FEEDING FREQUENCY

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Some iguanas, such as Chuckwallas, inhabit arid climatic zones and are well-adapted to scarcity. Feeding these animals only three times per week is probably adequate. However, as a reptile rescuer and rehabilitator, I am loathe to publish any iguana feeding schedule that suggests anything less than fresh food and water being provided on a daily basis. "Three times a week" is far too easily misinterpreted by the all-too-many pet owners who devote less than the appropriate amount of attention to their animals' needs. "Three times a week" too easily segues into "twice a week" or "once a week" or "I fed it last week; I don't have any food handy so I'll feed it again next week." As implausible as this may seem to those of us who strive to provide our captive animals with the best possible care, my experience has, unfortunately, taught me otherwise.

A case in point: a male Green Iguana and a male Spiny-tailed Iguana (*Ctenosaura similis*) were each kept for 12 years in a large (150 gal), tidy enclosure with cypress mulch substrate and branches for climbing. Ceramic heat emitters were used to provide heat and Reptisun 5.0 UVB fluorescent tubes provided light. Both animals received the same diet: once a week they were fed an unknown amount of kale and organic spinach, with mango, melon, and occasionally other fruit. I was told they were always fed on Sunday and would have polished off all their food by Tuesday. Once a month, they would receive an unknown quantity of kitten chow. The effect of this highly questionable diet proved to be very different for these two animals in different genera.

"Ctolstoy" is a large, impressive, Spiny-tailed Iguana that appears to be in good health. His body is a bit slim, even for a species known to be lanky, but, compared to two other male *C. similis* that have been with me for several years, his size seems reasonable and his temperament is remarkably calm.

"Schiller," on the other hand, is smaller than healthy 12–18 month-old Green Iguanas. He has no obvious deformities and, superficially, has the appearance of a juvenile female (with the exception of hemipenial bulges). Personality? This little guy has what is currently referred to as "attitude," but, after a few short weeks of being provided with food on a daily basis, he is much calmer and quite easy to handle.

I see far too many stunted Green Iguanas. However, most of them come to me with no history, making it impossible to tease out what factors might have led to that state. Given their identical histories of long-term deprivation, I was curious as to why Ctolstoy and Schiller had fared so differently.

I posed my query to Dr. Gunther Köhler, who is both a trained veterinarian and a biologist whose research has focused primarily on ctenosaurs, and Dr. John Iverson, who has investigated the digestive physiology of various species of iguanas. Both provided me with insightful responses, which served to raise further questions.

Dr. Iverson pointed out that a sample size of 2 was insufficient for any definitive determination and that a host of reasons (unrelated to digestive physiology) might be responsible for why one animal might prosper and the other not. Factors such as parasites, diet as a juvenile, stored fat at the beginning of study, and incubation temperature of the original eggs, among other things, might have come into play. He also suggested that Schiller might have had a developmental problem since hatching (or even before).

In my experience (with a limited sample size), iguanas with developmental disorders also tend to have anatomical anomalies that are visible externally (e.g., twisted vertebral columns, misshapen or malproportioned heads, extra or missing digits). In my experience with stunted iguanas, which, unfortunately, is much more extensive, I find that when they are provided with a nutritious diet on a regular basis, they grow to a variable extent.

Dr. Köhler pointed out that ctenosaurs usually inhabit arid regions that experience a distinct (sometimes severe) dry season during which food is scarce. Green Iguanas usually live in the forest (at least gallery forest along rivers) that tend to provide food more regularly. Therefore, ctenosaurs might be better adapted for irregular food-intake.

Fascinating information to ponder, but what does this prove? Chuckwallas, like ctenosaurs, can probably survive (and even thrive) on an intermittent feeding schedule — if they are cared for by professional zoo personnel or responsible pet owners. Even so, approximating the seasonal availability of foods in an animals' natural environment remains difficult. Also, given the sheer number of animals that come past my door that have been nutritionally deprived, I strenuously advocate daily feeding. Although individuals may not always feed, if given the opportunity each day, they are much more likely to remain healthy and grow to their genetically determined potential.

In any case, I am pleased to report that both Schiller and Ctolstoy have both been eating ravenously on a regular basis and both are gaining weight.



"Schiller," a 12-year-old male Green Iguana, is smaller than healthy 12–18 month-old iguanas. He lacks obvious deformities, but has the superficial appearance of a juvenile female. *Photograph by Carole Saucier.*