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Museum of Comparative Zoology

US ISSN 0006-9698

CAMBRIDGE, MASS. 7 JUNE 2021 NUMBER 570

THE ANOLES OF LA SELVA: NICHE PARTITIONING AND ECOLOGICAL MORPHOLOGY IN A MAINLAND COMMUNITY OF *ANOLIS* LIZARDS

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ABSTRACT. Describing the relationships among morphology, behavior, and ecology is central to understanding the processes of evolutionary diversification. *Anolis* lizards are an excellent group for studying such ecomorphological relationships. Extensive research on anole ecological morphology has been conducted in the Caribbean, where sympatric species have repeatedly and convergently evolved to partition habitat through differential perch use. Six ecomorphs have been described, each with particular behavioral, morphological, and ecological characteristics well-suited for the microhabitat it occupies. However, little research has been conducted in mainland Central or South America, and a few case studies suggest that mainland anoles may not conform to the ecomorph classes recognized for Greater Antillean anoles. In this study, we examine the ecological morphology of sympatric mainland species of *Anolis* in a tropical lowland rainforest in Costa Rica and compare these species to the Caribbean ecomorphs. Our results show overlapping niches and substantial variability in habitat use across many species. Moreover, the relationship between relative hindlimb morphology and habitat use in *Anolis humilis* and *Anolis limifrons* does not conform to that of Caribbean species. Predation and fluctuating environmental conditions likely structure morphological variation differently in the mainland, leading the independent radiation of mainland anoles to produce divergent ecomorphological relationships compared with the Caribbean islands.

KEY WORDS: ecomorphology; *Anolis*; community structure; niche partitioning; microhabitat; ecology; mainland; adaptive radiation

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US ISSN 0006-9698

CAMBRIDGE, MASS. 17 AUGUST 2021 NUMBER 571

A SMALL NEW ARBOREAL SPECIES OF WEST INDIAN BOA (BOIDAE; *CHILABOTHRUS*) FROM SOUTHERN HISPANIOLA

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ABSTRACT. Thirteen species of West Indian boas (*Chilabothrus*) are distributed across the islands of the Greater Antilles and Lucayan Archipelago. Hispaniola is unique among this group of islands in having more than two species of *Chilabothrus*—three are currently recognized. Here we describe a fourth species from Hispaniola, a newly discovered distinctive species of small boa from the dry forest of the Barahona Peninsula, southwestern Dominican Republic, near the border with Haiti. This new species resembles in body size and in other aspects its closest relative *Chilabothrus fordii* (Günther 1861), with which it appears to be allopatric. The new species, which we describe as *Chilabothrus ampelophis* **sp. nov.**, differs from *C. fordii* in body, head, and snout shape; in scalation; in both coloration and color pattern; and in phylogenetic uniqueness. Some relevant meristic characters from *C. ampelophis* **sp. nov.** fall between *C. fordii* and *C. gracilis* (Fischer 1888), accentuating the morphological and likely ecological differences from its sister species *C. fordii*. The discovery of this new species is especially important as it appears to be among the smallest boid (Boidae) species, has an arboreal specialization, and is found in a very restricted and highly threatened habitat.

RESUMEN. Trece especies de boas de las Indias Occidentales (*Chilabothrus*) se distribuyen a lo largo de las islas de las Antillas Mayores y el archipiélago de las Lucayas. La Hispaniola es única entre este grupo de islas por tener más de dos especies de *Chilabothrus*—tres se reconocen actualmente. Describimos una cuarta especie, una boa pequeña recientemente descubierta, y fácilmente reconocible, del bosque seco de la península de Barahona, en el suroeste de la República Dominicana próximo a la frontera con Haití. Esta nueva especie se asemeja en tamaño corporal y otros aspectos a su pariente más cercano *Chilabothrus fordii* (Günther 1861), de la cual aparentemente es alopátrica. La nueva especie, la cual describimos como *Chilabothrus ampelophis* **sp. nov.**, se diferencia de *C. fordii* en las formas del cuerpo, cabeza y hocico, en escamación, y tanto en coloración de fondo como en el patrón de color. Algunos

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