

GROWTH OF THE GREEN IGUANA (*Iguana iguana*) IN THE FIRST 18 MONTHS OF LIFE IN CAPTIVITY

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Materials and Methods

This study was based upon 20 captive-bred green iguanas. Ten of them hatched in 1987, and ten in 1988. All hatchlings were from the same pair of adults. I gave most of them to friendly private iguana keepers. Only a small number were reared by myself (five from 1987 and three from 1988).

All the iguanas were measured and weighed at monthly intervals. Conditions of husbandry (nutrition, climate in the terrarium, ultraviolet radiation, etc.) were recorded as precisely as possible. The influence of different husbandry conditions on growth and health of the iguanas will be discussed in a later article.

The following parameters were measured: Snout-vent length (SVL), total length (TL) and weight (g). For interpretation of the data the monthly mean (\bar{x}), standard deviation (S.D.) as well as maximum (max.) and minimum (min.) values were calculated for each parameter.

Results

At hatching, the iguanas were 55-71 mm in SVL ($\bar{x} = 63$; S.D. = 0.46), 180-260 mm in TL ($\bar{x} = 232$; S.D. = 17.6), and weighed 6.7-12.3 g ($\bar{x} = 10.5$; S.D. = 0.96).

The increase of SVL and TL follows a linear, and the increase in weight, an exponential curve. The mean increase of the SVL was about 8 mm, and for TL about 29 mm per month. Both SVL and TL doubled at an average age of 6.5 months, and tripled at 14.5 months and 15.5 months respectively. A ten-fold increase in hatchling weight was achieved at an average age of 8.5 months, while a twenty-fold increase was reached at 13.5 months.

At 18 months of age, the iguanas were on the average 197 mm in SVL (313% increase; S.D. = 33), 745 mm in TL (321% increase; S.D. = 120) with a weight of 305 g (2905% increase; S.D. = 171). The maximum SVL at this age was 240 mm (381% increase), 906 mm in TL (390% increase) with a weight of 740 g (7048 % increase). The smallest iguana achieved only the following measurements: SVL 140 mm (222% increase), TL 500 mm (216% increase) and a weight of 110 g (1100% increase).

At the time of hatching, these captive-bred iguanas showed an average SVL to TL ratio of 1 : 2.73 (min. 1 : 2.27, max. 1 : 3.29). During growth, this ratio changed slightly in favor of tail-length, resulting in a ratio of 1 : 2.85 (min. 1 : 2.62, max. 1 : 3.2) at an age of 18 months. Therefore, body growth on the average was moderately negatively allometric during the first 18 months of life.

Discussion

Growth data for *Iguana iguana* recorded in the field showed considerable variation depending on the population, climate, and available food. Müller (1968), Henderson (1974), Troyer (1982) and Van Devender (1982) reported an increase of 6.3 to 8.1 mm SVL per month, while Harris (1982), and Burghardt and Rand (1985) found higher growth rates, namely 11.4 mm, and 8.4 to 14.4 mm per month, respectively. The mean monthly rate of increase in SVL for captive green iguanas in my study was 8 mm. This is similar

to the data recorded for wild iguanas.

Since all my iguanas were the offspring of the same pair of adults, they were genetically quite similar. Of course, there are many other factors which influence growth rate and health of reptiles in captivity. These captive-bred iguanas were given to about ten amateur herpetologists for rearing. One must guess that each person provided slightly different rearing conditions for the animals. Therefore, these data should represent, more or less, the average growth rate for the green iguana in captivity.

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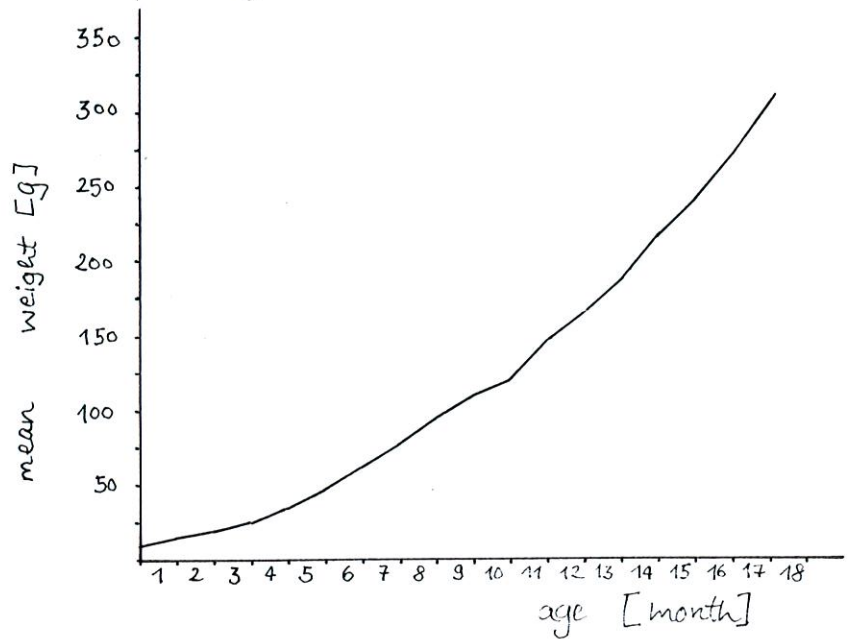
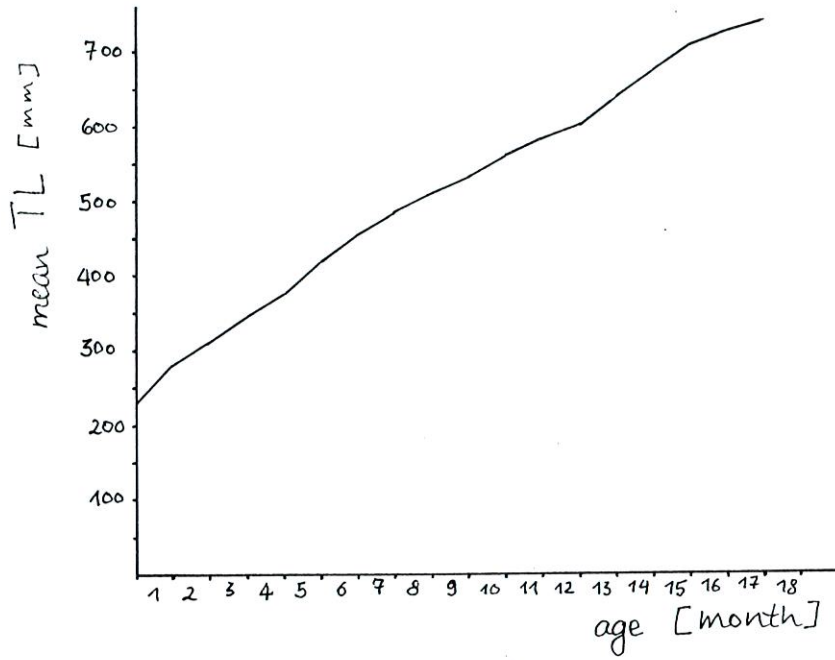
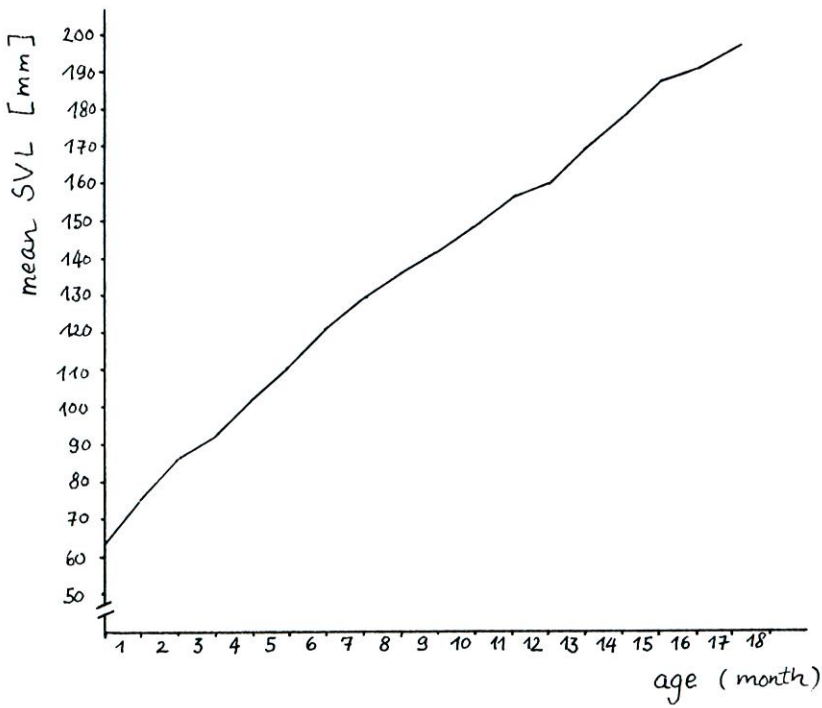
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