BREEDING AEQUIDENS DORSIGERUS

by Deborah Ralph

Red-breasted Cichlids, *Aequidens dorsigerus*, are shy, beautiful and very peaceful for their family. They attain a length of up to 8 cm and are an ideal community tank species. Only when being bred do they really need a tank to themselves. A neutral pH of 7, or slightly below this is preferred, in fairly soft water. In ä community tank, a temperature of 24-25°C will suit them well but for breeding, a somewhat higher level, say 27°C will give them the right signal.

Our male Red-breasted Cichlid was approximately 7 cm long and the female, about 5.5 cm. They were placed in an octagonal 5-gallon tank with gravel, plants, one pot and one flat rock, for a choice of spawning sites. One corner box-filter provided the only filtration and aeration. A couple of small Mystery snails were added, as the clean-up crew for any uneaten food. The temperature was a constant 27°C and the pH was neutral, maintained by means of a small amount of shell grit. Weekly water changes of 20-25% were still made, as usual.

At first, we offered a range of foods but the fish were very shy and would not come to the top to feed, so only foods that sank were acceptable. This meant that their menu was largely restricted to cichlid pellets, trout pellets, cichlid staples and frozen foods, such as Brine shrimp, Daphnia and beef heart, while they settled into their new abode. Not much in the way of live foods was given, except an occasional feed of live White worms. During one week, and in order to give the fish a nudge, White worms were given for 3 days in a row, followed by frozen Daphnia, Brine shrimp and beef heart.

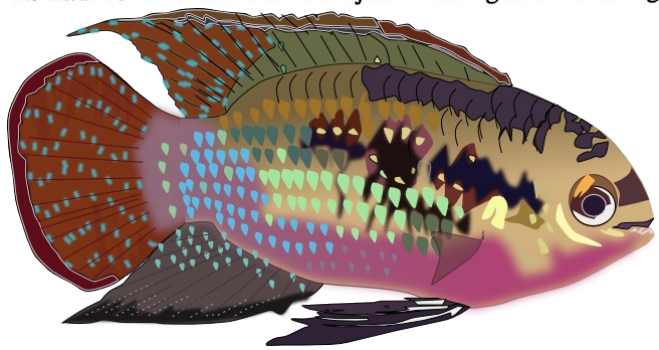
The fish spawned for the first time in the middle of July, on the flat rock, behind the plant, but the eggs were infertile. We deduced that the pair were not yet mutually adapted, for the male was becoming aggressive towards his mate and had to be removed, back to the community tank, while she was given a temporary respite in another tank, before rejoining him.

After a couple of months and a holiday had passed, we decided to give this pair another try, for we were convinced that they really were compatible. This time, they were given a 2' tank to themselves, with furnishings and water conditions just as before, but they immediately hid -- well, they always were shy! Until they had settled in a bit, live food was given sparingly, as we had an assortment of dried alternatives that did nicely and, in any case, it was the season when Daphnia were difficult to obtain.

We did not witness the next laying of eggs, which must have been in some secluded place, for the first we knew of it was when doing the usual weekly water changes, when the female seemed to be acting quite abnormally. She wasn't shy about it all but faced the gravel washer being used in the tank and charged at it continually. This seemed odd at first but it did not take us long to realise that she was defending a small pit in the gravel, containing a number of wriggling newly hatched fry. The male was also close by but seemed more hesitant to defend his young. From then on we ceased to wash the gravel, merely changing rather more of the water, to complete the operation without too much fuss. However, we feared that the disturbance may have been too much for that shy and jumpy pair and time proved us right for a few days later no trace of the youngsters could be seen. At least we knew that our pair of *A. dorsigerus* had realised that they belonged together.

For the following 12 days the pair were given special treatment in the food department, with live White worms and other goodies. This time they spawned on a flat rock that was right at the front left of the tank. The female would lay a number of eggs and then it was the male's turn to go over them and fertilise them. This continued for a few hours and by mid-day there were a large number of small, clear eggs - about 400 of them - in an almost perfect circle, slightly larger than a 20c piece. The parents to be were at their most colourful, especially the male, with red under his chin. Again, the female was the one to stay closer to the eggs, although the male was not far away. Each time we approached they would hide quickly and desert their eggs, even if we did not touch their tank, so we came to the conclusion that artificial hatching would have to be undertaken, if we were to be sure of having some young. A nearby 12" tank was cleaned out, filled with a 50-50 mixture of fresh water and water from the spawning tank, and provided with a heater and sponge filter. The temperature of this tank was 27-28°C. A smaller (9") tank was also made ready to receive the rock carrying the eggs, and the transfer was made under water so that the precious cargo was never exposed to air. Some Promethyasul and shell grit were added and 2 sucker-discs were placed on the bottom, to support the rock on its side. An airstone with a sucker fastening it to the bottom was placed near the side of the rock carrying the eggs and the smaller tank was then placed afloat in the 12" tank. In this way the fry could be kept away from the heater during their critical early days and it would be easier to ensure that they were all receiving food, despite the absence of herding by their parents.

Back to the eggs: well they were provided with a fairly vigorous stream of bubbles to keep the surrounding water moving, much as the parents would have done, through the act of fanning. Although a number of the eggs developed fungus, some 50 hours after spawning had been completed, most of them had hatched. It must have been a mass hatching for an earlier inspection, only 30 minutes previously, revealed no sign of it. Little tails were quivering quickly from eggs that were still attached to the rock. The airstone was throttled back a little for it had now done most of its job. During the following day



most of the hatched fry tumbled off the rock and onto the bottom of the tank. The rock and its supporting sucker-discs were removed about 30 hours later, the airstone was moved to a corner of the tank and the stream of bubbles was adjusted so that the water was circulating but not whirling. Almost 4 days to the hour after the hatching, most of the fry were free swimming.

On day 1 of the free swimming phase the fry were given their first feed, of micro-worms, which they could certainly handle, but they seemed not to be very hungry and their yolk-sacs appeared not to be fully depleted. On the morning of day 2 they were given newly hatched brine shrimps, which they snapped up quite happily. We estimated that there were now 150-200 little fry in the 9" tank and they were given small daily changes with water from their parents' tank. On the evening of day 2 the tank lights went off as usual, leaving just the room light to avoid sudden darkness and about an hour later, we decided upon one more check before turning this off as well. Looking through the lid of the tank, we could see only one or two fry and closer inspection revealed only a few more. Where were all the rest and how could they hide in a 9" tank? A torchlight was quickly sought to solve this puzzle and it revealed an unexpected sight: in one corner up top was a small cluster of fry bunched together for their night's sleep. Other clusters were discovered near and even on the airstone but there were none on the bottom of the tank. All had found safety in numbers by swarming for the night.

On day 3 the 9" tank was becoming cloudy, despite the daily partial water changes: there were just too many fry and a bit too much food was being given. So I decided to move them into the larger tank in which they were floating a little earlier than planned. To start with, a few were scooped over and as they seemed happy in their new home a few hours later, the rest were also transferred, with as little as possible of the old water. The 9" tank had been removed for this operation, allowing the water level to drop considerably, so the heater was unplugged and the airstone was placed under it to deter the fry from coming near. Small amounts of Java moss and shell-grit were added and an airhose syphon was connected to the parents' tank, to allow the 12" tank to fill slowly, with the fry already installed. When this operation was complete the heater was reconnected and the fry were rewarded with a few micro-worms, which they tackled immediately. Mostly the fry kept together in one or two groups but there were always a few of the more adventurous, swimming alone. In the evening, after the lights had been out for a while, we inspected the tank once more to check how they were sleeping and found them to be in clusters again, floating near the tank walls.

On the morning of day 4, after the first light had been allowed into the tank room, we saw that most of the clusters had broken up and the fry were resting individually on the sponge filter or on the sides and bottom of the tank. At first they hardly appeared to be alive but after about 5 minutes they began to awaken and swim slowly around - certainly an interesting sight to watch. They were now being given small, regular amounts of micro-worms, newly hatched Brine shrimp, tetra min"E" and other fine foods but they could not deal with heavier feeds. This is in contrast with most other cichlids that we have reared, such as Keyholes, Convicts and Jewels, where the eggs and fry are larger, though fewer in numbers.

During the following days, the *A. dorsigerus* youngsters progressed well and were given daily water changes of 10%. They were not fussy eaters and were quite easy to please, given clean and clear water. Their night-time behaviour was most interesting and we look forward to watching them grow up.

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