

- Stebbins, Robert C. 1966. A field guide to western reptiles and amphibians. Houghton Mifflin Co., Boston. 279 pp. (Peterson Field Guide Series).
- Wernz, James G. and Robert M. Storm. 1969. Pre-hatching Stages of the Tailed Frog, *Ascaphus truei* Stejneger. *Herpetologica* 25(2): 86-93

JAMES G. WERNZ, Department of Entomology, Oregon State University, Corvallis, Oregon 97331.

NOTES ON *CONOPHIS NEVERMANNI*, AN ADDITION TO THE NICARAGUAN HERPETOFAUNA

The colubrid snake *Conophis nevermanni*, originally described by Dunn (1937) from Río Poás de Aserrí near San José, Costa Rica, has remained poorly represented in museum collections. Wellman (1963) in his revision of the genus reported only six specimens of this species, all from Costa Rica. To those the following seven may be added: Chinandega: 10 kms S of Chinandega (KUMNH 86161); Granada: environs of Granada (JV 319); León: km 59 on hwy to León (JV 67010); Managua: Laguna de Asososca (JV 100), Río Tipitapa (JV 324); Matagalpa: 7 kms SSW Sébaco (KUMNH 86182); Rivas: near Rivas (JV 813).

HABITS: — *Conophis nevermanni* is chiefly terrestrial although it enters rivers and ponds for short periods. Its activity is usually crepuscular but occasionally it may be found active in the daytime, when it emerges from cover among or under rocks.

All Nicaraguan specimens I have observed were found in arid or semi-arid grounds having a mean annual temperature over 23.5°C and an annual precipitation ranging from 500 to 2000 mm, which corresponds with Holdridge's (1964) Tropical Dry and Tropical Very Dry Forest formations. The species seems to prefer moist situations near rivers, streams or ponded waters within these life zones.

This snake exhibits a shy and nervous temperament. When molested or frightened it flees rapidly giving a series of violent jerks, and when cornered it threatens and feigns biting. If given the opportunity to bite after capture, it holds its grip until forced to release it. Its bite causes mild pain and itching comparable to, but less than, that produced by other species of the genus (e.g., *lineatus*). Four captive Costa Rican specimens showed nervousness during all the time (maximum 14 months) they were kept and never became accustomed to handling.

FEEDING — A juvenile individual from near León (JV 67010) regurgitated two adult toads [*Engystomops pustulosus* (Cope)] and a juvenile hylid frog, [*Smilisca baudini* (Dumeril & Bibron)]. An adult specimen from Taboga (Guanacaste, Costa Rica, uncatalogued) contained a *Leptodactylus labialis* Cope in its stomach. In captivity *C. nevermanni* feeds readily on a wide variety of vertebrate foods; fishes, tadpoles and small metamorphosed amphibians, lizards, snakes and mice. Individuals have been observed in the field and the laboratory to capture their prey with fast moves; then chewing it to place it within the reach of the rear fangs. Afterwards, they may remain motionless for some time before ingestion. No constricting movements have been observed. If the prey escapes the snake chases it in an attempt to recapture it.

JUVENILES — Wellman (1963: 273) pointed out that no young specimens are known for this species, nor are there color notes on living individuals or any photographs known. Two live juveniles examined from Asososca (JV 100) and Las Canas (Guanacaste, Costa Rica, uncatalogued) agree with Wellman's description (1963: 273) of the "palest" adult individual. Colors are brilliant and well-defined in juveniles. In life both juveniles and non-black adults are longitudinally striped with chocolate-brown, jet-black, and white or cream. These colors are arranged (Fig. 1) as described by Wellman.

HEMIPENES — The hemipenes of *C. nevermanni* have not been described. A specimen from Chinandega (KUMNH 86181) has hemipenes so strikingly different from other species of the genus that their description is considered worth a particular mention. I have followed Dowling and Savage (1960) in the terminology.

