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J. Robert McMorris
Brigham Young University

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SCIENTIFIC NOTES

HERPETOLOGICAL DISTRIBUTION AND LIFE HISTORY NOTES FOR HAWAII AND WESTERN NORTH AMERICA

Distribution of *Dendrobates auratus* Girard in Hawaii.—In 1932, Mr. David T. Fullway introduced two hundred and six *Dendrobates auratus* Girard into upper Manoa valley on the island of Oahu. The frogs according to Dunn (Oliver and Shaw, *Zoologica* 1953. 39:79) originated on the island of Taboga or Tabogilla in the gulf of Panama. While in Hawaii from September 1964 until June 1966, I made some observations concerning the migration of the frogs across the Koolau Mountain range. *Dendrobates* was found to be present as far north as Kahuku, however, only a few specimens were seen. These frogs were found generally only at an altitude where the humidity is high and the temperature is cool. In captivity, I have found *Dendrobates* to do poorly at temperatures much above 70 F.

Rediscovery of *Lygosoma n. noctua* (Lesson) in Hawaii — Oliver and Shaw (1953, *Zoologica*, Vol 39:91) stated that *Lygosoma n. noctua* (Lesson) had not been recorded from the Hawaiian Islands since 1920. In the latter part of May 1966, I found a gravid female (BYU 30843) in the leaf litter under a large Banyan tree in Laie, Oahu. *Lygosoma metallicum* (O'Shuaghnessy) were also taken in large numbers in the same habitat. Although these species superficially resemble each other, *noctua* can be distinguished from *metallicum* by the divided frontoparietal and a prominent light occipital spot on the posterior edge of the interparietal usually continuing posteriorly as a narrow light mid-dorsal stripe. According to Oliver and Shaw, *Lygosoma noctua* is the only ovoviviparous lizard known to occur in Hawaii. Upon dissecting the gravid female I found two developing embryos, which is the normal number for this species. *Lygosoma metallicum* usually lays 3 or 4 eggs. The *noctua* specimen is now in the herpetological collection at Brigham Young University.

Hemidactylus frenatus in Hawaii — On three separate occasions *Hemidactylus frenatus* Dumeril and Bibron has been found on Oahu. I collected the first specimens in March 1966 on the dormitory walls at the Church College of Hawaii in Laie. In August of 1967, a series was collected at Laie, and also one at Sacred Falls. In July of 1969, several specimens were sent to me from Honolulu, indicating that the gecko is rapidly becoming widespread on the island. It is not known how *frenatus* reached the islands, however, a good guess may be that they arrived at Laie in the luggage of visiting polynesians and orientals.

Prior to the first specimens of *frenatus* being collected in 1966, *Gehyra mutilata* (Wiegman) along with *Lepidodactylus lugubris* Dumeril and Bibron were common on the dormitory walls. With the introduction of *frenatus*, *G. mutilata* seemed to decline in numbers, however, *L. lugubris* could still be found in large numbers, possibly because people placed them indoors as a mosquito control. On the buildings adjacent to the dormitories *G. mutilata* and *Hemidactylus garnoti* were the dominant species. *L. lugubris* being noticeably spotty in its distribution. By August of 1967, *H. frenatus* had become the dominant species of all the geckos taken from the buildings adjacent to the dormitories. They had also increased considerably within the confines of the buildings. *G. mutilata* and *H. garnoti* could be found primarily on buildings that were somewhat isolated and not frequented by people, and under rocks and other debris in the general area.

H. frenatus is one of the largest of the geckos on Oahu, equalled only by *H. garnoti*, however, the latter is more secretive whereas the former is a "House Gecko" from the Orient. These facts have probably played a major role in the rapid spread of *frenatus* on Oahu.

A note on Reproduction in *Sceloporus j jarrovi* Cope. — Smith (Hndbk. of Lizards, 1946) states that *Sceloporus j. jarrovi* Cope belonging to the Tor-