

## INTRODUCED SPECIES

## The Collared Tree Lizard, Plica plica (Tropiduridae), on Grenada

Robert W. Henderson<sup>1</sup> and John C. Murphy<sup>2</sup>

<sup>1</sup>Milwaukee Public Museum, Milwaukee, Wisconsin 53233, USA (henderson@mpm.edu) <sup>2</sup>Field Museum of Natural History, Chicago, Illinois 60605, USA (fordonia@comcast.net)

The tropidurid lizard *Plica plica* has a broad distribution on the South American mainland east of the Andes and throughout most of Amazonia, the Guianas, and eastern Venezuela, as well as on Trinidad (Avila-Pires 1995). It is a diurnal inhabitant of primary and secondary forests (including forest edges) and usually is found on large tree trunks, often with smooth bark and larger than 0.5 m in diameter (Vitt 1991), at heights from close to ground level to 13.0 m (Vitt 1991, Avila-Pires 1995). Its diet consists largely of ants (Vitt 1991), but a wide variety of other insects also is taken (Avila-Pires 1995).

One of us (JCM) recently encountered specimens of *P. plica* in the British Museum of Natural History (BMNH) that were ostensibly collected on the West Indian island of Grenada. As no previous records documented the presence of this relatively large lizard (males to 177 mm SVL, females to 151 mm SVL; Vitt 1991) on Grenada, we were surprised at this discovery. The BMNH lizards occur in two lots: BMNH



**Fig. 1.** Specimens of *Plica plica* (BMNH 67.5.4.1–2) supposedly collected on Grenada. Photograph courtesy of Patrick Campbell.

67.5.4.1–2 (an adult and juvenile; Fig. 1) and 67.5.4.3 (a single adult or subadult). Although exact collecting dates are unknown, the specimens have been in the museum since at least 1867. The only data associated with the specimens are "island of Granada estuaries" (note misspelling of Grenada) and that they were purchased from "Mr. Higgins" (P. Campbell, in litt., 18 July 2012). If not for the "island of" designation, we might attribute the specimens to having originated in Colombia, but we are unaware of any island named Granada, and certainly not in the American tropics.

Only the Grand Etang Forest Reserve retains what would likely be suitable habitat for *Plica plica*, although additional areas of the island historically would have supported forest with trees of suitable size. One of us (RWH) and his colleagues have cumulatively spent hundreds of hours in the Grand Etang Reserve and elsewhere on the island by day and night and have not encountered *Plica*. Furthermore, we have found no early references to suggest that *Plica* occurred on Grenada. Scale counts on BMNH 67.5.4.1 suggest the specimen is most similar to material from the Guiana Shield (Murphy, in prep.), not from more geographically proximal Trinidad. A similar situation was found within the treeboa genus Corallus. Utilizing molecular data, Henderson and Hedges (1995) found that samples from St. Vincent and Grenada clustered more closely with a sample from Guyana rather than one from Trinidad.

As the specimens were collected in an estuarine habitat, we cannot rule out the possibility of several *Plica* occurring on Grenada for an ephemeral span of time (i.e., waifs), perhaps the result of an overwater dispersal under hurricane or hurricane-like conditions, or as hitchhikers on a boat or ship traveling from South America. Nevertheless, we think that the presence of a reproducing population of *P. plica* currently or formerly on Grenada is unlikely. As suitable habitat still exists on Grenada and since *P. plica* is neither rare nor inconspicuous where it does occur, we suspect that these specimens arrived at the BMNH with erroneous locality data.

## Acknowledgement

We are grateful to Patrick Campbell for providing information on the Grenada *Plica* and for the accompanying photograph.

## Literature Cited

Avila-Pires, T.C.S. 1995. Lizards of Brazilian Amazonia (Reptilia: Squamata). Zoologische Verhandelingen 299:1–706.

- Henderson, R.W. and S.B. Hedges. 1995. Origin of West Indian populations of the geographically widespread boa *Corallus enydris* inferred from mitochondrial DNA sequences. *Molecular Phylogenetics and Evolution* 4:88–92.
- Murphy, J.C. In preparation. The cryptic lizards of the *Plica plica* Group (Squamata, Sauria, Tropiduridae) in northern South America, with the description of new species.
- Vitt, L.J. 1991. Ecology and life history of the scansorial arboreal lizard *Plica plica* (Iguanidae) in Amazonian Brazil. *Canadian Journal of Zoology* 69:504–511.