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SHORT NOTE

Survival of breeding seabirds into the historic period on Huahine, Society Islands

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In any assessment of the possible timing or causes of avian extirpation or extinction, it is essential to consider relevant information that may be contained in all types of reliable written sources. It is sometimes possible, for example, to glean useful information from the writings of early missionaries who were often the only resident Europeans to keep written records of events on many Polynesian islands during the years of greatest change to both the original human inhabitants and the environments in which they lived. The missionary John Williams said it was to him

> "a matter of regret that scientific men …. do not avail themselves of the facts which Missionaries might supply; for while we make no pretensions to great scientific attainments, we do not hesitate to assert, that it is in our power to furnish more substantial data on which to philosophise, than could be obtained by any transient visiter, however profound in knowledge, or diligent in research" (Williams 1837: 205).

The missionaries Henry and Davies travelled on land around Huahine, in the Society Islands, between 14 and 21 Feb 1809 in the course of a preaching tour of the island. They passed through Taha-raa on the south coast of Huahine Nui on 20 Feb. Their road led them a little inland where they

> "…came to a rocky precipice, on the side of a mountain of a very considerable height, nearly a quarter of a mile long, and almost perpendicula. There our ears were saluted with a noise just like that of a large Rookery in England, occasion'd by vast numbers of aquatic birds, of various kinds, which frequent this place make their nests and breed in it. Our road leading along under this precipice, we halted a while to view the birds which were flying about us in all directions screeching out their wild notes, which tho far from being agreeable to the ear, yet afforded us some amusement with a degree of pleasure join'd with regret, bringing to our minds the remembrance of our native country and former pleasant and happy days spent there. Sitting here awhile, to our no little surprise we saw one of the two native boys that carried our bundles, a considerable way up the precipice climbing by his hands and feet in quest of young birds. Apprehending him in considerable danger we called to him several times to return, notwithstanding which he persever'd in his attempt till he had got two, and then descended with much difficulty, throwing the birds down before him. He had slipped away unknown to us among the trees which grow along the bottom of this cliff, as do also bushes and shrubs on several places up the face of it. Advancing towards the sea side we came to a large rock with a flat top of considerable extent, cover'd with grass and herbage, called Te marae o Hero, or Hero's marae. A part of the cliff before mention'd at its end next the sea is called Te-hoe-o-Hero, or Hero's paddle, which according to fabulous tradition he left here once on his way to Taheite" (Henry & Davies 1809: 14-15).

Between 25 Apr and 1 May 1809, just 2 months after Henry and Davies, the missionaries Elder and Wilson also made a preaching tour around the

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island, but this nesting colony is not mentioned in their brief account of the excursion (Elder & Wilson 1809). Nor do the missionaries Tyerman and Bennet (in Montgomery 1831:I: 232-287) refer to it in the detailed account of their tour around the island in Dec 1821 - Jan 1822. I do not know of any other reference to seabirds nesting at this site, or to nesting colonies of seabirds elsewhere on Huahine during the 19th century.

It is not possible to know the specific identity of the "vast numbers of aquatic birds, of various kinds" that Henry and Davies observed nesting on Huahine in 1809. Bird bones recovered from the Fa'ahia archaeological site on Huahine include those of 15 identified species of seabirds that Steadman & Pahlavan (1992) consider nested on the island. They are 6 shearwaters (*Puffinus* spp.) and petrels (*Pseudobulweria* and *Pterodroma* spp.), 1 tropicbird (*Phaethon* sp.), 2 boobies (*Sula* spp.), 2 frigatebirds (*Fregata* spp.), 1 gull (*Larus* sp.), 2 noddies (*Anous* spp.), and 1 tern (*Gygis* sp.)(Steadman 2006: 233). Only 3 of them – white-tailed tropicbird (*Phaethon lepturus*), brown noddy (*Anous stolidus*), and white tern (*Gygis alba*) – still nest on Huahine (Steadman & Pahlavan 1992). Several of the seabird species recovered from the Fa'ahia site are colonial nesters which are active at their nesting grounds during the day, and some of them nest in burrows in the soil or in crevices in rocky outcrops.

The survival of breeding populations of seabirds into the historic period on islands of the South Pacific, only to be extirpated without being observed by naturalists, is not unknown. An example is a small procellariid known locally as *titi*, probably the black-winged petrel (*Pterodroma nigripennis*), which nested into the historic period in burrows in the volcanic soil of the uplands of Mangaia in the southern Cook Is (Medway 2001). The demise of the *titi* on Mangaia was probably caused by a combination of human harvesting and mammalian predators that were introduced after the arrival of missionaries in the early 19th century (Medway 2001). The same factors may have eliminated the seabird colony observed by Henry and Davies on Huahine. The lengths to which 1 of the native boys went to obtain young birds from the colony probably indicates they were highly sought after as food items by the local inhabitants.

Clearly, the "aquatic birds, of various kinds" seen by Henry and Davies, whatever their specific identity, survived into the historic period as breeding birds on Huahine. The absence of 19th century records for nearly all of the avian species recovered from the Fa'ahia site suggested to Steadman & Pahlavan (1992) that most avian losses on the island occurred prehistorically. The observations of Henry and Davies indicate that the absence of historical records from Huahine for some of the avian species identified from the Fa'ahia site may be due only to the dearth of ornithological activity on the island for many decades following 1st European contact. Samuel Stutchbury recorded shooting and skinning a few birds of at least 4 species during brief visits to Huahine in May and Nov 1826 (Branagan 1996: 85, 117), but the fate of these specimens is not known. They may have been among those in the "large parcel of Bird Skins principally from the South Sea Islands" which was included in a collection, mostly of shells, that Stutchbury sold by auction in London in Jul 1827 (Branagan 1996: 205). Andrew Garrett visited Huahine in 1857, and again during 1860-1863 mainly in search of terrestrial mollusca. He resided on the island from 1870 until his death in 1887 (Thomas 1979). Specimens of several bird species were collected by Garrett on Huahine and sent to England and Germany (Sclater 1864; Gräffe 1873; Büttikofer 1892; Holyoak & Thibault 1978; Mees 1991). The observations of Henry and Davies, Stutchbury's records, and Garrett's specimens appear to provide the only information we have about the avifauna of Huahine during the 19th century.

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