

BREEDING POWDER-BLUE DISCUS

by Deborah Ralph

The Discus, *Symphysodon* sp., is known as the King of the aquarium and it certainly deserves this title, for even the most common strain, the Brown Discus, *S. aequifasciata axelrodi*, comes up brilliantly.

The Discus we had - and it eventually turned out to be a female - was a Powder-blue Discus. This is a cross between the Brown Discus and the Blue Discus, *S. aequifasciata haraldi*. Our female had been roaming around our 5' mixed-community tank for almost 2 years and was probably about 2 years and 3 months old. As Discus are so difficult to sex and our fish was always very colourful and undisturbed by any other tank-mates, it seemed to be King of the tank and we assumed it was a male. Never assume anything. We soon learned that it was indeed a female, when we discovered her guarding eggs one morning, on the intake pipe of the canister filter. Needless to say, as she was the only Discus in the tank, the eggs did not hatch. Unperturbed by this, she laid again about 10 days later. But once more, her unrelenting care of her eggs went unrewarded, for she had no mate to fertilise them.

It was then that we set about finding a male of about the same age. Luckily, we knew someone who was quite a Discus fancier and had several fine specimens. He was also kind enough to part with a male that he had chosen carefully - and there are not too many people around who would do that. Thank you, Ivan!

The male, like the female, was a Powder-blue Discus and except for his being slightly larger, it was hard to tell them apart. He was also about the female's age. We placed him in the community tank to see if they were going to be compatible and it appeared to be a case of love at first sight. Neither of them ever forsook the other and he settled in quickly with her help, for she had always been a calm Discus. Soon they were eating from my fingers, whenever I offered beef heart.

After a few weeks the female was laying eggs again and the pair seemed to tolerate each other but they could not progress far with their brood because of the distraction of other fish. We decided to give artificial hatching at least one try since we had nothing to lose. Although most of the information we had suggested that it would be impossible, not all authorities agreed. Indeed, one had raised Discus on commercial egg-yolk from a local bakery. Unfortunately this material seemed harder to obtain here, as none of the bakeries we approached would part with any. So we decided to try normal hard-boiled egg-yolk.

The eggs hatched in just over 2 days and the fry were free-swimming just 3 days later but, unfortunately, we could keep the baby Discus alive for only 5 more days. They did not seem interested in egg-yolk that was smeared on waxed paper and placed around the sides of the tank. What with the frequent water changes and the effort put into trying to keep the fry alive, it seemed hopeless.

We then decided to give the Discus a tank of their own, when a suitable one, measuring 2'x1'x1', became vacant. The tank close by also contained fish that would be visible to the Discus and exert a settling influence on them. We think that Discus from a community tank become accustomed to movements, whereas those kept alone are generally jumpy and very easily upset. Also, seeing other fish probably helps to bring out their protective instincts.

The breeding tank had a box-filter and a clay pipe in the centre but no gravel or plants. The temperature was about 27°C and the pH close to 6. The Discus took no time at all to settle in and they seemed quite content. However, there was a delay of about 4 weeks before the female laid again. Her first brood in this tank was on the side of the box-filter but it was not a large one and only a few eggs hatched, none of which progressed further. However, now that the fish were in spawning mood again, more live food, in the way of mosquito larvae, whiteworms and *Daphnia*, was added to their menu.

As we were due to go away for 6 days we could only hope that the Discus would wait until we returned home. During our absence, they were fed once daily on mosquito larvae, whiteworms and cichlid pellets, alternately, by our reliable fish-minder, Doug. On our return all seemed to be normal except that the Discus appeared to be hiding more behind the pipe, possibly we thought, because we had not been peeking at them for 6 days. However, next morning a different situation confronted me when I peered into the fish room. There were the two Discus out in front with a horde of little things over their almost black-coloured bodies. Needless to say, Rod was soon made aware of it by my shrieks of delight and surprise.

The pair must have laid the day we left and we still don't know how to interpret that. Anyway, there were about 150 fry around the parents and it really was a magnificent sight. The parents had changed in colour from normal to almost black and the young were picking off their sides, with full white tummies. They never moved far away from their food source: the sides of their parents. A water change had to be given as the tank had not received one for a week, but this did not appear to upset the fish unduly, so it made things easier for all of us. The fry were quite large for their age and were scarcely aware of our presence as they were too busy feeding. After a few days the female began to stay behind the pipe and the male would come out front and stand guard but this pattern of behaviour did not last for more than 2 days. After the fry had been free-swimming for 5 days they were given micro-worms and brine shrimp nauplii and it did not take them long to recognise the new food. They were growing quickly and the parents had started to return to their normal colours, although they would still turn dark from time to time. The pair were still sharing the work of looking after the young. When one shift was up the laden partner would dart quickly past its mate, leaving the fry behind but directed towards the other parent, to find a home base again.

At 10-days old the fry were at least 1cm long and still picking from their parents, as well as moving away to eat other foods provided for them. They were still eating micro-worms and brine shrimp but were also taking cichlid pellets, tablet food, small *Daphnia* and *Cyclops*, and algae from the sides of the tank. For their size, they had small mouths. Ever since they were 2 days old they had been receiving a daily water change of 10-15%, with cleaning of the bottom of the tank, via an air-hose syphon.

The young began to develop the round Discus shape at only 2 weeks of age and were then becoming quite independent of their parents. About 30 of them were then removed to a 3' tank, containing only young *Corydoras*. They were given the same foods as before and settled in without any problems, so a few days later a further 30 were transferred from the breeding tank to keep them company. These young were caught only when a group ventured out front alone, when they could easily be scooped up in a single stroke, without alarming their parents too much.

Gradually, the remaining young Discus were moved to the 3' tank and all had been shifted by the time they were 3 weeks old. There were then about 130 of them, all-told. They were fed 4 times daily and were given daily water changes, in a regime of 5x10% and 2x20% each week. The tank had a box-and a gravel-filter and also an internal power-filter to help keep the water clear, but the power-filter was turned off for 1-2 hours at each feeding. The temperature in this tank was 27°C and the bottom was bare, except for a clump of Java moss at one end. The pH was higher than that in the spawning tank for although a pair of Discus may prefer to breed at a pH of 6, it is risky to keep the water too acidic for the youngsters, especially as, with so many of them, the pH could soon plunge further. Shell-grit had been added to the gravel- and box-filters and the pH was kept around 6.8.

The young Discus at this stage were not fussy feeders: so long as the food was the right size they ate up well. They were still fed 4 times daily, with tablet food, cichlid pellets, brine shrimp pellets, brine shrimp, micro-worms, and frozen and live *Daphnia* and *Cyclops*. The water change was made daily, after their last meal. The young Discus were quite undemanding and were by now miniature replicas of their parents and looking adorable. It certainly was a thrilling experience to have bred the King of the aquarium!

