

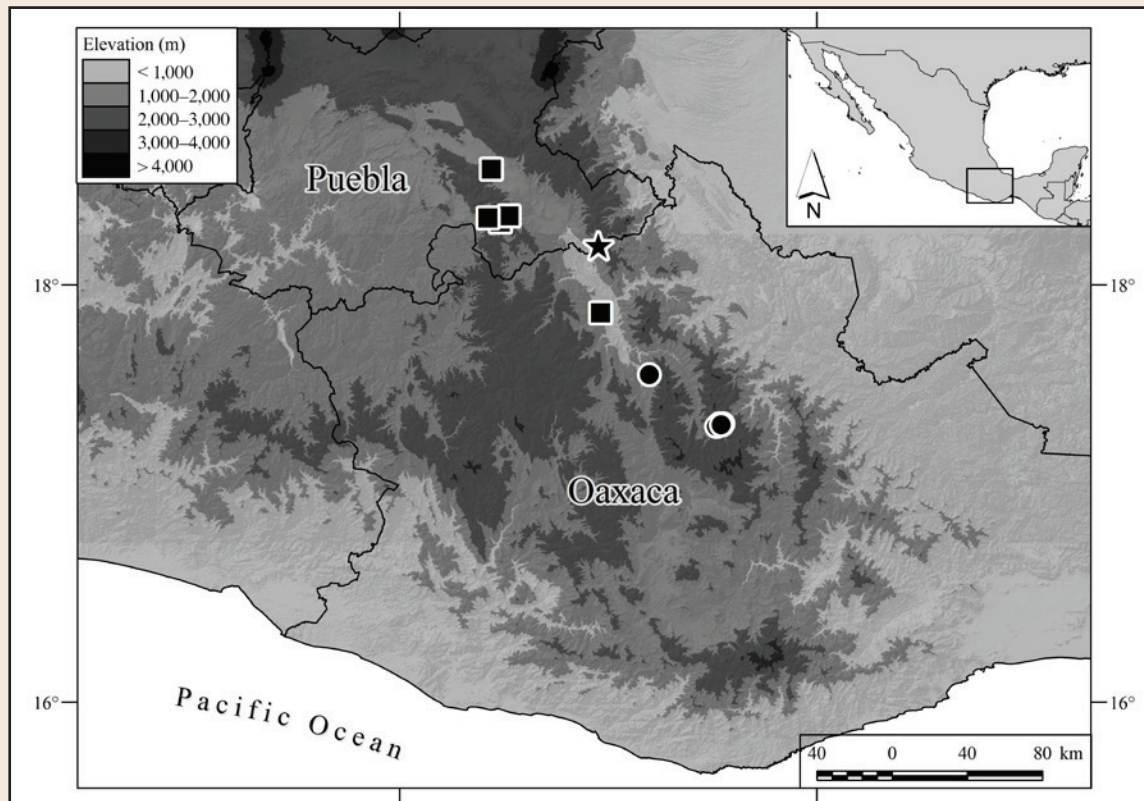
## First record of the coralsnake, *Micrurus nebularis* Roze 1989, from the state of Puebla, Mexico

The coralsnake, *Micrurus nebularis*, was described on the basis of six specimens from the vicinity of Ixtlán de Juárez, southern Sierra de Juárez, Oaxaca, Mexico (Roze, 1989). Since the species' description, only two more specimens have been reported: one from just south of Ixtlán de Juárez (Campbell and Lamar, 2004), and one from Sierra de Monteflor in north-central Oaxaca (Canseco Márquez and Gutiérrez Mayén, 2010).

*Micrurus nebularis* differs from similar coralsnakes by the presence of 23–24 and 26–28 monodal black bands in males and females, respectively; 203–208 and 218–223 ventrals in males and females, respectively; the anterior portion of head covered by a black mask (mask covering from tip of snout to level of three-fourths of frontal or beyond, supraoculars and adjacent portion of parietals, upper postocular, anterior half of lower postocular or beyond, most of 4<sup>th</sup> supralabial, first three infralabials, and anterior portion of anterior chinshields), and by nearly lacking or lacking black tips and saddle-like black spots on the red scales and the absence of supraocloacal tubercles in males (Roze, 1989; Canseco-Márquez and Campbell, 2003). *Micrurus nebularis* is most similar to *M. pachecogili*, which is restricted to the desert region of the Tehuacán-Cuicatlán Valley in southern Puebla and northern Oaxaca. *Micrurus nebularis*, however, is reliably distinguished from the latter species by the presence of fewer ventrals (203–208 vs. 218–223 in males, and 218–223 vs. 235–242 in females of *M. pachecogili*) and a more extensive black mask on the head that extends from tip of the snout to the anterior portion of the parietals (vs. a black mask on the head that does not reach the parietals in *M. pachecogili*; Canseco-Márquez and Campbell, 2003).

On 10 September 2014, at ca. 1900 h, we collected an adult male *Micrurus nebularis* (field number ANMO 4246) on Mexico Hwy. 182, Vigastepec, Municipality of Coxcatlán, Puebla, Mexico (18.18676N, 97.04615W; WGS 84); elev. 1996 m. The specimen was found dead on the road, apparently soon after it was run over by a vehicle. The vegetation alongside the road consisted of oak forest with elements of tropical deciduous forest. Roze (1989) described the vegetation in the region of the type-locality as cloud forest and pine-oak woodlands. The vegetation around Ixtlán de Juárez, however, is pine-oak-madroño forest on the upper slopes, grading into tropical deciduous forest and arid tropical scrub in the lower valleys (Campbell and Lamar, 2004), which resembles the vegetation where the Pueblan specimen was collected. The specimen was deposited in the herpetological collection of the Museo de Zoología “Alfonso L. Herrera,” Facultad de Ciencias, Universidad Nacional Autónoma de México (MZFC 28872). Our record is the ninth for the species and the first for the state of Puebla and outside of Oaxaca, extending the known range ca. 73 km (airline) NNW of the closest record (Canseco Márquez and Gutiérrez Mayén, 2010) and ca. 113 km (airline) NNW from the type locality (Roze, 1989; Fig. 1). Additionally, it represents the northernmost record of *M. nebularis* and the closest locality to records of *M. pachecogili* (Canseco Márquez and Gutiérrez Mayén, 2010; Fig. 1).

MZFC 28872 shows most of the diagnostic characters of *Micrurus nebularis*. Given the scarcity of known specimens for the species, we proceed to describe MZFC 28872 as follows (measurements in mm): adult male; head length = 13.31, snout–vent length = 525.50, and tail length = 87.34. Head slightly distinct from body; snout rounded from above, projecting anteriorly far beyond lower jaw; rostral 1.41 times wider than high; prefrontals twice as long as internasals; frontal hexagonal, 1.29 times longer than its distance to tip of snout; supraocular large, extending far beyond anterior and posterior margins of orbit; parietals 1.53 times longer than wide, their distance to tip of snout 1.10 times longer than their length; temporals 1 + 1 + 2, upper tertiary temporal the largest; supralabials 7/7, 3<sup>rd</sup> and 4<sup>th</sup> entering the orbit; nasals divided, anterior nasal 1.23 times longer than posterior nasal; preocular 1.11 times longer than high; postoculars 2, upper postocular about as long as high, lower postocular nearly twice higher than long; mental triangular, 1.56 times wider than long; infralabials 7/7, 1<sup>st</sup> pair in medial contact, 4<sup>th</sup> the largest; 1<sup>st</sup>–4<sup>th</sup> in contact with anterior chinshields, 4<sup>th</sup> in contact with posterior chinshields; posterior chinshields 1.53 times longer than anterior chinshields; and midgulars 2. Dorsal scale rows 17-15-15; ventrals 210; subcaudals 47; dorsal scales smooth, lacking tubercles throughout length of body; and subcloacal scute divided, with right one divided horizontally.



**Fig. 1.** Geographic records for *Micrurus nebularis* (circles) and *M. pachecogili* (squares). The star represents the new record of *M. nebularis*.

Anterior portion of head covered by black mask; posterior margin of mask extends across posterior one-fourth of frontal and anteriormost portion of parietals, curves lateroventrally along posterior margin of upper postoculars and anteroventrally along anterior margin of lower postoculars, between posterodorsal and anteroventral corners of 4<sup>th</sup> supralabials, and from middorsal edge to anteroventral corner of 3<sup>rd</sup> infralabials and medial margin of 2<sup>nd</sup> infralabials, then curves anteriorly across middle of 1<sup>st</sup> infralabials and medially across mid-mental. Black, midventral, triangular spot present on posterior halves of anterior chinshields. Yellow parietal crossband follows black anterior mask posteriorly, extending posteriorly to posterior portion of parietals; its posterior margin curves lateroventrally across middle of upper tertiary temporal, anteriormost portion of lower tertiary temporal on left side and posterior-most portion of secondary temporal on right side, middle of 7<sup>th</sup> supralabials, posterior one-fourth of 6<sup>th</sup> infralabials, two gulars, posterior margin of posterior chinshields, and middle of 1<sup>st</sup> midgular. Black occipital crossband follows yellow parietal band posteriorly, covering posterior portion of parietals and extending posteriorly to 5<sup>th</sup> transversal row of dorsals, its posterior margin curving anteroventrally to mid-posterior margin of 2<sup>nd</sup> ventral.

Twenty six black body rings, each about three scales-wide on anterior portion of body, four scales-wide at level of midbody, and four and one half scales-wide on posterior portion of body; red rings three scales-wide, their scales grading to dark brown posteriorly; yellow rings narrow, about one to one and one half scales-wide, except for ring immediately anterior to level of vent; latter ring four scales-wide. Seven black tail rings, last one including tip of tail, each about five scales-wide, except for ring at tip of tail; latter ring four scales-wide; six yellow tail rings, each about three scales-wide. This specimen differs from all of the other known specimens of the species in that the black mask does not cover the anterior chinshields, and in that it exhibits a black triangle on the anterior chinshields and the highest count of black body rings known for males of this species.

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