

whom it had been collected. And although it had been in the museum since at least 1902 there was no indication of when it arrived.

Realising immediately the significance of his find – at 62 cm it was half as long again as the previously largest known gecko, *Rhacodactylus leachianus* of New Caledonia – Delcourt sent photographs of the specimen to various herpetologists hoping for identification. Finally Aaron Bauer and Tony Russell in the United States, specialists in gecko taxonomy, concluded from the external form and X-rays of its skeleton that the large gecko at Marseille was probably a species of *Hoplodactylus*, a genus until then found only in New Zealand.

In 1986 Bauer and Russell formally named the Marseille gecko *Hoplodactylus delcourti*, honouring Alain Delcourt. Since then, *H. delcourti* has generally been regarded as part of the New Zealand fauna and has been closely linked with the kawekaweau of Maori folklore. However, doubts and questions remain about its genealogy and about how and when it got to Marseille.

FROM THE BEGINNING of the colonial period Marseille was the French base for many voyages to this part of the world and most material returning from here would have passed through that port.

The huge gecko may have been obtained by the museum between 1833 and 1869, a period for which all museum records have been lost, or it may have formed part of the founding collection when the museum was established in 1819. Another possibility is that it was acquired by the original director, during a visit to India and the Far East in 1819.

An argument often used by those sceptical of the close link between the Marseille gecko and the kawekaweau, is the apparent absence of skeletal material of a large gecko amongst the relatively well documented sub-fossil faunal remains from New Zealand caves and dunes. Bones of tuatara and many of the larger species of lizards now extinct on the mainland occur at widely distributed sites, yet bones large enough to be from *H. delcourti* had never been recognised.

However, two bones collected in central Otago in the 1870s could be from a gecko of this dimension. One was a reptile jaw bone, similar in size to that from a large tuatara (60 cm) but, instead of being serrations of the jaw itself, the teeth were separate as in lizards. The other was a small curved bone believed at the time to be the rib of a kumi – a large reptile in Maori folklore. The jaw bone

can no longer be found but the “rib” is still in the Canterbury Museum. Re-assessment of this “rib” indicates it is probably a cloacal bone – paired bones occurring in the genitalia of male geckos – which its length (14 mm) suggests came from a gecko about 60 cm long.

AS PART OF the sesquicentennial celebrations in 1990 the National Museum of New Zealand mounted a special exhibition, *The Forgotten Fauna*, focussing on the remarkable New Zealand herpetofauna. After protracted negotiations with the Museum d'Histoire Naturelle de Marseille and the French government, approval was gained to bring *Hoplodactylus delcourti* to New Zealand as the exhibition's centrepiece. The specimen was on display for two months before a multi-disciplinary research effort was mounted to try and work out its age and origin. This research had the makings of a real detective story.

The specimen of *H. delcourti* is what zoologists call a “study skin”. Rather than being preserved as a pickled specimen the animal has been stuffed, but instead of being mounted in a natural posture it is out straight and with its limbs extended. X-rays of the specimen show the skull is

intact and the limbs are present but the vertebral column and ribs are gone. The skin has been tanned and it has had artificial eyes fitted.

Researchers were not allowed to open the specimen so they had to be content with what could be gleaned from the outside or from X-rays.

First to check out the specimen were National Museum taxidermist Noel Hyde, and Rose Evans and Valerie Carson of the museum's Conservation Unit. In their opinion the animal had clearly been prepared by a trained taxidermist.

From his knowledge of the history of taxidermy Noel believes the mount was prepared early in the 19th century. Earlier taxidermy techniques on small animals involved leaving their skeletons more or less intact to frame up the mount. Later techniques used elaborate wire or wood frameworks for the same purpose (X-rays show there is no wire or wood in this specimen), and usually involved the removal of most of the skull and all limb bones except for the toes. The artificial eyes lack the detail of the realistic glass eyes that became common-place in taxidermy by the middle of last century. The thread is 2-ply linen that would have been widely available through the 19th century.



The shape of the *H. delcourti* specimen and the scales on the head and feet are remarkably similar to those of the other geckos in New Zealand and the main reasons for its placement in the endemic New Zealand genus *Hoplodactylus*.