

## Catalogue of American Amphibians and Reptiles.

Smith, H.M. and D. Chiszar. 2001. *Pliocercus andrewsi*.

***Pliocercus andrewsi* Smith**  
Andrews' False Coral Snake

*Pliocercus andrewsi* Smith 1942:162. Type locality, "Libre Unión, Yucatán." Holotype, Field Museum of Natural History (FMNH) 36323, an adult female, collected by E.W. Andrews, 15 November 1939 (examined by authors).

*Pliocercus aequalis* (nec Salvin): Maldonado-Koerdell 1953: 132.

*Pliocercus andrewsi andrewsi*: Smith and Chrapliwy 1957:233. *Pliocercus andrewsi*: Müller 1973:18 (*lapsus calami* without nomenclatural status).

*Pliocercus elapoides* (part): Greene and McDiarmid 1981:1211. *Urotheca elapoides* (part): Savage and Crother 1989:356.

*Pliocercus b[icolor]. andrewsi*: Smith and Chiszar 1996: 75 (typographical error).

• **CONTENT.** No subspecies are recognized.

• **DEFINITION.** *Pliocercus andrewsi* is a small colubrid snake in the tricolor *P. elapoides* complex, with a maximum recorded TL = 550 mm (UCM 40685, estimated; SVL 320 mm., tail incomplete, female). The tail is 38–42% of TL (61–82% of SVL). Scalation is as follows: invariably 8 supralabials; infralabials 8–10 (50% 9, 42% 10, 8% 8;  $N = 24$ ), with the most posterior infralabial separated from most posterior labiogenial; preoculars 2–2, except one specimen with 1–2 ( $N = 13$ ); postoculars always 2 ( $N = 13$ ); temporals 1–1–2, except 1–2–3 on one side of one individual ( $N = 13$ ). Ventral scutes number 120–128 in males ( $\bar{x} = 125$ ,  $N = 4$ ), 128–137 in females ( $\bar{x} = 132$ ,  $N = 10$ ). Subcaudal numbers are uncertain in males (none observed with a complete tail), 98–105 in females ( $N = 4$ ).

The parietal pale ring is 40–100% of the length of the parietals, and involves the tip of the frontal, or the postoculars, or the occipitals, or combinations thereof, in 38% (5 of 13) of



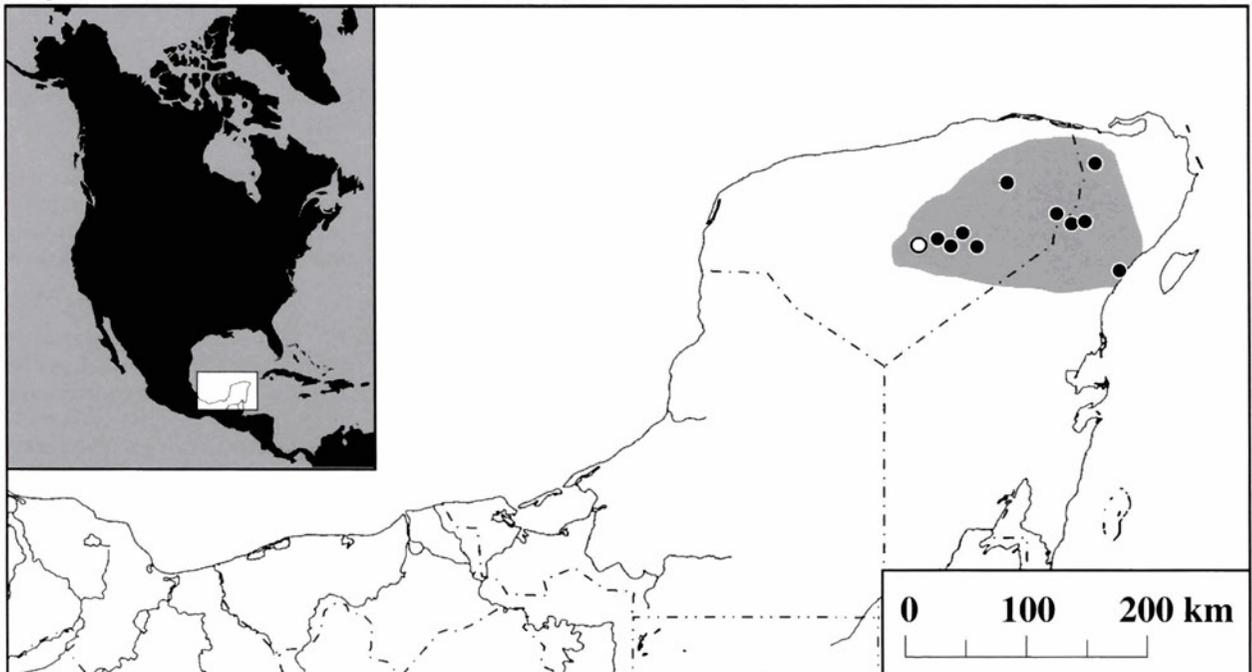
FIGURE 1. *Pliocercus andrewsi* from 19.6 km S Kantunilkin, Quintana Roo, México (from Lee 1996).



FIGURE 2. Pattern of *Pliocercus elapoides alienus* (UCM 40686), from X-can Nuevo, Quintana Roo, México, in sympatry with *P. andrewsi* (from Roze 1996).



FIGURE 3. *Micrurus diastema alienus* from 18.9 km S Kantunilkin, Quintana Roo, Mexico; the rare aberrant pattern resembles that of *P. andrewsi* (from Lee 1996).



MAP. Distribution of *Pliocercus andrewsi*; compare the range with that of *P. elapoides aequalis* on the Yucatán Peninsula (Smith and Chiszar 2001).

specimens. The nuchal ring is usually (86%, 12 of 14) incomplete ventrally, 8–11 scales long on median or paramedian lines. Black rings on the body number 5–7; these rings are 50–100% as long as the longest pale intervals and 65–125% as long as the shortest interval. Black rings on complete tails number 4–5; both black rings and pale interspaces on the tail are at least 8 subcaudals long. Secondary black rings are absent on body and tail. Yellow rings are 0.5–2.5 dorsal scales long near the midline. Dorsal scales in red zones are black-tipped, and 22–57 ventrals are at least 2/3 black ( $\bar{x}$  = 36,  $N$  = 14).

• **DIAGNOSIS.** *Pliocercus andrewsi* differs from all other species of the genus, except *P. bicolor*, in the combination of 5–7 black rings on the body that are 50–125% of the length of the pale interspaces. *Pliocercus bicolor* rarely (1 in 55) has as few as 7 black rings on the body equally as long as those of *P. andrewsi*, and differs also in having the posterior infralabial fused with the second labiogenial. In addition, *P. andrewsi* differs from the *P. euryzonus* complex (*P. dimidiatus*, *P. euryzonus*) in having tricolor rings. All other congeners have either more numerous black rings on the body or, if equally few, black rings that are much shorter than half the length of the pale interspaces.

• **DESCRIPTIONS AND ILLUSTRATIONS.** Only three descriptions (Smith 1942, Duellman 1965, Smith and Chiszar 1996) explicitly of this species have been published. An unpublished description was included in a dissertation by A.K. Smith (1969). Smith and Chiszar (1996) included black-and-white photographs of the dorsum and venter.

The account in Lee (1996) on material from the Yucatán Peninsula does not distinguish *P. andrewsi* from *P. elapoides*; the illustration on p. 387 (fig. 193) is of the latter species, and the color figure (fig. 393) is of *P. andrewsi*. The same illustrations were included in Lee (2000). A color figure is in Greene and McDiarmid (1981: 1209, fig. 1C), although the species was not named.

• **DISTRIBUTION.** *Pliocercus andrewsi* inhabits the humid zone in the eastern part of the Yucatán Peninsula at a level with Cozumel Island and northward.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** This species was mentioned without significant new information in Bahena-Basare (1994), Bartlett (1988), Flores and Gerez (1988, 1994), Flores and McCoy (1993), Johnson (1989), Martín del Campo (1945), Marx (1958), Smith et al. (1989), Smith and Smith (1976, 1993), Smith and Taylor (1945, 1950), and Villa et al. (1988). Nothing has been recorded on its natural history.

• **REMARKS.** No *Micrurus* model regularly resembling *P. andrewsi* exists within or near the range of the latter species, although Greene and McDiarmid (1981) regarded *P. andrewsi* (illustrated but not named) as a mimic of *M. diastema*. The only *Micrurus* species in the Yucatán Peninsula is *M. diastema*, represented within the range of *P. andrewsi* by *M. d. alienus*. *Micrurus diastema alienus* typically has relatively numerous, narrow black rings, and is mimicked by *P. elapoides aequalis*. Rare individuals of *M. d. alienus* within or near the range of *P. andrewsi* somewhat resemble the latter species, suggesting that the model possibly may be *P. andrewsi* (Mertensian mimicry). Consequently, *P. andrewsi* may be on an evolutionary tangent completely independent of the influence of sympatric coral snakes. The extremely high frequency of incomplete tails (higher than in any other species of the genus) may well be a result of the absence of a supplementary model.

Although Savage and Crother (1989) synonymized *P. andrewsi* with the senior name *P. elapoides*, they apparently did so primarily on the basis of an overlap in the number of black rings on the body in the two species, noting that, although *P. andrewsi* has 5–7, eight occur occasionally in *P. elapoides*, and one individual was recorded with seven. Smith and Chiszar (1996) also recorded *P. elapoides* with as few black rings on the body as *P. andrewsi*, two specimens having six and one having seven, and some with two (none observed with 3–5). However, the number of black rings on the body does not distinguish the two species; instead, the presence on the body of 5–7 black rings, all at least 50% as long as the pale interspaces (and up to 125% as long) is diagnostic. No other taxon of the genus exhibits that combination except for one known example of *P. bicolor*, which is distinguished by other characters. The few *P. elapoides* with seven or fewer black rings have pale interspaces several times as long as the black rings (Smith and Chiszar 1996). Furthermore, 6 or 7 (no fewer) black rings occur on body in no more than 4% of *P. e. elapoides*, *P. e. aequalis*, and *P. e. occidentalis* ( $N$  = 176), and in only 13% of *P. e. diastema* ( $N$  = 159). Four of the six recorded specimens of *P. e. wilmarai* have only two black rings or saddles; the other two specimens have ten or more.

As indicated in Lee (1996), the range of *P. elapoides* in the Yucatán Peninsula is restricted largely to its base south from the level of the Laguna de Términos and mid-Belize. However, at least four specimens (MCZ 26836, 26843, and FMNH 41223 from Chichen Itzá, Yucatán, and CAS 154138 from 16 km NNW Tulum, Quintana Roo; Smith 1942, Smith and Chiszar 1996) have been taken in the middle of the range of *P. andrewsi*, widely isolated from southern records. Despite the hiatus of some 275 km in the distribution of *P. elapoides aequalis* on the Yucatán Peninsula, Smith and Chiszar (1996) were unable to distinguish the two groups taxonomically, and hypothesized that the species occurs but has not been collected in the intervening territory, as suggested by Lee (1996).

Conclusive evidence of the taxonomic status of the *Pliocercus* of the Yucatán Peninsula awaits further information, especially reproductive and perhaps molecular data. In the meantime, we regard the evidence now available as strongly supportive of allospecificity: (1) the absence of a model; (2) the uniformity of characteristics of *P. e. aequalis* throughout the peninsula, obviously mimicking *M. diastema*; (3) the absence of intermediates between the two extremes, like populations of *P. elapoides* with similar extremes of variation; and (4) the virtually unique pattern of *P. andrewsi*.

• **ETYMOLOGY.** The specific name honors the collector of the type specimens, E. Wyllys Andrews, who contributed extensively to the knowledge of the herpetofauna of the Yucatán Peninsula and to the collections of the Field Museum of Natural History.

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