

Raising the Holy Grail

Ari Flagle and Eric Stoops introduce us to their thoughts on captive care and nurturing of neonate and juvenile M.boeleni, Boelen's python.

This article provides an overview of several husbandry techniques used at CFRAR (Center for Reptile and Amphibian Research) for raising neonate and juvenile Boelen's pythons (*M.boeleni*). This species is extremely difficult to maintain in captivity and as such we do not espouse its collection to the curious, rather we encourage those interested to gain enjoyment of *M.boeleni* by visiting zoos, wildlife centers, animal research programs and if available the collections of tenacious herpetoculturists who are working with Boelen's pythons.

M.boeleni, or the Boelen's python, is also named Sanca Bulan and Hitam Wallow in one of the many Indonesian dialects heard in the western portion of New Guinea. Included on the CITES list as a threatened species the Boelen's python has become increasingly difficult to acquire as a result of the prohibition placed upon its export by the Indonesian government. There are of course zoos, ecological research centers and several private herpetoculturists throughout the world who maintain one or more Boelen's in their collections, but few are able to assert that these confined animals are thriving. While there are several theories there are no definitive answers as to why there is an inordinately high mortality rate among captive Boelen's.

With press such as this it is understandable that many admirers of *M.boeleni* are beginning to rethink their position on the model of maintaining exotic animals in artificial environments. Instead many naturalists are eager to support movements which promote breeding efforts within the animal's natural habit for the purpose of increasing the dwindling population. Perhaps



through such efforts this species may once again flourish within its natural environment. The CFRAR has joined a global partnership for conservation of *Morelia boeleni* with Amir Hamidy of the Laboratorium of Herpetology in the Museum of Zoological Bioscience. The Laboratorium of Herpetology is a research center affiliated with the Indonesian Institute of Sciences. Through international collaboration we hope to find answers which will improve this species' chance of survival within its natural environment.

Quarantine and Acclimation: The only Boelen's pythons permitted by the Indonesian government for export are captive born. Unfortunately the most vulnerable, neonates are the majority of animals being exported. In fact some of these neonates of 10 to 14 inches still bear traces of embryonic matter. Is it then surprising that these emergent snakes arrive in a state of stress seriously compromised by dehydration? Veterinarians specializing in reptiles and amphibians emphasize the connection between stress and immunosuppression, therefore we initiate a proactive treatment plan that adopts techniques to minimize as much stress as possible. Our quarantine room is far from the center of activity, we use low lighting, and initially cover the enclosures with towels to muffle outside sounds and provide a cocoon-like shelter while the animal adjusts to its new surroundings.





Upon arrival the animal is examined in a quiet, dimly lit room where it is weighed and allowed to immerse in no more than an inch of tepid water. If the snake appears severely dehydrated it will benefit from an extended period, approximately forty- five minutes, of supervised immersion. Although neonates these Boelen's require the same controlled environment of quarantine that protects other animals in the collection. The difference perhaps can be observed in the placement of several small, smooth dowels or pvc pipes in the enclosure that serve as perching areas and climbing surfaces.

In the cloud forest, neonate and juvenile Boelen's have been observed coiled on the limbs of small bushes, sometimes only few feet off the ground. This arrangement serves as both protective shelter and provides access to small lizards, fledgling birds and small bats that inhabit the thick vegetation. Even though they are captive bred the Boelen's instinct to climb remains strong and so we provide access to "branches". The standard size enclosure to house our hatchlings and juveniles is approximately 24" x 24". There are no sharp corners, the walls are plastic or a variation of material that offers the safety of a smooth surface to prevent stress related injuries such as nose rub or body lacerations. There is a small hide box filled with moistened sterile moss (be aware that small insects and mites can inhabit some commercial mosses) or dry newspaper shavings. Lighting and heating are configured within the enclosure to provide temperature gradient. Limiting space within the shelter presents an environment that evokes the possibility of security once the snake coils up within the box. A shallow water dish placed away from all sources of heat is changed daily.

All photographs in this article supplied by Ari Flagle.



Some keepers prefer to use bottled or purified drinking water for their snakes. Unlike the quarantine area the enclosures in the collection rooms are more elaborate. We attempt to provide as much of a natural environment as possible for each species by incorporating forms of vegetation to assist with oxygen exchange, humidity, and areas for refuge. For some species incorporating environmentally appropriate material proves to be beneficial for the animal and is esthetically pleasing to view. Unfortunately when working with an enclosure for the Boelen's we have found this approach discouraging and as a result we use plain white paper as substrate and limit furnishings to a hide box, branches and a dish of water for ease of cleaning and maintenance.



The Boelen's python is not a social species and avoids contact in the wild with others of the same taxa unless engaging in breeding behavior. Maintaining separate enclosures has several benefits. It is easier to collect accurate data when there is only one animal confined in the enclosure. There is no confusion regarding daily behavior. Potential for aggression is eliminated and every member of the community has an opportunity to eat and drink their fill.

Feeding: In the wild neonate and juvenile Boelen's pythons most probably feed on a variety of prey. Unfortunately, observations of hatchling or juvenile snakes in the natural environment are quite rare. Stomach content and fecal samples are unavailable. We can speculate that they would feed on small lizards, small rodents, and even small bats found within their habitat. In captivity at CFRAR we offer food every 5-10 days. In the wild I would imagine that if prey is available these little snakes are quick to initiate feeding behavior. Unfortunately there are no recorded observations or reports of animals this size feeding or having just fed in the wild so my speculations are based upon observations of confined behavior.

The Boelen's python is a demanding yet fascinating snake to work with. It is an animal that requires much commitment on the part of its caretakers as well as willingness to participate in ongoing education from the worldwide herpetological community.