NATURAL HISTORY NOTES

CHIRONIUS EXOLETUS (Common whipsnake): PREY AND POSSIBLE DIET CONVERGENCE. Neotropical colubrid snakes of the genus *Chironius* inhabit rainforests in Central and South America (Dixon et al. 1993). These snakes are diurnal, terrestrial to arboreal and feed on frogs (Dixon et al. 1993). Arboreal species of *Chironius* feed mainly on Hylidae anurans (Dixon et al. 1993; Marques & Sazima 2004). *Chironius exoletus* is a medium-sized snake, with a slender body that forages mainly from shrubs and trees (Marques & Sazima 2004); its diet is based mostly on treefrogs but it preys on other anurans and lizards as well.

Here I report an unexpected treefrog as prey, *Trachycephalus mesophaeus* (Hylidae), found in the gut of an individual of *Chironius exoletus*. When disturbed, treefrogs of the genus *Trachycephalus* are known to release an abundant poisonous adhesive milky secretion from their skin (Duellman 1956; Delfino et al. 2002). This provides them with protection against predation, similar to that which occurs in other amphibians such as newts (Arnold 1982). The snake was an adult male (MNRJ 585, 701 mm SVL, broken tail, 87 g mass) from Santa Catarina state, southern Brazil. The prey (70 mm SVL, male, 8,1 g mass) was ingested headfirst and was intact. The prey/predator mass ratio was 0.09.

Although previous information reported an individual *Trachycephalus* in the gut of *Chironius foveatus* (Dixon et al. 1993), this is the first record of *Trachycephalus mesophaeus* as prey of *Chironius exoletus*. Besides that, *Trachycephalus venulosus* has already been reported as having been successfully eaten by snakes of the genus *Leptophis* (Henderson & Nickerson 1977; Prado 2003; Albuquerque & Di-Bernardo 2005) and *Liophis poecilogyrus* (Silva et al. 2003). However, an adult *Drymarchon corais* (Leary & Razafindratsita 1998) and a *Leptodeira annulata ashmeadii* (Manzanilla et al. 1998) failed to ingest individuals of the genus *Trachycephalus*. Moreover, Lutz (1973) reported a *T. venulosus* being dropped by a bird and human injury by *Trachycephalus* has also been recorded previously (Duellman 1956; Janzen 1962).

The genera *Drymarchon*, *Chironius* and *Leptophis* belong to the subfamily Colubrinae but *Liophis* is a Xenodontinae genus. Therefore having *Trachycephalus* as prey may indicate an ecological diet convergence. Furthermore, these data could indicate an ability of *Chironius* to handle and swallow a dangerous unpalatable prey, similar to that observed for other snakes such as *Liophis epinephalus* and *Heterodon* spp (Greene, 1997).

ACKNOWLEDGEMENTS

I thank José Pombal Jr. and Eugenio Izecksohn for identification of the amphibian and Ronaldo Fernandes for permission to examine the snake at Museu Nacional, Rio de Janeiro, Brazil. Otavio Marques provided helpful suggestions on the manuscript and Anne d'Heursel with the English version. Financial support was provided by Fundação de Amparo a Pesquisa do Estado de São Paulo (FAPESP).

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Submitted by: MURILO GUIMARÃES RODRIGUES

Laboratório de Herpetologia, Instituto Butantan, São Paulo, SP, Brazil and Pós Graduação em Biologia Animal, Universidade Estadual Paulista, São José do Rio Preto, SP, Brazil.
rodrigues@butantan.gov.br

CROTALUS TRISERIATUS (Dusky Rattlesnake): **BODY TEMPERATURE**. The physiological ecology of rattlesnakes is a new field research; however recent studies offer intriguing glimpses that have significant bearing on our standing of their ecology and evolution (Campbell & Lamar, 2004). Nowadays, there are few reports about thermal ecology from this species group, specifically from *Crotalus triseriatus* there are not studies about its thermal biology. Here we present first data of thermal ecology in this species.

From February to October 2007, we conducted field work in Magdalena Petlatalco, Delegación Magdalena Contreras, Sierra del Ajusco, México, Distrito Federal (19º13´ 15.5´´N, 99º17´8.2´´W, WGS84; elev. 3500 m). The climate is template semihumidy (Cw) with a mean annual temperature of 7.5–13.5°C and a mean annual rainfall of 1340 mm (García, 1973). The vegetation is represented by pine forest (*Pinus hartwegii*) and zacatonal (*Muhlenbergia quadridentada, Festuca hephaestophila* and *Festuca amplissima*) (Álvarez del Castillo, 1989). The data presented are based on 15 captures. From each capture, body (T_b), substrate (T_s at the exact point of observation) and air temperatures (T_a at 1 m above substrate) were measured to nearest 0.2°C with a Miller & Weber (0–50 ± 0.2°C) quick reading thermometer. We also recorded microhabitat type for each capture.

Mean body temperature of *C. triseriatus* was 20.83 ± 5.36°C (12–31°C; $n = 15$). Mean substrate and air temperature were 16.64 ± 5.93°C (11.1–32°C) and 16.46 ± 3.64°C (12–22°C), respectively.

Body temperature and T_s were significantly correlated (Sperman Rank correlation: $r_s = 0.5588$, $P = 0.0471$), but T_b and T_a were not (Sperman Rank correlation: $r_s = 0.4596$, $P = 0.1141$). Most snakes were found under trunk ($n = 8$), the remainder were found on ground ($n = 6$) and vegetation ($n = 1$).

Snakes living in temperate areas often encounter large temperature fluctuations and thus many have evolved strategies to maintain a preferred T_b (Peterson, 1987). *Crotalus triseriatus* has a high field body temperature which could be the result of behavioral thermoregulation selecting different microhabitats to maintain their preferred T_b as happens with other species (Graves & Duvall, 1993). Higher T_b may allow snakes to digest prey, speed the recrudescence of reproductive organs, and/or further the development of embryos (Graves & Duvall, 1987). As a result *C. triseriatus* may maintain a strong relation between T_s and T_b, which appears to have a strong effect on activity patterns in other *Crotalus* species (Jacob & Painter, 1980).