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？

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

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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 12 pairs of breeding European shags at the lsle of May, UK, during 2014 and 2015. Estimated foraging success (food load mass) did not differ between males and females, though varied among trips and individuals. Shags utilized a variety of foraging sites and sea-bottom habitats (1-17.9km from their nests by 0.7-4.3h trips). 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, especially in 2015. We found weak relationships between foraging site selection and present foraging success by predator themselves during 2014, but seems not in 2015. Sandeels, high energy content diet, were dominant in diet of shags in 2015, but not in 2014. Availability of sandeels were known to fluctuate largely among years, thus shags seems to adopt there foraging behaviour in relation to those food availability.