

Long lost monitor lizard 're-discovered' on Papua New Guinean island

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Varanus douarrha. Credit: Valter Weijola

Scientists have recently found and re-described a monitor lizard species from the island of New Ireland in northern Papua New Guinea. It is the only large-growing animal endemic to the island that has survived until modern times. The lizard, *Varanus douarrha*, was already discovered in



the early 19th century, but the type specimen never reached the museum where it was destined as it appears to have been lost in a shipwreck.

The discovery is particularly interesting as most of the endemic <u>species</u> to New Ireland disappeared thousands of years ago as humans colonized the island.

The monitor was discovered during fieldwork by Valter Weijola from the Biodiversity Unit of the University of Turku, Finland, who spent several months surveying the monitor <u>lizards</u> of the Bismarck Islands. It can grow to over 1.3 metres in length and, according to current information, it is the only surviving large species endemic to the island. Based on bone discoveries, scientists now know that at least a large rat species and several flightless birds have lived in the area.

- In that way it can be considered a relic of the historically richer fauna that inhabited the Pacific islands. These medium-sized Pacific monitors are clearly much better at co-existing with humans than many of the birds and mammals have been, says Weijola.

French Naturalist Discovered the Species in 1823 -Lost in Shipwreck

Scientists have known for a long time that there are monitor lizards on the island but it has been unclear which species they belong to. French naturalist René Lesson discovered the monitor lizard when visiting the island with the La Coquille exploration ship in 1823, and later named the species *Varanus douarrha* which, according to Lesson, means monitor lizard in the local Siar-Lak language.





Varanus douarrha. Credit: Valter Weijola

However, it seems likely that Lesson's specimen was destroyed on the way to France as the ship that was carrying it shipwrecked at the Cape of Good Hope in 1824. Therefore, biologist never had a chance to study the so called holotype - or name-bearing specimen.

- Since then, it has been believed that the monitor lizards on New Ireland belong to the common mangrove monitor (Varanus indicus) that occurs widely in northern Australia, New Guinea and surrounding islands. However, new morphological and genetic studies confirmed that the monitor lizards of New Ireland have lived in isolation for a long time and developed into a separate species, says Weijola.



The discovery was published in the *Australian Journal of Zoology* and where *Varanus douarrha* was re-described in detail, and given a new name bearing specimen.

Another monitor lizard, Varanus semotus, was described from Mussau Island last year by the same team of scientists.



The island of New Ireland. Credit: Valter Weijola

- Together, these two species have doubled the number of <u>monitor lizard</u> species known to occur in the Bismarck Archipelago and proved that there are more endemic vertebrates on these islands than previously



believed, says Weijola.

Monitor lizards are important predators and altogether approximately 90 different species are known to live in Africa, Asia, Australia and the Pacific islands. Most monitor lizards occur in Australia and on the Pacific islands where there are few mammalian predators. Despite their large size, many of the species are poorly known and new ones are regularly discovered. Most of them stay out of sight and inhabit remote areas which are difficult to access.

More information: Valter Weijola et al, Reinstatement of Varanus douarrha Lesson, 1830 as a valid species with comments on the zoogeography of monitor lizards (Squamata:Varanidae) in the Bismarck Archipelago, Papua New Guinea, *Australian Journal of Zoology* (2017). DOI: 10.1071/ZO16038

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