

Is That So?

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One of the major advantages warm-blooded mammals have is that the mother can carry her developing immature young out of harm's way within her body and then give birth at that time of the year when survival is best assured.

Unlike the human method in which the embryo develops steadily, day by day until birth, many mammals have developed astonishing variations which can delay birth from a few days to several months. This seems particularly true in regions where winters have become more severe than they were in ages past, or where food is not plentiful during recurring seasonal periods, or where the mother is nursing or in poor condition.

Although it is a matter of recent "discovery" there are three astonishing variations and they occur quite regularly in the wild animals about us.

In one group, the egg is fertilized but then its normal development is arrested within a few days. This includes the fisher, mink, badger, armadillo, weasel, black bear and marten.

In a second group, which includes deer, rat, mice and allied families, there may be a definite interruption of growth after the embryo is already quite well developed—the interval lasting from a few days to several months.

With the third group, confined to most bats, the egg itself is not fertilized until several months after mating—but once fertilized, development is normal.

Egg Fertilized

To take the latter group first: most American bats, like our common brown bat, mate in the late summer or fall. As far as the egg is concerned, nothing happens. Then, months after mating, when springlike, balmy weather arrives, the egg is fertilized and a new life begins. Should the winter be prolonged, then fertilization will be deferred. Should spring be hastened, say by placing the female brown bat in a warm room, during any time of the winter, then fertilization takes place and the young will be born approximately 90 days thereafter.

In the second group, the egg is fertilized immediately but the period of gestation, as with the deer, may vary from 150 to 280 days! What happens is this: after the egg is fertilized and there has been a certain amount of development, the embryo may become dormant for four to five months—particularly if the mother is in poor condition. Likewise should the weather turn cold suddenly, the badger may halt the growth of its embryo for at least 60 days.

Contrasted to this, the first group has a development within the egg a few days, then the quiescent period may last for weeks, sometimes even months. To all outward appearances, there is no change in the mother and the pattern of her behavior is unaffected. But once growth of the egg is resumed, it always proceeds regularly thereafter, regardless. Among these animals is the marten, whose gestation is about 250 to 270 days—roughly, 8½ months, which seems excessively long for such a small animal.

But yet, there is a much more commonly-observed arrested development. It is the bird's egg which is fertilized when laid, yet no development takes place until certain temperature requirements have been met for a certain number of hours. Were this not true, the bird's young would be hatching in the same nest continuously over a protracted period, and as a result, the first-born might die of hunger should the mother elect to hatch out the remainder, or the unhatched young might perish within the egg should she elect to heed the importunings of the first-born.

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