

Fijian Banded Iguanas at the San Diego Zoo

AJ Gutman

Iguanas of the genus *Brachylophus*, the Fijian banded iguana (*B. fasciatus*) and the crested iguana (*B. vitiensis*), are among the few iguanids found outside the New World. Both species are endangered and protected under international law. On Fiji, exporting these animals is illegal, and fines for poaching are heavy. Both species are listed in CITES, Appendix 1.

The crested iguana is restricted to the northwestern islands of Fiji, which are fairly dry outside of the hurricane season. *Brachylophus vitiensis* is a

small iguana (75 cm and 300 g) that is dark green with black and white markings and a prominent nuchal crest. They are not sexually dimorphic. Only 5–6,000 animals remain in the wild. Currently, no specimens are kept in American zoos, although a number of Australian zoos have breeding programs.

Brachylophus fasciatus is smaller (about 60 cm and 200 g). These lizards are remarkably beautiful. Males are very bright green with two or three pale blue bands, and females are solid green with blue



Male Fijian banded iguana, *Brachylophus fasciatus*, displaying distinctive bands. Photograph: John Kinkaid



Male banded iguana emerging from the egg. Photograph: John Kinkaid

spots or partial bands. An estimated 10,000 individuals remain in the wild. These are divided into several distinct subpopulations that inhabit the few remaining undisturbed habitats of Fiji, everywhere from high cloud forest to low-lying coastal swamp.

At present, 46 Fijian Banded iguanas (27:19) are housed at the San Diego Zoo, with 25 more (16.9) in 14 other zoological institutions. Wild populations are very much at risk from introduced predators and habitat destruction. With no long-term conservation plan in place and no ongoing research being done in Fiji, this genetic reservoir is essential.

Captive Breeding

In 1987, the San Diego Zoo acquired four pairs of *B. fasciatus* from the Orchid Island Cultural Center on Fiji. Along with four other founding members of the breeding group, over 100 offspring have been produced in both the F₁

and F₂ generations. One of the original founding members is still alive and reproductively active at an estimated 18–20 years of age.

Pairs of animals are housed in large (3' x 3' x 6'), well-ventilated enclosures equipped with visual barriers to keep the very territorial males from becoming overstimulated and attacking the females. The enclosures contain non-toxic plants such as *Ficus*, *Pothos*, *Philodendron*, *Nephtytis*, and several palms on which the animals may perch or browse. Females also will use the plant cover to hide. Fresh water is provided at all times and the cage-bottoms are covered with sphagnum moss in order to hold moisture.

All enclosures are on wheels so that they can be rotated into an open courtyard for exposure to natural sunlight. Indoors, the enclosures are kept under UV-opaque skylights. Indoor temperatures range from 80–88° F during the day and from 72–80° F at night with a 12 hour day/night cycle.

Diet

The omnivorous Fijian banded iguanas are fed three times a week with a mixture of fruit and vegetables chopped to appropriate size. A base of greens, including kale, dandelions, collard greens,

and mustard greens, is topped with broccoli, bean sprouts, sweet potatoes, carrots, and fruits, such as mango, melon, and berries. These animals also relish flowers. In addition, they are fed a variety of insects three or four times a week. All food is



Sexual dimorphism in *B. fasciatus*. Above: male. Below: female. Photographs: John Kinkaid



Above: Breeding pairs of *B. fasciatus* are housed in large enclosures, separated by visual barriers to prevent territorial aggression amongst males.

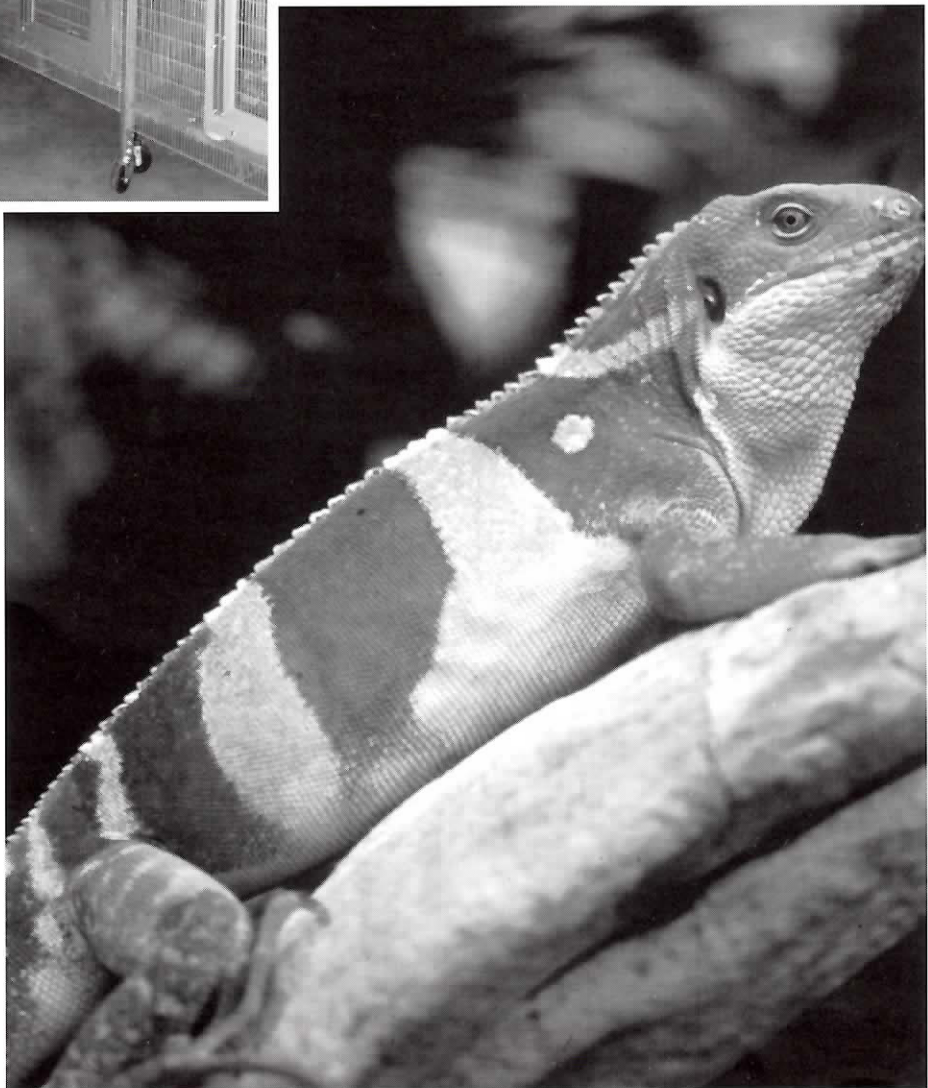
Right: Male *B. fasciatus*.
Photographs: John Kinkaid

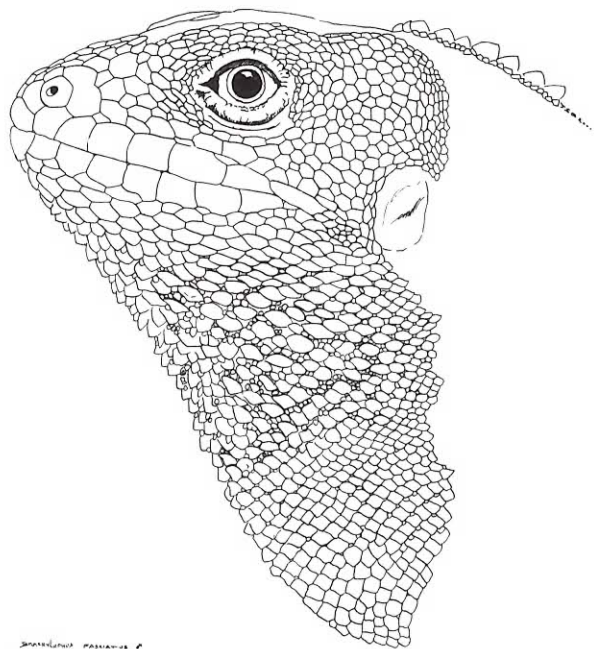
dusted with a 1:1 mixture of calcium carbonate and a vitamin supplement. Reproductively active females are given extra calcium.

Reproduction and Nesting

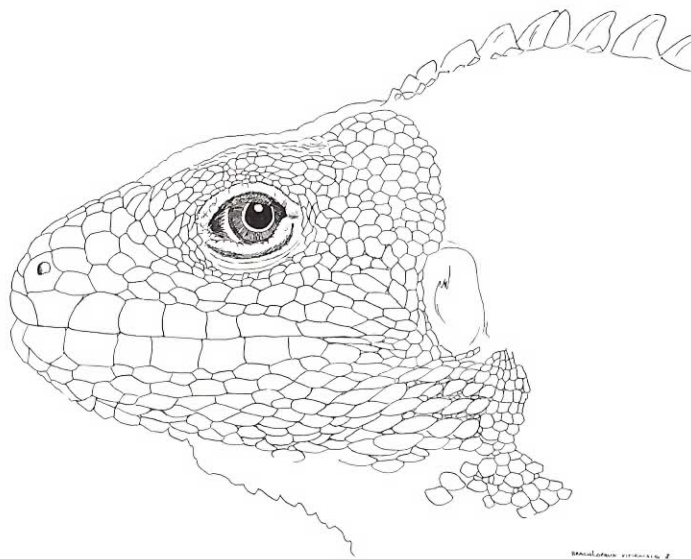
Female banded iguanas may lay eggs in their second year, but these are rarely fertile. Fertile eggs usually are produced for the first time in the third or fourth year. Clutch sizes range from three to seven with an average of five. Eggs, which are as large as those of a green iguana, are laid between April and July.

Nest boxes are large, covered Tupperware containers filled with damp potting soil. Females enter the nest through a hole in the lid and dig diagonally downward to a depth of about 12". Eggs are incubated at 82° F for 121–200 days.





Fijian banded iguana, *Brachylophus fasciatus*. Illustration: John Bendon



Fijian crested iguana, *Brachylophus vitiensis*. Illustration: John Bendon

Hatchlings weigh 7–12 grams and can be sexed immediately by the presence or absence of distinct bands. Young are housed in 20-gallon, screen-sided terraria filled with plants and climbing branches. They are provided with natural sunlight daily and fed the same diet as the adults, although insects are provided more frequently.

Hatchlings at the lower end of the weight range have the conventional banded iguana appearance, whereas a small number of more robust hatchlings tend to have a blend of features characteristic of both species. No one has been able to determine whether these are, in fact, hybrids or naturally occurring variations. Clearly, further examination of the wild subpopulations is necessary.



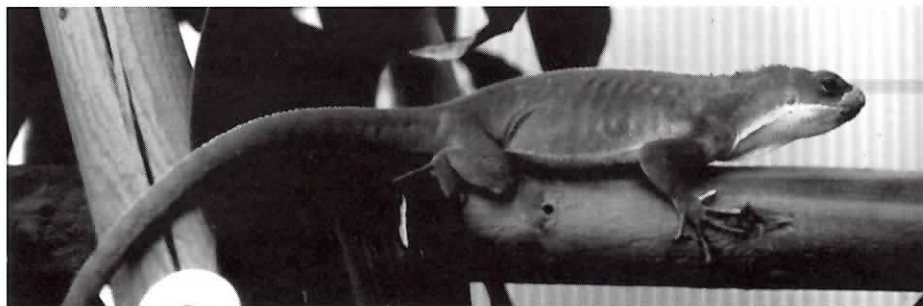
Acknowledgments

I thank John Kinkaid, Animal Care Manager, and his staff at the Reptile House of the San Diego Zoo for a wonderful experience. I was reassured to know that these precious animals are cared for with both consummate professionalism and great love.

References

Kinkaid, J. 1997. Iguanas of the South Pacific. *Reptiles* 1997 8(5): 12–16.

Kinkaid, J. 1999. Fijian Banded Iguana, *Brachylophus fasciatus*. North American Regional Studbook. 1st ed., February 1999. Zoological Society of San Diego.



Female Fijian banded iguana. Photograph: John Kinkaid