

PITUOPHIS LINEATICOLLIS (SQUAMATA: COLUBRIDAE): RECORD OF MAXIMUM LENGTH IN WILDLIFE

PITUOPHIS LINEATICOLLIS (SQUAMATA: COLUBRIDAE): REGISTRO DE MÁXIMA LONGITUD EN VIDA SILVESTRE

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Resumen.— Reportamos un nuevo registro de longitud máxima para *Pituophis lineaticollis*, con base en un espécimen adulto atropellado por motocicleta en el Municipio de Santos Reyes Nopala, en la Sierra Madre del Sur, Oaxaca. La serpiente fue medida en longitud total resultando en 2,394 mm y pesando 3,600 g. Nuestro registro incrementa la longitud máxima de *P. lineaticollis* en México por 294 mm y abre la posibilidad de que existan más individuos de talla similar o incluso de mayor tamaño en la región de la Sierra Madre del Sur de Oaxaca.

Palabras clave.— Atropellamiento, Colubridae, longitud, peso.

Abstract.— We report a new record of maximum length for *Pituophis lineaticollis*, based on an adult female roadkill by motorcycle in the Municipality of Santos Reyes Nopala, in the Sierra Madre del Sur, Oaxaca. The snake was measured in total length, resulting in 2,394 mm and weighing 3,600 g. Our record increases the maximum length of *P. lineaticollis* in Mexico by 294 mm and opens the possibility that more individuals exist with similar or even larger size in the region of the Sierra Madre del Sur of Oaxaca.

Keywords.— Colubridae, length, roadkill, weight.

The genus *Pituophis* comprises seven species, five of them are distributed across Mexico (Heimes 2016), two of them are found in the state of Oaxaca, *P. deppei* and *P. lineaticollis* (McKay, 2024). The Middle American Bullsnake (*Pituophis lineaticollis*) is a large size colubrid, widely distributed from highlands of Jalisco, Estado de México, Michoacán, Morelos, Puebla, Guerrero, Oaxaca, Chiapas, and Guatemala (Heimes, 2016; McKay, 2024). Generally associated with pine-oak forest, arid shrublands, and cloud forest, occurring at elevations ranging from 710–3,000 m a.s.l. (Köhler, 2008; McKay, 2024).

According to Roze (1996), one of the main challenges in obtaining accurate body measurements of snakes in the wild is to have access to live specimens or find recent carcasses. Until the date of publication of this record, the maximum recorded length for *P. lineaticollis* is 2,100 mm, a measurement referenced in several field guides as Köhler (2008), Canseco-Márquez and Gutiérrez-Mayen (2010), Heimes (2016), and McKay (2024).

Herein, we report a new maximum length record for *P. lineaticollis*, based on an adult female found as roadkill on a dirt road (16° 07' 28.27" N, 97° 12' 30.01" W; 2,130 m a.s.l.) between Cerro del Aire and Santa Lucía Teotepec, municipality of Santos Reyes Nopala, in the Sierra Madre del Sur, Oaxaca. On December 11, 2024, at 17:30 h, one of us (LS) observed an adult deceased specimen of *P. lineaticollis* that had been struck by a motorcycle. The specimen was collected (SEMARNAT: DGVS/04209/24) and transferred to the Laboratorio de Colecciones Biológicas (LCB, DGVS-CC-335-OAX/23) of Universidad del Mar, Oaxaca for further analysis and documentation of measurement.

At the LCB, we identified the species as based on the characteristic dorsal pale brownish, with irregular blackish stripes on the neck and forebody, and black bands on the middle and posterior body and tail (Köhler, 2008; Heimes, 2016; McKay, 2024; Fig. 1a). The snake was measured in total length with a flexometer resulting in 2,394 mm (Snout-vent length: 1620 mm;

Tail length: 774 mm; Fig. 1b, c). To demonstrate the individual's real length and avoid speculations about size, we also compared the length of the specimen by placing the snake next to a person of known length (185 cm, Fig. 1d). The weight (Kg) of the specimen was taken by suspending it in a plastic bag attached to a scale macro line Pesola (5 Kg) resulting in 3,600 g. Photographic

evidence was deposited in the photographic digital collection of the Colección Nacional de Anfibios y Reptiles (CNAR-RF) in the Instituto de Biología at the Universidad Nacional Autónoma de México, under the code CNAR-RF-998. The individual was finally deposited (Collection number: LCB-Z-R-146) in the LCB.

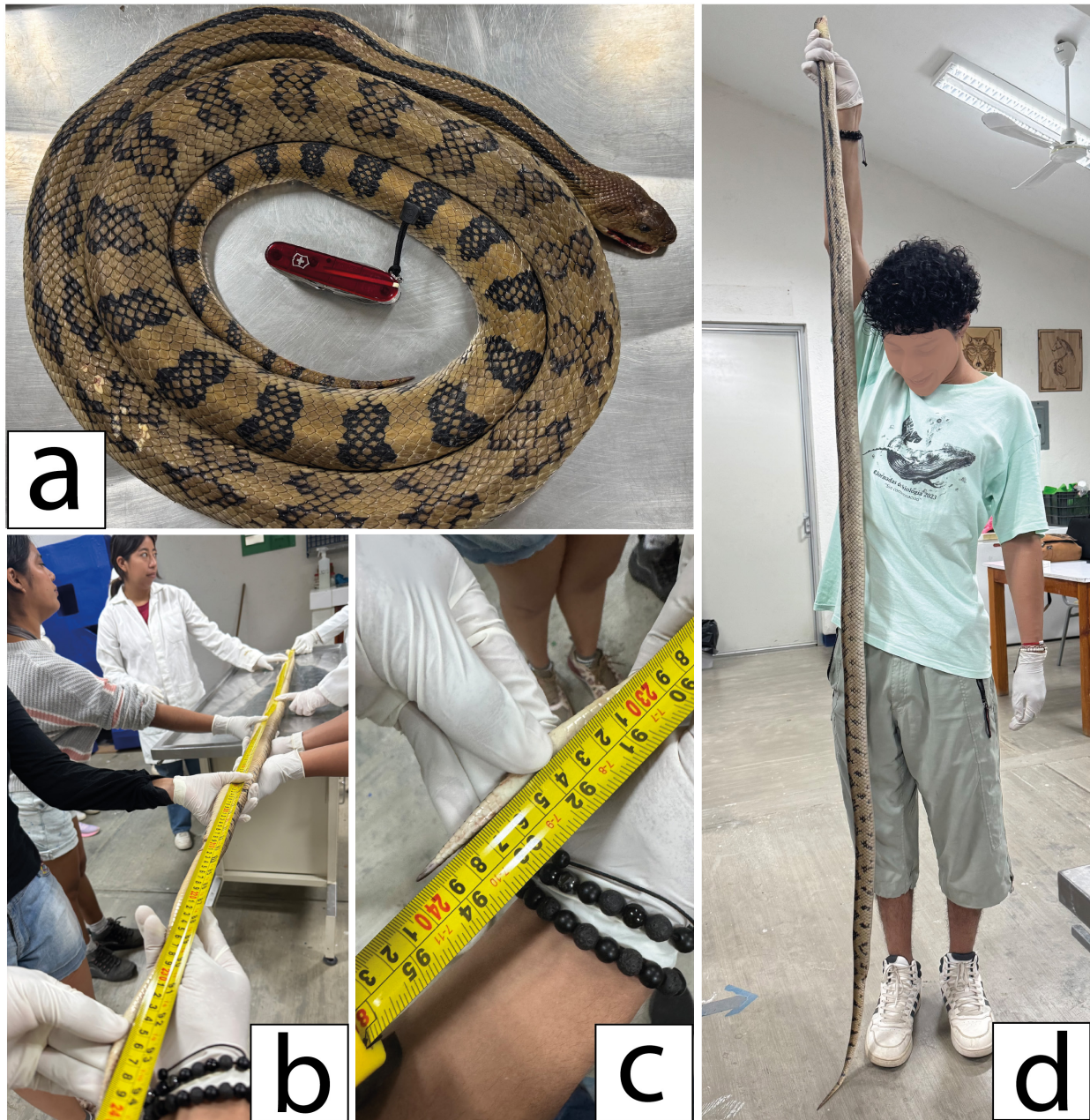


Figura 1. Registro de longitud máxima de *Pituophis lineaticollis* en la Sierra Madre del Sur, Oaxaca. a) características morfológicas del ejemplar, b y c) evidencia de longitud total, d) imagen comparativa de la longitud del ejemplar al colocar la serpiente junto a una persona de longitud conocida (185 cm). Fotos: Jesús García Grajales.

Figure 1. Record of maximum length of *Pituophis lineaticollis* in the Sierra Madre del Sur, Oaxaca. a) morphological characteristics of specimen, b and c) evidence of total length, d) comparative image of the length of the specimen by placing the snake next to a person of known length (185 cm). Photos: Jesús García Grajales.

A systematic inspection of the digestive, respiratory, and reproductive systems was carried out to assess for macroscopic lesions. During the internal examination, we determined that the specimen was a female, and there were evident anomalies of broken bones and damaged blood vessels in the first third of the body, coinciding with a motorcycle impact. No significant injuries were detected in the remaining organs. The stomach and intestines were empty.

To the best of our knowledge, there are no published records in total length for this species above 2,100 mm. Therefore, our record herein increases the maximum length of *P. lineaticollis* by 294 mm, and because this region has been underexplored (DeSantis et al. 2018), there is a possibility that exist individuals with greater lengths in the region of the Sierra Madre del Sur of Oaxaca, Mexico.

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