)	18. Settling volume(cc) per m <sup>3</sup>	
9. Method of haul	Layered	19. Total number per m <sup>3</sup>	519
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	2					2	+
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	216					216	48
Cyclopoida Copepoda					III-9-2	193	1930	429
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	50			167	37
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	5					5	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	4					4	1
29. Radiolaria							0	0
Total		238		50		193	2335	519

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-405

1. Sample No. .... 2305061	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... 5	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	15. Flow-meter reading .....
39° 40' 25" E	16. Volume of water filtered (m <sup>3</sup> ) .....
6. Sea depth (m) .... 675	calculated by .....
7. Date & time (LMT) July 12 '82, 15:03-15:06	17. Wet weight (mg) per m <sup>3</sup> .....
(GMT)	18. Settling volume (cc) per m <sup>3</sup> .....
8. Net used .....	19. Total number per m <sup>3</sup> .....
9. Method of haul .. Layered	
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda	I-8	2					2	+
9. Calanoida Copepoda	I-9-1	54					54	11
Cyclopoida Copepoda			II-9-2	90	III-9-2	231	2760	573
Harpacticoida Copepoda	I-9-3	25					25	5
10. Copepoda, nauplius	I-10	476					476	99
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	6					6	1
29. Radiolaria							0	0
<b>Total</b>		<b>571</b>		<b>90</b>		<b>231</b>	<b>3331</b>	<b>691</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-406

1. Sample No. .... 2305062	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) .....	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul .....	18. Settling volume (cc) per m <sup>3</sup> .....
10. Duration of haul .....	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	84					84	18
Cyclopoida Copepoda			II-9-2	327			3270	681
Harpacticoida Copepoda	I-9-3	18					18	4
10. Copepoda, nauplius			II-10	63			630	131
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>111</b>		<b>390</b>		<b>0</b>	<b>4011</b>	<b>836</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No.NIPR-407

1. Sample No. .... 2305063	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 2
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 2992
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.76
7. Date & time(LMT) July 12 '82, 14:53-14:56	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 663
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	115					115	24
Cyclopoida Copepoda			II-9-2	245			2450	515
Harpacticoida Copepoda	I-9-3	20					20	4
10. Copepoda, nauplius			II-10	57			570	120
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		138		302		0	3158	663

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-408

1. Sample No. .... 2305064 11. Wire run out(m).....  
 2. JARE..... 23 12. Wire angle(').....  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 5  
 4. Station No. .... 5 estimated by ....  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... G0 2030  
39° 40' 25" E 15. Flow-meter reading..... 3128  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 4.97  
 7. Date & time(LMT) July 12 '82, 14:48-14:51 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>.....  
 8. Net used..... Modified NIPR-1(100 μm) 18. Settling volume(cc) per m<sup>3</sup>..  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 672  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	97					97	20
Cyclopoida Copepoda			II-9-2	263			2630	529
Harpacticoida Copepoda	I-9-3	13					13	3
10. Copepoda, nauplius			II-10	59			590	119
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	5					5	1
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		122		322		0	3342	672

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-409

1. Sample No. ....	<u>2305065</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>10</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>G0 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3017</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>4.8</u>
7. Date & time(LMT)	<u>July 12 '82, 14:43-14:46</u>	calculated by	<u>Flow-meter</u>
(GMT)	_____	17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>496</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	1					1	+
7. Cladocera							0	0
8. Ostracoda	I -8	2					2	+
9. Calanoida Copepoda	I -9-1	101					101	21
Cyclopoida Copepoda			II -9-2	382			1910	398
Harpacticoida Copepoda	I -9-3	15					15	3
10. Copepoda, nauplius			II -10	69			345	72
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I -21	2					2	+
22. Thaliacea							0	0
23. Egg	I -23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I -27	1					1	+
28. Unidentified forms	I -28	1					1	+
29. Radiolaria							0	0
Total		124		451		0	2379	496

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-410

1. Sample No. ....	2305066	11. Wire run out(m).....	
2. JARE.....	23	12. Wire angle(').....	
3. Area.....	Syowa Station	13. Depth of haul(m)※.....	25
4. Station No. ....	5	estimated by ....	
5. Position.....	68° 59' 57" S	14. Flow-meter used.....	GO 2030
	39° 40' 25" E	15. Flow-meter reading.....	2885
6. Sea depth(m)....	675	16. Volume of water filtered(m <sup>3</sup> )	4.59
7. Date & time(LMT) July 12 '82, 14:36-14:39		calculated by Flow-meter	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used.....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul..	Layered	19. Total number per m <sup>3</sup> .....	498
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	184					184	40
Cyclopoida Copepoda			II-9-2	341			1705	371
Harpacticoida Copepoda	I-9-3	11					11	2
10. Copepoda, nauplius			II-10	74			370	81
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	5					5	1
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	5					5	1
29. Radiolaria							0	0
Total		212		415		0	2287	498

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-411

1. Sample No. .... 2305067	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 50
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3047
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.84
7. Date & time(LMT) July 12 '82, 14:30-14:33	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 587
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	160					160	33
Cyclopoida Copepoda					III-9-2	244	2440	504
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	66			220	45
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	6					6	1
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>181</b>		<b>66</b>		<b>244</b>	<b>2841</b>	<b>587</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-412

1. Sample No. ....	2305068	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3030
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.82
7. Date & time(LMT) July 12 '82, 14:22-14:25		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	265
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	156					156	32
Cyclopoida Copepoda			II-9-2	106			1060	220
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	49					49	10
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda	I-13	1					1	+
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms							0	0
29. Radiolaria	I-29	1					1	+
Total		218		106		0	1278	265

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-413

1. Sample No. .... 2305069	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 100
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3274
6. Sea depth(m).... 675	16. Volume of water filtered(m3) 5.2
7. Date & time(LMT) July 12 '82, 14:13-14:16	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 223
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	8					8	2
7. Cladocera							0	0
8. Ostracoda	I -8	1					1	+
9. Calanoida Copepoda	I -9-1	93					93	18
Cyclopoida Copepoda			II -9-2	197			985	189
Harpacticoida Copepoda	I -9-3	4					4	1
10. Copepoda, nauplius	I -10	56					56	11
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I -18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I -21	1					1	+
22. Thaliacea							0	0
23. Egg	I -23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I -27	2					2	+
28. Unidentified forms	I -28	3					3	1
29. Radiolaria							0	0
<b>Total</b>		<b>173</b>		<b>197</b>		<b>0</b>	<b>1158</b>	<b>223</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-414

1. Sample No. .... 2305070  
 2. JARE..... 23  
 3. Area..... Syowa Station  
 4. Station No..... 5  
 5. Position..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m).... 675  
 7. Date & time(LMT) July 12 '82, 14:02-14:05  
 (GMT)  
 8. Net used..... Modified NIPR-I(100 μm)  
 9. Method of haul.. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m).....  
 12. Wire angle(').....  
 13. Depth of haul(m)※..... 150  
 estimated by ....  
 14. Flow-meter used..... GO 2030  
 15. Flow-meter reading..... 3159  
 16. Volume of water filtered(m3) 5.02  
 calculated by Flow-meter  
 17. Wet weight(mg) per m3.....  
 18. Settling volume(cc) per m3..  
 19. Total number per m3..... 34

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	38					38	8
Cyclopoida Copepoda	I-9-2	110					110	22
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	16					16	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		172		0		0	172	34

+ : less than 1 indiv./m3

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-415\_

1. Sample No. .... 2305071  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) July 30 '82, 10:58-11:01  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 0  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3187  
 16. Volume of water filtered(m<sup>3</sup>) 5.06  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 617

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	66					66	13
Cyclopoida Copepoda			II-9-2	250			2500	494
Harpacticoida Copepoda	I-9-3	20					20	4
10. Copepoda, nauplius			II-10	49			490	97
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	15					15	3
22. Thaliacea							0	0
23. Egg	I-23	5					5	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	21					21	4
29. Radiolaria							0	0
Total		130		299		0	3120	617

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-416

1. Sample No. .... 2305072	11. Wire run out(■).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(■)※..... 1
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3076
6. Sea depth(m).... 675	16. Volume of water filtered(■3) 4.89
7. Date & time(LMT) July 30 '82, 10:53-10:56	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per ■3.....
8. Net used..... Modified NIPR-1(100 μ■)	18. Settling volume(cc) per ■3..
9. Method of haul.. Layered	19. Total number per ■3..... 734
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per ■3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	64					64	13
Cyclopoida Copepoda			II-9-2	287			2870	587
Harpacticoida Copepoda	I-9-3	24					24	5
10. Copepoda, nauplius			II-10	62			620	127
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	1
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>100</b>		<b>349</b>		<b>0</b>	<b>3590</b>	<b>734</b>

+ : less than 1 indiv./■3

※ Depth from ■ beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-417

1. Sample No. ....	<u>2305073</u>	11. Wire run out(m) .....	.....
2. JARE .....	<u>23</u>	12. Wire angle(') .....	.....
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>2</u>
4. Station No. ....	<u>5</u>	estimated by ....	
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3118</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>4.95</u>
7. Date & time(LMT)	<u>July 30 '82, 10:49-10:52</u>	calculated by <u>Flow-meter</u>	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	.....
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	.....
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>708</u>
10. Duration of haul	<u>3 min</u>		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	123					123	25
Cyclopoida Copepoda			II-9-2	281			2810	568
Harpacticoida Copepoda	I-9-3	23					23	5
10. Copepoda, nauplius			II-10	53			530	107
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria	I-29	1					1	+
Total		163		334		0	3503	708

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-418

1. Sample No. ....	2305074	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	5
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3105
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.93
7. Date & time(LMT) July 30 '82, 10:44-10:47		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	697
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	142					142	29
Cyclopoida Copepoda			II-9-2	259			2590	525
Harpacticoida Copepoda	I-9-3	22					22	4
10. Copepoda, nauplius			II-10	65			650	132
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	10					10	2
22. Thaliacea							0	0
23. Egg	I-23	15					15	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	4					4	1
29. Radiolaria	I-29	1					1	+
Total		196		324		0	3436	697

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-419

1. Sample No. .... 2305075 11. Wire run out(m).....  
 2. JARE..... 23 12. Wire angle(').....  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 10  
 4. Station No. .... 5 estimated by ....  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... GO 2030  
39° 40' 25" E 15. Flow-meter reading..... 3028  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 4.81  
 7. Date & time(LMT) July 30 '82, 10:39-10:42 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>.....  
 8. Net used..... Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>..  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 707  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I -9-1	101					101	21
Cyclopoida Copepoda			II -9-2	284			2840	590
Harpacticoida Copepoda	I -9-3	17					17	4
10. Copepoda, nauplius			II -10	42			420	87
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I -18	8					8	2
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I -21	8					8	2
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I -27	1					1	+
28. Unidentified forms	I -28	2					2	+
29. Radiolaria	I -29	1					1	+
Total		139		326		0	3399	707

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-420

1. Sample No. 2305076 11. Wire run out (m)                       
 2. JARE 23 12. Wire angle (°)                       
 3. Area Syowa Station 13. Depth of haul (m) \* 25  
 4. Station No. 5 estimated by         
 5. Position 68° 59' 57" S 14. Flow-meter used G0 2030  
39° 40' 25" E 15. Flow-meter reading 2979  
 6. Sea depth (m) 675 16. Volume of water filtered (m<sup>3</sup>) 4.74  
 7. Date & time (LMT) July 30 '82, 10:33-10:36 calculated by Flow-meter  
 (GMT) 17. Wet weight (mg) per m<sup>3</sup>                       
 8. Net used Modified NIPR-1 (100 μm) 18. Settling volume (cc) per m<sup>3</sup>                       
 9. Method of haul Layered 19. Total number per m<sup>3</sup> 608  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	60					60	13
Cyclopoida Copepoda					III-9-2	241	2410	508
Harpacticoida Copepoda	I-9-3	11					11	2
10. Copepoda, nauplius			II-10	76			380	80
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms	I-28	5					5	1
29. Radiolaria							0	0
Total		93		76		241	2883	608

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No.NIPR-421

1. Sample No. .... 2305077 11. Wire run out(m) ..... \_\_\_\_\_  
 2. JARE ..... 23 12. Wire angle(') ..... \_\_\_\_\_  
 3. Area ..... Syowa Station 13. Depth of haul(m)※ ..... 50  
 4. Station No. .... 5 estimated by .... \_\_\_\_\_  
 5. Position ..... 68° 59' 57" S 14. Flow-meter used ..... G0 2030  
                   39° 40' 25" E 15. Flow-meter reading ..... 3109  
 6. Sea depth(m) .... 675 16. Volume of water filtered(m<sup>3</sup>) 4.94  
 7. Date & time(LMT) July 30 '82, 10:26-10:29 calculated by Flow-meter  
                   (GMT) ..... \_\_\_\_\_  
 8. Net used ..... Modified NIPR-1(100 μm) 17. Wet weight(mg) per m<sup>3</sup> ..... \_\_\_\_\_  
 9. Method of haul .. Layered 18. Settling volume(cc) per m<sup>3</sup> .. \_\_\_\_\_  
 10. Duration of haul 3 min 19. Total number per m<sup>3</sup> ..... 235

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	11					11	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	144					144	29
Cyclopoida Copepoda			II-9-2	190			950	192
Harpacticoida Copepoda	I-9-3	7					7	1
10. Copepoda, nauplius			II-10	8			40	8
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	4					4	1
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		172		198		0	1162	235

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-422

1. Sample No. ....	2305078	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2798
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.45
7. Date & time(LMT) July 30 '82, 10:17-10:20		calculated by Flow-meter	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	49
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	20					20	4
Cyclopoida Copepoda	I-9-2	186					186	42
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	6					6	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		220		0		0	220	49

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-423

1. Sample No. .... 2305079	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 100
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 2831
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.5
7. Date & time(LMT) July 30 '82, 10:09-10:12	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 38
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	7					7	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	38					38	8
Cyclopoida Copepoda	I-9-2	119					119	26
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	5					5	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		172		0		0	172	38

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-424

1. Sample No. ....	<u>2305080</u>	11. Wire run out (m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle (°) .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul (m) * .....	<u>150</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3257</u>
6. Sea depth (m) .....	<u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) .....	<u>5.17</u>
7. Date & time (LMT) <u>July 30 '82, 09:58-10:01</u>		calculated by .....	<u>Flow-meter</u>
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-I (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .....	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>48</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	54					54	10
Cyclopoida Copepoda	I-9-2	174					174	34
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	10					10	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		248		0		0	248	48

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-425

1. Sample No. ....	<u>2305081</u>	11. Wire run out (m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle (°) .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul (m) * .....	<u>0</u>
4. Station No. ....	<u>5</u>	estimated by ....	
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>G0 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3252</u>
6. Sea depth (m) ....	<u>675</u>	16. Volume of water filtered (m <sup>3</sup> )	<u>5.16</u>
7. Date & time (LMT) <u>Aug. 19 '82, 11:14-11:17</u>		calculated by <u>Flow-meter</u>	
	(GMT)	17. Wet weight (mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-I (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>570</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	17					17	3
Cyclopoida Copepoda			II-9-2	215			2150	417
Harpacticoida Copepoda	I-9-3	54					54	10
10. Copepoda, nauplius			II-10	68			680	132
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	26					26	5
22. Thaliacea							0	0
23. Egg	I-23	12					12	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	7					7	1
29. Radiolaria							0	0
Total		116		283		0	2946	570

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-426

1. Sample No. .... 2305082  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Aug. 19 '82, 11:10-11:13  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100µm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3176  
 16. Volume of water filtered(m<sup>3</sup>) 5.06  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 641

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	48					48	9
Cyclopoida Copepoda			II-9-2	233			2330	460
Harpacticoida Copepoda	I-9-3	22					22	4
10. Copepoda, nauplius			II-10	81			810	160
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	24					24	5
22. Thaliacea							0	0
23. Egg	I-23	6					6	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		101		314		0	3241	641

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-427

1. Sample No. .... 2305083	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 2
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3120
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.96
7. Date & time(LMT) Aug. 19 '82, 11:06-11:09	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 540
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	88					88	18
Cyclopoida Copepoda			II-9-2	190			1900	383
Harpacticoida Copepoda	I-9-3	36					36	7
10. Copepoda, nauplius			II-10	60			600	121
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	4					4	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	33					33	7
22. Thaliacea							0	0
23. Egg	I-23	10					10	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms	I-28	4					4	1
29. Radiolaria							0	0
Total		177		250		0	2677	540

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-428

1. Sample No. .... 2305084 11. Wire run out(m).....  
 2. JARE..... 23 12. Wire angle(').....  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 5  
 4. Station No. .... 5 estimated by ....  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... G0 2030  
39° 40' 25" E 15. Flow-meter reading..... 3240  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 5.15  
 7. Date & time(LMT) Aug. 19 '82, 11:02-11:05 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>.....  
 8. Net used..... Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>..  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 603  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	77					77	15
Cyclopoida Copepoda			II-9-2	225			2250	437
Harpacticoida Copepoda	I-9-3	22					22	4
10. Copepoda, nauplius			II-10	70			700	136
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	19					19	4
22. Thaliacea							0	0
23. Egg	I-23	6					6	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms	I-28	27					27	5
29. Radiolaria							0	0
Total		154		295		0	3104	603

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-429

1. Sample No. .... 2305085	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) ※ .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) ....	15. Flow-meter reading .....
7. Date & time (LMT) Aug. 19 '82, 10:57-11:00	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul 3 min	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	96					96	20
Cyclopoida Copepoda			II-9-2	384			1920	391
Harpacticoida Copepoda	I-9-3	26					26	5
10. Copepoda, nauplius			II-10	120			600	122
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	4					4	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	44					44	9
22. Thaliacea							0	0
23. Egg	I-23	9					9	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	22					22	4
29. Radiolaria							0	0
<b>Total</b>		<b>202</b>		<b>504</b>		<b>0</b>	<b>2722</b>	<b>554</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-430

1. Sample No. .... 2305086	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 25
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3260
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.18
7. Date & time(LMT) Aug. 19 '82, 10:51-10:54	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 401
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	73					73	14
Cyclopoida Copepoda			II-9-2	146			1460	282
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	50			500	97
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	26					26	5
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>115</b>		<b>196</b>		<b>0</b>	<b>2075</b>	<b>401</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-431

1. Sample No. .... <u>2305087</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>50</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>3067</u>
6. Sea depth (m) .... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>4.87</u>
7. Date & time (LMT) <u>Aug. 19 '82, 10:43-10:46</u>	calculated by <u>Flow-meter</u>
(GMT) _____	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-1 (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>331</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	7					7	1
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	262					262	54
Cyclopoida Copepoda			II-9-2	239			1195	245
Harpacticoida Copepoda	I-9-3	7					7	1
10. Copepoda, nauplius	I-10	128					128	26
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	6					6	1
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
<b>Total</b>		<b>418</b>		<b>239</b>		<b>0</b>	<b>1613</b>	<b>331</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-432

1. Sample No. ....	2305088	11. Wire run out(m).....	
2. JARE.....	23	12. Wire angle(').....	
3. Area.....	Syowa Station	13. Depth of haul(m)*.....	75
4. Station No. ....	5	estimated by ....	
5. Position.....	68° 59' 57" S	14. Flow-meter used.....	GO 2030
	39° 40' 25" E	15. Flow-meter reading.....	2805
6. Sea depth(m)....	675	16. Volume of water filtered(m <sup>3</sup> )	4.46
7. Date & time(LMT)	Aug. 19 '82, 10:34-10:37	calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used.....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul..	Layered	19. Total number per m <sup>3</sup> .....	138
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	72					72	16
Cyclopoida Copepoda	I-9-2	490					490	110
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	33					33	7
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
Total		616		0		0	616	138

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-433\_

1. Sample No. ....	2305089	11. Wire run out (m) .....	
2. JARE .....	23	12. Wire angle (°) .....	
3. Area .....	Syowa Station	13. Depth of haul (m) * .....	100
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2911
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.63
7. Date & time (LMT)	Aug. 19 '82, 10:24-10:27	calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1 (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	92
10. Duration of haul	3 min		

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	67					67	14
Cyclopoida Copepoda	I-9-2	342					342	74
Harpacticoida Copepoda	I-9-3	7					7	2
10. Copepoda, nauplius	I-10	4					4	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria	I-29	1					1	+
Total		428		0		0	428	92

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-434

1. Sample No. 2305090  
 2. JARE 23  
 3. Area Syowa Station  
 4. Station No. 5  
 5. Position 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) 675  
 7. Date & time(LMT) Aug. 19 '82, 10:13-10:16  
 (GMT)  
 8. Net used Modified NIPR-1(100 μm)  
 9. Method of haul Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m)  
 12. Wire angle(°)  
 13. Depth of haul(m)※ 150  
 estimated by  
 14. Flow-meter used GO 2030  
 15. Flow-meter reading 2976  
 16. Volume of water filtered(m<sup>3</sup>) 4.73  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup>  
 18. Settling volume(cc) per m<sup>3</sup>  
 19. Total number per m<sup>3</sup> 81

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		2/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	76					76	16
Cyclopoida Copepoda			II-9-2	111			278	59
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	25					25	5
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		107		111		0	385	81

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-435

1. Sample No. .... 2305091	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 0
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3228
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.13
7. Date & time(LMT) Sep. 3 '82, 11:20-11:23	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 376
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	10					10	2
Cyclopoida Copepoda			II-9-2	220			1100	214
Harpacticoida Copepoda	I-9-3	24					24	5
10. Copepoda, nauplius			II-10	155			775	151
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	14					14	3
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	5					5	1
29. Radiolaria	I-29	1					1	+
<b>Total</b>		<b>56</b>		<b>375</b>		<b>0</b>	<b>1931</b>	<b>376</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-436

1. Sample No. .... <u>2305092</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>1</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>3225</u>
6. Sea depth (m) ..... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>5.12</u>
7. Date & time (LMT) <u>Sep. 3 '82, 11:16-11:19</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-1 (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>357</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	2					2	+
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	40					40	8
Cyclopoida Copepoda			II-9-2	206			1030	201
Harpacticoida Copepoda	I-9-3	28					28	5
10. Copepoda, nauplius			II-10	140			700	137
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	18					18	4
22. Thaliacea							0	0
23. Egg	I-23	6					6	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	6					6	1
29. Radiolaria							0	0
<b>Total</b>		<b>100</b>		<b>346</b>		<b>0</b>	<b>1830</b>	<b>357</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-437

1. Sample No. ....	2305093	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	2
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3107
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.94
7. Date & time(LMT) Sep. 3 '82, 11:12-11:15		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	424
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	46					46	9
Cyclopoida Copepoda			II-9-2	246			1230	249
Harpacticoida Copepoda	I-9-3	34					34	7
10. Copepoda, nauplius			II-10	152			760	154
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	13					13	3
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
Total		100		398		0	2090	424

+ : less than 1 indiv./m<sup>3</sup>  
 ※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-438

1. Sample No. ....	2305094	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	5
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3124
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.96
7. Date & time(LMT) Sep. 3 '82, 11:07-11:10		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	309
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	79					79	16
Cyclopoida Copepoda			II-9-2	266			887	179
Harpacticoida Copepoda	I-9-3	23					23	5
10. Copepoda, nauplius			II-10	158			527	106
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	1
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		117		424		0	1531	309

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-439

1. Sample No. .... 2305095 11. Wire run out(m)..... \_\_\_\_\_  
 2. JARE..... 23 12. Wire angle(')..... \_\_\_\_\_  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 10  
 4. Station No. .... 5 estimated by .... \_\_\_\_\_  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... GO 2030  
39° 40' 25" E 15. Flow-meter reading..... 3107  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 4.94  
 7. Date & time(LMT) Sep. 3 '82, 11:03-11:06 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>..... \_\_\_\_\_  
 8. Net used..... Modified NIPR-I(100μm) 18. Settling volume(cc) per m<sup>3</sup>.. \_\_\_\_\_  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 352  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	79					79	16
Cyclopoida Copepoda			II-9-2	201			1005	203
Harpacticoida Copepoda	I-9-3	26					26	5
10. Copepoda, nauplius			II-10	121			605	122
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	16					16	3
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		127		322		0	1737	352

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-440

1. Sample No. ....	2305096	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	25
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2775
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.42
7. Date & time(LMT) Sep. 3 '82, 10:57-11:00		calculated by Flow-meter	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	301
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	120					120	27
Cyclopoida Copepoda			II-9-2	169			845	191
Harpacticoida Copepoda	I-9-3	28					28	6
10. Copepoda, nauplius			II-10	63			315	71
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	10					10	2
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
Total		169		232		0	1329	301

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-441

1. Sample No. ....	<u>2305097</u>	11. Wire run out (m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle (°) .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul (m) * .....	<u>50</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3202</u>
6. Sea depth (m) ....	<u>675</u>	16. Volume of water filtered (m <sup>3</sup> )	<u>5.09</u>
7. Date & time (LMT)	<u>Sep. 3 '82, 10:50-10:53</u>	calculated by	<u>Flow-meter</u>
(GMT)	_____	17. Wet weight (mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-I (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>71</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	79					79	16
Cyclopoida Copepoda			II-9-2	142			237	47
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	37					37	7
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		125		142		0	362	71

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-442

1. Sample No. 2305098 11. Wire run out(m)                       
 2. JARE 23 12. Wire angle(')                       
 3. Area Syowa Station 13. Depth of haul(m)※ 75  
 4. Station No. 5 estimated by                       
 5. Position 68° 59' 57" S 14. Flow-meter used GO 2030  
39° 40' 25" E 15. Flow-meter reading 2750  
 6. Sea depth(m) 675 16. Volume of water filtered(m<sup>3</sup>) 4.38  
 7. Date & time(LMT) Sep. 3 '82, 10:41-10:44 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>                       
 8. Net used Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>                       
 9. Method of haul Layered 19. Total number per m<sup>3</sup> 78  
 10. Duration of haul 3 min

Proprtion of Sample sorted	I/I Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	63					63	14
Cyclopoida Copepoda	I-9-2	249					249	57
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	21					21	5
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		341		0		0	341	78

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-443

1. Sample No. .... 2305099 11. Wire run out(m)..... \_\_\_\_\_  
 2. JARE..... 23 12. Wire angle(')..... \_\_\_\_\_  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 100  
 4. Station No. .... 5 estimated by .... \_\_\_\_\_  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... GO 2030  
39° 40' 25" E 15. Flow-meter reading..... 3235  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 5.14  
 7. Date & time(LMT) Sep. 3 '82, 10:32-10:35 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>..... \_\_\_\_\_  
 8. Net used..... Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>.. \_\_\_\_\_  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 66  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	47					47	9
Cyclopoida Copepoda	I-9-2	264					264	51
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	25					25	5
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		341		0		0	341	66

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-444

1. Sample No. .... 2305100  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Sep. 3 '82, 10:20-10:23  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 150  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3236  
 16. Volume of water filtered(m<sup>3</sup>) 5.14  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 51

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	68					68	13
Cyclopoida Copepoda	I-9-2	161					161	31
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	17					17	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
Total		261		0		0	261	51

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-445

1. Sample No. .... 2305101	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 0
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3332
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.29
7. Date & time(LMT) Sep. 19 '82, 10:44-10:47	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 286
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	44					44	8
Cyclopoida Copepoda			II-9-2	157			785	148
Harpacticoida Copepoda	I-9-3	51					51	10
10. Copepoda, nauplius			II-10	116			580	110
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	1
22. Thaliacea							0	0
23. Egg	I-23	34					34	6
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	8					8	2
29. Radiolaria							0	0
<b>Total</b>		<b>148</b>		<b>273</b>		<b>0</b>	<b>1513</b>	<b>286</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-446

1. Sample No. .... 2305102  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth (m) .... 675  
 7. Date & time (LMT) Sep. 19 '82, 10:40-10:43  
 (GMT)  
 8. Net used ..... Modified NIPR-I (100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out (m) .....  
 12. Wire angle (°) .....  
 13. Depth of haul (m) \* ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3100  
 16. Volume of water filtered (m<sup>3</sup>) 4.93  
 calculated by Flow-meter  
 17. Wet weight (mg) per m<sup>3</sup> .....  
 18. Settling volume (cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 311

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta							0	0
7. Cladocera							0	0
8. Ostracoda	I-8	2					2	+
9. Calanoida Copepoda	I-9-1	57					57	12
Cyclopoida Copepoda			II-9-2	170			850	172
Harpacticoida Copepoda	I-9-3	25					25	5
10. Copepoda, nauplius			II-10	102			510	103
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	11					11	2
22. Thaliacea							0	0
23. Egg	I-23	68					68	14
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	5					5	1
28. Unidentified forms	I-28	7					7	1
29. Radiolaria							0	0
Total		175		272		0	1535	311

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-447

1. Sample No. ....	2305103	11. Wire run out(m).....	
2. JARE.....	23	12. Wire angle(').....	
3. Area.....	Syowa Station	13. Depth of haul(m)※.....	2
4. Station No. ....	5	estimated by ....	
5. Position.....	68° 59' 57" S	14. Flow-meter used.....	GO 2030
	39° 40' 25" E	15. Flow-meter reading.....	3184
6. Sea depth(m)....	675	16. Volume of water filtered(m <sup>3</sup> )	5.06
7. Date & time(LMT)	Sep. 19 '82, 10:36-10:39	calculated by	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	Flow-meter
8. Net used.....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul..	Layered	19. Total number per m <sup>3</sup> .....	227
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	52					52	10
Cyclopoida Copepoda			II-9-2	132			660	130
Harpacticoida Copepoda	I-9-3	26					26	5
10. Copepoda, nauplius			II-10	71			355	70
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	4					4	1
22. Thaliacea							0	0
23. Egg	I-23	39					39	8
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	5					5	1
29. Radiolaria							0	0
Total		134		203		0	1149	227

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-448

1. Sample No. .... 2305104 11. Wire run out(m) .....  
 2. JARE ..... 23 12. Wire angle(') .....  
 3. Area ..... Syowa Station 13. Depth of haul(m)※ ..... 5  
 4. Station No. .... 5 estimated by ....  
 5. Position ..... 68° 59' 57" S 14. Flow-meter used ..... G0 2030  
39° 40' 25" E 15. Flow-meter reading ..... 3261  
 6. Sea depth(m) .... 675 16. Volume of water filtered(m<sup>3</sup>) 5.18  
 7. Date & time(LMT) Sep. 19 '82, 10:32-10:35 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup> .....  
 8. Net used ..... Modified NIPR-I(100μm) 18. Settling volume(cc) per m<sup>3</sup> .....  
 9. Method of haul .. Layered 19. Total number per m<sup>3</sup> ..... 289  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	78					78	15
Cyclopoida Copepoda			II-9-2	172			860	166
Harpacticoida Copepoda	I-9-3	15					15	3
10. Copepoda, nauplius			II-10	95			475	92
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	1
22. Thaliacea							0	0
23. Egg	I-23	49					49	9
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	4					4	1
28. Unidentified forms	I-28	7					7	1
29. Radiolaria							0	0
Total		163		267		0	1498	289

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-449

1. Sample No. ....	<u>2305105</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>10</u>
4. Station No. ....	<u>5</u>	estimated by .....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3175</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>5.04</u>
7. Date & time(LMT)	<u>Sep. 19 '82, 10:28-10:31</u>	calculated by	<u>Flow-meter</u>
(GMT)	_____	17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>361</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	10					10	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	138					138	27
Cyclopoida Copepoda			II-9-2	223			1115	221
Harpacticoida Copepoda	I-9-3	13					13	3
10. Copepoda, nauplius			II-10	98			490	97
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	39					39	8
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	9					9	2
29. Radiolaria							0	0
Total		212		321		0	1817	361

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-450

1. Sample No. 2305106 11. Wire run out (m)                       
 2. JARE 23 12. Wire angle (°)                       
 3. Area Syowa Station 13. Depth of haul (m) \* 25  
 4. Station No. 5 estimated by         
 5. Position 68° 59' 57" S 14. Flow-meter used GO 2030  
39° 40' 25" E 15. Flow-meter reading 2795  
 6. Sea depth (m) 675 16. Volume of water filtered (m<sup>3</sup>) 4.45  
 7. Date & time (LMT) Sep. 19 '82, 10:22-10:25 calculated by Flow-meter  
 (GMT) 17. Wet weight (mg) per m<sup>3</sup>                       
 8. Net used Modified NIPR-1 (100 μm) 18. Settling volume (cc) per m<sup>3</sup>                       
 9. Method of haul Layered 19. Total number per m<sup>3</sup> 295  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/2 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	16					16	4
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	211					211	47
Cyclopoida Copepoda			II-9-2	450			900	202
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	63			126	28
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	7					7	2
22. Thaliacea							0	0
23. Egg	I-23	25					25	6
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	16					16	4
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
Total		285		513		0	1311	295

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No.NIPR-451

1. Sample No. .... 2305107	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... 50
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 2893
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.6
7. Date & time(LMT) Sep. 19 '82, 10:15-10:18	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 182
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	6					6	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	134					134	29
Cyclopoida Copepoda	I-9-2	635					635	138
Harpacticoida Copepoda	I-9-3	8					8	2
10. Copepoda, nauplius	I-10	42					42	9
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	8					8	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	4					4	1
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>839</b>		<b>0</b>		<b>0</b>	<b>839</b>	<b>182</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-452

1. Sample No. .... <u>2305108</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>75</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>3030</u>
6. Sea depth (m) .... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>4.82</u>
7. Date & time (LMT) <u>Sep. 19 '82, 10:08-10:11</u>	calculated by <u>Flow-meter</u>
(GMT) _____	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-I (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>50</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	28					28	6
Cyclopoida Copepoda	I-9-2	188					188	39
Harpacticoida Copepoda	I-9-3	4					4	1
10. Copepoda, nauplius	I-10	15					15	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	3					3	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>242</b>		<b>0</b>		<b>0</b>	<b>242</b>	<b>50</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-453

1. Sample No. ....	2305109	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	100
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3254
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.17
7. Date & time(LMT)	Sep. 19 '82, 10:00-10:03	calculated by Flow-meter	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	45
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	21					21	4
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	22					22	4
Cyclopoida Copepoda	I-9-2	167					167	32
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	16					16	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	4					4	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		232		0		0	232	45

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-454

1. Sample No. .... 2305110  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Sep. 19 '82, 09:49-09:52  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 150  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3077  
 16. Volume of water filtered(m3) 4.89  
 calculated by Flow-meter  
 17. Wet weight(mg) per m3 .....  
 18. Settling volume(cc) per m3 ..  
 19. Total number per m3 ..... 39

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	45					45	9
Cyclopoida Copepoda	I-9-2	133					133	27
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	8					8	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg							0	0
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		191		0		0	191	39

+ : less than 1 indiv./m3  
 ※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-455

1. Sample No. .... <u>2305111</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) ....	15. Flow-meter reading .....
7. Date & time (LMT) <u>Sep. 19 '82, 22:07-22:10</u>	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by <u>Flow-meter</u>
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul <u>3 min</u>	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	129					129	25
Cyclopoida Copepoda	I-9-2	643					643	127
Harpacticoida Copepoda	I-9-3	37					37	7
10. Copepoda, nauplius	I-10	517					517	102
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	4					4	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	80					80	16
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	7					7	1
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>1421</b>		<b>0</b>		<b>0</b>	<b>1421</b>	<b>280</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-456

1. Sample No. .... 2305112  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Sep. 19 '82, 22:03-22:06  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3147  
 16. Volume of water filtered(m<sup>3</sup>) 5  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 276

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	112					112	22
Cyclopoida Copepoda	I-9-2	740					740	148
Harpacticoida Copepoda	I-9-3	18					18	4
10. Copepoda, nauplius	I-10	425					425	85
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	5					5	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg	I-23	66					66	13
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		1376		0		0	1376	276

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-457

1. Sample No. .... <u>2305113</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>2</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>3135</u>
6. Sea depth (m) .... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>4.98</u>
7. Date & time (LMT) <u>Sep. 19 '82, 21:59-22:02</u>	calculated by <u>Flow-meter</u>
(GMT) _____	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-I (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>264</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	106					106	21
Cyclopoida Copepoda	I-9-2	662					662	133
Harpacticoida Copepoda	I-9-3	27					27	5
10. Copepoda, nauplius	I-10	406					406	82
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	15					15	3
22. Thaliacea							0	0
23. Egg	I-23	83					83	17
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	6					6	1
28. Unidentified forms	I-28	4					4	1
29. Radiolaria							0	0
<b>Total</b>		<b>1314</b>		<b>0</b>		<b>0</b>	<b>1314</b>	<b>264</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-458

1. Sample No. .... 2305114  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(■) .... 675  
 7. Date & time(LMT) Sep. 19 '82, 21:55-21:58  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100μ■)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(■) .....  
 12. Wire angle(') .....  
 13. Depth of haul(■) \* ..... 5  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3215  
 16. Volume of water filtered(■3) 5.11  
 calculated by Flow-meter  
 17. Wet weight(mg) per ■3 .....  
 18. Settling volume(cc) per ■3 ..  
 19. Total number per ■3 ..... 297

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per ■3
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I -2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	4					4	1
7. Cladocera							0	0
8. Ostracoda	I -8	1					1	+
9. Calanoida Copepoda	I -9-1	180					180	35
Cyclopoida Copepoda			II -9-2	177			885	173
Harpacticoida Copepoda	I -9-3	10					10	2
10. Copepoda, nauplius			II -10	68			340	67
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I -18	4					4	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I -21	12					12	2
22. Thaliacea							0	0
23. Egg	I -23	67					67	13
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I -27	11					11	2
28. Unidentified forms	I -28	2					2	+
29. Radiolaria							0	0
Total		292		245		0	1517	297

+ : less than 1 indiv./■3

\* Depth from ■ beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-459

1. Sample No. .... <u>2305115</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>10</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>3102</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.93</u>
7. Date & time(LMT) <u>Sep. 19 '82, 21:50-21:53</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>290</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I -9-1	167					167	34
Cyclopoida Copepoda			II -9-2	137			685	139
Harpacticoida Copepoda	I -9-3	14					14	3
10. Copepoda, nauplius			II -10	98			490	99
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I -18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I -21	13					13	3
22. Thaliacea							0	0
23. Egg	I -23	43					43	9
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I -27	3					3	1
28. Unidentified forms	I -28	6					6	1
29. Radiolaria							0	0
<b>Total</b>		<b>251</b>		<b>235</b>		<b>0</b>	<b>1426</b>	<b>290</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-460

1. Sample No. .... 2305116  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth (m) .... 675  
 7. Date & time (LMT) Sep. 19 '82, 21:44-21:47  
 (GMT)  
 8. Net used ..... Modified NIPR-I (100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out (m) .....  
 12. Wire angle (°) .....  
 13. Depth of haul (m) \* ..... 25  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3095  
 16. Volume of water filtered (m<sup>3</sup>) 4.92  
 calculated by Flow-meter  
 17. Wet weight (mg) per m<sup>3</sup> .....  
 18. Settling volume (cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 571

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	359					359	73
Cyclopoida Copepoda			II-9-2	399			1995	405
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius			II-10	69			345	70
11. Cumacea							0	0
12. Isopoda	I-12	2					2	+
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	4					4	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	20					20	4
22. Thaliacea							0	0
23. Egg	I-23	60					60	12
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	13					13	3
28. Unidentified forms	I-28	8					8	2
29. Radiolaria							0	0
Total		471		468		0	2811	571

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-461

1. Sample No. .... <u>2305117</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>50</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>2713</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.32</u>
7. Date & time(LMT) <u>Sep. 19 '82, 21:38-21:41</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> .....
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>172</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	4					4	1
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	6					6	1
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	154					154	36
Cyclopoida Copepoda	I-9-2	487					487	113
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	63					63	15
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	5					5	1
22. Thaliacea							0	0
23. Egg	I-23	8					8	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	4					4	1
28. Unidentified forms	I-28	8					8	2
29. Radiolaria							0	0
<b>Total</b>		<b>742</b>		<b>0</b>		<b>0</b>	<b>742</b>	<b>172</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-462

1. Sample No. ....	<u>2305118</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(°) .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m)※ .....	<u>75</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>G0 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>2998</u>
6. Sea depth(m) .....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>4.77</u>
7. Date & time(LMT) <u>Sep. 19 '82, 21:30-21:33</u>		calculated by	<u>Flow-meter</u>
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-1(100μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>141</u>
10. Duration of haul	<u>3 min</u>		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	2					2	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	140					140	29
Cyclopoida Copepoda	I-9-2	475					475	100
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	36					36	8
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	12					12	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		671		0		0	671	141

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-463

1. Sample No. ....	2305119	11. Wire run out (m) .....	
2. JARE .....	23	12. Wire angle (°) .....	
3. Area .....	Syowa Station	13. Depth of haul (m) * .....	100
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2940
6. Sea depth (m) ....	675	16. Volume of water filtered (m <sup>3</sup> )	4.67
7. Date & time (LMT)	Sep. 19 '82, 21:22-21:25	calculated by	Flow-meter
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	83
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	61					61	13
Cyclopoida Copepoda	I-9-2	300					300	64
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	14					14	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	6					6	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	4					4	1
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		388		0		0	388	83

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-464

1. Sample No. .... 2305120	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 150
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3064
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.87
7. Date & time(LMT) Sep. 19 '82, 21:12-21:15	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 22
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	25					25	5
Cyclopoida Copepoda	I-9-2	63					63	13
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	12					12	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>109</b>		<b>0</b>		<b>0</b>	<b>109</b>	<b>22</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No.NIPR-465

1. Sample No. .... 2305121	11. Wire run out(m) .....
2. JARE .....	12. Wire angle(') .....
3. Area .....	13. Depth of haul(m)※ .....
4. Station No. .... 5	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	15. Flow-meter reading .....
39° 40' 25" E	16. Volume of water filtered(m <sup>3</sup> )
6. Sea depth(m) .... 675	17. Wet weight(mg) per m <sup>3</sup> .....
7. Date & time(LMT) Oct. 20 '82, 16:04-16:07	18. Settling volume(cc) per m <sup>3</sup> ..
(GMT)	19. Total number per m <sup>3</sup> .....
8. Net used .....	
9. Method of haul .. Layered	
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	25					25	5
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	7					7	1
Cyclopoida Copepoda	I-9-2	425					425	86
Harpacticoida Copepoda	I-9-3	103					103	21
10. Copepoda, nauplius	I-10	184					184	37
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	8					8	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	6					6	1
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>759</b>		<b>0</b>		<b>0</b>	<b>759</b>	<b>153</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-466

1. Sample No. .... 2305122  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Oct. 20 '82, 16:00-16:03  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 1  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3172  
 16. Volume of water filtered(m<sup>3</sup>) 5.04  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 165

Proportion of Sample sorted	I/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	18					18	4
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	30					30	6
Cyclopoida Copepoda	I-9-2	447					447	89
Harpacticoida Copepoda	I-9-3	81					81	16
10. Copepoda, nauplius	I-10	229					229	45
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	5					5	1
22. Thaliacea							0	0
23. Egg	I-23	13					13	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	6					6	1
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		830		0		0	830	165

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-467

1. Sample No. .... 2305123  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Oct. 20 '82, 15:56-15:59  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(°) .....  
 13. Depth of haul(m)※ ..... 2  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3009  
 16. Volume of water filtered(m<sup>3</sup>) 4.78  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 193

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	22					22	5
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	28					28	6
Cyclopoida Copepoda	I-9-2	498					498	104
Harpacticoida Copepoda	I-9-3	77					77	16
10. Copepoda, nauplius	I-10	261					261	55
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	4					4	1
22. Thaliacea							0	0
23. Egg	I-23	14					14	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	8					8	2
28. Unidentified forms	I-28	5					5	1
29. Radiolaria							0	0
Total		919		0		0	919	193

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-468

1. Sample No. .... 2305124	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 5
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3207
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.09
7. Date & time(LMT) Oct. 20 '82, 15:52-15:55	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 267
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	28					28	7
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	32					32	8
Cyclopoida Copepoda	I-9-2	604					604	148
Harpacticoida Copepoda	I-9-3	48					48	12
10. Copepoda, nauplius	I-10	359					359	88
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	6					6	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	9					9	2
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>1090</b>		<b>0</b>		<b>0</b>	<b>1090</b>	<b>267</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-469

1. Sample No. .... 2305125	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 10
4. Station No..... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3183
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.06
7. Date & time(LMT) Oct. 20 '82, 15:47-15:50	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 260
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	9					9	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	79					79	16
Cyclopoida Copepoda	I-9-2	781					781	154
Harpacticoida Copepoda	I-9-3	20					20	4
10. Copepoda, nauplius	I-10	390					390	77
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	4					4	1
22. Thaliacea							0	0
23. Egg	I-23	18					18	4
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	12					12	2
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>1316</b>		<b>0</b>		<b>0</b>	<b>1316</b>	<b>260</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No.NIPR-470

1. Sample No. .... 2305126	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 25
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 2574
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.84
7. Date & time(LMT) Oct. 20 '82, 15:43-15:46	calculated by Assumption
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 105
10. Duration of haul 3 min	

Proportion of Sample sorted	I/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	79					79	16
Cyclopoida Copepoda	I-9-2	338					338	70
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	71					71	15
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	5					5	1
22. Thaliacea							0	0
23. Egg	I-23	1					1	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	7					7	1
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
<b>Total</b>		<b>509</b>		<b>0</b>		<b>0</b>	<b>509</b>	<b>105</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-471

1. Sample No. .... <u>2305127</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>50</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>GO 2030</u>
	15. Flow-meter reading..... <u>3094</u>
	16. Volume of water filtered(m <sup>3</sup> ) <u>4.92</u>
6. Sea depth(m).... <u>675</u>	calculated by <u>Flow-meter</u>
7. Date & time(LMT) <u>Oct. 20 '82, 15:35-15:38</u>	
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>91</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	8					8	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	84					84	17
Cyclopoida Copepoda	I-9-2	289					289	59
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	43					43	9
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	12					12	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms							0	0
28. Unidentified forms	I-28	9					9	2
29. Radiolaria							0	0
<b>Total</b>		<b>446</b>		<b>0</b>		<b>0</b>	<b>446</b>	<b>91</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-472

1. Sample No. .... 2305128  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Oct. 20 '82, 15:28-15:31  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 75  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3140  
 16. Volume of water filtered(m<sup>3</sup>) 4.99  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 120

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	95					95	19
Cyclopoida Copepoda	I-9-2	414					414	83
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	55					55	11
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg	I-23	14					14	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	6					6	1
28. Unidentified forms	I-28	6					6	1
29. Radiolaria							0	0
Total		598		0		0	598	120

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-473

1. Sample No. ....	<u>2305129</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>100</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>G0 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3119</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>4.96</u>
7. Date & time(LMT)	<u>Oct. 20 '82, 15:19-15:22</u>	calculated by	<u>Flow-meter</u>
(GMT)	_____	17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>47</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	I/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	6					6	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	35					35	7
Cyclopoida Copepoda	I-9-2	162					162	33
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	17					17	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	7					7	1
29. Radiolaria							0	0
Total		233		0		0	233	47

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-474\_

1. Sample No. .... 2305130  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth (m) .... 675  
 7. Date & time (LMT) Oct. 20 '82, 15:09-15:12  
 (GMT)  
 8. Net used ..... Modified NIPR-I (100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out (m) .....  
 12. Wire angle (°) .....  
 13. Depth of haul (m) \* ..... 150  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3015  
 16. Volume of water filtered (m<sup>3</sup>) 4.79  
 calculated by Flow-meter  
 17. Wet weight (mg) per m<sup>3</sup> .....  
 18. Settling volume (cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 96

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	66					66	14
Cyclopoida Copepoda	I-9-2	370					370	77
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	12					12	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	7					7	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		460		0		0	460	96

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-475

1. Sample No. .... <u>2305131</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>0</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>3164</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>5.03</u>
7. Date & time(LMT) <u>Nov. 4 '82, 13:40-13:43</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>494</u>
10. Duration of haul <u>3 min</u>	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	388					388	77
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	61					61	12
Cyclopoida Copepoda			II-9-2	145			483	96
Harpacticoida Copepoda	I-9-3	345					345	69
10. Copepoda, nauplius			II-10	298			993	197
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	73					73	15
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	122					122	24
28. Unidentified forms	I-28	18					18	4
29. Radiolaria							0	0
<b>Total</b>		<b>1011</b>		<b>443</b>		<b>0</b>	<b>2487</b>	<b>494</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-476

1. Sample No. 2305132  
 2. JARE 23  
 3. Area Syowa Station  
 4. Station No. 5  
 5. Position 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) 675  
 7. Date & time(LMT) Nov. 4 '82, 13:36-13:39  
 (GMT)  
 8. Net used Modified NIPR-I(100 μm)  
 9. Method of haul Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m)  
 12. Wire angle(°)  
 13. Depth of haul(m)※ 1  
 estimated by  
 14. Flow-meter used GO 2030  
 15. Flow-meter reading 3409  
 16. Volume of water filtered(m<sup>3</sup>) 5.41  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup>  
 18. Settling volume(cc) per m<sup>3</sup>  
 19. Total number per m<sup>3</sup> 697

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	495					495	91
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	79					79	15
Cyclopoida Copepoda			II-9-2	139			695	128
Harpacticoida Copepoda	I-9-3	289					289	53
10. Copepoda, nauplius			II-10	367			1835	339
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	5					5	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	4					4	1
22. Thaliacea							0	0
23. Egg	I-23	120					120	22
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	233					233	43
28. Unidentified forms	I-28	12					12	2
29. Radiolaria							0	0
Total		1239		506		0	3769	697

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-477

1. Sample No. .... 2305133	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 2
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3354
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.33
7. Date & time(LMT) Nov. 4 '82, 13:32-13:35	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ...
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 511
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	346					346	65
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	62					62	12
Cyclopoida Copepoda			II-9-2	130			650	122
Harpacticoida Copepoda	I-9-3	196					196	37
10. Copepoda, nauplius			II-10	229			1145	215
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	8					8	2
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg	I-23	137					137	26
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	149					149	28
28. Unidentified forms	I-28	17					17	3
29. Radiolaria							0	0
Total		918		359		0	2713	511

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-478

1. Sample No. .... <u>2305134</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) ....	15. Flow-meter reading .....
7. Date & time (LMT) Nov. 4 '82, 13:28-13:31	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul <u>3 min</u>	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	86					86	16
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	23					23	4
Cyclopoida Copepoda	I-9-2	507					507	95
Harpacticoida Copepoda	I-9-3	72					72	14
10. Copepoda, nauplius	I-10	342					342	64
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	64					64	12
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	31					31	6
28. Unidentified forms	I-28	8					8	2
29. Radiolaria							0	0
Total		1135		0		0	1135	214

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-479

1. Sample No. ....	<u>2305135</u>	11. Wire run out(m) .....	.....
2. JARE .....	<u>23</u>	12. Wire angle(') .....	.....
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>10</u>
4. Station No. ....	<u>5</u>	estimated by ....	
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>G0 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3242</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>5.15</u>
7. Date & time(LMT)	<u>Nov. 4 '82, 13:23-13:26</u>	calculated by <u>Flow-meter</u>	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	.....
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	.....
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>264</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I -6	69					69	13
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I -9-1	42					42	8
Cyclopoida Copepoda	I -9-2	859					859	167
Harpacticoida Copepoda	I -9-3	37					37	7
10. Copepoda, nauplius	I -10	194					194	38
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I -18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I -23	96					96	19
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I -27	48					48	9
28. Unidentified forms	I -28	13					13	3
29. Radiolaria							0	0
Total		1359		0		0	1359	264

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-480

1. Sample No. ....	<u>2305136</u>	11. Wire run out (m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle (°) .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul (m) * .....	<u>25</u>
4. Station No. ....	<u>5</u>	estimated by ....	_____
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3082</u>
6. Sea depth (m) ....	<u>675</u>	16. Volume of water filtered (m <sup>3</sup> )	<u>4.9</u>
7. Date & time (LMT) Nov. 4 '82, 13:19-13:22		calculated by	<u>Flow-meter</u>
(GMT)		17. Wet weight (mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-1 (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> ..	_____
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>166</u>
10. Duration of haul	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	25					25	5
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	97					97	20
Cyclopoida Copepoda	I-9-2	474					474	97
Harpacticoida Copepoda	I-9-3	4					4	1
10. Copepoda, nauplius	I-10	100					100	20
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	86					86	18
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	8					8	2
28. Unidentified forms	I-28	15					15	3
29. Radiolaria							0	0
Total		809		0		0	809	166

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-481

1. Sample No. .... 2305137	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	50
5. Position .....	estimated by ....
6. Sea depth (m) ....	14. Flow-meter used .....
7. Date & time (LMT) Nov. 4 '82, 13:12-13:15	15. Flow-meter reading .....
(GMT)	GO 2030
8. Net used .....	16. Volume of water filtered (m <sup>3</sup> ) .....
9. Method of haul ..	17. Wet weight (mg) per m <sup>3</sup> .....
10. Duration of haul 3 min	18. Settling volume (cc) per m <sup>3</sup> ..
	19. Total number per m <sup>3</sup> .....
	167

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	2					2	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	21					21	4
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	141					141	28
Cyclopoida Copepoda	I-9-2	404					404	80
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	47					47	9
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea	I-14	1					1	+
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	206					206	41
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	12					12	2
28. Unidentified forms	I-28	8					8	2
29. Radiolaria							0	0
<b>Total</b>		<b>847</b>		<b>0</b>		<b>0</b>	<b>847</b>	<b>167</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-482

1. Sample No. ....	2305138	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(°) .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2791
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.44
7. Date & time(LMT) Nov. 4 '82, 13:04-13:07		calculated by Flow-meter	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	38
10. Duration of haul	3 min		

Proportion of Sample sorted	I/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	4					4	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	30					30	7
Cyclopoida Copepoda	I-9-2	95					95	21
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	10					10	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	28					28	6
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		170		0		0	170	38

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-483

1. Sample No. ....	2305139	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	100
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3150
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5
7. Date & time(LMT)	Nov. 4 '82, 12:56-12:59	calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	60
10. Duration of haul	3 min		

Proprtion of Sample sorted	I/I Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	2					2	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	48					48	10
Cyclopoida Copepoda	I-9-2	212					212	42
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	1					1	+
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	27					27	5
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1					1	+
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
Total		300		0		0	300	60

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-484

1. Sample No. .... 2305140	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 150
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3201
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.08
7. Date & time(LMT) Nov. 4 '82, 12:46-12:49	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 110
10. Duration of haul 3 min	

Proportion of Sample sorted	I/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	15					15	3
7. Cladocera							0	0
8. Ostracoda	I-8	1					1	+
9. Calanoida Copepoda	I-9-1	82					82	16
Cyclopoida Copepoda	I-9-2	410					410	81
Harpacticoida Copepoda	I-9-3	3					3	1
10. Copepoda, nauplius	I-10	10					10	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	25					25	5
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
<b>Total</b>		<b>554</b>		<b>0</b>		<b>0</b>	<b>554</b>	<b>110</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-485\_

1. Sample No. .... 2305141  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Nov. 18 '82, 13:31-13:34  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 0  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3376  
 16. Volume of water filtered(m<sup>3</sup>) 5.36  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 137

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	31					31	6
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	18					18	3
Cyclopoida Copepoda	I-9-2	50					50	9
Harpacticoida Copepoda	I-9-3	152					152	28
10. Copepoda, nauplius	I-10	154					154	29
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	8					8	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	316					316	59
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		732		0		0	732	137

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-486

1. Sample No. .... 2305142 11. Wire run out(m) .....  
 2. JARE ..... 23 12. Wire angle(') .....  
 3. Area ..... Syowa Station 13. Depth of haul(m) \* ..... 1  
 4. Station No. .... 5 estimated by ....  
 5. Position ..... 68° 59' 57" S 14. Flow-meter used ..... G0 2030  
39° 40' 25" E 15. Flow-meter reading ..... 3008  
 6. Sea depth(m) .... 675 16. Volume of water filtered(m<sup>3</sup>) 4.78  
 7. Date & time(LMT) Nov. 18 '82, 13:27-13:30 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup> .....  
 8. Net used ..... Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup> .....  
 9. Method of haul ··· Layered 19. Total number per m<sup>3</sup> ..... 208  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	18					18	4
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	8					8	2
Cyclopoida Copepoda	I-9-2	116					116	24
Harpacticoida Copepoda	I-9-3	121					121	25
10. Copepoda, nauplius	I-10	326					326	68
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	19					19	4
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	371					371	78
28. Unidentified forms	I-28	12					12	3
29. Radiolaria							0	0
Total		992		0		0	992	208

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-487

1. Sample No. .... 2305143	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 2
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3325
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.28
7. Date & time(LMT) Nov. 18 '82, 13:23-13:26	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 161
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	27					27	5
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	4					4	1
Cyclopoida Copepoda	I-9-2	116					116	22
Harpacticoida Copepoda	I-9-3	126					126	24
10. Copepoda, nauplius	I-10	301					301	57
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	14					14	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	246					246	47
28. Unidentified forms	I-28	10					10	2
29. Radiolaria							0	0
<b>Total</b>		<b>845</b>		<b>0</b>		<b>0</b>	<b>845</b>	<b>161</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-488

1. Sample No. .... 2305144	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) Nov. 18 '82, 13:19-13:22	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul ..	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	12					12	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	6					6	1
Cyclopoida Copepoda	I-9-2	148					148	26
Harpacticoida Copepoda	I-9-3	82					82	14
10. Copepoda, nauplius	I-10	277					277	49
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	11					11	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	149					149	26
28. Unidentified forms							0	0
29. Radiolaria							0	0
Total		685		0		0	685	120

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-489

1. Sample No.	2305145	11. Wire run out(m)	
2. JARE	23	12. Wire angle(°)	
3. Area	Syowa Station	13. Depth of haul(m)※	10
4. Station No.	5	estimated by	
5. Position	68° 59' 57" S	14. Flow-meter used	GO 2030
	39° 40' 25" E	15. Flow-meter reading	3288
6. Sea depth(m)	675	16. Volume of water filtered(m <sup>3</sup> )	5.22
7. Date & time(LMT)	Nov. 18 '82, 13:15-13:18	calculated by	Flow-meter
	(GMT)	17. Wet weight(mg) per m <sup>3</sup>	
8. Net used	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup>	
9. Method of haul	Layered	19. Total number per m <sup>3</sup>	128
10. Duration of haul	3 min		

Proportion of Sample sorted	I/I Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	10					10	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	10					10	2
Cyclopoida Copepoda	I-9-2	289					289	55
Harpacticoida Copepoda	I-9-3	68					68	13
10. Copepoda, nauplius	I-10	206					206	39
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	16					16	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	54					54	10
28. Unidentified forms	I-28	13					13	2
29. Radiolaria							0	0
Total		667		0		0	667	128

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-490

1. Sample No. .... <u>2305146</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>25</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>2797</u>
6. Sea depth (m) .... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>4.45</u>
7. Date & time (LMT) <u>Nov. 18 '82, 13:11-13:14</u>	calculated by <u>Flow-meter</u>
(GMT) _____	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-1 (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>129</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	27					27	6
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	15					15	3
Cyclopoida Copepoda	I-9-2	430					430	97
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius	I-10	57					57	13
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	17					17	4
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	21					21	5
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>575</b>		<b>0</b>		<b>0</b>	<b>575</b>	<b>129</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-491

1. Sample No. .... 2305147 11. Wire run out(m) .....  
 2. JARE ..... 23 12. Wire angle(') .....  
 3. Area ..... Syowa Station 13. Depth of haul(m) \* ..... 50  
 4. Station No. .... 5 estimated by ....  
 5. Position ..... 68° 59' 57" S 14. Flow-meter used ..... GO 2030  
39° 40' 25" E 15. Flow-meter reading ..... 3188  
 6. Sea depth(m) .... 675 16. Volume of water filtered(m<sup>3</sup>) 5.06  
 7. Date & time(LMT) Nov. 18 '82, 13:05-13:08 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup> .....  
 8. Net used ..... Modified NIPR-1(100 μm) 18. Settling volume(cc) per m<sup>3</sup> .....  
 9. Method of haul .. Layered 19. Total number per m<sup>3</sup> ..... 113  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	127					127	25
Cyclopoida Copepoda	I-9-2	334					334	66
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	35					35	7
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	49					49	10
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	18					18	4
28. Unidentified forms	I-28	1					1	+
29. Radiolaria	I-29	1					1	+
Total		568		0		0	568	113

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-492

1. Sample No. .... 2305148  
 2. JARE..... 23  
 3. Area..... Syowa Station  
 4. Station No. .... 5  
 5. Position..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m).... 675  
 7. Date & time(LMT) Nov. 18 '82, 12:58-13:01  
 (GMT)  
 8. Net used..... Modified NIPR-I(100 μm)  
 9. Method of haul.. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m).....  
 12. Wire angle(').....  
 13. Depth of haul(m)※..... 75  
 estimated by ....  
 14. Flow-meter used..... GO 2030  
 15. Flow-meter reading..... 3264  
 16. Volume of water filtered(m<sup>3</sup>) 5.18  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup>.....  
 18. Settling volume(cc) per m<sup>3</sup>..  
 19. Total number per m<sup>3</sup>..... 115

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	6					6	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	68					68	13
Cyclopoida Copepoda	I-9-2	294					294	57
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	50					50	10
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	168					168	32
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	6					6	1
29. Radiolaria							0	0
Total		598		0		0	598	115

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-493

1. Sample No. .... <u>2305149</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) ※ ..... <u>100</u>
4. Station No. .... <u>5</u>	estimated by .... _____
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>3143</u>
6. Sea depth (m) .... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>4.99</u>
7. Date & time (LMT) <u>Nov. 18 '82, 12:50-12:53</u>	calculated by <u>Flow-meter</u>
(GMT) _____	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-I (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>24</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	17					17	3
Cyclopoida Copepoda	I-9-2	48					48	10
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	9					9	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	37					37	7
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		118		0		0	118	24

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-494

1. Sample No. ....	2305150	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	150
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	2918
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	4.64
7. Date & time(LMT) Nov. 18 '82, 12:40-12:43		calculated by Flow-meter	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	54
10. Duration of haul	3 min		

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	36					36	8
Cyclopoida Copepoda	I-9-2	154					154	33
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	13					13	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	38					38	8
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms	I-28	1					1	+
29. Radiolaria	I-29	1					1	+
Total		249		0		0	249	54

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-495

1. Sample No. .... <u>2305151</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>0</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>3188</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>5.06</u>
7. Date & time(LMT) <u>Dec. 3 '82, 14:09-14:12</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>194</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	27					27	5
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	10					10	2
Cyclopoida Copepoda	I-9-2	253					253	50
Harpacticoida Copepoda	I-9-3	88					88	17
10. Copepoda, nauplius	I-10	202					202	40
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	3					3	1
22. Thaliacea							0	0
23. Egg	I-23	7					7	1
24. Euphausiacea, nauplius	I-24	1					1	+
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	360					360	71
28. Unidentified forms	I-28	33					33	7
29. Radiolaria							0	0
<b>Total</b>		<b>984</b>		<b>0</b>		<b>0</b>	<b>984</b>	<b>194</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-496

1. Sample No. .... 2305152	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
	15. Flow-meter reading .....
6. Sea depth (m) .....	16. Volume of water filtered (m <sup>3</sup> ) .....
7. Date & time (LMT) Dec. 3 '82, 14:05-14:08	calculated by .....
(GMT)	17. Wet weight (mg) per m <sup>3</sup> .....
8. Net used .....	18. Settling volume (cc) per m <sup>3</sup> .....
9. Method of haul ..	19. Total number per m <sup>3</sup> .....
10. Duration of haul 3 min	

Proportion of Sample sorted	I/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	40					40	8
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	5					5	1
Cyclopoida Copepoda	I-9-2	343					343	71
Harpacticoida Copepoda	I-9-3	26					26	5
10. Copepoda, nauplius	I-10	292					292	60
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg	I-23	16					16	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	292					292	60
28. Unidentified forms	I-28	32					32	7
29. Radiolaria							0	0
<b>Total</b>		<b>1057</b>		<b>0</b>		<b>0</b>	<b>1057</b>	<b>217</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-497

1. Sample No. .... 2305153	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 2
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 2813
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.48
7. Date & time(LMT) Dec. 3 '82, 14:00-14:03	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 191
10. Duration of haul 3 min	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	3					3	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	60					60	13
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	3					3	1
Cyclopoida Copepoda	I-9-2	261					261	58
Harpacticoida Copepoda	I-9-3	25					25	6
10. Copepoda, nauplius	I-10	231					231	52
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	12					12	3
22. Thaliacea							0	0
23. Egg	I-23	9					9	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	231					231	52
28. Unidentified forms	I-28	12					12	3
29. Radiolaria							0	0
<b>Total</b>		<b>848</b>		<b>0</b>		<b>0</b>	<b>848</b>	<b>191</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-498

1. Sample No. .... 2305154  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Dec. 3 '82, 13:45-13:48  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 5  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3596  
 16. Volume of water filtered(m<sup>3</sup>) 5.71  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> ..  
 19. Total number per m<sup>3</sup> ..... 237

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/2 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	112					112	20
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	8					8	1
Cyclopoida Copepoda			II-9-2	189			378	66
Harpacticoida Copepoda	I-9-3	15					15	3
10. Copepoda, nauplius			II-10	284			568	99
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	9					9	2
22. Thaliacea							0	0
23. Egg	I-23	14					14	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	207					207	36
28. Unidentified forms	I-28	40					40	7
29. Radiolaria							0	0
Total		407		473		0	1353	237

+ : less than 1 indiv./m<sup>3</sup>  
 ※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No.NIPR-499

1. Sample No. .... 2305155	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 10
4. Station No..... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3431
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.45
7. Date & time(LMT) Dec. 3 '82, 13:40-13:43	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> .....
9. Method of haul... Layered	19. Total number per m <sup>3</sup> ..... 335
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	78					78	14
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	14					14	3
Cyclopoida Copepoda			II-9-2	178			593	109
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	228			760	139
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	16					16	3
22. Thaliacea							0	0
23. Egg	I-23	15					15	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	284					284	52
28. Unidentified forms	I-28	56					56	10
29. Radiolaria							0	0
<b>Total</b>		<b>475</b>		<b>406</b>		<b>0</b>	<b>1828</b>	<b>335</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-500\_

1. Sample No. ....	2305156	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	25
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3372
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.35
7. Date & time(LMT)	Dec. 3 '82, 13:35-13:38	calculated by Flow-meter	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	700
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	53					53	10
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	21					21	4
Cyclopoida Copepoda			II-9-2	515			2575	481
Harpacticoida Copepoda	I-9-3	6					6	1
10. Copepoda, nauplius			II-10	61			305	57
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	11					11	2
22. Thaliacea							0	0
23. Egg	I-23	54					54	10
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	703					703	131
28. Unidentified forms	I-28	20					20	4
29. Radiolaria							0	0
Total		868		576		0	3748	700

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-501

1. Sample No. ....	2305157	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	50
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3558
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.65
7. Date & time(LMT) Dec. 3 '82, 13:29-13:32		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	222
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	87					87	15
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	142					142	25
Cyclopoida Copepoda			II-9-2	163			815	144
Harpacticoida Copepoda	I-9-3	2					2	+
10. Copepoda, nauplius	I-10	78					78	14
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	49					49	9
24. Euphausiacea, nauplius	I-24	1					1	+
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	74					74	13
28. Unidentified forms	I-28	7					7	1
29. Radiolaria							0	0
Total		442		163		0	1257	222

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-502

1. Sample No. .... 2305158  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Dec. 3 '82, 13:23-13:26  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 75  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3406  
 16. Volume of water filtered(m<sup>3</sup>) 5.41  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 46

Proprtion of Sample sorted	I/I Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	5					5	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	12					12	2
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	60					60	11
Cyclopoida Copepoda	I-9-2	138					138	26
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	6					6	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	21					21	4
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	6					6	1
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		250		0		0	250	46

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-503

1. Sample No. .... 2305159	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) Dec. 3 '82, 13:15-13:18	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul ..	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	3					3	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	9					9	2
Cyclopoida Copepoda	I-9-2	57					57	12
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	6					6	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	27					27	6
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	4					4	1
28. Unidentified forms	I-28	5					5	1
29. Radiolaria							0	0
Total		114		0		0	114	25

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-504

1. Sample No. .... 2305160	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 150
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3275
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 5.2
7. Date & time(LMT) Dec. 3 '82, 13:05-13:08	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100μm)	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 44
10. Duration of haul 3 min	

Proprtion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	3					3	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	37					37	7
Cyclopoida Copepoda	I-9-2	140					140	27
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	15					15	3
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	30					30	6
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	2					2	+
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>230</b>		<b>0</b>		<b>0</b>	<b>230</b>	<b>44</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-505

1. Sample No. 2305161 11. Wire run out(m)                       
 2. JARE 23 12. Wire angle(')                       
 3. Area Syowa Station 13. Depth of haul(m) \* 0  
 4. Station No. 5 estimated by         
 5. Position 68° 59' 57" S 14. Flow-meter used GO 2030  
39° 40' 25" E 15. Flow-meter reading 3531  
 6. Sea depth(m) 675 16. Volume of water filtered(m<sup>3</sup>) 5.6  
 7. Date & time(LMT) Dec. 15 '82, 12:40-12:43 calculated by Flow-meter  
 (GMT)                      17. Wet weight(mg) per m<sup>3</sup>                       
 8. Net used Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>                       
 9. Method of haul Layered 19. Total number per m<sup>3</sup> 871  
 10. Duration of haul 3 min

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	8					8	1
6. Polychaeta	I-6	171					171	31
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	31					31	6
Cyclopoida Copepoda			II-9-2	203			1015	181
Harpacticoida Copepoda	I-9-3	129					129	23
10. Copepoda, nauplius			II-10	277			1385	247
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	16					16	3
22. Thaliacea							0	0
23. Egg	I-23	7					7	1
24. Euphausiacea, nauplius	I-24	2					2	+
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms					III-27	195	1950	348
28. Unidentified forms	I-28	159					159	28
29. Radiolaria							0	0
Total		527		480		195	4877	871

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-506

1. Sample No. .... 2305162 11. Wire run out(m)..... \_\_\_\_\_  
 2. JARE..... 23 12. Wire angle(')..... \_\_\_\_\_  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 1  
 4. Station No..... 5 estimated by .... \_\_\_\_\_  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... G0 2030  
39° 40' 25" E 15. Flow-meter reading..... 3830  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 6.07  
 7. Date & time(LMT) Dec. 15 '82, 12:36-12:39 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>..... \_\_\_\_\_  
 8. Net used..... Modified NIPR-I(100 μm) 18. Settling volume(cc) per m<sup>3</sup>.. \_\_\_\_\_  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 949  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	14					14	2
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha	I-5	6					6	1
6. Polychaeta	I-6	415					415	68
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	12					12	2
Cyclopoida Copepoda			II-9-2	121			1210	199
Harpacticoida Copepoda	I-9-3	49					49	8
10. Copepoda, nauplius			II-10	138			1380	227
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	22					22	4
22. Thaliacea							0	0
23. Egg	I-23	18					18	3
24. Euphausiacea, nauplius	I-24	2					2	+
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms			II-27	254			2540	418
28. Unidentified forms	I-28	93					93	15
29. Radiolaria							0	0
Total		632		513		0	5762	949

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-507

1. Sample No. .... 2305163  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Dec. 15 '82, 12:32-12:35  
 (GMT)  
 8. Net used ..... Modified NIPR-1(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m)※ ..... 2  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3536  
 16. Volume of water filtered(m<sup>3</sup>) 5.61  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 862

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	2					2	+
6. Polychaeta	I-6	324					324	58
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	11					11	2
Cyclopoida Copepoda			II-9-2	208			1040	185
Harpacticoida Copepoda	I-9-3	38					38	7
10. Copepoda, nauplius			II-10	313			1565	279
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda	I-13	2					2	+
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	14					14	2
22. Thaliacea							0	0
23. Egg	I-23	16					16	3
24. Euphausiacea, nauplius	I-24	2					2	+
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	546	II-27	236			1726	308
28. Unidentified forms	I-28	96					96	17
29. Radiolaria							0	0
Total		1053		757		0	4838	862

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-508

1. Sample No. ....	2305164	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	5
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3469
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.51
7. Date & time(LMT) Dec. 15 '82, 12:28-12:31		calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	727
10. Duration of haul	3 min		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	3					3	1
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	179					179	32
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	8					8	1
Cyclopoida Copepoda			II-9-2	211			1055	191
Harpacticoida Copepoda	I-9-3	20					20	4
10. Copepoda, nauplius			II-10	305			1525	277
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	15					15	3
22. Thaliacea							0	0
23. Egg	I-23	21					21	4
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms					III-27	111	1110	201
28. Unidentified forms	I-28	68					68	12
29. Radiolaria							0	0
Total		315		516		111	4005	727

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from m beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-509

1. Sample No. .... <u>2305165</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>10</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>GO 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>3024</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>4.81</u>
7. Date & time(LMT) <u>Dec. 15 '82, 12:23-12:26</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>656</u>
10. Duration of haul <u>3 min</u>	

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	66					66	14
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	15					15	3
Cyclopoida Copepoda			II-9-2	387			1935	402
Harpacticoida Copepoda	I-9-3	10					10	2
10. Copepoda, nauplius			II-10	100			500	104
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	34					34	7
22. Thaliacea							0	0
23. Egg	I-23	12					12	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	490					490	102
28. Unidentified forms	I-28	90					90	19
29. Radiolaria							0	0
<b>Total</b>		<b>719</b>		<b>487</b>		<b>0</b>	<b>3154</b>	<b>656</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-510

1. Sample No. ....	2305166	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	25
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3422
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.43
7. Date & time(LMT)	Dec. 15 '82, 12:18-12:21	calculated by Flow-meter	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	608
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	327					327	60
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	167					167	31
Cyclopoida Copepoda	I-9-2	1888					1888	348
Harpacticoida Copepoda	I-9-3	7					7	1
10. Copepoda, nauplius	I-10	366					366	67
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	12					12	2
22. Thaliacea							0	0
23. Egg	I-23	68					68	13
24. Euphausiacea, nauplius	I-24	4					4	1
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	444					444	82
28. Unidentified forms	I-28	17					17	3
29. Radiolaria							0	0
Total		3301		0		0	3301	608

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-511

1. Sample No. .... <u>2305167</u>	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) .....	15. Flow-meter reading .....
7. Date & time (LMT) .....	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul .....	18. Settling volume (cc) per m <sup>3</sup> .....
10. Duration of haul .....	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	6					6	1
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	86					86	16
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	113					113	21
Cyclopoida Copepoda	I-9-2	326					326	61
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	33					33	6
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	31					31	6
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	12					12	2
28. Unidentified forms	I-28	3					3	1
29. Radiolaria							0	0
<b>Total</b>		<b>611</b>		<b>0</b>		<b>0</b>	<b>611</b>	<b>115</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-512

1. Sample No. ....	2305168	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m) * .....	75
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3354
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.33
7. Date & time(LMT)	Dec. 15 '82, 12:05-12:08	calculated by Flow-meter	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	38
10. Duration of haul	3 min		

Proportion of Sample sorted	Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	18					18	3
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	23					23	4
Cyclopoida Copepoda	I-9-2	132					132	25
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	10					10	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	17					17	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	2					2	+
29. Radiolaria							0	0
Total		205		0		0	205	38

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-513

1. Sample No. ....	<u>2305169</u>	11. Wire run out(m) .....	.....
2. JARE .....	<u>23</u>	12. Wire angle(') .....	.....
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>100</u>
4. Station No. ....	<u>5</u>	estimated by ....	
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3323</u>
6. Sea depth(m) ....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> )	<u>5.28</u>
7. Date & time(LMT)	<u>Dec. 15 '82, 11:56-11:59</u>	calculated by <u>Flow-meter</u>	
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	.....
8. Net used .....	<u>Modified NIPR-I(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..	.....
9. Method of haul ..	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>47</u>
10. Duration of haul	<u>3 min</u>		

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	4					4	1
2. Siphonophora	I-2	21					21	4
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	24					24	5
Cyclopoida Copepoda	I-9-2	130					130	25
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	9					9	2
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	43					43	8
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	4					4	1
28. Unidentified forms	I-28	7					7	1
29. Radiolaria							0	0
Total		244		0		0	244	47

+ ; less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-514

1. Sample No. .... 2305170  
 2. JARE ..... 23  
 3. Area ..... Syowa Station  
 4. Station No. .... 5  
 5. Position ..... 68° 59' 57" S  
 39° 40' 25" E  
 6. Sea depth(m) .... 675  
 7. Date & time(LMT) Dec. 15 '82, 11:48-11:51  
 (GMT)  
 8. Net used ..... Modified NIPR-I(100 μm)  
 9. Method of haul .. Layered  
 10. Duration of haul 3 min  
 11. Wire run out(m) .....  
 12. Wire angle(') .....  
 13. Depth of haul(m) \* ..... 150  
 estimated by ....  
 14. Flow-meter used ..... GO 2030  
 15. Flow-meter reading ..... 3164  
 16. Volume of water filtered(m<sup>3</sup>) 5.03  
 calculated by Flow-meter  
 17. Wet weight(mg) per m<sup>3</sup> .....  
 18. Settling volume(cc) per m<sup>3</sup> .....  
 19. Total number per m<sup>3</sup> ..... 26

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	7					7	1
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	2					2	+
6. Polychaeta	I-6	5					5	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	20					20	4
Cyclopoida Copepoda	I-9-2	62					62	12
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	6					6	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	21					21	4
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	3					3	1
28. Unidentified forms	I-28	5					5	1
29. Radiolaria	I-29	1					1	+
Total		133		0		0	133	26

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-515

1. Sample No. ....	2305171	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	0
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3705
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.88
7. Date & time(LMT)	Dec. 15 '82, 23:24-23:27	calculated by	Flow-meter
(GMT)		17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	817
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	2					2	+
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	481					481	82
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	28					28	5
Cyclopoida Copepoda	I-9-2	744					744	127
Harpacticoida Copepoda	I-9-3	104					104	18
10. Copepoda, nauplius	I-10	919					919	156
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	36					36	6
22. Thaliacea							0	0
23. Egg	I-23	2					2	+
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms			II-27	246			2460	418
28. Unidentified forms	I-28	26					26	4
29. Radiolaria							0	0
Total		2342		246		0	4802	817

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-516

1. Sample No. .... <u>2305172</u>	11. Wire run out (m) ..... _____
2. JARE ..... <u>23</u>	12. Wire angle (°) ..... _____
3. Area ..... <u>Syowa Station</u>	13. Depth of haul (m) * ..... <u>1</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position ..... <u>68° 59' 57" S</u>	14. Flow-meter used ..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading ..... <u>3679</u>
6. Sea depth (m) ..... <u>675</u>	16. Volume of water filtered (m <sup>3</sup> ) <u>5.84</u>
7. Date & time (LMT) <u>Dec. 15 '82, 23:20-23:23</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight (mg) per m <sup>3</sup> ..... _____
8. Net used ..... <u>Modified NIPR-1 (100 μm)</u>	18. Settling volume (cc) per m <sup>3</sup> .. _____
9. Method of haul .. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>873</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	4					4	1
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	574					574	98
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	16					16	3
Cyclopoida Copepoda	I-9-2	1102					1102	189
Harpacticoida Copepoda	I-9-3	35					35	6
10. Copepoda, nauplius	I-10	1239					1239	212
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	47					47	8
22. Thaliacea							0	0
23. Egg	I-23	15					15	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms			II-27	202			2020	346
28. Unidentified forms	I-28	38					38	7
29. Radiolaria							0	0
Total		3070		202		0	5090	873

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-517

1. Sample No. .... 2305173	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. ....	estimated by ....
5. Position .....	14. Flow-meter used .....
6. Sea depth (m) ....	15. Flow-meter reading .....
7. Date & time (LMT) Dec. 15 '82, 23:16-23:19	16. Volume of water filtered (m <sup>3</sup> ) .....
(GMT)	calculated by .....
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
9. Method of haul ..	18. Settling volume (cc) per m <sup>3</sup> ..
10. Duration of haul ..	19. Total number per m <sup>3</sup> .....

Proportion of Sample sorted	1/1 Sample [ Sort I ]		2/5 Sample [ Sort II ]		1/10 Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	324					324	57
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	19					19	3
Cyclopoida Copepoda			II-9-2	531			1328	232
Harpacticoida Copepoda	I-9-3	30					30	5
10. Copepoda, nauplius			II-10	551			1378	241
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	34					34	6
22. Thaliacea							0	0
23. Egg	I-23	20					20	3
24. Euphausiacea, nauplius	I-24	2					2	+
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms					III-27	149	1490	260
28. Unidentified forms	I-28	65					65	11
29. Radiolaria							0	0
Total		495		1082		149	4691	820

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-518

1. Sample No. .... 2305174 11. Wire run out(m).....  
 2. JARE..... 23 12. Wire angle(').....  
 3. Area..... Syowa Station 13. Depth of haul(m)※..... 5  
 4. Station No. .... 5 estimated by ....  
 5. Position..... 68° 59' 57" S 14. Flow-meter used..... G0 2030  
39° 40' 25" E 15. Flow-meter reading..... 3808  
 6. Sea depth(m).... 675 16. Volume of water filtered(m<sup>3</sup>) 6.04  
 7. Date & time(LMT) Dec. 15 '82, 23:12-23:15 calculated by Flow-meter  
 (GMT) 17. Wet weight(mg) per m<sup>3</sup>.....  
 8. Net used..... Modified NIPR-I(100μm) 18. Settling volume(cc) per m<sup>3</sup>..  
 9. Method of haul.. Layered 19. Total number per m<sup>3</sup>..... 770  
 10. Duration of haul 3 min

Proprtion of Sample sorted	1/1 Sample [ Sort I ]		3/10 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	1					1	+
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	131					131	22
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	24					24	4
Cyclopoida Copepoda			II-9-2	604			2013	333
Harpacticoida Copepoda	I-9-3	18					18	3
10. Copepoda, nauplius			II-10	285			950	157
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	2					2	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	33					33	5
22. Thaliacea							0	0
23. Egg	I-23	20					20	3
24. Euphausiacea, nauplius	I-24	4					4	1
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1378					1378	228
28. Unidentified forms	I-28	76					76	13
29. Radiolaria							0	0
Total		1687		889		0	4650	770

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-519

1. Sample No. ....	2305175	11. Wire run out(m) .....	
2. JARE .....	23	12. Wire angle(') .....	
3. Area .....	Syowa Station	13. Depth of haul(m)※ .....	10
4. Station No. ....	5	estimated by ....	
5. Position .....	68° 59' 57" S	14. Flow-meter used .....	GO 2030
	39° 40' 25" E	15. Flow-meter reading .....	3517
6. Sea depth(m) ....	675	16. Volume of water filtered(m <sup>3</sup> )	5.58
7. Date & time(LMT)	Dec. 15 '82, 23:08-23:11	calculated by Flow-meter	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	
8. Net used .....	Modified NIPR-I(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ..	
9. Method of haul ..	Layered	19. Total number per m <sup>3</sup> .....	1101
10. Duration of haul	3 min		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae	I-3	4					4	1
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	102					102	18
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	43					43	8
Cyclopoida Copepoda			II-9-2	625			3125	560
Harpacticoida Copepoda	I-9-3	22					22	4
10. Copepoda, nauplius			II-10	252			1260	226
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	3					3	1
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	36					36	6
22. Thaliacea							0	0
23. Egg	I-23	22					22	4
24. Euphausiacea, nauplius	I-24	3					3	1
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	1386					1386	248
28. Unidentified forms	I-28	136					136	24
29. Radiolaria							0	0
Total		1757		877		0	6142	1101

※ Depth from beneath the undersurface of sea ice

## ZOOPLANKTON RECORD SHEET

Series No. NIPR-520

1. Sample No. .... 2305176	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... 5	estimated by ....
5. Position .....	14. Flow-meter used .....
68° 59' 57" S	GO 2030
39° 40' 25" E	15. Flow-meter reading .....
6. Sea depth (m) .... 675	3471
7. Date & time (LMT) Dec. 15 '82, 23:03-23:06	16. Volume of water filtered (m <sup>3</sup> ) 5.51
(GMT)	calculated by Flow-meter
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
Modified NIPR-1 (100 μm)	18. Settling volume (cc) per m <sup>3</sup> ..
9. Method of haul .. Layered	19. Total number per m <sup>3</sup> .....
10. Duration of haul 3 min	823

Proportion of Sample sorted	1/1 Sample [ Sort I ]		1/5 Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	33					33	6
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	61					61	11
Cyclopoida Copepoda			II-9-2	536			2680	486
Harpacticoida Copepoda	I-9-3	9					9	2
10. Copepoda, nauplius			II-10	124			620	113
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda	I-18	1					1	+
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	2					2	+
22. Thaliacea							0	0
23. Egg	I-23	27					27	5
24. Euphausiacea, nauplius	I-24	7					7	1
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	997					997	181
28. Unidentified forms	I-28	98					98	18
29. Radiolaria							0	0
<b>Total</b>		<b>1235</b>		<b>660</b>		<b>0</b>	<b>4535</b>	<b>823</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-521

1. Sample No. .... 2305177	11. Wire run out(m).....
2. JARE..... 23	12. Wire angle(').....
3. Area..... Syowa Station	13. Depth of haul(m)※..... 50
4. Station No. .... 5	estimated by ....
5. Position..... 68° 59' 57" S	14. Flow-meter used..... GO 2030
39° 40' 25" E	15. Flow-meter reading..... 3113
6. Sea depth(m).... 675	16. Volume of water filtered(m <sup>3</sup> ) 4.95
7. Date & time(LMT) Dec. 15 '82, 22:57-23:00	calculated by Flow-meter
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... Modified NIPR-1(100 μm)	18. Settling volume(cc) per m <sup>3</sup> ...
9. Method of haul.. Layered	19. Total number per m <sup>3</sup> ..... 76
10. Duration of haul 3 min	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	14					14	3
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	36					36	7
Cyclopoida Copepoda	I-9-2	242					242	49
Harpacticoida Copepoda	I-9-3	1					1	+
10. Copepoda, nauplius	I-10	25					25	5
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia	I-21	1					1	+
22. Thaliacea							0	0
23. Egg	I-23	39					39	8
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	19					19	4
28. Unidentified forms	I-28	1					1	+
29. Radiolaria							0	0
<b>Total</b>		<b>378</b>		<b>0</b>		<b>0</b>	<b>378</b>	<b>76</b>

+ : less than 1 indiv./m<sup>3</sup>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-522

1. Sample No. .... <u>2305178</u>	11. Wire run out(m).....
2. JARE..... <u>23</u>	12. Wire angle(').....
3. Area..... <u>Syowa Station</u>	13. Depth of haul(m)※..... <u>75</u>
4. Station No. .... <u>5</u>	estimated by ....
5. Position..... <u>68° 59' 57" S</u>	14. Flow-meter used..... <u>G0 2030</u>
<u>39° 40' 25" E</u>	15. Flow-meter reading..... <u>3516</u>
6. Sea depth(m).... <u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) <u>5.58</u>
7. Date & time(LMT) <u>Dec. 15 '82, 22:50-22:53</u>	calculated by <u>Flow-meter</u>
(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....
8. Net used..... <u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> ..
9. Method of haul.. <u>Layered</u>	19. Total number per m <sup>3</sup> ..... <u>26</u>
10. Duration of haul <u>3 min</u>	

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora							0	0
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	7					7	1
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	12					12	2
Cyclopoida Copepoda	I-9-2	100					100	18
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	4					4	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	16					16	3
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	5					5	1
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>144</b>		<b>0</b>		<b>0</b>	<b>144</b>	<b>26</b>

※ Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-523

1. Sample No. .... 2305179	11. Wire run out (m) .....
2. JARE .....	12. Wire angle (°) .....
3. Area .....	13. Depth of haul (m) * .....
4. Station No. .... 5	100
5. Position .....	estimated by ....
68° 59' 57" S	14. Flow-meter used .....
39° 40' 25" E	15. Flow-meter reading .....
6. Sea depth (m) .... 675	16. Volume of water filtered (m <sup>3</sup> ) .....
7. Date & time (LMT) Dec. 15 '82, 22:42-22:45	5.86
(GMT)	calculated by
8. Net used .....	17. Wet weight (mg) per m <sup>3</sup> .....
Modified NIPR-I (100 μm)	18. Settling volume (cc) per m <sup>3</sup> .....
9. Method of haul .. Layered	19. Total number per m <sup>3</sup> .....
10. Duration of haul 3 min	19

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera							0	0
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha	I-5	1					1	+
6. Polychaeta	I-6	2					2	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	22					22	4
Cyclopoida Copepoda	I-9-2	56					56	10
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	7					7	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	9					9	2
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	11					11	2
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>109</b>		<b>0</b>		<b>0</b>	<b>109</b>	<b>19</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice

ZOOPLANKTON RECORD SHEET

Series No. NIPR-524

1. Sample No. ....	<u>2305180</u>	11. Wire run out(m) .....	_____
2. JARE .....	<u>23</u>	12. Wire angle(') .....	_____
3. Area .....	<u>Syowa Station</u>	13. Depth of haul(m) * .....	<u>150</u>
4. Station No. ....	<u>5</u>	estimated by ....	
5. Position .....	<u>68° 59' 57" S</u>	14. Flow-meter used .....	<u>GO 2030</u>
	<u>39° 40' 25" E</u>	15. Flow-meter reading .....	<u>3675</u>
6. Sea depth(m) .....	<u>675</u>	16. Volume of water filtered(m <sup>3</sup> ) .....	<u>5.83</u>
7. Date & time(LMT) .....	<u>Dec. 15 '82, 22:31-22:34</u>	calculated by <u>Flow-meter</u>	
	(GMT)	17. Wet weight(mg) per m <sup>3</sup> .....	_____
8. Net used .....	<u>Modified NIPR-1(100 μm)</u>	18. Settling volume(cc) per m <sup>3</sup> .....	_____
9. Method of haul .....	<u>Layered</u>	19. Total number per m <sup>3</sup> .....	<u>18</u>
10. Duration of haul .....	<u>3 min</u>		

Proportion of Sample sorted	1/1 Sample [ Sort I ]		Sample [ Sort II ]		Sample [ Sort III ]		Indiv. No. per haul	Indiv. No. per m <sup>3</sup>
	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial	Vial No.	Indiv. No. in vial		
1. Foraminifera	I-1	1					1	+
2. Siphonophora	I-2	1					1	+
3. Other medusae							0	0
4. Ctenophora							0	0
5. Chaetognatha							0	0
6. Polychaeta	I-6	1					1	+
7. Cladocera							0	0
8. Ostracoda							0	0
9. Calanoida Copepoda	I-9-1	39					39	7
Cyclopoida Copepoda	I-9-2	43					43	7
Harpacticoida Copepoda							0	0
10. Copepoda, nauplius	I-10	7					7	1
11. Cumacea							0	0
12. Isopoda							0	0
13. Amphipoda							0	0
14. Mysidacea							0	0
15. Euphausiacea							0	0
16. Decapoda							0	0
17. Other Crustacea							0	0
18. Heteropoda/Pteropoda							0	0
19. Cephalopoda							0	0
20. Other Mollusca							0	0
21. Appendicularia							0	0
22. Thaliacea							0	0
23. Egg	I-23	6					6	1
24. Euphausiacea, nauplius							0	0
25. Nematoda							0	0
26. Fish larvae							0	0
27. Planktonic larval forms	I-27	7					7	1
28. Unidentified forms							0	0
29. Radiolaria							0	0
<b>Total</b>		<b>105</b>		<b>0</b>		<b>0</b>	<b>105</b>	<b>18</b>

+ : less than 1 indiv./m<sup>3</sup>

\* Depth from beneath the undersurface of sea ice