

SHORT NOTE

Australasian harrier (*Circus approximans*) observed feeding on crabs at Hooper's Inlet, Otago Peninsula

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On the morning of 28 Jan 2001, I observed an Australasian harrier (*Circus approximans*) from c. 10 m walking in a patch of glasswort (*Sarcocornia quinqueflora*) at the edge of Hooper's Inlet, Otago Peninsula. I tentatively identified this bird as a female because it had a reddish brown head and neck. Similarly, the lesser and median coverts of the upper wing (from the carpal bend to the body) were also reddish brown. This contrasts with the dark brown upper wing of young males, and the grey upper wing of older males (Marchant & Higgins 1993). Furthermore, when the bird flew away the female characteristics of a broad inner wing (resulting from longer secondaries), and a large wingspan in comparison with body length were noticeable (Marchant & Higgins 1993). I watched the bird's behaviour for c. 45 min, during which it walked around in the glasswort, apparently hunting. When the bird saw potential prey it pounced forward with both legs outstretched. If the attempt was successful, the bird consumed its catch on the ground. I was unable to see the prey. The tide was high, and several times the bird was up to its belly in water. After the bird flew away, I examined the area to see what it might have been feeding on. The only potential prey I could see were tunnelling mud crabs (*Helice crassa*), but there was no evidence that the bird had been hunting them.

On the afternoon of 11 Feb 2001, with Philip Latham, I again saw an Australasian harrier hunting in the glasswort at the edge of the inlet. After about 10 min the harrier flew c. 20 m from the edge of the inlet, and landed on the soft mud further out on the inter-tidal mudflat. Once again it proceeded

to walk about on the mud, apparently hunting. With the aid of 8 x 30 binoculars we were able to see that the bird was hunting crabs: both *H. crassa* and the stalk-eyed mud crab (*Macrophthalmus hirtipes*) are very common at this location. We saw the bird catch 2 crabs of unknown species, but instead of consuming the prey on the ground the bird flew c. 60 m to a grass-covered hill at the side of the inlet. The bird then offered its catch to another harrier, possibly a young bird but tall grass made observations difficult. After 2 trips the harrier remained in the long grass for the duration of our stay.

Philip and I again saw a female harrier hunting at Hooper's Inlet on 18 Feb 2001. Instead of hunting on foot in either glasswort or on the inter-tidal mudflats, this bird was flying low over the mudflats. It flew back and forth for c. 15 min, before settling at the water's edge on the mudflats. We did not see the bird drop to anything on the mudflat, nor did we see any successful catches.

A literature search revealed no previous record of harriers feeding on crabs in New Zealand. Marchant & Higgins (1993) state that in Tasmania "aquatic prey" make up 4.6% of the harrier's diet, and Oliver (1955) lists mullet, eels, and trout. Insects also appear to be an important part of the diet (Stead 1932; Douglas 1970). Marchant & Higgins (1993) do not include crabs in the diet of this species. However, Totterman (1997) notes that Australasian harriers have been found to prey on crabs (the smooth-handed ghost crab, *Ocypode cordimana*) in New South Wales, Australia. The only other observation that could relate to a harrier catching crabs was by Kim Morrison of a harrier wading in Papanui Inlet, Otago Peninsula, with water halfway up its legs (21 Jun 1998), but no prey was seen to be taken (Peter Schweigman, pers. comm.). Harriers

have been observed wading in shallow water to catch fish and tadpoles (Stead 1932), but records of this type of behaviour do not appear to be common. Indeed, Marchant & Higgins (1993) make no reference to Australasian harriers hunting on the ground on inter-tidal mudflats.

The behaviour of the harrier observed at Hooper's Inlet appears to be similar to that of species in the American genus *Buteogallus*, in particular the common black hawk (*B. anthracinus*), the mangrove black hawk (*B. subtilis*), and the rufous crab hawk (*B. aequinoctialis*). These 3 species of *Buteogallus* feed mostly, or exclusively, on crabs (although only in coastal populations of *B. anthracinus*), and are taken both from perches and on the ground (Snyder & Snyder 1991; Bierregaard 1994). Descriptions of these species' prey and hunting strategies are very similar to those we observed for Australasian harriers at Hooper's Inlet. If the harrier is consistently including crabs in its diet, it illustrates the plasticity in hunting behaviour of the species and the ability of a species to exploit resources that are partitioned out much more finely in a more diverse avifauna.

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