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The Western Hog-Nosed Snake (Heterodon nasicus nasicus Baird and Girard) in Southeastern Iowa

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The Western Hog-Nosed Snake (*Heterodon nasicus nasicus* Baird and Girard) in Southeastern Iowa

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Abstract. Two specimens of the western hog-nosed snake (*Heterodon nasicus nasicus* Baird and Girrard) are reported from a sand prairie in Louisa County, Iowa.

Also reported from the same locality is a specimen of the eastern massasauga (*Sistrurus catenatus catenatus* Rafinesque).

Two snakes from a sand prairie in Louisa County, Iowa, have been indentified as *Heterodon nasicus nasicus.* The two specimens, a female and a male, were in the writer's collection at the State University of Iowa. The characters of these snakes agree with those given by Conant (1958). The snout-vent lengths are given below:

No.	Sex	Snout-vent Length (mm)
1.	F	475
2.	M	376

Although the female laid six white, thin shelled eggs on July 2, 1961, they were desiccated when discovered and could not be measured.

The hiatus between the southeastern Iowa locality and the great plains range of this subspecies is approximately 250 miles. It was first reported in the western part of the state in 1910 (Ruthven). Guthrie (1926) included it in the herpetofauna of the northwestern corner of the state. East of its great plains' range, it occurs in relict extensions of western sand prairie. Its presence in southeastern Iowa under the conditions described is to be expected, since Smith (1955) mentions this snake from western Illinois sand prairies.

[*Note to editors:* A DOR (dead-on-road) specimen of the massasauga (*Sistrurus catenatus catenatus*) was observed in the same area where the writer had preciously received a bite from a member of this species (Dodge and Folk, 1960). No specimens have actually been reported from this Muscatine prairie marsh, and this is apparently the first one on record for this area.]

Literature Cited

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Return of Pigment in Regenerative Tissue After Inhibition by Phenylthiourea[1]

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Abstract. Inhibition of melanogenesis in larval cells of five amphibian species (two genera) was attained by phenylthiourea treatment. Buff-colored granules were demonstrated in cells of three species, gray granules in two. Pigment returned five to fifteen minutes after withdrawal of PTU. The delay is thought to be due to the time needed for the autocatalytic formation of some dihydroxyphenylalanine, which with tyrosinase is required for melanogenesis, as reported by Lerner and Case. Results obtained with living cells were corroborated by study of fixed material. The data support an origin within the Golgi complex or endoplasmic reticulum.

Most of the extensive literature on melanogenesis in animals has been concerned with the morphology and chemistry of melanin formation in mammals. This study concerns melanin formation in larval anurans following inhibition of melanogenesis in both normal and regenerative tissue.

Several classes of compounds are capable of chemical inhibition of melanin formation in animals. Some of these compete with copper in the action of the essential enzyme, tyrosinase; others combine with copper. Among the latter are some derivatives of thiourea which have proved highly effective in amphibia (Lynn, 1948; Millot and Lynn, 1954; Lynn and Dent, 1957). Of these, phenylthioura is probably the most potent. Since melanin formation is essentially an oxidative polymerization, it also may be inhibited by reducing agents such as ascorbic acid.

The results of melanin inhibition are particularly striking when treatment is given to young larvae before the larval pigment has appeared. These individuals do not develop any new pigment as long as the phenylthiourea treatment is continued. Withdrawing the treatment results in reappearance of melanin. Similarly, administration of phenylthiourea to tadpoles during

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