

ヨーロッパヒメウの採餌場所選択に自身と番相手の餌獲得量が影響するか？

伊藤元裕¹、小暮潔央³、佐藤克文³、高橋晃周^{1,2}、Francis Daunt⁴

¹ 国立極地研究所

² 総合研究大学院大学極域科学専攻

³ 東京大学大学院大気海洋研究

⁴ Centre for Ecology and Hydrology, UK

Do present foraging success by adult themselves or by pairs affect foraging site selection of European Shag?

Motohiro Ito¹, Yukihiisa Kogure³, Katsufumi Sato³, Akinori Takahashi^{1,2}, Francis Daunt⁴

¹ National Institute of Polar Research

² Department of Polar Science, SOKENDAI

³ Atmosphere and Ocean Research Institute, The University of Tokyo

⁴ Centre for Ecology and Hydrology, UK

Investigating the criterias of foraging site selection is one of the key topics to understand the foraging strategy of wild animals. Some theoretical studies predict that foraging site selection in predators might be affected by present foraging success by predator themselves, by their pairs or by their neighbors. To examine these predictions, it is important to measure fine scale foraging movements and foraging success during the trips of predators, simultaneously. However, few studies quantified these parameters simultaneously in free-ranging predators, because of technological difficulties. In this study, we examined the relationships between fine-scale foraging site selection and present foraging success by predator themselves or by their pairs in European shags *Phalacrocorax aristotelis*. To examine fine-scale foraging site selection and foraging success during foraging trips, GPS loggers and acceleration loggers (3 dimensional acceleration and depth sensors) were deployed to 4 pairs of breeding European shags at the Isle of May, UK, during 2014. Estimated foraging success (food load mass) did not differ between males and females, though varied among trips and individuals (0-280g). Shags utilized a variety of foraging sites and sea-bottom habitats (1-17.9km from their nests by 0.7-4.3h trips). We found no relationships between foraging site selection and present foraging success neither by predator themselves nor their pairs. Each individuals tended to use some foraging region repeatedly regardless of their present foraging success and foraging location of their pairs during adjacent foraging trips. This can be decreasing the risk of foraging failure at unknown foraging site and possibly to decrease within-pair competition on the same food source, and gain foraging diversity during breeding to increase foraging success in heterogeneous marine environment.