# Ecuadorian distribution of snakes of the genera *Oxybelis* WAGLER, 1830 and *Xenoxybelis* MACHADO, 1993

Three species of the genus *Oxybelis* – *O. aeneus* (WAGLER, 1824), *O. brevirostris* (COPE, 1861), *O. fulgidus* (DAUDIN, 1803) – and one of the genus *Xenoxybelis* – *X. argenteus* (DAUDIN, 1803) – occur in Ecuador. All share a common body form and habits, and were classified until recently under the same genus (*Oxybelis*), but MACHADO (1993) separated *argenteus* and *boulengeri* (PROCTER, 1923) and placed them into *Xenoxybelis* based on hemipenial differences. The objective of this note is to present new records corresponding to first provincial reports and distributional extensions on the known range of the *Oxybelis* and *Xenoxybelis* species in Ecuador.

*Oxybelis aeneus* inhabits southern USA and Mexico, through Central America south to northwestern Peru on the Pacific versant, and south to Brazil and Bolivia on the Atlantic versant (KEISER 1974, 1982, 1991; LEHR et al. 2002; SAVAGE 2002; UETZ 1995-2006). In Ecuador it has been reported from the provinces of Manabí, Guayas, Imbabura, and Azuay, with no records of *O. aeneus* from the Amazonian region of Ecuador (PÉREZ-SANTOS & MORENO 1991) even though this species is known in Amazonian Peru (e.g., DIXON & SOINI 1986).

A specimen of *O. aeneus* (deposited at Fundación Herpetológica G. ORCÉS, Quito, FHGO 691) collected at Jatun Sacha (01°04' 01"S, 77°37'57"W, 460 m a.s.l.), Province of Napo, Ecuador, on 01 May 1995 by Alfredo LÓPEZ, is the first specimen reported from Amazonian Ecuador, and represents the westernmost record in the Amazonian distribution of the species, extending the range ca. 610 km NW from the closest known localities (Iquitos region, Peru – DIXON & SOINI 1986). Another *O. aeneus* (FHGO 3243), collected at Quinara (04°18'56"S, 79°13' 54"W, 1,600 m a.s.l.), Province of Loja, on 26 March 1991 by Jean-Marc TOUZET, is among the highest altitudinal records for the species (previously reported up to 1,300 m), and the southernmost record in Ecuador, filling the gap between Peruvian and Ecuadorian localities (KEISER 1974, 1982; SAVAGE 2002; PÉREZ-SANTOS & MORENO 1991; LEHR et al. 2002).

*Oxybelis brevirostris* inhabits eastern Honduras to central Panama and the Pacific slope of eastern Panama, western Colombia and western Ecuador (SAVAGE 2002; UETZ 1995-2006). It has been reported in Ecuador from the provinces of Esmeraldas, Los Ríos, Guayas and Pichincha (PÉREZ-SANTOS & MORENO 1991). Two specimens of *O. brevirostris* are first provincial reports: a specimen (FHGO 072) collected at Río Patul, 2 km E Manta Real (79°30'W, 02° 33'S, 250 m a.s.l.), province of Azuay, on 24 November 1990 by Juan Carlos MATHEUS; and a specimen (FHGO 791) collected at Buenaventura – Platanillo road (79°36'W, 03° 39'S, 800 m a.s.l.), Provincia de El Oro, on 28 May 1993 by Hernán VARGAS. The record from El Oro is the southernmost in the known range area of the species.

*Oxybelis fulgidus* occurs from Mexico through Central America south to Amazonian Bolivia and Brazil (UETZ 1995-2006). It was reported in Ecuador only from the province of Pastaza by PÉREZ-SANTOS & MORENO (1991). Two specimens of *O. fulgidus* apparently represent first provincial records: a specimen (FHGO 218) collected at Makuma (77°42'98"W, 02°08'75"S, 600 m a.s.l.), province of Morona-Santiago, on 26 January 1998 by Dwain HOLMES and Pablo YANGKUR; and a specimen (FHGO 3496) collected at the Arajuno river, near Jatun Sacha (450 m a.s.l.), province of Napo, on 14 October 1997 by Taryn GHIA.

*Xenoxybelis argenteus* inhabits the Amazonian lowlands of northern South America from Venezuela to Bolivia and Brazil (UETZ 1995-2006). It has been reported in Ecuador from the province of Napo, Orellana, Pastaza and Zamora-Chinchipe (PÉREZ-SANTOS & MORENO 1991; CISNEROS-HEREDIA 2003, 2006). A specimen of *X. argenteus* (FHGO 745) collected at Centro Makuma (02°08'S, 77°42'W, 600 m a.s.l.), province of Morona-Santiago, Ecuador, on 29 May 1993 by Clever AGUINDA corresponds to the first provincial record locality, filling the gap between Pastaza and Zamora-Chinchipe localities. Together with another specimen (FHGO 910) from Talag (77° 54'24"W, 01°03'35"S, 520 m a.s.l.), province of Napo, Ecuador, on 01 July 1994 by

Pablo BOSQUES; these localities are the westernmost localities in the distribution of the species. *Xenoxybelis argenteus* is a rather common species in Amazonian lowlands (e.g., Tiputini Biodiversity Station, CISNEROS-HEREDIA unpublished; DIXON & SOINI 1986) but seems to become scarce near the foothills of the Andes.

ACKNOWLEDGMENTS: We are grateful to Ana PEÑAHERRERA, Margarita BRANDT, Andrés LEÓN, Tomi SUGAHARA, María Olga BORJA, and Daniel PROAÑO for laboratory assistance. Universidad San Francisco de Quito provided institutional support. Maria Elena HEREDIA and Laura HEREDIA provided financial support.

REFERENCES: 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. CISNEROS-HEREDIA, D. F. (2006): La herpetofauna de la Estacion de Biodiversidad Tiputini, Ecuador: Diversidad & ecologia de los anfibios & reptiles de una comunidad taxonomicamente diversa. Universidad San Francisco de Quito, Thesis, Quito. 129 pp. DIXON, J. R. & SOINI, P. (1986): The reptiles of the Upper Amazon Basin, Iquitos Region, Peru; Milwaukee (Milwaukee Public Museum), pp. 154. KEISER, E. D. jr. (1974): A systematic study of the Neotropical vine snake, *Oxybelis aeneus* (WAGLER).- Bull. Texas Mem. Mus., Austin; 22: 1-51. KEISER, E. D. jr. (1982): *Oxybelis aeneus* (WAGLER).- Catalogue of American Amphibians and Reptiles, Salt Lake City; 305: 1-4. KEISER, E. D. jr. (1991): Bibliography of the genus *Oxybelis* WAGLER (Serpentes: Colubridae).- Smithsonian Herpetological Information Service, Washington, DC; 86: 1-45. LEHR, E. & KÖHLER, G. & STREIT, B. (2002): Die Herpetofauna von Mittelperu entlang eines Transektes von der pazifischen Küste bis in die Hochanden.- Faunistische Abh. Mus. Tierkunde, Dresden; 22 (24): 361–392. MACHADO, S. R. (1993): A new genus of Amazonian vine snake (Xenodontinae: Alsophiini).- Acta Biol. Leopoldensia, São Leopoldo; 15: 99–108. PÉREZ-SANTOS, C. & MORENO, A. G. (1991): Serpientes de Ecuador.- Museo Regionale di Scienze Naturali, Torino; Monografie XI: 1–538 pp. SAVAGE, J. M. (2002): The amphibians and reptiles of Costa Rica; Chicago (Univ. Chicago Press), pp. 934. UETZ, P. 1995-2006. EMBL Reptile Database. Electronic Database accessible at < http://www.reptile-database.org > Online. EMBL Heidelberg, Germany. (last accessed: in October 2005).

KEY WORDS: Reptilia: Serpentes: Colubridae: *Oxybelis aeneus*, *Oxybelis brevirostris*, *Oxybelis fulgidus*, *Xenoxybelis argenteus*, geographic range, distribution, Ecuador.

SUBMITTED: April 23, 2006

AUTHORS: Diego F. CISNEROS-HEREDIA, College of Biological and Environmental Sciences, Universidad San Francisco de Quito, Edif. Maxwell. Casilla Postal 17-12-841 Quito, Ecuador < diegofrancisco_cisneros@yahoo.com >; Jean-Marc TOUZET, Fundación Herpetológica G. Orcés, Quito, Ecuador; and Zoo La Tete D'Or, Lyon, France.

## Overwintered hatchling of *Emys orbicularis* (LINNAEUS, 1758) observed in Turkey

The European Pond Turtle, *Emys orbicularis* (LINNAEUS, 1758), is distributed over a wide range spanning from Morocco and the Iberian Peninsula over a large part of Europe to Anatolia, Iran, and Lake Aral (FRITZ 2001, 2003). The species occurs in suitable habitats in almost all regions of Turkey (BARAN & ATATÜR 1998). While its reproductive biology has been well-studied in many European regions (see reviews in FRITZ 2001, 2003), little information is available for Anatolian populations (AYAZ 2003). In Europe, mating takes place as of the end of March until June depending on the latitude. Generally, female Pond Turtles lay eggs between late May and mid-July in Europe. After approximately 90 to 117 days of incubation, young hatch from August to late October, depending on the latitude as well as seasonal conditions (LEBBORONI & CHELAZZI 1991; ANDREAS & PAUL 1998; SCHNEEWEISS et al. 1998; SERVAN 1998; RÖSSLER 1999; SCHNEEWEISS & JABLONSKY 2000). Some late neonates may overwinter in their nest chambers or on land and not emerge before the following spring (BANNIKOV 1951; ZEMANEK & MITRUS 1997; MITRUS & ZEMANEK 1998, 2003; SERVAN 1998; KOTENKO 2000, SCHNEEWEISS & JABLONSKY 2000; NOVOTNÝ et al. 2004; THIENPONT et al. 2004). Whether overwintering occurs also in embryonic stages is still under debate. Here we present the first Turkish record of a hatchling of *E. orbicularis* found active in the wild as early as in April.

Our field studies in the Lake Uluabat region (Province of Bursa, Marmara Region) are part of a project on Turkey's hard-shelled fresh water turtles *E. orbicularis*, *Mauremys caspica* (GMELIN, 1774), and *M. rivulata* (VALENCIENNES, 1833). On this occasion we captured an apparently neonate *E. orbicularis* at an altitude of 9 m a.s.l. in a creek connected to Lake Uluabat (=Apolyont Gölü) [40°12' N, 28°39' E] on April 07, 2006 (Fig. 1). The flow rate of the water was slow and the average depth was 15 cm in this stream which ran at a distance of 700