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Nota científica

NEW RECORDS OF AMPHIBIANS AND REPTILES FROM TLAXCALA, MÉXICO

Abstract: Tlaxcala is the smallest state of Mexico. There are not much studies of his herpetofauna. Like results of our work in the field during 2002-2003, we have reported nine new records of amphibian and reptiles.

Tlaxcala is the State with the smallest territorial extension in México (4,072 km^2). Located in the eastern-central part of the country, between 19°05'43'' and 19°44'07'' N, and 97°37'07'' and 98°42'51'' W, it shares borders with the States of México, Hidalgo and Puebla. Tlaxcala is located in the highlands of the Mexican Transvolcanic Belt and its altitudes range from 2,000 to 4,461 m; the dominant climate is temperate subhumid with summer rains; mean annual precipitation is 600 to 1,200 mm in the central and southern part of the state, while in its western-northwestern area it can be less than 500 mm (INEGI 1986. *Síntesis geográfica de Tlaxcala*. Secretaría de Programación y Presupuesto, México).

Central México has a rich herpetofauna both in species richness and high rate of endemism (Flores-Villela 1998. In *Diversidad biológica de México: orígenes y distribución*: 251-278. Instituto de Biología, Universidad Nacional Autónoma de México). Several studies have focused on Tlaxcalan herpetofauna (Smith & Taylor 1966. *Herpetology of Mexico: Annotated checklists and keys to the amphibians and reptiles*. A reprint of bulletins 187, 194 and 199 of the United States National Museum with a list of subsequent taxonomic innovations. Eric Lundberg, Ashton, Maryland; Smith & Smith 1976. *Synopsis of the Herpetofauna of Mexico Volume III: Source analysis and index for Mexican reptiles*. John Johnson, North Bennington, Vermont; Smith & Smith 1976. *Synopsis of the Herpetofauna of Mexico Volume IV: Source analysis and index for Mexican amphibians*. John Johnson, North Bennington, Vermont; Sánchez de Tagle 1978. *Contribución al conocimiento de la Fauna herpetológica del Parque Nacional La Malinche*, Tesis de Licenciatura, Universidad Nacional Autónoma de México; Sánchez 1980. *Diagnosis preliminar de la herpetofauna de Tlaxcala, México*, Tesis de Licenciatura, Universidad Nacional Autónoma de México; Sánchez & López 1987. *Herpetological Review* 18(2):41; Fernández *et al.* 2003. *Herpetological Review* 34 (4):387; Rodríguez-Romero *et al*. 2003. *Herpetological Review* 34 (4):383); however, only 34 species of amphibians and reptiles have been formally recorded (Sánchez 1980. *op. cit.*; Flores-Villela & Gerez 1994. *Biodiversidad y conservación en México: vertebrados, vegetación y uso de suelo*, Universidad Nacional Autónoma de México-Comisión Nacional para el Uso y Conocimiento de la Biodiversidad).

As a result of the project "Herpetofauna from Tlaxcala", carried out during 2002 and 2003, nine new state records of amphibians and reptiles were documented, including four species of amphibians and five reptiles. Specimens are housed at the Colección Nacional de Anfibios y Reptiles (CNAR) and the Museo de Zoología of the Facultad de Ciencias (MZFC), both at the Universidad Nacional Autónoma de México (México City); in the Escuela Nacional de Ciencias Biológicas (ENCB) at the Instituto Politécnico Nacional (México City), and the Colección Regional de Vertebrados of the Universidad Autónoma de Tlaxcala (UATX, Ixtacuixtla, Tlaxcala).

Chiropterotriton Taylor, 1944. Two individuals were collected (CNAR 3841, UATX 1077). CNAR 3841 was collected by Aurelio Ramírez on 4 June 1982, at La Malinche National Park (19°14'N 98°58'W; 3,150 m) Municipality of Tlaxco, in a pine forest beneath the bark of a rotting tree trunk. UATX 1077 was collected on 22 July 2002 in Predio de los Hermanos Cabrera (19°37'N 98°02'W ; 3,052 m), by Jesús A. Fernández between bark and wood of the lower part of a rotting tree trunk, in a pine forest. This is the first record of this genus for the state (Darda 1994. *Herpetologica* 50(2):164-184). *Chiropterotriton* specimens from Chignahuapan, Puebla would be the closest species to this Tlaxcalan *Chiropterotriton* (Darda 1994. *op. cit.*; Parra-Olea 2003. *Canadian Journal of Zoology* 81(12):2048-2060). The 16S mitochondrial data suggests that *C. orculus* is restricted to Distrito Federal and Estado de México, and populations from Puebla and Tlaxcala are probably an undescribed taxon, the *Chiropterotriton* sp. G of Parra-Olea (2003. *op. cit*.) collected 4 km S Chignahuapan.

Anaxyrus punctatus (Baird & Girard, 1857). Two specimens were collected by Jesús A. Fernández. The first (UATX 439) on 11 September 1999 in San Ambrosio Texantla, Barranca de Huehuetitla (19°21'N 98°15'W; 2,272 m), Municipality of Panotla; it was found 20 m away from a stream. The second locality (UATX 823) is Villalta (19°19'N 98°22'W; 2,650 m, Municipality of Ixtacuixtla); the specimen was collected near an artificial pond. These specimens represent the first state record for Tlaxcala; the nearest known populations are from the State of Hidalgo (Korky 1999. *Catalogue of American Amphibians and Repiles* 689:1-5).

Hyla arenicolor (Cope, 1886). One specimen (MZFC 16862) was collected by Jesús A. Fernández on 19 October 2002, at approximately 100 m of the Atlangatepec Reservoir (19°35'N 98°12'W ; 2,900 m), located in the Municipality of Atlangatepec. This new state record extends the distribution of this species approximately 150 km east of its previously defined range limit at San Juan Teotihuacán, State of México (Duellman 2001. *The Hylid frogs of Middle America*. Vol. 2. Society for the Study of Amphibians and Reptiles, Contributions in Herpetology. Ithaca, New York).

Hyla euphorbiacea Günther, 1858. A series of 10 tadpoles (MZFC 7787) were collected on 16 October 1983, in Estación de Microondas, Municipality of Tlaxco, 1.5 km from the Puebla border, on the road to Chignahuapan, Puebla (19°37'N 98°02'W ; 3,054 m), by Oscar Flores-Villela (OFV-323). This is the first record for the State, and extends the distribution of this species 215 km to the west. The nearest previous record corresponds to Puebla: Paraje Verde and Puente Colorado (Duellman 2001. *op. cit.*). Tadpoles were determined as *H. euphorbiacea* on the basis of characters suggested by Altig (1987. *The Southwestern Naturalist* 32(1):75-84).

Plestiodon copei (Taylor, 1933). Two individuals (MZFC 16863; UATX 1577) were collected under loose stones in Huilo (19°30'N 97°37'W; 2,450 m), Municipality of Calpulalpan, by Jesús A. Fernández, on 6 June 2003. This new record for Tlaxcala fills a gap in its distribution, which Flores-Villela & Gerez (1994. *op. cit.*) referred to as State of México, Michoacán, Distrito Federal, Morelos and Veracruz. This species appears widely distributed in central México (Uribe *et al*. 1999. *Anfibios y reptiles de las serranías del Distrito Federal*, Cuadernos del Instituto de Biología, U.N.A.M. No. 32).

Aspidoscelis sacki gigas (Wiegmann, 1834). Four individuals were recorded in Tlaxcala. One (IPN 969) was collected in Panzacola (19°09'N 98°12'W; 2,260 m), Municipality of Tenancingo, on 18 May 1963; three other specimens (MZFC 16864, 16865; UATX 152) were collected 3 km E of Ixtacuixtla (19°19'N 98°22'W ; 2,650 m), Municipality of Ixtacuixtla, by Jesús A. Fernández, on 11 May 1998. These specimens represent the first state record, and extend the known distribution of the species approximately 130 km north from the Municipality of Izúcar de Matamoros, Puebla (Duellman & Zweifel 1962. *Bulletin American Museum of Natural History* 123(3):155-210). Duellman & Zweifel 1962. *op. cit.*, Vance (1980. *Bulletin of the Maryland Herpetological Society*, 16(4):121-147) and Wright (1993. *Biology of whiptail lizards (genus Cnemidophorus)*, Pp. 27–81, Norman: Oklahoma Museum of Natural History) described the distribution for this taxon as including the Upper Balsas River Basin, and southwest to the States of Guerrero, Morelos and Puebla.

Storeria storerioides (Cope, 1865). Six specimens were collected in the following localities: one specimen (UATX 584) at the eastern slope of the La Malinche National Park, Municipality of San Juan Ixtenco (19°14'N 98°58'W; 3,150 m), on 17 June 2000; one specimen (MZFC 16867) at the eastern slope of the La Malinche National Park, Municipality of San Pablo Zitlaltepec, (19°14'N 98°02'W; 3,000 m) on 30 June 2001; three specimens (MZFC 16868; UATX 1101, 1491) in the Municipality of Nanacamilpa, San Felipe Hidalgo, El Innominado, (19°26'N 98°35'W ; 2,825 m), on 10 August 2002; and one specimen (MZFC 16869) in the Municipality of El Carmen Tequexquitla, El Piñonal, (19°21'N 97°93'W; 2,432 m), on 7 September 2002. They represent the first record of the species for Tlaxcala. Otherwise, this species is widely distributed in central México, particularly in the Mexican Transvolcanic Belt (Trapido 1944. *American Midland Naturalist* 31(1): 1-84; Flores-Villela & Gerez 1994. *op. cit.*).

Thamnophis pulchrilatus (Cope, 1885). Two specimens were collected in Mimiahuapan (MZFC 16870; UATX 82), Municipality of Tlaxco (19°37'N 98°02'W ; 3,054 m) on 7 July 1998. This is the first record for the State, and fills the gap between two formerly cited localities, one by Webb (1966. *Tulane Studies on Zoology and Botany* 13:55-70) in the State of Morelos (2 mi W Huitzilac), and another by Rossman *et al*. (1996. *The garter snakes: evolution and ecology*, University of Oklahoma Press, Norman, Oklahoma) in Veracruz (Las Vigas; and 2 km E Las Vigas). This taxon is disjunctly distributed in Mexico, and is sparsely found in the States of Durango, Jalisco, Guanajuato, Michoacán, Morelos, Nuevo León, Oaxaca, Puebla and Tamaulipas (Rossman 1996. *op. cit.*).

Micrurus* cf. *tener fitzingeri (Jan, 1858). A specimen (MZFC 16866) was collected in San Tadeo Huiloapan (19°23'N 98°15'W ; 2,650 m), Municipality of Panotla, in 1997. This specimen represents a new family, genus, and species record for Tlaxcala, extending the specific distribution 100 straight-line km NE from previous records in the State of Morelos (Campbell & Lamar 2004. *The venomous reptiles of the Western Hemisphere*. Vol. I. Cornell University Press, Ithaca New York).

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Jesús A. Fernández[1], Oscar Sánchez[2], & Oscar A. Flores-Villela[3,4]
[1]Departamento de Zoología, Instituto de Biología, Universidad Nacional Autónoma de México, A.P. 70-153, Coyoacán, C.P. 04510, México, D. F. MÉXICO (JAF), jferna9@lsu.edu
[2]Consultor en Conservación de Vida Silvestre. Av. Ixtlahuaca 609, Colonia Sánchez, Toluca 50040, Estado de México, MÉXICO (OS), teotenango@yahoo.com
[3]Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autónoma de México, A. P. 70-399, C. P. 04510, México, D. F., MÉXICO (OFV), [4]Correspondencia: ofv@hp.fciencias.unam.mx