

Most woodpecker damage to poles occurs within the first few years after construction of a line. It is not known how long poles must be in service before the preservative is no longer lethal, but two successful nests were noted in a pole that was 15 to 20 years old. It appears, then, that creosoted poles become satisfactory nest sites for woodpeckers only after a period of weathering reduces the creosote concentration level.

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Independent evolution of the Dodo and the Solitaire.—In the minds of many ornithologists, the extinct Dodo (*Raphus cucullatus*) and Solitaire (*Pezophaps solitarius*) are closely linked: both are thought to have been giant flightless pigeons (e.g. Mayr and Amadon, *Amer. Mus. Novitates*, no. 1496: 34, 1951; Wetmore, *Smithsonian Misc. Coll.*, 139: 28, 1960) and both were found on the Mascarene Islands. This linkage has almost certainly been responsible for these birds having been placed in the same family or superfamily by most authors.

Almost everyone who has had the opportunity to examine skeletons of these two birds has been strongly impressed with the differences between them (for a summary, see Hachisuka, *The Dodo and kindred birds*, London, H. F. & G. Witherby, Ltd., 1953, pp. 43-44). Those who are familiar with the Mascarene Islands are aware of their volcanic nature and remoteness from each other. Rodrigues, the home of the Solitaire, lies 365 miles east of Mauritius, where the Dodo lived. A deep trench, the Rodrigues Fracture Zone, between these islands precludes any former land connection between them. As rafting of a large flightless bird between two such islands is extremely unlikely, we are left with the strong probability that these two birds were independently derived from flying ancestors. If this is so and if the morphological differences between the Dodo and a flying pigeon are sufficiently great to justify family status for the Dodo, then the equally distinct Solitaire, representing a separate phyletic line, must also be accorded family status, whether or not both were derived from the same flying ancestor.

This approach to the relationships of the "didine" birds necessitates a reappraisal of the one or more species said to have occurred on Reunion Island. In his review of the group, Hachisuka (op. cit.) listed a white dodo (*Victoriornis imperialis*) and

a white solitaire (*Ornithoptera solitaria*) from Reunion. The descriptions were based on contemporary reports and figures and were strongly biased by the "linkage" mentioned earlier. Discounting the possibility of rafting between Reunion and Mauritius (95 miles) or Rodrigues (over 450 miles), one must assume that the large white bird or birds of Reunion were no more closely related to the Dodo or the Solitaire than each was to each other. I predict that if and when remains of such birds are found on Reunion, they will prove to be unrelated either to the Dodo or the Solitaire, and I would not be surprised if they proved to be derived from rails or some group other than pigeons. (Descent of the Dodo and Solitaire from rails has already been proposed by Lüttschwager (Zool. Anzeiger, 162: 127, 1959).)

The line of reasoning followed leads to these conclusions: The Dodo of Mauritius and the Solitaire of Rodrigues must be placed in separate monotypic families, the Raphidae and the Pezophapidae, respectively; the large flightless bird (or birds) reported from Reunion must be considered of uncertain taxonomic position until actual remains of it (or them) are found; and anyone investigating the systematic relationships of the Dodo and the Solitaire should consider them independently as separate phyletic lines.

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Canada Goose killed by Arctic Loon and subsequent pairing of its mate.—

On 10 June 1967 at 10:35, while studying small Canada Geese (*Branta canadensis*) at the McConnell River, N.W.T., we witnessed a fatal encounter between a gander and an Arctic Loon (*Gavia arctica*). The gander and his mate arrived on the breeding ground on 4 June. The female immediately began to build a nest 30 meters from an observation tower. Both birds wore coded neck bands (male, ZH; female, ZD).

The gander regularly threatened other geese, Herring Gulls (*Larus argentatus*), and Parasitic Jaegers (*Stercorarius parasiticus*) if they approached the nest island. When an Arctic Loon swam to within 15 meters of the nest island, the gander moved towards it in an offensive posture with wings outstretched. The loon turned towards the gander and for 30 seconds violent splashing and flapping of wings ensued. With difficulty the gander flopped 10 meters toward the nest island, fell in the water near the female, and did not move again.

Dissection revealed a 1 × 0.5 cm hole through the 3 cm thick pectoralis muscle that continued between the first rib and coracoid, through the pulmonary vein, and into the lung for a total distance of 6 cm. As the bill of the Arctic Loon ranges from 49 to 55 mm in length (Palmer, Handbook of North American birds, vol. 1, New Haven, Connecticut, Yale Univ. Press, 1962), this loon's bill must have penetrated for its full length into the gander's body.

Meinertzhagen (Ibis, 5, 14th Ser.: 105, 1941) reports seeing the Common Loon (*Gavia immer*) catching and eating young Eider Ducks (*Somateria mollissima*), but we can find no record of the Arctic Loon killing other birds as food or in defense. Arctic Loons occasionally do nest near nesting Canada Geese. B. C. Lieff (pers. comm.) found a loon and a goose nesting 6 meters apart on the same island in the McConnell River in 1965. We made a similar observation during the summer of 1967.

The mate (ZD) of the dead gander stayed near the nest site all day. At 15:00 she was harassed by a pair of geese that had just arrived in the area (male unbanded,