

## Data on Copepods Collected in the 7th Japanese Antarctic Research Expedition, 1965-1966

Akito KAWAMURA\* and Takao HOSHIAI\*\*

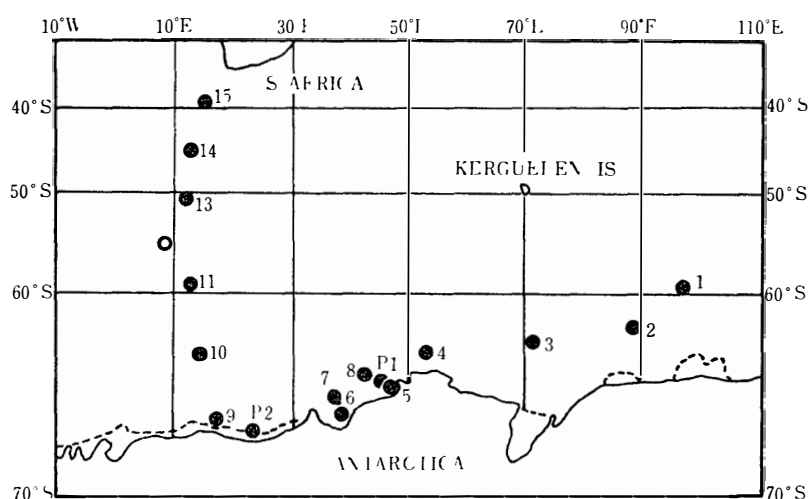
### 第7次南極地域観測(1965-1966)に際し得られた コペポータ資料

河村章人\*・星合孝男\*\*

**要 旨**  
第7次南極地域観測(1965-66)の際、極海

を中心に垂直採集で得られた動物プランクトンのうち、コペポータの計数結果を報告する。

In the cruise of the 7th Japanese Antarctic Research Expedition 1965-66, vertical sampling of zooplankton was carried out mostly in the southern part of Indian sector of the Antarctic Ocean as one of the shipboard programs on the icebreaker FUJI (Fig. 1).



*Fig. 1. Location of plankton sampling*

*Numerals indicate the number of oceanographic stations(See HORI et al., 1966).*

\*鯨類研究所 The Whales Research Institute, Fukagawa Etchujima, Tokyo.

\*\*国立科学博物館極地研究部 Department of Polar Research, National Science Museum, Ueno Park, Tokyo.

Four plankton stations were occupied on the way to Syowa Station during the period from December 18 to 24, 1965 and thirteen stations between Antarctica and Cape Town during the period from January 19 to February 21, 1966 (Table 1). At two stations (Sts. 13 and 14) vertical divided hauls from 3 or 4 different depths were made within the upper 200m layer. At St.14, two series of tows were tried under dark and light conditions respectively. The number of samples obtained during the cruise attained to 25 in all.

Table 1 List of stations with data on plankton samplings.

Station No	Date	Position		Time (L T.)	Haul	Net	Remarks		
		Lat (S)	Long.(E)				Diatom	Hydrogr data*	
	1965								
1	Dec 18	59-16.0	97-19.0	1100	100-0	GG54	R	+	
2	19	63-00.4	89-12.0	1600	100-0	"	R	+	
3	21	64-17 5	71-15 5	1430	100-0	"	rr	+	
4	24	64-36 0	53-14 5	1200	100-0	"	r	+	
	1966								
5	Jan. 19	68-25 0	40-52 2	1030	100-0	"	r	+	
6	Feb. 1	69-11 7	39-32 7	1630	100-0	"	0	+	
7	2	68-07 1	38-50 5	1430	100-0	"	rr	+	
P-1	3	67-24 0	45-00 0	1530	100-0	"	rr		
8	6	67-11 3	43-50 0	1710	100-0	"	r	+	
P-2	10	70-18 0	24-20.0	1000	100-0	"	R		
9	13	69-08 6	16-37 0	1000	100-0	"	rr	+	
10	14	64-58 3	13-56 7	1720	100-0	"	0	+	
11	16	59-56 0	12-15 6	0600	100-0	"	rr	+	
13	19	50-02 5	10-29.4	03~04	20-0	XX13	R	+	
	"	"	"	"	50-0	"	R	+	
	"	"	"	"	100-0	"	R	+	
	"	"	"	"	200-0	"	R	+	
14	20	45-12 5	11-44 5	05~06	20-0	"	0	+	
	"	"	"	"	50-0	"	0	+	
	"	"	"	"	100-0	"	0	+	
	"	"	"	"	200-0	"	0	+	
	"	"	"	07~0730	20-0	"	0	+	
	"	"	"	"	50-0	"	0	+	
	"	"	"	"	100-0	"	0	+	
15	21	39-57 0	14-54 0	2000	100-0	"	0	+	

\*Hydrographic data are available(+).

Table 2. Individual number of copepods collected by a Kitahara type quantitative net with bolting silk cloth GG 54

Species	Station	1	2	3	4	5	6	7	P-1	8	P-2	9	10	11
<i>Calanus propinquus</i>	Copepodid III											6	2	
	IV			1				1		1		7	8	
	V adult			2 5 ♀	3 2 ♀			1 3 ♀	3	2 3 ♀		14 5 ♀ 1 ♂	50 61 ♀	2
<i>Calanus similimus</i>	Copepodid IV						2							
	V adult	16 ♀												3
<i>Calanoides acutus</i>	Copepodid I	240	4	4	7		58		1	1	104	9	42	69
	II	112			1		22		1	1	52	17	40	29
	III	64			1		20				28	6	7	21
	IV	32			2	7		10	1	1	14	11	9	3
	V	8	5	16	55	2		9	2	19		1	169	
	VI		6 ♀	15 ♀	15 ♀			1 ♀		2 ♀			19 ♀	
<i>Rhincalanus gigas</i>	Copepodid III	8		2									7	
	V		1											
	VI		5 ♀											
<i>Clausocalanus laticeps</i>	8 ♀											68 ♀ 124 Juv.		
<i>Ctenocalanus vanus</i>	688	129	52	33		12	23	1	30	12	45		142	
<i>Calanus</i> sp.	8					4								
<i>Stephus longipes</i>						1 ♂ 1 ♀	2 ♂ 2 ♀	1 ♂		1 ♂ 2 ♀	1 ♀			
<i>Pareuchaeta</i> sp								1 Juv.			2 Juv.	1 Juv.		
<i>Scolecithricella glacialis</i>	32 ♀	4 ♂ 4 ♀	4 ♀							2 ♀		4 ♀ 2 Juv.		
<i>Metridia gerlachei</i>	7 ♀ 24 Juv		9 ♀ 2 Juv	13 ♀				6 ♀ 7 Juv.	2 ♀	21 ♀		60 ♀ 4 Juv.	19 ♀ 65 Juv.	
<i>Heterorhabdus farrani</i>	8												2	
<i>Haloptilus ocellatus</i>													2 ♀	
<i>Acartia africana</i>							34 ♂							
<i>Paralabidocera antarctica</i>						2 ♀	74 ♀							
<i>Oithona</i> spp.	392	285	13	30	18	42	80	15	19	6	164	460	1	
<i>Oncaea</i> spp.			2		3		1					102		
<i>Microsetella rosea</i>					1									
Copepod nauplii	224						16				20	4	8	4

Table 3 Individual number of copepods collected by a Kitahara type quantitative net with bolting silk cloth XX 13.

Station			13				14				15			
			20-0	50-0	100-0	200-0	20-0	50-0	100-0	200-0	20-0	50-0	100-0	100-0
Species	Haul													
<i>Calanus similimus</i>	Copepodid	III		40		30								
		IV	4	35	56	24	14	9	115	20		2		
		V	11	15	18	25	45	105	1550	64	24	5		
		adult	1 ♀		2 ♀									
<i>Calanus tonsus</i>	Copepodid	III							40		9			
		IV					45	59	330	196	216	30	5	
		V					102	372	1860	292	72	10		
<i>Rhincalanus gigas</i>	Copepodid	II			6						1			
		III			2	30								
		IV				6								
<i>Clausocalanus laticeps</i>		4	80	54 ♂ 103 ♀		48	r	90 ♂ 60 ♀	84	95	2			
<i>Clausocalanus bergens</i>												15		
<i>Ctenocalanus vanus</i>		1	35	702		102	rr	1228		85		40	33	
<i>Calanus</i> sp				324 Juv.									87 Juv.	
<i>Pareuchaeta</i> sp		2 Juv.	1 Juv.	2 Juv.										
<i>Scolecithricella glacialis</i>					36		r		4					
<i>Racovitzanus antarcticus</i>					78				80					
<i>Metridia gerlachei</i>		3		2					4 ♂ 4 ♀					
<i>Heterorhabdus farrani</i>				2	8									
<i>Heterorhabdus pustilifer</i>			15				2 ♀		4 ♀ 2 ♂ Juv				3 Juv.	
<i>Candacia falciifera</i>		1 ♀			6 ♀									
<i>Acartia</i> sp													3 Juv.	
Micro-calanoïds		R	770		1506	30	R		R	72	r	16	87	
<i>Oithona</i> spp.		rr	1925	414		1746	R	43800	r	R	R	4496	1143	
<i>Oncaea</i> spp.					42									
<i>Tisbe racovitzai</i> ?													6	
<i>Microsetella rosea</i>			10	702	144	12						8		
Copepod nauplii		rr	120	648	6	36						2072	1222	

The sampling was performed with a coarse Kitahara type quantitative net (22.5 × 93.5cm; GG54, 0.33mm mesh aperture) and a fine Kitahara type quantitative net (22.5 × 93.5cm; XX13, 0.09mm mesh aperture). The latter was used only at Sts. 13, 14 and 15 since the coarse net was lost by accident at St. 12, where no plankton sampling was done. The net was usually towed vertically from a depth of 100m at the speed of approximately 0.5m/s, though sometimes the speed varied between 0.3m/s–0.5m/s. Oceanographic conditions of each station except Sts. P-1 and P-2 had been observed by HORI, SHIOZAKI and AKIYAMA (1966).

The individual numbers of copepoda in each sample are given in Tables 2 and 3, in terms of the number of each constituent per haul. No quantitative treatment was made since no flow-meter was equipped on the net for estimating the volume of water filtered by the net.

#### Reference

- HORI, S., M. SHIOZAKI and T. AKIYAMA (1966) : Oceanographic observations of the 7th Japanese Antarctic Research Expedition 1965–1966. *Antarctic Rec.*, **27**, 18–44.

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