## Avifauna from the Emily Bay Settlement Site, Norfolk Island: A Preliminary Account

RICHARD N. HOLDAWAY1 AND ATHOLL ANDERSON2

<sup>1</sup> Palaecol Research, PO Box 16569, Christchurch, New Zealand piopio@netaccess.co.nz

<sup>2</sup> Department of Archaeology & Natural History, Research School of Pacific and Asian Studies, Australian National University, Canberra ACT 0200, Australia aja@coombs.anu.edu.au

ABSTRACT. The avifauna of the Emily Bay settlement site, Norfolk Island, southwest Pacific, is described. Most of the remains, which consisted of nearly 10,000 identifiable bones (mostly fragmentary) and several thousand unidentifiable elements and fragments, were of several species of petrel and shearwater (Procellariiformes) and boobies (Sulidae), but some land birds were also represented in small numbers. Two species of migratory wading bird (Charadriiformes) were identified in the deposits, but no terns, which are dominant members of the present avifauna. The taphonomy of the remains indicates intensive use of birds as food, but some material of other than cultural origin was also present. Remains were not distributed evenly throughout the excavated parts of the site, and were concentrated in areas where other evidence such as post holes and fires scoops indicated points of occupation. Some species that are present on the island and palatable were not represented in the collections: possible reasons for their absence are canvassed. An estimate of the biomass is presented, with the proviso that the variation in density of deposition made extrapolation to the remainder of the site problematic. The size of the sample, the preservation of elements such as vertebrae of small petrels, and the good condition of material of apparent natural (non-cultural) origin indicate that the collection represents a good sample of the avifauna used as food by the Polynesian inhabitants of Emily Bay.

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Norfolk Island is one of the "mystery islands" of the South Pacific that has evidence of former human occupation, but which had been abandoned by its Polynesian inhabitants before European discovery (Kirch, 1988). Even the most apparently pristine of these islands usually has evidence of the use of natural resources such as birds, and often of the extinction of a range of bird species (Steadman and Olson, 1985). The ability of such islands to sustain a human population in the long term has been questioned (Kirch, 1988; Anderson, in press), because of the probable scarcity

of food resources. Faunal remains in archaeological sites on the islands can reveal much about the interaction of people and pristine environments.

Norfolk Island is at the southern edge of the sub-tropics. The nearest substantial land masses are Lord Howe Island (900 km to the southwest), New Caledonia (700 km to the north), New Zealand (800 km to the southeast), and the Kermadecs (1300 km to the east): Australia is 1300 km to the west. The Norfolk Island group is so placed that it has an avifauna with links to all the surrounding faunal regions,