

## MATERNAL CARE OF NEONATES IN THE PRAIRIE SKINK, *EUMECES SEPTENTRIONALIS*

Louis A. Somma<sup>1</sup>

**ABSTRACT.**—Maternal care of neonates has been documented in relatively few species of lizards representing four families. This study documents the occurrence of maternal care of neonates in the prairie skink, *Eumeces septentrionalis*. Observations made herein indicate that individual variation in maternal behavior exists in this species.

Maternal care of neonates has been documented in relatively few species of lizards. Parental protection of neonates and assistance during parturition or hatching, however, does occur in some lizard species in the families Gekkonidae (Robb 1986), Anguillidae (Guillette and Hotton 1986), Scincidae (Tanner 1943, 1957, Evans 1959, Rose 1962, Hikida 1981, Slavens 1983, Hammond 1985, Mehaffey 1986), and Xantusidae (Cowles 1944). Initial observations on maternal care in *Eumeces septentrionalis* have been made by Somma (1985). The observations presented herein represent a more detailed description of maternal care of neonates by *E. septentrionalis*.

Five gravid females were obtained from Douglas County, Nebraska, during May 1984 and placed in separate plastic terraria with a soil substrate. A 14L:10D photoperiod was maintained for the duration of the study. Each terrarium contained a 15 × 15-cm plate of transparent, red acrylic under which the skinks could brood their eggs and be observed. Lizards were fed mealworms and crickets ad libitum. Eggs were oviposited between 18 and 30 June and brooded until hatchling emergence (14–23 July).

The type of maternal behavior expressed toward neonates was highly variable, although no attempt was made to quantify it. One female did not express any behavior toward its single surviving hatchling. Two females nudged their young while they emerged and then groomed them by licking the embryonic fluids from their bodies. These and two others each constructed small burrows extending 5–7 cm from their nest cavi-

ties during hatchling emergence. Most of the neonates remained in these burrows with the adults for two days. All four adults followed their young around the nests while constantly directing tongue-flicks toward them. One female remained tightly coiled around its neonates at all times. These maternal behaviors lasted for two days before the adult skinks ignored their neonates and left their nests. At this time, both adults and neonates made attempts to escape their respective terraria.

The maternal behaviors of the skinks observed in this study were not as pronounced as those reported earlier for this species (Somma 1985). In that study, the females remained with the hatchlings for three days and attempted aggressively to defend their young. The results of past and present observations on maternal behavior in *Eumeces septentrionalis* indicate that much variation exists. Further studies are required to evaluate the significance of this behavior.

### ACKNOWLEDGMENTS

These observations were part of a master's thesis presented to the Department of Biology, University of Nebraska at Omaha. This department provided funds for the study. I thank J. D. Fawcett, M. Cherney, F. Kock, J. O'Hare, R. Vaughn, and S. Wurster for assisting me with this study.

### LITERATURE CITED

- COWLES, R. B. 1944. Parturition in the yucca night lizard. *Copeia* 1944: 98–100.

<sup>1</sup>Department of Biology, University of Nebraska at Omaha, Omaha, Nebraska 68182. Present address: Department of Zoology, University of Florida, Gainesville, Florida 32611.

- EVANS, L. T. 1959. A motion picture study of maternal behavior of the lizard, *Eumeces obsoletus* Baird & Girard. *Copeia* 1959: 103-110.
- GUILLETTE, L. J., JR., AND N. HOTTON III. 1986. The evolution of mammalian reproductive characteristics in therapsid reptiles. Pages 239-250 in N. Hotton III, P. D. MacLean, J. J. Roth, and E. C. Roth, eds., *The ecology and biology of mammal-like reptiles*. Smithsonian Institution Press, Washington and London.
- HAMMOND, S. 1985. Reproductive behavior in the broad-head skink, *Eumeces laticeps*. *Notes NOAH* 12(4): 7-8.
- HIKIDA, T. 1981. Reproduction in the Japanese skink (*Eumeces latiscutatus*) in Kyoto. *Zool. Mag.* 90: 85-95.
- MEHAFFEY, D. T. 1986. Notes on captive propagation of the Solomon Island lizard *Corucia zebrata* at the Fort Worth Zoo. *Gainesville Herpetol. Soc. Newsl.* 2(4): 12-15.
- ROBB, J. 1986. New Zealand amphibians and reptiles in colour. Collins, Auckland.
- ROSE, W. 1962. *The reptiles and amphibians of southern Africa*. Maskew Miller, Cape Town, South Africa.
- SLAVENS, F. L. 1983. Inventory of live reptiles and amphibians in captivity, current January 1, 1983. Frank L. Slavens, Seattle.
- SOMMA, L. A. 1985. Notes on maternal behavior and post-brooding aggression in the prairie skink, *Eumeces septentrionalis*. *Nebraska Herpetol. Newsl.* 6(4): 9-12.
- TANNER, W. W. 1943. Notes on the life history of *Eumeces skiltonianus skiltonianus*. *Great Basin Nat.* 4(3-4): 81-88.
- . 1957. A taxonomic and ecological study of the western skink (*Eumeces skiltonianus*). *Great Basin Nat.* 17(3-4): 59-94.



Somma, L A. 1987. "Maternal care of neonates in the prairie skink, *Eumeces septentrionalis*." *The Great Basin naturalist* 47, 536–537.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/35774>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/33754>

**Holding Institution**

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

**Sponsored by**

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

**Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Brigham Young University

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.