

Watola, G. 2011. The Discovery of New Zealand's Birds. (3rd Edition in prep.)
Based on: Watola, G. 2009. The Discovery of New Zealand's Birds. (2nd Edition)
Arun Books, Orewa, New Zealand.
Updated and amended text supplied by George Watola, October, 2011.
Page numbers follow Watola, G. 2009 (2nd Edition)
New Zealand giant penguin: pp 258-259.

New Zealand Giant Penguin *Pachydyptes ponderosus* Oliver 1930

FOSSILS

New Zealand's only Tertiary land vertebrate fauna "the St Bathans Fauna" (Worthy et al. 2007), is preserved in 16-19 million year ago, Manuherikia Group sediments, outcropping near the town of St Bathans, Central Otago, South Island.

Worthy (et al.) wrote: "The St Bathans Fauna also includes the first fossil records for a number of iconic Australian "natives", such as the currawong, indicating that trans-Tasman dispersal of fauna has been more common than previously thought.

At least 23 species of birds are represented by bones, and probable moa, by eggshell. Anatids [ducks] dominate the fauna with four genera and five species described as new: a sixth and largest anatid species is represented by just one bone. This is the most diverse Early-Middle Miocene duck fauna known worldwide. Among ducks, two species of dendrochenines [whistling ducks] are most numerous in the fauna, but a tadornine [shelduck] is common as well. A diving petrel is described, so extending the geological range of this genus worldwide from the Pliocene to the Middle Miocene, at least.

The remaining 16 taxa are left undescribed but include: a large species of gull; two small waders, a gruiform [crane] represented by one specimen similar to *Aptornis*; abundant rail bones, including a common flightless rail and a rarer slightly larger taxon, an eagle (?), a pigeon; three parrots; an owlet nightjar, a swiftlet; and three passerine taxa, of which the largest is a member of the Cracticidae [magpie].

The absence of some waterbirds, such as anserines (including swans), grebes and shags among the abundant bones, indicates their probable absence from New Zealand in the Early-Middle Miocene" (Worthy et al 2007).