HISTORICAL PERSPECTIVES

Food Habits of the Chuckwalla, *Sauromalus obesus*[1]

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During April 1938 the writer collected twelve chuckwallas in order to make a study of the food habits of this species. Specimens were collected in creosote bush and ocotillo associations at Borego Mountain, Tubbs Canyon, and Palm Canyon in San Diego County, California.

Stomachs of the Borego Mountain specimens contained stems and leaves of *Phacelia* sp. [the Phacelias, which include the Desert Primrose, the Wild Heliotropes, and the Desert Bells]; leaves, stems and blossoms of *Franseria dumosa* [= *Ambrosia dumosa*, the Burro Bush, Burro Weed, or White Bursage]; leaves of *Encelia farinosa* [Brittlebush]; leaves and a seedling of *Eriogonum* sp. [Buckwheat]; leaves of *Ditaxis lanceolata* [Narrowleaf Silverbush]; blossoms and leaves of *Larrea divaricata* [a Creosote Bush]; and the blossoms of *Fouquieria splendens* [Engelmann Ocotillo] which the lizards had picked up around the bases of these plants. Sand was also found in the stomachs which contained the *Fouquieria* blossoms. Specimens from Borego Mountain seemed to prefer the leaves and stems of *Franseria dumosa* as their stomachs were filled largely with the leaves and stems of this plant.

The stomachs of the 8 specimens from Tubbs Canyon contained leaves of *Encelia farinosa*; leaves, seed-pods and stems of *Lotus* sp. [the Trefoils]; leaves of *Phacelia* sp., seedling of *Festuca* sp. [a Fescue]; blossoms, leaves and stems of *Cryptantha* sp. [the Cryptanthas or White Forget-me-nots]; and the blossoms, leaves and stems of *Lotus strigosus* [Strigose Bird's-foot Trefoil]. These specimens showed equal taste for *F. dumosa* and *E. farinosa*.

The single specimen collected at Palm Canyon contained several large blossoms, about 10 x 15 mm. when pressed, of *Chænactis* sp. [the Pincushions]; one blossom of *Cryptantha* sp.; and the blossoms of *Tropidocarpum gracile* [Slender Tropidocarpum, a Mustard].

No animal remains were found in any of the stomachs.

I am grateful to Mr. Frank F. Gander of the San Diego Natural History Museum for assistance in the identification of the plant material.

[1] Originally published in *Herpetologica* 1:153 (1939). Reprinted with permission. Common names in brackets were not included in the original publication. Also note that the species is now known as *S. ater* (see article on p. 78).

An adult *Sauromalus ater* from the foothills of the Sierra de Las Asemblea, northern Baja California. *Encelia farinosa* (Brittlebush) and *Franseria dumosa* (White Bursage) are visible in the background; both are eaten by Chuckwallas. *Photograph by L. Lee Grismer.*

BIOGRAPHICAL SKETCH

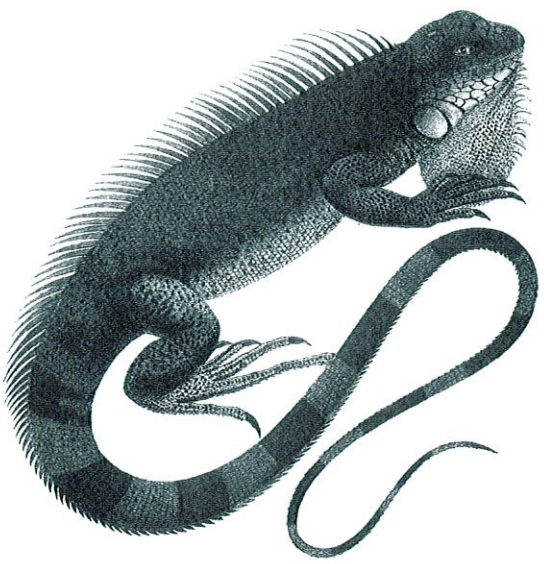
Johann Baptist von Spix

Although Prince Maximilian zu Wied-Neuwied had previously explored the coastal regions of Brazil, zoologist J.B. von Spix and botanist C.F.P. von Martius were the first biologists to visit the interior. Johann Baptist von Spix was born in Bavaria in 1781. Planning a career in theology, he spent several years in seminaries, but, in 1804, decided to pursue medicine at the University of Würzburg, where he also studied natural history. After graduating in 1806, he practiced medicine in Würzburg and Bamberg, but, in 1811, became the first Curator of Zoology at the Bavarian Academy of Science in Munich.

Correspondence with Alexander von Humboldt triggered plans for a South American expedition. In 1817, Spix and Martius began at Rio de Janeiro, moved inland, crossed the coastal mountains, proceeded north through the dry caatingas, and eventually traveled up the Amazon River. The dangers, including violent encounters with native tribes, were very real. In addition, Spix became quite ill. Nevertheless, he continued to collect specimens and record observations, primarily on animals, but also on the native tribes he had encountered. The two Germans departed from Belém, at the mouth of the Amazon, for Europe in 1820.

Johann Baptist von Spix. *Illustration courtesy of Kraig Adler.*

Spix died in 1826 of complications from a disease contracted during his trip to Brazil. However, in the period between the trip and his untimely death, either alone or with collaborators, he produced eight books on all of the vertebrate classes plus molluscs and arthropods. Three of the volumes addressed herpetological topics: *Serpentum* (on snakes, but also including caecilians and amphisbaenians) was written by Spix's assistant, J.B. Wagler, from Spix's notes and published in 1824; *Testudinum et Ranarum* (on turtles and frogs) was written by Spix and published in 1824; and *Lacertarum* (on lizards and crocodiles) also was written by Spix and was published in 1825. These volumes, profusely illustrated with hand-colored prints, together with Wied-Neuwied's works, provided the foundation for the study of the rich Brazilian herpetofauna.



Lithograph of "IGUANA squamosa" (= *Iguana iguana*) by Philip Schmid. This lithograph is in *Lacertarum* by J.B. Spix. An original of this volume and the other herpetogical volumes based on Spix's travels to Brazil are in the Kenneth Spencer Research Library at the University of Kansas. This lithograph was previously reproduced (in color) in *Slithy Toves.*

Sources

Adler, K. 1989. Herpetologists of the Past, pp. 5–141. In: K. Adler (ed.), *Contributions to the History of Herpetology.* Society for the Study of Amphibians and Reptiles, Contributions to Herpetology, vol. 5. Ithaca, New York.

Haines, S. 2000. *Slithy Toves. Illustrated Classic Herpetological Books at the University of Kansas in Pictures and Conversations.* Society for the Study of Amphibians and Reptiles in cooperation with the Kenneth Spencer Research Library at the University of Kansas, Contributions to Herpetology, vol. 5. Ithaca, New York.

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Sauromalus klauberi, Isla Santa Catalina, Baja California Sur (see article on p. 78). *Photograph by Brad Hollingsworth.*