

## BLACK SWAN

On 14 March 1980, in position 40°52'S 176°30'E, which is some 13 miles off Castle Point, a Black Swan (*Cygnus atratus*) was sighted flying out from the coast. It circled the ship once and then headed off in a south-easterly direction — towards the Chatham Islands?

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GIZZARD STRUCTURE OF THE  
PACIFIC PIGEON, *Ducula pacifica*

An error regarding the structure of the gizzard of the Pacific Pigeon (*Ducula pacifica*) has been widely disseminated as a citation (Wood 1924) in the text *Fundamentals of Ornithology* (Van Tyne & Berger 1959: 239). The purpose of this note is to correct that error.

Since the 1800s it has been known that the gizzard of Peale's Pigeon (*Ducula latrans*) of Fiji is peculiarly adapted for processing hard fruit. The interior of the gizzard is typically lined with 23 conical corneous projections about 4 mm high which have "about the density of ox-horn" (Garrod 1878: 103). Garrod noted that a similar adaptation had been described in the Giant Pigeon, *Phaenorhina (Ducula) goliath*, of New Caledonia, a species which is now generally considered a geographical representative of Peale's Pigeon (Amadon 1943: 13; Goodwin 1970: 386, 387).

Wild Fiji nutmegs (*Myristica* sp.) form a major portion of the diet of Peale's Pigeon. Garrod (1878: 104) was informed that the Pacific Pigeon in Samoa also "feeds on nutmegs, from which it is highly probable that in that species the gizzard epithelium is modified in a manner similar to that of the Fiji or New Caledonia species."

In 1923, Wood (1924: 434) attempted to verify Garrod's suggestion. During his visit of about seven months in Fiji, he dissected 21 pigeons which he thought to be Pacific Pigeons, finding the "intestinal tract much the same as that partially described by Garrod" in the Peale's Pigeon. However the pigeons he dissected were in fact Peale's Pigeons rather than Pacific Pigeons. Wood himself later recognized and acknowledged his mistake (Wood 1926: 117), although this retraction was not cited by Van Tyne & Berger (*loc. cit.*). Meanwhile the true structure of the gizzard of the Pacific Pigeon has evidently remained unknown.

In November 1977, on Wakaya Island in the Fiji Group, I dissected the gizzard of a mature male Pacific Pigeon and found that it did not have any trace of the horny projections of Peale's Pigeon as described and figured by both Garrod and Wood. Instead, the gizzard was lined on opposite ends with bulbous uncornified muscle masses. A section of thin wall on either side of the gizzard separated the two muscular areas.

The differences between the gizzards of the Pacific Pigeon and Peale's Pigeon lend support to their placement in different subgroups within the genus *Ducula* (Goodwin 1970: 285, 286).

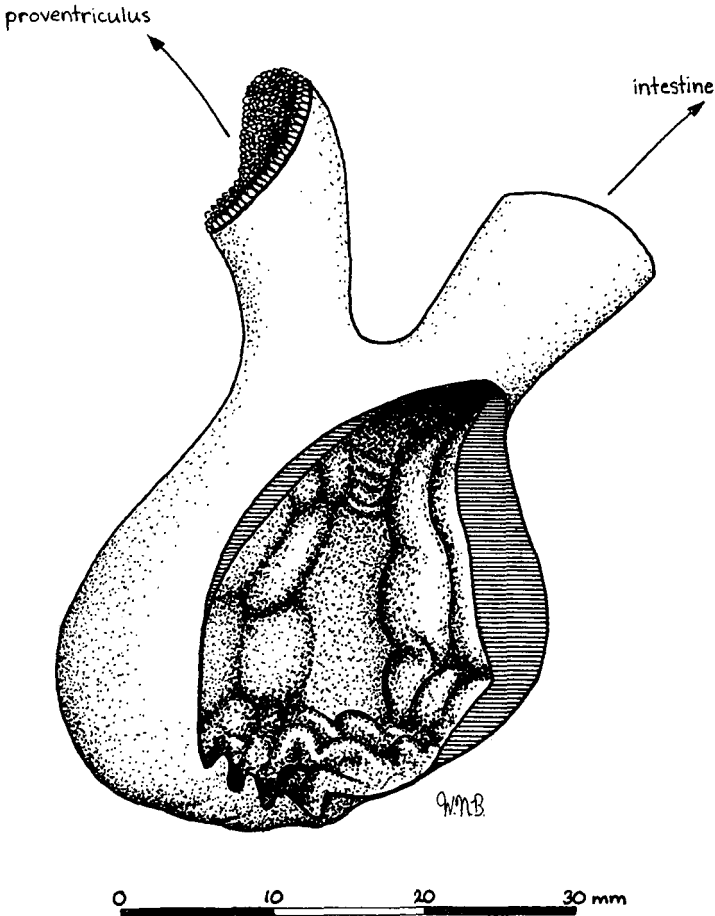


FIGURE 1 — Gizzard of an adult male Pacific Pigeon from Wakaya Island, with a one-quarter section cut away to show the interior.

#### LITERATURE CITED

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