AUSTRALIAN FIELD ORNITHOLOGY 2010, **27**, 85–86

Non-aggressive Response by Bottlenose Dolphin to Theft of Fish by a Silver Gull

GRAHAM R. FULTON

School of Natural Sciences, Edith Cowan University, 100 Joondalup Drive, Joondalup, Western Australia 6027 (Email: grahamf2001@yahoo.com.au)
(Address for correspondence: 12 Manila Place, Warnbro, Western Australia 6169)

Summary

A Silver Gull *Chroicocephalus novaehollandiae* took a fish that was being chased by a Bottlenose Dolphin *Tursiops truncatus* in Warnbro Sound, Western Australia. Such events are uncommon, at least at this site. The dolphin made only a minor response to the loss of a single fish and made no attempt to pursue the Gull, although the Gull stayed on the surface long enough for the dolphin to respond. The trivial response by the dolphin may reflect that its energy might be better spent in catching another fish.

Introduction

Silver Gulls *Chroicocephalus novaehollandiae* and gulls generally are well-documented kleptoparasites (Hulsman 1976, 1984; Brockman & Barnard 1979; Fulton 2010). They are also considered opportunistic and generalist in their diet (Higgins & Davies 1996). Kleptoparasitism by seabirds (including gulls) has been reported previously involving groups of dolphins and other birds (Pitman 1986; Henkel 2009), and these feeding associations have generally been regarded as commensal where one party (seabirds) benefits from the association and the other party (cetaceans) remains unharmed (Duffy 1983; Henkel 2009).

Methods and observations

This observation was made on 8 September 2009 20 minutes before sunset at the central beach in Warnbro Sound, south-western Australia (32°20′S, 115°44′E). It occurred 20 m from the shoreline directly in front of me as I stood in the swash zone. Field binoculars were used. The study site (Warnbro Sound Beach) and methods are described elsewhere (Fulton 2010). Conditions were cool and overcast, with a small swell of ≤ 0.5 m.

A Silver Gull abruptly dipped in its flight and landed on the water in front of a Bottlenose Dolphin *Tursiops truncatus*, which appeared to have been pursuing the fish to the surface. Immediately after landing on the water, the Gull picked up the fish (which was four times longer than the Gull's bill). It turned away from the dolphin and manipulated the fish over 10–15 seconds for a better hold, in which time the dolphin only raised itself a third higher (~ 25 cm) out of the water than it normally would do to breathe. The Gull flew 20 m farther away (seaward), and again manipulated the fish until it could swallow this. It then flew out of the area. The dolphin did not give chase: it moved at a 45° angle (seaward) away from the Gull's position and continued diving for fish. No other dolphins were seen. The only other bird within 500 m was an Australasian Gannet *Morus serrator*, which flew over the dolphin and then back out to sea. Bottlenose Dolphins are commonly seen at this location as singles, females with small young, and small groups within 50 m of the shoreline. Silver Gulls have been detected in 100% of

290 2-km beach transects over >3 years, in a total of 2760 observations, but this is the first occasion that theft of a fish has been observed. During the transects, Silver Gulls were seen either on the beach (80.1%) or on the water (19.9%), and a colony of ~ 2000 breeding pairs was counted on nearby Penguin Island on 18 August 2009 (GRF unpubl. data).

Discussion

Gulls are well-known kleptoparasites (Hulsman 1976, 1984), so it is not surpring that one should steal a fish from a dolphin. However, dolphins are predominantly commensal and are usually in groups (Duffy 1983; Pitman 1986; Henkel 2009). There is no record that dolphins harm or eat birds, and no birds have been observed to be harmed by cetaceans during group feeding in my study. Lusseau & Wing (2006) found the diet of dolphins *Tursiops* spp. to be autochthonous (originating locally and found in the same place), with little input from pelagic sources, in New Zealand. Seabirds (terns, gulls, cormorants and others) at and around Warnbro Sound fed locally, although the Bridled Tern *Onychoprion anaethetus* did so only while breeding (GRF unpubl. obs.). In the present study, the Bottlenose Dolphin showed no aggression toward the gull, and its only response was to rise out of the water a little more than usual when breathing.

Skov *et al.* (1995) found that broad-scale distributions of seabird guilds (including breeding birds) showed associations (affinities) with the particular cetaceans in particular marine habitats. They also reported that cetaceans are pursuit-divers that drive prey to near the surface, where the surface-feeding seabirds take advantage of this prey. It appears that this is what happened in the present study, where there was some cost to the dolphin, but apparently not enough to make it attempt to retrieve the fish.

Acknowledgements

I thank the Department of Environment & Conservation for facilitating observations on Penguin Island. I thank Mercedes Smith and Peter Dann for their advice on the manuscript. I acknowledge my supervisors Harry F. Recher and Pierre Horwitz. I acknowledge the Nyoongar people, the traditional owners of the land where this study was undertaken.

References

Brockmann, H.J. & Barnard, C.J. (1979), 'Kleptoparasitism in birds', *Animal Behaviour* **27**, 487–514.

Duffy, D.C. (1983), 'The foraging ecology of Peruvian seabirds' *Auk* **100**, 800–810.

Fulton, G.R. (2010), 'Attempted kleptoparasitism by a Crested Tern on a Pied Cormorant at Warnbro Sound, south-western Australia', *Australian Field Ornithology* **27***,* 81–84.

Henkel, L.A. (2009), 'Co-occurrence and aggregation of marine birds and mammals in Monterey Bay, California, USA', *Marine Ecology Progress Series* **387**, 295–303.

Higgins, P.J. & Davies, S.J.J.F. (Eds) (1996), *Handbook of Australian, New Zealand and Antarctic Birds*, vol. 3, Oxford University Press, Melbourne.

Hulsman, K. (1976), 'The robbing behaviour of terns and gulls', *Emu* **76**, 143–149.

Hulsman, K. (1984), 'Selection of prey and success of Silver Gulls robbing Crested Terns', *Condor* **86**, 130–138.

Lusseau, S.M. & Wing, S.R. (2006), 'Importance of local production versus pelagic subsidies in the diet of an isolated population of bottlenose dolphins *Tursiops* sp.', *Marine Ecology Progress Series* **321**, 283–293.

Pitman, R.L. (1986) 'Seabird interactions with dolphins and tuna in the eastern tropical Pacific', *Condor* **88**, 304–317.

Skov, H.S., Durinck, J., Finn, D. & Bloch D. (1995), 'Co-occurrence of cetaceans and seabirds in the northeast Atlantic', *Journal of Biogeography* **22**, 71–88.

Received 8 September 2009 ■