

TAXON MANAGEMENT ACCOUNT

ANDERSON'S NEWT or ALLIGATOR NEWT

Echinotriton andersoni (Boulenger)

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A. INTRODUCTION AND NATURAL HISTORY

1. Description: Adults average 65-75 mm SVL, and the tail is shorter than the SVL. Dorsum coloration is dark brown; palms, soles, venter, and sub-caudal stripe are orange. Poison glands across the dorsum overlie sharp bones as an anti-predator mechanism: spines on the quadrate protrude through large glands at the base of the skull; ribs 3-9 are sharp, free from the costal musculature, and capable of penetrating the overlying lateral row of poison glands; epipleural processes of the ribs are also sharp and overlain by row of secondary glands along the vertebral column (Nussbaum and Brodie, 1982).

2. Distribution and Habitat: Found only on a few islands off Japan (Okinawa and Anami, Ryukyu Islands) and China (Hainan Island), and in northern Taiwan (Frost, 1985; Zhao and Adler, 1993). Inhabits woodland habitats near streams.

3. Ecology and Life History: Entirely terrestrial, this species does not typically enter water in the breeding season. Breeding and oviposition take place on land, but larvae develop in the water.

B. CONSERVATION STATUS

This species is not currently listed as threatened or endangered by any agency. However, its range is incredibly small, making it susceptible to extinction through localized habitat modification.

C. CAPTIVE MANAGEMENT

Slaven's (January 1998) and ISIS abstracts (June 1999) list 11 animals (as *Tylototriton andersoni*) at Detroit Zoological Institute. This group of 6.5 adults produced 4 offspring in 1999. Two additional animals of unknown gender are held at a zoo that did not report them. In the past, this institution had had an animal lay eggs that failed to develop. One science laboratory (R. Nussbaum) also bred this species prior to 1982.

D. HUSBANDRY PARAMETERS

1. Housing: Similar to *Tylototriton*; mossy substrate with bark and plant cover, access to shallow water.
2. Environmental Concerns: Maintenance temperatures of 20-23C; subdued lighting at a 12:12 cycle.
3. Social Management: Nothing pertinent.
4. Nutritional Requirements: Adults feed readily on small crickets, wax worms, and red worms.
5. Health: Nothing pertinent.

E. REPRODUCTION

1. Sexing Techniques: Males are somewhat slimmer and have swollen vents in the breeding season.
2. Propagation Techniques: Successful overwintering entails chilling animals down for 4 months. Over the first 3 weeks, drop the temperature from 20-23C to 7-13C; reverse during the last 3 weeks. Animals may remain on the surface and apparently active throughout.
3. Miscellaneous Data: Nothing pertinent.
4. Oviposition and Parturition: Unlike *Tylototriton*, which deposit small eggs singly or in groups in or over water, *Echinotriton* deposit large, single eggs on land. One female was observed to wrap her body about the eggs and remain with them (R. Saunders, pers. com.). The female did not remain with the eggs during the Detroit breeding (A. Snider, pers. com.).
5. Neonate Husbandry: Eggs hatch within 2 weeks; larvae are without balancers. They feed readily on commercial fish food and mosquito larvae until they are big enough to take blackworms. Metamorphosis is usually complete within 3 months, and metamorphs can be housed like the adults.

F. COMMENTS AND DISCUSSION

Although this species is not currently in trouble, a viable captive population should be established to develop a husbandry program and to serve as a genetic reservoir. This will require importation of additional founders.

G. REFERENCES

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