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NOTES ON THE PERIOD OF POST-DEPOSITIONAL  
DEVELOPMENT IN SEVERAL COMMON LIZARDS

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DESPITE the great amount of field work which has been carried on with reference to North American lizards, very little is to be found in the literature which pertains to their habits and, in particular, to their life histories. Recently, in connection with studies on feeding habits, the writers have had an opportunity to make observations on the presence of eggs within the bodies of the females of several species of western lizards, and it has seemed to be worth while to correlate these with data obtained by several University of Michigan expeditions to Utah and Nevada in an effort to gain some information on the length of the period of post-depositional development. The results are not, of course, exact and final, but they should provide a basis for further work of the kind.

Only four species were studied as they offered the only suitable material in the collections from which data could be derived. Those forms are *Crotaphytus wislizenii* Baird and Girard, *Uta stansburiana stansburiana* (Baird and Girard), *Sceloporus graciosus graciosus* (Baird and Girard), and *Cnemidophorus tessellatus tessellatus* (Say). It is unfortunate that only a few of the collections made extended over a period

of time long enough to provide notes upon the time of deposition and the time the first young appeared in each locality.

The first form, *Crotaphytus wislizenii*, was taken at two localities, the Maggie Basin, Nevada, in 1912, and Fillmore, Utah, in 1931. The following table shows the date upon which the last female to contain eggs was captured, the first appearance of the young, and the shortest possible period of post-depositional development.

Locality	Last date of capture of females with eggs	Date of first appearance of young	Shortest period
Maggie Basin .....	July 13	August 14	32 days
Fillmore .....	Before July 9	August 7	34 days?

The post-depositional period in this form is probably over 35 days at the shortest, the eggs being laid early in July and hatching early in August.

For *Uta s. stansburiana*, collections in the Museum of Zoology contain specimens from the former two localities and in addition from Salt Lake City, Utah, and Green River, Utah, in 1924 and 1925, respectively. The following table will indicate the data on development.

Locality	Last date of capture of females with eggs	Date of first appearance of young	Shortest period
Maggie Basin .....	July 6	August 14	40 days
Fillmore .....	Before July 9	July 25	20 days?
Salt Lake City .....		August 11	
Green River .....	July 10		

It is to be noted that in this species, also, the eggs are deposited early in July and are hatched early in August. The conditions at Fillmore are possibly abnormal and are owing to the appearance of a very early brood or a very hot season.

*Sceloporus g. graciosus* was taken at Fillmore, Salt Lake City, and the Maggie Basin. The following summarizes the data for this species.

Locality	Last date of capture of females with eggs	Date of first appearance of young	Shortest period
Maggie Basin .....	July 4	August 14	42 days
Salt Lake City .....	July 9	August 9	32 days
Fillmore .....	Before July 9	August 11	42 days?

The period of post-depositional development appears to be slightly longer in this species than in the other two, but in general the time of deposition and the time of hatching coincides with the other two forms.

The localities for *Cnemidophorus t. tessellatus* are the same as those for *Sceloporus*, and the data on egg laying and hatching follows.

Locality	Last date of capture of females with eggs	Date of first appearance of young	Shortest period
Maggie Basin .....	July 13	August 14	33 days
Salt Lake City .....	July 9	August 12	34 days
Fillmore .....	Before July 9	August 6	33 days?

It may be concluded from these very incomplete data that the four forms noted deposit their eggs early in July, while the young first appear early in the following month. In the region of 40° north latitude the period of post-depositional development for the species studied probably extends from 35 to 45 days, since the first young to hatch are probably not from those eggs which were laid the latest. It is possible that observations taken over a longer period of time and based on sufficient material might show a correlation with latitude and climatic conditions, and, of course, it is desirable that they be supplemented by observations on the time of laying and hatching of particular broods.

