

## On the distribution and conservation of *Lampropeltis triangulum* (LACÉPÈDE, 1789) in Ecuador

*Lampropeltis triangulum* (LACÉPÈDE, 1789) is a species distributed from Canada and United States of America south through Central America to western Ecuador and northern Venezuela (SAVAGE 2002). There are several subspecies currently recognized under *L. triangulum*, but just *L. t. micropholis* (COPE, 1860) is known to reach Ecuador where it has been reported from the provinces of Guayas, Los Ríos, Imbabura, Pichincha, and Bolívar (PEREZ-SANTOS & MORENO 1991).

A specimen (FHGO 027 – collection of the Fundación Herpetológica G. ORCÉS, Quito, Ecuador) collected at km 77 of the road Machala – Pasaje – Girón (03°19'S, 79°30'W, 1100 m a.s.l.), province of El Oro, provides the first provincial record and the southernmost locality of the taxon, extending its distributional range ca. 160 km S from previously known localities (PEREZ-SANTOS & MORENO 1991). Another specimen (FHGO 516) from “Piedra de vapor” (ca. 00°06'S, 79°16'W, 700 m a.s.l.), a locality just on the border between the provinces of Esmeraldas and Pichincha, partially fills the gap between southwestern Colombian and central-western Ecuadorian localities. The upper altitudinal range limit for the species as indicated by PEREZ-SANTOS & MORENO (1991) was 1500 m a.s.l., however *L. triangulum* holds populations in several highland valleys (with Pacific drainages) in northern and central Ecuador, where they can range up to 2900 m a.s.l. Twenty-one specimens are deposited at the FHGO and its Vivarium (FHGO-alive) from several highland areas, including the Cumbayá – Tumbaco – Los Chillos valleys (near Quito), and areas near Nanegalito and Papallacta, province of Pichincha (FHGO 017, 202, 399, 489, 541, 552, 807, 901, 906, 1544, 1682, 2121, 2449, FHGO-alive 106, 132, 175, 2427, 2428, 2525, 2573), and the Lita valley, near Ibarra, province of Imbabura (FHGO 750). For total length (mm) and body mass (g) of seven males and five females collected at highland localities see Table 1. Mean total length of these males is 841.6 ±

Table 1: Total length (mm) and body mass (g) of seven male and five female *Lampropeltis triangulum micropholis* (COPE, 1860) collected at highland localities in Ecuador. FHGO – Fundación Herpetológica G. ORCÉS, Quito, Ecuador.

FHGO No	Sex	Total Length (mm)	Body Mass (g)
906	male	735	86
2449	male	945	223.3
175 (alive)	male	1020	328
541	male	500	22
132 (alive)	male	1080	374
106 (alive)	male	1001	336
750	male	610	58
2525 (alive)	female	903	230
1544	female	545	30
2427 (alive)	female	381	32
2428 (alive)	female	328	14
2573 (alive)	female	812	184

167.4 mm (range 500 – 1080 mm) and mean body mass is 203.9 ± 109.2 g (range 22 – 374 g); the females have a mean total length of 593.8 ± 224.1 mm (range 328 – 812 mm) and a mean body mass of 98.0 ± 88.6 g (range 14 – 230 g).

Unfortunately, *L. triangulum micropholis* is frequently killed in all highland areas because of its coral snake pattern. Further threats include habitat loss by the high rate of urbanization of previously wild or rural areas, habitat fragmentation, and road-kill. Although the species is rather widespread and relatively adapted to disturbed habitats; still unknown systematic entities could hide among some of these populations. The highland populations of *L. triangulum micropholis* in Ecuador are at a greater risk of extinction than the lowland populations. More studies concerning systematics and ecology of this taxon as well as conservation programs (including public awareness raising and formal/informal education to stop the killing of snakes, especially in the highly populated highland valleys), are urgently needed.

ACKNOWLEDGEMENTS: I am grateful to Jean-Marc TOUZET and Ana Maria VELASCO for granting access to FHGO material; to Andrés LEÓN, Tomi SUGAHARA, Daniel PROAÑO, and Maria Olga BORJA for lab assistance. I thank Maria Elena HEREDIA and Laura HEREDIA for financial and moral support. Universidad San Francisco de Quito provided institutional support.

REFERENCES: PÉREZ-SANTOS, C. & MORENO, A. G. (1991): Serpientes de Ecuador.- Monografía di Museo Regionale di Scienze Naturali, Torino; 11: 1–538. SAVAGE, J. M. (2002): The amphibians and reptiles of Costa Rica, a herpetofauna between two continents, between two seas; Chicago (The University of Chicago Press), pp. 934.

KEY WORDS: Reptilia: Serpentes: Colubridae: *Lampropeltis triangulum micropholis*; geographic range, altitudinal distribution, new country records, conservation status, Ecuador

SUBMITTED: February 22, 2006

AUTHOR: Diego F. CISNEROS-HEREDIA, College of Biological and Environmental Sciences, Universidad San Francisco de Quito, Casilla Postal 17-12-841, Quito, Ecuador < diegofrancisco\_cisneros@yahoo.com >

### Notes on some *Osteocephalus* treefrogs from Amazonian Ecuador

Forty-nine species of treefrogs (family Hylidae) have been recorded at the Tiputini Biodiversity Station (TBS), Orellana province, Amazonian Ecuador (0°37'5"S, 76°10'19"W, 190–270 m a.s.l.) (CISNEROS-HEREDIA 2001, 2003); including eight species of the genus *Osteocephalus*, namely *O. buckleyi* (BOULENGER, 1882), *O. cabrerai* (COCHRAN & GOIN, 1970), *O. planiceps* COPE, 1874, *O. taurinus* STEINDACHNER, 1862, *O. deridens* JUNGFER, RON, SEIPP & ALMENDÁRIZ, 2000, *O. fuscifacies* JUNGFER, RON, SEIPP & ALMENDÁRIZ, 2000, *O. mutabor* JUNGFER & HÖDL, 2002, and *O. yasuni* RON & PRAMUK, 1999 (CISNEROS-HEREDIA 2003). Several *Osteocephalus* species have been recently described and our knowledge on them is still at a basic level. Herein, I present some notes on the distribution and natural history of two poorly-known *Osteocephalus*.

Two recently described species, *O. yasuni* and *O. mutabor*, were collected at the Tiputini Biodiversity Station, being their easternmost location known from Ecuador. These records extend the ranges of *O. yasuni* ca. 31 km E from the type locality and of *O. mutabor* ca. 54 km SE from the nearest known record (San Pablo de Kantesiaya, JUNGFER & HÖDL 2002). *Osteocephalus mutabor* was also collected at the Reserva de Producción Faunística Cuyabeno (76°12'

54"W, 00°05'02"S, 290 m a.s.l., 20 July 2000), in terra firme forest, extending its range ca. 30 km E from the nearest known locality in northern Napo River bank (San Pablo de Kantesiaya, JUNGFER & HÖDL 2002).

Adults of *Osteocephalus yasuni* were reported in the original description as having white bones, brown webbing and yellow venter with the color intensifying towards the groin (RON & PRAMUK 1999); however juveniles were found to have green bones (ontogenetic change also reported for *Osteocephalus lepreurii*, JUNGFER & HÖDL 2002) and intense yellow-orange color on webbing and on the entire venter and throat. *Osteocephalus yasuni* was found at primary terra firme (mainly females and non-reproductive males) and flooded forests near stream edges (mainly reproductive males) in TBS.

ACKNOWLEDGMENTS: Thanks to S. CÁRDENAS, M. BRANDT, C. PONCE and A. LEÓN for field support; to K.-H. JUNGFER, J. SIMMONS, R. W. MCDIARMID, and S. RON for sharing literature and information; to L. COLOMA and K.-H. JUNGFER for confirming the identifications; to Tiputini Biodiversity Station, and Maria Elena HEREDIA and Laura HEREDIA who provided financial and moral support.

REFERENCES: CISNEROS-HEREDIA, D. F. (2001): Anfíbios y reptiles de la Estación de Biodiversidad Tiputini (EBT), Ecuador. Ver. 2.1 (August 2001). Laboratorio de Anfíbios y Reptiles, Universidad San Francisco de Quito. < <http://www.cisneros-heredia.org> > [last accessed: 24 February 2004]. CISNEROS-HEREDIA, D. F. (2003): Herpetofauna de la Estación de Biodiversidad Tiputini; pp. 1–21. In: DE LA TORRE, S. & RECK, G. (eds.): Ecología y ambiente en el Ecuador. Mem. I. Congr. Ecología y Ambiente. CD. Universidad San Francisco de Quito, Ecuador. JUNGFER, K.-H. & HÖDL, W. (2002): A new species of *Osteocephalus* from Ecuador and a redescription of *O. lepreurii* (DUMÉRIL & BIBRON, 1841) (Anura: Hylidae).- Amphibia-Reptilia, Leiden; 23: 21–46. RON, S. & PRAMUK, J. B. (1999): A new species of *Osteocephalus* (Anura: Hylidae) from Amazonian Ecuador and Peru.- Herpetologica, Emporia; 55 (4): 433–446.

KEY WORDS: Amphibia: Anura: Hylidae: *Osteocephalus yasuni*, *Osteocephalus mutabor*, distribution, natural history, ontogenetic chromatic change, new records, Ecuador

SUBMITTED: December 06, 2005

AUTHOR: Diego F. CISNEROS-HEREDIA, College of Biological and Environmental Sciences, Universidad San Francisco de Quito, Ave. Interocéánica y calle Diego de Robles, Campus Cumbayá, Edif. Maxwell. Casilla Postal 17-12-841 Quito, Ecuador < diegofrancisco\_cisneros@yahoo.com >

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Herpetozoa](#)

Jahr/Year: 2007

Band/Volume: [19\\_3\\_4](#)

Autor(en)/Author(s): Cisneros-Heredia Diego F.

Artikel/Article: [On the distribution and conservation of \*Lampropeltis triangulum\* \(Lacepede, 1789\) in Ecuador 182-183](#)