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New record of the snake *Drymobius chloroticus* (Cope, 1886) (Squamata: Colubridae) from Hidalgo, Mexico

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ABSTRACT: We report the first record of the snake *Drymobius chloroticus* (Cope 1886) from Hidalgo State, Mexico. This new record is based on a single juvenile male specimen collected in the municipality of Tepehuacán of Guerrero, Hidalgo. This report fills a gap between the closest localities airline 490.1 km² ca. NW in Los Tuxtlas, Veracruz, and airline 42.7 ca. km² SE in the vicinity Xilitla, San Luis Potosí, Mexico.

Stuart (1932, 1933) recognized four species in the colubrid genus *Drymobius*, placed by Wilson (1970) into three groups on the basis of color pattern: the *margaritiferus* group (*D. margaritiferus*), the *rhombifer* group (*D. rhombifer*), and the *chloroticus* group (*D. chloroticus* and *D. melanotropis*). *Drymobius chloroticus* ranges from Central America to central Mexico (Villa *et al.* 1988), reaching as far north as Xilitla, San Luis Potosí. The range to extend southeastward to Los Tuxtlas, Veracruz (Figure 1), and to Oaxaca and Chiapas states on the Pacific slopes (Smith and Taylor 1966; Wilson 1970; Pérez-Higareda *et al.* 2007). Like all members of the genus, *D. chloroticus* is a medium-sized diurnal snake, found near

streams and lakes in areas with abundant vegetation. This species is distributed widely across humid tropical environments in Mexico and Guatemala (Wilson 1970; Wilson and Johnson 2010), and given its occurrence in the adjacent states of San Luis Potosí and Veracruz, it might be expected to occur within Hidalgo as well. However, no documented observations of this species within Hidalgo have yet been published.

During routine field work on 5 October 2011 at 14:30 h, we found a young male (CIB-4187) of *D. chloroticus* (Figure 2) in a cloud forest habitat located in the municipality of Tepehuacán of Guerrero (20°00'02.259" N; 98°00'00.862" W, 1480 m), Hidalgo, Mexico. The specimen was collected

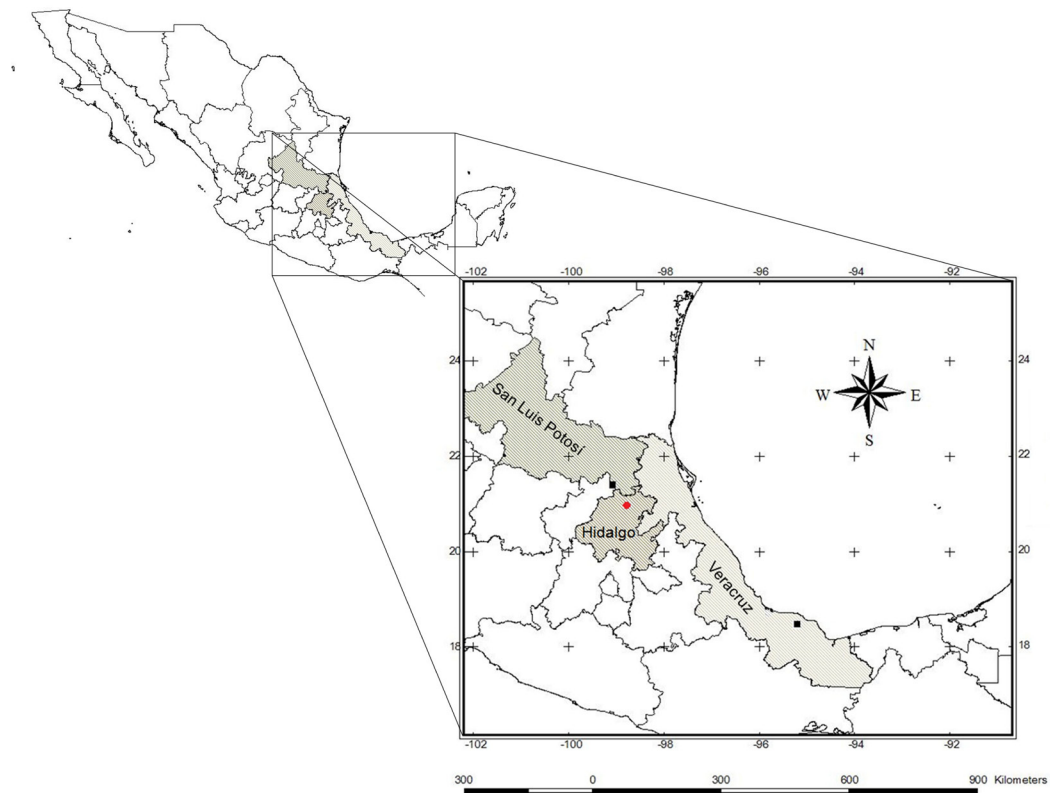


FIGURE 1. Distribution of *Drymobius chloroticus* in eastern Mexico. Black squares show closest previous records, in Los Tuxtlas, Veracruz, and Xilitla, San Luis Potosí, and the red circle shows the new record in Tepehuacán of Guerrero, Hidalgo, Mexico.

under approved scientific permit from SEMARNAT (# SGPA/DGVS/02726/10). The specimen has a SVL of 272.9 mm, and a total length (TL) of 408.3 mm. The main morphological characteristics of the snake include 2 internasal scales, 2 prefrontals, 1 frontal, 1-1 supraoculars, 1-1 parietals, 1-1 loreals, 1-1 preoculars, 2-2 postoculars, 1-1 anterior temporals, and 1-1 posterior temporals (Cope 1886). The dorsal scales are 17-17-15 in arrangement; the ventrals are 153, and the subcaudals 118. This snake has a long and slender body, with a tail about 33% of the TL. The dorsal color pattern in yellow-brown with 23 dark patches on the vertebral and lateral regions of the body, the ventral surface is cream in color, as has been described in young *D. chloroticus* from other populations (Wilson 1970). This pattern has been observed in adult specimens from San Luís Potosí and Oaxaca (Lemos-Espinal and Dixon 2013).



FIGURE 2. *Drymobius chloroticus* (subadult male) from the Municipality of Tepehuacán of Guerrero, Hidalgo, Mexico. Photo by Christian Berriozabal Islas.

Our record of *D. chloroticus* fills a significant gap between the closest localities ca. 490.1 km² NW Los Tuxtlas, Veracruz and ca. 42.7 km² SE Xilitla, San Luis Potosí, Mexico (Figure 1). The snake was collected on leaf litter in cloud forest (Figure 3A). Known prey items for this species elsewhere in its range consist of amphibians and lizards (Wilson, 1970; Pérez-Higareda et al., 2007; Lemos-Espinal and Dixon, 2013). This species is sympatric with the lizards *Anolis naufragus*, *A. petersii*, and *A. lemurinus*, and with the amphibians *Craugastor loki* and *C. rhodopis*, any of which could be potential prey for this snake. Nevertheless, this snake is apparently very rare in Hidalgo, as we have encountered only one specimen (Figure 2) across a 10-year period of extensive survey work in the state.

This first record of *D. chloroticus* represents an increase in the species diversity of snakes for Hidalgo (Ramírez-Bautista et al. 2010; Berriozabal-Islas et al. 2012), with 81 species now confirmed. The record of this species and the serpent *Chersodromus rubriventris* (Ramírez-Bautista et al., 2013) found in Tepehuacán of Guerrero, Hidalgo are important for conservation of cloud forest (Figure 3B), because in this vegetation type converge species of Neartic and Neotropical affinity (Challenger and Soberón 2008; Johnson et al. 2010). At the present time, *D. chloroticus* is not considered within the Mexican normativity for their

protection, while for the IUCN Red List is considered as under minor concern, however, the habitat of this species is strongly threatened by a variety of human activities, such as cattle ranching and other agricultural activities in the habitat in which they live (Challenger 1998). The state of Hidalgo still retains large tracts of cloud forest, considered priorities for conservation (Rzedowski 1978; CONABIO 2010), and it is necessary to create multidisciplinary strategies that promote good management of this ecosystem (Berker 2003).



FIGURE 3. (A) Landscape of cloud forest in the Municipality of Tepehuacán of Guerrero, Hidalgo. (B) Cloud forest habitat where *D. chloroticus* was found. Photos by Luis Manuel Badillo Saldaña

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