

# Scaly gem discovered in South American cloudforests

May 21 2014

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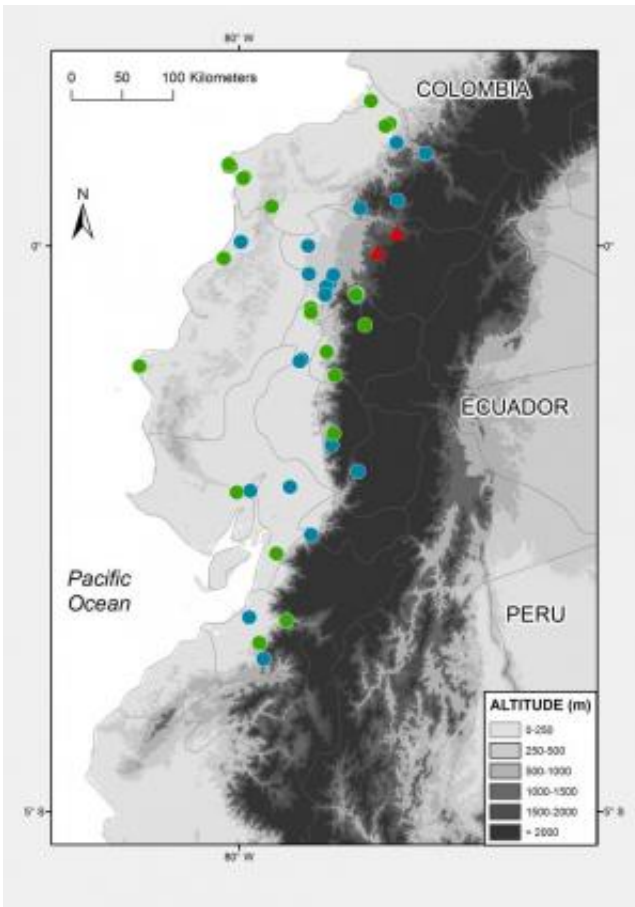
This is a live male of the new species of shade lizard, *Alopoglossus viridiceps*. Its body length is about 2 inches. Credit: Torres-Carvajal

Field and laboratory work by Omar Torres-Carvajal from Museo de Zoología QCAZ, Pontificia Universidad Católica del Ecuador, and his former undergraduate student Simón Lobos has resulted in the discovery of a gem-looking new species of shade lizard from the cloudforests in northwestern Ecuador. This region is part of the 274,597 km<sup>2</sup> Tumbes-Chocó-Magdalena hotspot that lies west of the Andes. The study was published in the open access journal *ZooKeys*.

Shade lizards (genus *Alopoglossus*) are widely distributed across tropical South America. They differ from most other lizards in having their tongues covered by folds instead of scale-like papillae. Shade lizards are generally brown leaf-litter dwellers that live on both sides of the tropical Andes. The unusually brightly coloured [new species](#) described by Torres-Carvajal and Lobos was named *Alopoglossus viridiceps* and increases to seven the number of [species](#) of this group of lizards, six of which live in Ecuador.

Lizards collected as far back as 1977 and deposited in Museo de Zoología QCAZ were examined. The authors were soon surprised with an interesting finding. Some individuals collected during the last five years, mostly at the Santa Lucía Cloud Forest Reserve in northwestern Ecuador, had a metallic greenish head and an orange belly.

Other features like numbers of scales, as well as DNA evidence, indicated that these cloudforest lizards actually belong to a new species. DNA data also suggest that its closest relative is *Alopoglossus festae*, a species that inhabits the Pacific lowlands of Colombia and Ecuador.



This is a map showing the distribution of *Alopoglossus viridiceps* (triangles) and its closest relative *Alopoglossus festae* (circles) in Ecuador. Credit: Torres-Carvajal & Lobos

'Simón Lobos and I have been working on shade lizards since 2010, and we have preliminary data suggesting that the widespread Pacific shade lizard, *Alopoglossus festae*, might actually represent several species new to science. The same pattern of "hidden diversity" applies to the Amazonian species. Therefore, the diversity of shade [lizards](#) has been underestimated. We are presently working on papers to share these discoveries with the scientific community' said Dr. Torres-Carvajal.

**More information:** Torres-Carvajal O, Lobos SE (2014) A new

species of *Alopoglossus* lizard (Squamata, Gymnophthalmidae) from the tropical Andes, with a molecular phylogeny of the genus. *ZooKeys* 410: 105–120. [DOI: 10.3897/zookeys.410.7401](https://doi.org/10.3897/zookeys.410.7401)

Provided by Pensoft Publishers

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