BREEDING BOIDS IN CAPTIVITY

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My snake collection is housed in two rooms within the house and is space heated by the central heating system. The temperature of the rooms is controlled by a Landis and Gyr (rev 10) thermostat which will select different temperatures at different times of day, however I only use one day and one night temperature. In summer the temperature is 28° C by day falling to 25° by night. Commencing in September this is lowered progressively 1°C monthly until the winter temperature of 25° by day and 22° by night is achieved in December. At the beginning of January I begin to raise the temperature. At the same time I give the animals a photoperiod which is the same as the daylength outside. In most of the cages humidity is quite low (40-50%) with the exception of a cage holding Emerald Tree Boas *(Corallus caninus)* where a humidifier which creates a humidity of 80-95% at night. By day it is the same as with the other animals.

The cage units are homemade from 18mm plywood and painted with non-toxic acrylic paint. The bottoms of the units are covered with cat-litter which is made from compressed wooden pellets, to absorb the large volume of fluid boids produce when defecating.

Before I started to keep pythons, I wanted to have some experiences with incubating eggs. For this purpose I kept two species of *Elaphe*. But the only thing I learned from this was that eggs from pythons cannot be compared with eggs of *Elaphe*. Even from one python species to another species the eggs can be very different. For instance you can spray *Python molurus* eggs with water, but eggs from *Chondropython* will die if sprayed.

I obtained a female Yellow Rat Snake *(Elaphe obsoleta quadrivittata)* from a friend and a male from the Rotterdam Zoo; this animal had been found on the street! After a couple of months the female had her first clutch of eggs but the quality was very poor. It was her first clutch and none of them hatched. The eggs were incubated by the au-bain-marie method in an aquarium with 5 cm of water, heated by an aquarium heater.

After a couple of months she had her second clutch and after that she gave two clutches a year, each containing over 40 eggs. This time I used a very simple incubation method; I put the eggs in plastic boxes on wet tissue and covered them with wet tissues and closed the boxes. I just left them in the snake-room at various temperatures and 100% of them hatched. I checked the eggs for humidity and gave them fresh air every two days. Sometimes I opened an egg to look what was in it but I always got over 40 young because in some eggs were twins; this seems to be common for this species. But 80 to 90 young each year from only one pair is too many so after three years I gave the animals to a friend.

I also kept Corn Snakes *(Elaphe guttata)*. I kept the normal coloured animals (not albinos) which in my opinion are the nicest and when the animals were nine months old I got the first clutch. Maybe I fed these captive bred animals too much. From her first clutch all the eggs hatched and after this she gave three clutches a year. The eggs were incubated by the same method as the eggs from *Elaphe obsoleta quadrivittata*. I also gave these animals to a friend because nobody wants the young.

In 1986 I started keeping Macklots Pythons. These were captive born animals and I bred them for four successive years. First I got eggs when they were three years old in 1989. I prefer parental incubation and with this female I never had any problems. She always incubated the eggs by herself in a large, inverted flowerpot. I put the male and the female together in January and they start copulating in March. After the female develops the follicles she stops feeding till the eggs hatch. I keep the humidity at 80% by putting some soaked towels around the flower pot. After exactly two months the eggs hatch and as soon as I see the first young I take the female from the eggs.

I put the female in another terrarium and she usually eats the same day; sometimes the next day. The young animals stay another 24 hours in the egg to absorb the yolk. After the first slough I try to feed them with pink mice and if they don't accept this I try mice with the smell of chicks or pieces of chick or chicken legs. They are also cannibalistic. On one occasion one hatchling ate another, this happened 15 minutes after they were fed and they had already calmed down. I put them in one terrarium and when I came back in the room after 15 minutes one had swallowed the other completely. After massaging, the swallowed animal was regurgitated and both animals survived and became healthy animals. But I also heard from someone whose adult female swallowed the (smaller) male without any inducement. At the time the animals were not being fed so maybe we can conclude that this species is cannibalistic.

Using the regime described in the first two paragraphs I bred Boa Constrictors and in the period 1980-1990 approximately 450 young were born and none of them gave any problems feeding. The young were very big (over 50 cm long) and very heavy (120 to 150 gms). This was also the reason for the small litters. The biggest litter was 26 young but a litter of 10 was normal. The young ate adult mice after the first slough.

At the moment I only keep *Boa constrictor occidentalis* which I bred this year (1994) for the first time. In July 18 young were born and these animals are completely different from other Boa Constrictors. If they are not kept on a heatmat they stop feeding or regurgitate the prey after one or two days. They need the heat for the digesting of the prey. But when you keep them on a heatmat they have problems sloughing. So I tried to wean them off the heatmat by slowly moving their cages so that the heated area became progressively smaller. It took about six months to get them off the heatmat and since then they are doing fine.

I also bred Rosy Boas *(Lichanura trivirgata rosefusca)* but I was not very successful with them. I put them into hibernation from mid November till mid February at 15°C after that I returned them to normal temperatures and they started to feed. From March till May they copulated several times but the female did not stop feeding. I also could not see that she was gravid. Normally they give birth to the young in September or October. When nothing happened in these months I stopped feeding and put them in hibernation in November again. After two weeks I checked the animals every two days. I found five young of which four had died. The only surviving baby and the mother were brought back to normal temperature, but it was already too late. The female died after a couple of days, the young after a couple of months and as I could not buy another female, I sold the male.

In 1988 I started keeping *Chondrophython viridis* and in 1990 I bred them for the first time. I bought three adults of the lowland morph from Papua New Guinea. In January I put the male in the female's cage and they copulated the same night. Again with this species I prefer parental incubation and I left the female to incubate the eggs by herself under the same circumstances as the Macklots Python. From the first clutch I kept four animals for myself and now after four years they all look different. I have one animal that looks the

same as the mother which had a lot of blue colour. One is light green and the two still have some immature markings. From these animals two have been gravid this year for the first time. One had a clutch of 19 eggs of which only two were fertilised. These two eggs died after three weeks in an incubator. The other animal had 26 eggs of which 15 were fertilised. She did not want to incubate the eggs and after 65 days I opened the eggs and found a half developed deformed snake in all of them. Normally the incubation time for these eggs is 45 to 50 days, which is short because the female keeps the eggs inside her a longer time than other pythons.

Sometimes the female refuses to incubate her eggs and then I have to put them in an incubator. I tried several incubators and I think the best is an ex-hospital incubator but I was not very lucky with the one I had. The thermostat was broken and gave an alarm signal when the temperature was 34ºC so I could switch it off. This happened a couple of times and then I made an incubator from an aquarium with 5 cm of water and an aquarium heater. But the best incubator at the moment is the incubator I made from polystyrene sheets which I glued together. On the rear I mounted a heatmat which is connected to a thermostat from an incubator for bird eggs and which I can control to 0.1ºC exactly. In this incubator I put a plant propagator filled with 3 to 4 cm of water which will maintain a humidity of about 80%. The eggs I put on dry tissue and they hatch after 45-50 days at a temperature of 29ºC. But when the female incubates the eggs 90-95% hatch but when I incubate them in an incubator only 60-70% hatch. That is the reason I prefer parental incubation.

The young animals start to change colour after about 6 months. The complete change takes about 2 years but a friend of mine had a *Chondropython* that changed colour in one day. In the morning he left his house while the snake was yellow and when he came home in the evening it was green.

At the moment I have another two projects. I built a new terrarium in which I keep all of my Emerald Tree Boas together. Before that I kept them in separate cages but in the last few years I was not successful with breeding this species. Last year I put them together but it was already too late in the season. But I found strings of semen so I am hopeful for next year.

In the new terrarium I mounted a pipe system with holes in the pipes which lie on top of the terrarium. This pipe system is connected to a humidifier, outside the terrarium, which is switched on for one hour each night. As soon as it is switched on the animals become active and hopefully they will start to copulate in March or April.

My last project is the *Python curtus breitenstieni* from Borneo. I have two juvenile pairs. I bought these animals as wild-caught hatchlings which were about 15 cms long. They all started to feed in the first week. They are housed separately and each cage has a hide box available which they use all the time. I never see the animals except in the hide box, looking for food. I feed them once in two weeks an adult rat and the more they grow the more aggressive they become.