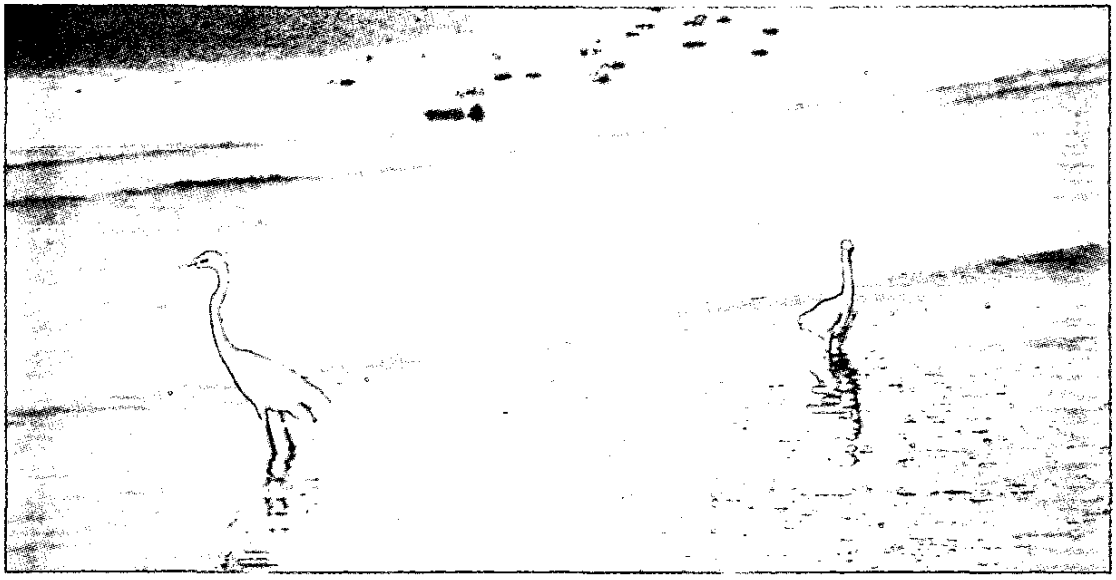

FIGURE 1 — White Heron (left) and white phase Reef Heron, Suva waterfront

The *Egretta alba* sightings were on the Suva waterfront opposite the Government Buildings. On 3 September 1991 I observed and photographed this bird from 0805 to 0830 hours. It was seen (and photographed) again at the same place at 1240 the same day and at 0825 on 6 September 1991. In all, nine satisfactory photographs were obtained and three of these included *Egretta sacra* for comparison.

My description was of a heron much larger than a Reef Heron. Plumage, pure white; bill, yellow right to its base; legs dark, very long; feet not seen (under water); neck much longer than body; curvature uneven. It flew with slow deep wingbeats. These characteristics would seem to distinguish it adequately from *Egretta sacra*, the only other all-white heron on the above Fijian list, and from *Egretta intermedia*, the only "similar species" listed by Pizzey (1980).

LITERATURE CITED

WATLING, DICK. 1982. Birds of Fiji, Tonga and Samoa. Millwood Press, Wellington.
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BRUCE MACKERETH, *3 Harbour Lights Tce, RD2, Whitianga*

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REVIEW

Birds by night, by Graham Martin. T & AD Poyser, London, 1990. ISBN 0 85661 059 3. 227 pp. Price: unknown.

Graham Martin has made extensive studies of vision in nocturnal birds, in particular the tawny owl (*Strix aluco*). In this book he considers all nocturnal birds and discusses how they are able to be active at night. In doing so he provides fascinating details from physics, the natural history and behaviour of birds, and the anatomy and physiology of the senses in birds.

Nocturnal birds include those that are occasionally nocturnal, crepuscular birds (active at dawn and dusk), cave birds and regularly nocturnal birds. For each of these groups examples are given of such birds, their nocturnal activities are described and then the sensory capabilities of the birds are discussed. Occasionally nocturnal birds include some waterfowl and waders. These birds locate their prey using both tactile and taste receptors, and the pits at the tips of the bills that hold the tactile receptors are illustrated in figures and photographs. Many Procellariiformes arrive and leave their nest sites during the night and the means by which they may locate these sites using a variety of auditory, olfactory and visual cues are discussed.

The kiwis (*Apteryx* spp.) are probably the best known of the flightless nocturnal birds, and the book gives a good summary of the few studies of olfaction and vision in kiwis. Kiwis have large olfactory lobes in the brain and one experiment has demonstrated a capability for locating prey by smell. The kakapo (*Strigops habroptilus*) is also mentioned, but nothing is known of the sensory bases of foraging behaviour in this and the other flightless nocturnal parrots (the night and ground parrots; *Geopsittacus occidentalis* and *Pezoporus wallicus*).

The owls are the best studied nocturnal birds. One chapter describes in detail the senses that owls may use at night (echolocation, infrared detection, olfaction, vision and hearing). How owls use these senses in combination with local knowledge is then discussed, and it is suggested that familiarity with an area is an important factor contributing to the ability of owls to forage at night.

The book is well written, although the level of detail makes the book one to consult and read in parts. Many references to original papers are given for further reading. Figures and a few photographs are included, together with sketches of some birds discussed in the text.

The birds discussed in this book are mostly European, reflecting both the origins of the author and the lack of knowledge of the sensory capabilities of most birds. However, the ideas and questions that are presented here about how birds can be active at night are of direct relevance to many New Zealand birds. The kiwi, kakapo and morepork are only the most obvious examples of our nocturnal birds, with many other species that are at least partially nocturnal. This book highlights how little we know about the sensory capacities of New Zealand birds, for example, in relation to feeding, and it is an excellent source of ideas for studies of some of our own birds. "Birds by night" should be held in institutional collections and read by anyone who studies or is interested in a species of bird that is active between dusk and dawn.

J.F. Cockrem