



# Article

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## Two new species of geckos from Honduras and resurrection of *Sphaerodactylus continentalis* Werner from the synonymy of *Sphaerodactylus millepunctatus* Hallowell (Reptilia, Squamata, Gekkonoidea, Sphaerodactylidae)

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### Abstract

We performed a morphological and molecular study on various Honduran populations of the *Sphaerodactylus millepunctatus* complex. As a result, we resurrect *S. continentalis* from the synonymy of *S. millepunctatus* and describe two new species from the Islas de la Bahía. Our results also suggest the possibility that other cryptic species might occur in our concept of *S. continentalis*.

**Key words:** *Sphaerodactylus millepunctatus* complex, Honduras, *Sphaerodactylus leonardovaldesi* sp. nov., *Sphaerodactylus guanajae* sp. nov., morphology, mtDNA, 12S, cytochrome b

### Introduction

Harris & Kluge (1984) provided an excellent review of the geckos of the genus *Sphaerodactylus* of Middle America. In that review, those authors considered *S. millepunctatus* Hallowell to range from Oaxaca, Mexico, to northern Costa Rica, with populations also occurring on Cozumel Island, Quintana Roo, Mexico, the Honduran Bay Islands (Islas de la Bahía), and Great Corn Island, Nicaragua. Harris & Kluge (1984: 23) noted “Mexican specimens of *S. millepunctatus* were found to have substantially higher dorsal scale counts than those from Costa Rica.” Harris & Kluge (1984) attributed those dorsal scale size differences to a clinal increase in dorsal scale sizes from north (in Mexico) to south (in Costa Rica). However, Harris & Kluge (1984) lacked specimens of *S. millepunctatus* from between Barranco, Colón, Honduras, and Musawas, Atlántico Norte, Nicaragua. Although a distance of only ca. 200 km separates those two localities, that hiatus represents the Mosquitia lowlands of northeastern Honduras and adjacent northeastern Nicaragua. The Mosquitia region of northeastern Honduras contains 17 species of snakes (McCranie 2011a, 2011b; Cadle 2012) not known elsewhere in Honduras, with all but three of those species ranging southward to at least northern Costa Rica. Also, six species of lizards and turtles are also known only in Honduras from the Mosquitia lowlands (McCranie unpub. data), all of which also range southward to at least northern Costa Rica. While examining specimens of *S. millepunctatus* from throughout Honduras, JRM independently noted that specimens of that nominal form from the Mosquitia lowlands had larger dorsal scales similar to the counts for those specimens from Costa Rica provided by Harris & Kluge (1984).

Harris & Kluge (1984) also noted that specimens they assigned to *Sphaerodactylus millepunctatus* from Roatán Island in the Honduran Bay Islands differed from all other *S. millepunctatus* they examined in having indefinite dark speckling and short pale dorsolateral lines that pass above the pelvic area and then curve slightly inward on the base of the tail. All subsequently collected Roatán specimens of the *S. millepunctatus* complex that were seen in life had a muted dorsal pattern of dark flecks and usually indistinct dark lines on the head and a short pale pelvic line. That pattern is also visible in the majority of the Roatán preserved specimens examined for this