## Do Arctic Skuas sometimes roost on land at night?

Arctic Skuas (Stercorarius parasiticus) are regular summer and autumn visitors to the Avon-Heathcote Estuary and Bromley Oxidation Ponds, Christchurch. They are seen mostly from February to May, occasionally as early as October and as late as July (pers.obs.). On 8 April 1992, I watched two Arctic Skuas harassing Red-billed Gulls (Larus novaehollandiae) and Black-fronted Terns (Sterna albostriata) over the oxidation ponds and later chasing White-fronted Terns (S. striata) about the estuary. One bird was a typical light-morph, the other a very dark intermediate. The pair frequented the estuary, oxidation ponds and nearby South New Brighton Beach for the next two weeks.

At 0850 on 24 April 1992, I found a freshly dead Arctic Skua on the embankment between oxidation ponds 5 and 6, about 50 metres from the pond outlets and the estuary shoreline. The bird lay on its back in low vegetation; its body was intact but its head was missing and feathers, plucked from the neck and chest, littered the immediate vicinity. The blood had not yet coagulated, and so the bird had probably been killed during the night. The mandibles were among the discarded feathers, having been fractured by a bite but not swallowed. The injuries and scene were consistent with predation by a mammal, most likely a cat (*Felis catus*), ferret (*Mustela furo*), or stoat (*M. erminea*), all of which are common in the area (pers. obs.). The skua was almost certainly the intermediate-morph bird of the two seen throughout April. Only the pale-morph bird was seen subsequently.

At the Canterbury Museum, G.A. Tunnicliffe found the bird to be a male in almost perfect condition, weighing 320 g without the head. Its plumage was rich chocolate brown above and warm light brown below. When alive, the bird had a dark brown head cap and a whitish chin and hind-collar. It had no white on the belly, unlike most intermediate-morph birds, although this feature is highly variable involving an almost continuous gradation between light and dark morphs (Harrison 1983). The Bromley skua was therefore near the darkest possible extreme of intermediate morphs. The bird was in active wing moult, with new P1 to P8; P9 and P10 were only partially developed. Consequently, wing length is the measure of carpal joint to P8. Measurements are tarsus 39.4 mm, wing 307 mm, projection of central tail feather (fully grown) 45 mm. This last measurement and general adult plumage characteristics, but for a small remnant of barring on the marginal coverts, suggest a fourth-summer bird (Roselaar 1983). Ectoparasites were identified as the feather lice Austromenopon fuscofasciatum and Quadraceps normifer normifer (R.L.Palma, pers. comm.) and the feather mites Zachvatkinia sp. and Alloptes sp. (D. Bishop, pers. comm.).

The circumstances of this skua's death raise the question of whether Arctic Skuas sometimes roost on land at night. Falla *et al.* (1978) state that Arctic Skuas in New Zealand "are seldom on or over land; but occasionally one will settle on a beach near terns or gulls". I have several times seen skuas settle briefly on land by day, usually to preen after a skirmish with a tern. This is a not uncommon occurrence overseas (Olsen & Jonsson 1989). The Bromley skua was found at a night roost used by Red-billed Gulls, Blackbilled Gulls (*Larus bulleri*) and sometimes Caspian Terns (*Sterna caspia*). There is little doubt that this skua was killed on the ground and probably during the night. This probable night roosting is not new to me. On at least five occasions between 1987 and 1992, after spending all day in the field on the Avon-Heathcote Estuary and seeing no skuas during the day, I have seen one or two appear just on dusk. On 16 November 1989, I saw one lightmorph bird harassing Red-billed Gulls over the oxidation ponds during the afternoon and later found it sleeping among roosting Southern Black-backed Gulls (Larus dominicanus) on the embankment between ponds 3 and 5. This bird flew off when disturbed, but remained nearby at least until nightfall. It seems Arctic Skuas come to land more often than is generally thought, and night roosting may be a regular aspect of their behaviour. If birds arrive to roost at sunset and depart just before sunrise, as it appears they do, it is not surprising that night roosting has escaped detection by ornithologists for so long; rarely is somebody in the right place at the right time to observe it.

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## Live Adélie Penguins in Antarctic Dry Valleys

In January 1987, at a field camp in Antarctica in the Upper Garwood Valley (78°S, 163°E), 600 metres a.s.l. and 12 km from the coast, I observed two Adélie Penguins. They passed by and continued in a generally westerly direction following the Garwood River, which was flowing, to the upper reaches of the valley. The two birds passed through camp two hours apart and so were travelling separately. I estimate that the birds were 50 km from the nearest open water in McMurdo Sound and a further 120 km from Cape Royds, the nearest penguin colony.

Both birds were thin and emaciated and moved slowly with frequent pauses to look around. The second bird moved about 1.5 km in seven hours, and then became immobile. After a further eight hours I found it to be dead, but it had not frozen, probably because the weather had been good (soil surface temperature declined from +18 °C to +1 °C) over this time and the black back of the bird was exposed to the sun. Using a thermos flask filled with sand as a counterweight I estimated that the dead bird weighed no more than 2 kg, which is much less than the 2.8 kg for fasting, incubating birds recorded by Ainley et al. (1983). The stomach of this bird was found to be empty.