

A beautiful species of tree iguana redescrbed 179 years after its discovery

April 23 2013



This is an adult specimen of *Liolaemus nigromaculatus* from surroundings of Puerto Viejo. Credit: Jaime Troncoso-Palacios

Tree iguanas ([Liolaemus](#)) are one of the most diverse genus of lizards in the world with 230 described species. Within these, *Liolaemus nigromaculatus* - the second described species of the genus *Liolaemus* - is usually mentioned in field guides, project baselines, scientific articles,

reviews and even is the nominal species of the lizard group *nigromaculatus*... but always the same question is repeated: Which is this species and which is its type locality?

After a long and comprehensive investigation, two Chilean [biologists](#), Jaime Troncoso-Palacios, Universidad de Chile and Carlos F. Garin, Pontificia Universidad Católica de Chile, clear the mysteries around the species, demonstrating that the tree iguana *L. nigromaculatus* was in fact described with a juvenile male of the species, currently known as *L. bisignatus*. This specimen was collected in Chile by the doctor and naturalist [Franz Julius Ferdinand Meyen](#) on his journey around the world during 1830-1832. Although he describes in detail his journey in one of his books, peculiarly this information was never used in an attempt to clarify the provenance of the species. In fact, there is currently broad consensus that the type locality is Huasco (northern Chile), a locality never visited by Meyen!



This image shows *Liolaemus atacamensis* a sister tree iguana species from the *Liolaemus* genus Credit: Jaime Troncoso-Palacios

"For first time, we have been able to identify the area in which Meyen collected *L. nigromaculatus*. We have established through Meyen's own writings and the study of the [species](#) of *Liolaemus* that inhabit in the localities that he visited that the tree iguana *L. nigromaculatus* was collected in the transect or surroundings between Puerto Viejo and Copiapó, in Atacama (Chile)", explains Jaime Troncoso-Palacios.

For the characterization of the [holotype](#) of *L. nigromaculatus*, the authors used high resolution digital photographs provided by Mr. Frank Tillack (Museum für Naturkunde). Use of digital pictures of type specimens has

proved to be a powerful and useful tool for clarifying confusing taxonomic issues. The study was published in the open access journal *ZooKeys*.

More information: Troncoso-Palacios J, Garin CF (2013) On the identity of *Liolaemus nigromaculatus*. Wiegmann, 1834 (Iguania, Liolaemidae) and correction of its type locality. *ZooKeys* 294: 37, [doi: 10.3897/zookeys.294.4399](https://doi.org/10.3897/zookeys.294.4399)

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