

## RESEARCH NOTES

### AN ALBINO SNAKE (*ELAPHE OBSOLETA*)

Inasmuch as reported instances of albinism in snakes are somewhat uncommon, it seems desirable to record that an albino *Elaphe obsoleta* (Say) was taken in Oldham County, Kentucky about the 12th of September, 1951. The living specimen was presented to the writer by Perry Farmer, a teacher at Anchorage, Kentucky, who in turn had received it from one of his students.

*Description of specimen:* This snake, a female 656 mm. in length, is essentially a "pure" albino in appearance. The general color is a light cream. The iris is of this same color, while the pupil is dark red and the tongue pink.

The skin is not entirely without pigment, however, and the blotched pattern characteristic of *Elaphe obsoleta confinis* (Cope) and of immature *E. o. obsoleta* (Say) is faintly discernible. Examination under a lens reveals the presence of small amounts of red and yellow pigments in most of the body scales. The unequal distribution of these pigments, particularly the erythrin, is responsible for the appearance, faint though it be, of the coloration pattern. A third pigment, a melanin, is present as small punctations on most of the head shields and on a few of the body scales. There is one obvious difference between the coloration of this snake and that of newly-born water-snakes (*Natrix sipedon sipedon* L.) described some years ago<sup>1</sup>. In the latter the areas corresponding to the dark blotches of normal individuals were of a deep flesh or pink color, a condition which resulted from the visibility of cutaneous blood. In the *Elaphe*, however, these areas as well as the spaces between are pervaded by the opaque cream which seemingly is due to structure rather than pigment.

The scutellation and size appear to be not unusual for this species: dorsal scale rows 25-24-26-19; ventrals 236 plus divided anal; caudals 74; supralabials 11; oculars 1, 2; temporals (left) 2 + 3 and (right) 2(+1)+3; total length 656 mm; tail length 102 mm; ratio of tail to total length 0.155.

*Remarks:* The present specimen provides further evidence (see *loc. cit.*) that albinism in snakes frequently or even generally is not complete but consists rather of the absence of a melanin which is abundant in normal individuals, while pigments normally present in small quantities are still present in albinos. It is logical to assume, therefore, that the different pigments are under the control of different genes. Albinism in its usual form (near or complete absence of melanin) appears to be inherited as a single factor Mendelian recessive, but little or nothing seems to have been published about the inheritance of the minor pigments.

A problem in the application of common names arises in connection with the albino discussed in this paper, since one cannot determine whether it is referable to *E. o. obsoleta* (the Pilot Black Snake) or *E. o. confinis* (sometimes called the Gray Rat Snake). These two forms are generally distinguished, of course, by the amount of pigmentation (particularly melanin) present in

<sup>1</sup> Clay, Copeia, 1935: 115-118



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normally-colored individuals. Geography does not provide the answer, for *obsoleta* and *confinis* intergrade in this region.

Since individuals frequently cannot be determined reliably to subspecies, particularly among highly polymorphic species or in areas of intergradation, it is desirable to extend the practice of applying one common name to the entire population of such species with the addition of adjectives for the respective subspecies.

In this particular case, since the name "rat snake" is more firmly established for certain other species of *Elaphe*, and the term "black" is not descriptive of *E. o. confinis*, it would be appropriate to apply to the species *E. obsoleta* the common name of "Pilot Snake". The two forms under discussion may then be known as the Black Pilot (*E. o. obsoleta*) and the Gray Pilot Snake (*E. o. confinis*).

WILLIAM M. CLAY, DEPARTMENT OF BIOLOGY, UNIVERSITY OF LOUISVILLE, LOUISVILLE 8, KENTUCKY.

## ACADEMY AFFAIRS

### THE 1952 SPRING MEETING

The 1952 spring meeting of the KENTUCKY ACADEMY OF SCIENCE was held at Mammoth Cave National Park, May 9 and 10, 1952. The committee on arrangements consisted of L. Y. Lancaster (Chairman), Ward Sumpter and Gordon Wilson. The program follows:

#### Friday afternoon, May 9

A symposium on Mammoth Cave and Mammoth Cave National Park.

"The history of Mammoth Cave and the Mammoth Cave Park." H. B. Lovell.

"The geology of Mammoth Cave and the Park." C. T. Reid, Park Naturalist.

"The anatomy of the eyes of some cave animals." W. B. Owsley.

"The birds of Mammoth Cave National Park." Gordon Wilson.

"The flora of Mammoth Cave National Park." P. A. Davies.

#### Friday evening, May 9

"The National Parks." (illustrated) T. C. Miller, Superintendent of Mammoth Cave National Park.

#### Saturday morning, May 10

#### Field Trips:

1. Plants. Mary Wharton and P. A. Davies, leaders.
2. Birds. Gordon Wilson and Harvey Lovell, leaders.
3. Amphibians and reptiles. Roger Barbour, leader.
4. Geology. C. T. Reid, leader.



Clay, William M. 1952. "An Albino Snake (*Elaphe obsoleta*).*" Transactions of the Kentucky Academy of Science* 13(4), 285–286.

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