

SHORT NOTE

A further 1952 record of a *Coenocorypha* snipe on Campbell Island, New Zealand subantarctic

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The capture of a *Coenocorypha* snipe on Jacquemart I, off the southern coast of subantarctic Campbell I, in 1997 was one of the most surprising ornithological events in New Zealand in the 20th Century (Judd 1998; Barker *et al.* 2005). Analyses of ornithological and historical literature relating to Campbell I resulted in several earlier records of snipe being located, but all were dismissed as errors in identification, or confusion over geographical location (Miskelly 2000). Until recently it was believed that there were no acceptable records of *Coenocorypha* snipe from the Campbell Is group before 1997, but Hayes (2006) and Miskelly (2006a) reported a likely sighting made by the late Ralph Hayes, probably in 1952. We here report another sighting made by BN, possibly within weeks of the sighting by Hayes.

BN was an ionosphere observer on Campbell I from Nov 1951 to Oct 1952. He saw a snipe during an excursion on Campbell I, but was not aware what he had seen until he saw Auckland Is snipe (*Coenocorypha aucklandica aucklandica*) on Enderby I in Jan 2007, on the way back from a nostalgic visit to his old haunts on Campbell I.

BN saw only a single bird in 1951/52, among tussock near Six Foot Lake. It was seen from a distance of only 2 m, and it scuttled into cover when disturbed. Although his recollections are from a distance of 50 years, he is confident that

the bird was the same species as those illustrated in Miskelly (2006b) and Miskelly & Fraser (2006). The location, habitat, and behaviour are consistent with those in subsequent sightings of *Coenocorypha* snipe on Campbell I (Miskelly & Fraser 2006), but because BN did not record a description of the bird at the time, the record cannot be assessed by the Rare Birds Committee of the Ornithological Society of New Zealand, and should be considered unverified.

BN did not keep a personal diary, but recalls visiting the vicinity of Six Foot Lake on 3-4 occasions. Unfortunately there is no official record available of daily activities undertaken by team members from Nov 1951 to Jul 1952, but from Aug to Oct 1952 the station diary was maintained by the then Officer-In-Charge of the Meteorological Station, C.P.B. (Pat) Sewell (Campbell Is Station diaries, National Archives, Wellington, AAPR, Acc W3350, Box 5). The diaries contain no mention of snipe, but they do record BN visiting Six Foot Lake during Aug-Oct 1952. On 23 Sep 1952, BN and Ian Deihl visited Eboule Peninsula, travelling past Six Foot Lake en route. This was only 54 days before the presumed date of Hayes' snipe sighting (16 Nov 1952; Miskelly 2006a). Six Foot Lake is only 2 km from Jacquemart I, which is the presumed source of the snipe that recolonised Campbell I following the 2001 eradication of Norway rats (*Rattus norvegicus*) (Miskelly 2006b; Miskelly & Fraser 2006). However, in the absence of earlier diary records, we do not know other dates when BN visited Six Foot Lake;

Ian Deihl (*pers. comm.*) has no recollection of seeing snipe on Campbell I.

The most remarkable aspects of both 1952 snipe sightings are why relevant authorities were not notified at the time, and why snipe were seen on Campbell I in 1952, but apparently not again until 2005, despite the many conservation workers and researchers visiting the island in addition to the resident meteorological staff during the intervening 50 years.

The first issue can be explained by the opportunities and interests of the people involved. BN did not realise what he had seen until 2006/07. He departed Campbell I on 5 Oct 1952 (Campbell Island Station diaries, as above), before the supposed date of the Hayes snipe sighting, and so the 2 men apparently had no opportunity to discuss and compare their sightings. None of the personnel present in 1951-54 had a particular knowledge or interest in natural history before reaching Campbell I, and there were few resources available for them from which to understand the significance of what they had seen.

At least 4 factors could have militated against snipe being seen again on Campbell I before the rat eradication programme in 2001: the frequency of arrival of snipe from Jacquemart I; the (in) ability of snipe to persist in the presence of feral cats (*Felis catus*) and rats; the presence (and absence) of observers able to identify snipe; and the inability of casual observers (who were not expecting to find snipe) to detect snipe in the dense vegetation.

Snipe recolonised Campbell I rapidly after the Norway rat population was destroyed (Miskelly & Fraser 2006). If snipe were absent before 2001, then at least 3 birds year⁻¹ must have reached Campbell I for a minimum of 22 adults to be present in Jan 2006, assuming reproductive and survival parameters similar to those of Snares Is snipe *C. aucklandica huegeli* (Miskelly 1990, 1999). Alternatively, if adult snipe that reached Campbell I before 2001 had been able to persist but not breed successfully in the presence of rats (see below), then the minimum arrival rate would have been 0.5 birds year⁻¹ (assuming the annual survival of 83% estimated for Snares Is snipe). If rats ate a proportion of the adult snipe, then the minimum arrival rate would be 0.5-3 birds year⁻¹. It is possible that arrivals of snipe on Campbell I have been episodic, varying in relation to the population density on Jacquemart I. Not knowing the population dynamics of snipe on Jacquemart I, we have assumed a constant rate of arrival on Campbell I.

Cats are believed to have been present on Campbell I from c.1916 to c. 1987 (Dilks 1979; Barker *et al.* 2005; Graeme Taylor, *pers. comm.*),

and are likely to have been a major predator of any snipe reaching Campbell I during the period of most intense farming (see below). Norway rats were present on Campbell I from c.1828 until 2001, and undoubtedly caused the extinction of snipe (Miskelly 2000; Barker *et al.* 2005). Rats would have prevented any successful breeding by snipe, and they probably also preyed on adult snipe. Stewart Is snipe (*C. aucklandica iredalei*) became extinct on Big South Cape I soon after ship rats (*Rattus rattus*) reached the island in the early 1960s (Bell 1978; Miskelly 1987). The Norway rat is larger than the ship rat and is considered an even more serious predator of ground-nesting birds and their nests (Atkinson 1985; Innes 2005a, b). Dense, wet vegetation such as that currently inhabited by snipe on Campbell I (Miskelly & Fraser 2006) may have offered some protection from cats - cats tend to avoid wet areas (Veitch 1985, 2001; Harper 2004) - but would have afforded no protection from Norway rats, which thrive in wetlands (Innes 2005a).

Sheep (*Ovis aries*) were introduced to Campbell I in 1895 in an ultimately unsuccessful attempt at farming (Kerr 1976; Rudge 1986). Sheep numbers peaked at 8500 in 1910, and had declined to 1000 by 1961 (Wilson & Orwin 1964; Rudge 1986), so the effects of their grazing on the vegetation of Campbell I may have declined over this period. The vegetation of Campbell I changed dramatically after 1950 as a result of the decline, and then removal of sheep (sequentially from fenced portions of the island between 1970 and 1991), cessation of burning since the abandonment of farming in 1931, and perhaps vegetational response to global warming (Meurk 1982; Rudge 1986; Wilmshurst *et al.* 2004; Bestic *et al.* 2005). As noted, sheep numbers were low during the 1950s, corresponding to a period of increased recruitment of *Dracophyllum* shrubs (Rudge 1986; Bestic *et al.* 2005), which probably indicates that other changes were involved simultaneously in the shift from grazed pasture to denser vegetation (Meurk 1982).

There was almost continuous human presence on Campbell I from 1895 to 1995 (Kerr 1976; Turbott 2002). Few of the shepherds there between 1895 and 1931 are known to have had an interest in natural history, but an exception was Cecil Green, who was on the island in 1923-24 (Miskelly 2000). Green reported "Odd pairs of snipe have been seen" (Villiers 1925), but Miskelly (2000) dismissed this report as probably referring to bar-tailed godwits (*Limosa lapponica*), then known colloquially as snipe. After a 10-year hiatus, the island was reoccupied from 1941 to 1945 by wartime "coast-watching"

parties which included several scientists. Notable among these was the naturalist Jack Sorensen who covered the island extensively in 1942, 1943 & 1945-47 (Kerr 1976, Turbott 2002), but made no mention of seeing or being aware of snipe (Sorensen 1951; Bailey & Sorensen 1962).

From the end of World War II, the coast-watching station was maintained as a permanently-staffed meteorological and ionosphere research station until the observations were automated in 1995 (Turbott 2002). In addition to meteorological station staff, there was a significant amount of ecological research and management-oriented activity by visiting scientists, and staff of the former Wildlife Service and the Department of Conservation (from 1987) from the late 1950s to the 1990s. Publications that refer specifically to the wildlife and ecology of Six Foot Lake and its surrounding catchment include Westerskov (1960), Bailey & Sorensen (1962), Wilson & Orwin (1964), Kinsky (1969), Taylor *et al.* (1970), Meurk (1975), Dilks (1979), Dilks & Wilson (1979), Rudge (1986), Moore (1992), and Meurk *et al.* (1994). Clearly there were observers who would have recognised a snipe present on many occasions over this period.

We suggest that snipe reaching the vicinity of Six Foot Lake between 1920 and 1950 were readily found by cats in the low, open vegetation that had resulted from burning and intensive sheep grazing. The increasingly dense vegetation then created less favourable habitat for cats, and is likely to have been a factor in their disappearance from Campbell I, concurrent with the protracted process of eliminating the sheep population. Fewer cats may have allowed snipe to persist for longer. As snipe would have been unable to survive or breed successfully in the presence of rats, it is likely that few if any snipe were ever present around the lake before the rat population was eliminated in 2001. The 2 records of snipe on Campbell I in 1952, and then none until 2005, may have been because the increasingly dense vegetation made any snipe that did reach Campbell I harder to detect by chance encounters after the early 1950s. The difficulty of detecting snipe in the dense regenerating vegetation is evident from recent surveys. In the 1st 4.5 years after rats were removed, only 2 of 32 snipe sightings reported by Miskelly & Fraser (2006) during 9 days of targeted searching were made without the aid of a trained dog.

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