

# Spawning the Bumblebee Goby

By Michelle Lee, ACE

**Common Name** : Bumblebee Goby

**Scientific Name** : Can vary – *Brachyogobius doriae* or *Brachyogobias xanthozona*, or *Hypogymnogobius xanthozona*.

**Origin** : Australia, Thailand, Sumatra, Borneo.

**Temperature** : 82-86° F.

**Water** : Brackish - use 2 tsp marine salt per gallon. However, vary the salt content to closer to fresh water periodically. PH can vary to 7.0-to 7.8. If lower PH, use less salt. Hardness is about 20-30 dGH. I did not attempt to alter PH/GH/KH and left them in Edmonton Tap with only a bit of Seachem Acid buffer and black water extract (BWE) as I do for all my Asian fish. I would use BWE as it doesn't drastically alter tap water the way peat can. They like small but regular water changes.

**Size** : Approximately 1", males smaller.

**Temperament** : This fish is generally passive but can nip at other fish. A species tank is recommended.

**Sexing** : Sexing the bees can be harder when young. Generally, males are smaller and orange, while females are yellow. You can't see the ovipositor in the female until she is ready to spawn or drop her eggs. However, if you look behind the black band at the belly area, and see a conical black shape, those are the eggs. Males will not show that shape.

**Feeding** : Feeding bees can be tricky. Mine will not eat flake or FD. They will eat frozen and live food. I feed brine shrimp and blood worms every night. In the past, I was giving mine BBS however, nutritional deficiencies were discovered when sick fish were sent for testing. When you feed these fish, pay attention to vitamin contents of food!

**Spawning Tank** : Bees can be kept and spawned in a 5-10 gallon tank. Substrate can be sand to fine gravel. Some males will burrow under a rock if sandy bottom but otherwise provide seashells for spawning. They prefer the seashells. Keep 8-10

adults in the tank with the sex ratio at 1:1. Good filtration should be given, lighting dim and lots of plants for them to hop around on. There is a pecking order so hiding places are appreciated.

Absolutely ensure that the tank is free of snails. They will crawl into the seashell and eat the eggs later on!

**Courting** : Individual experiences can vary. These fish will court/spawn when they are ready and not a moment before! From what I have noticed, spawning is not triggered by water changes or storms. My bees started to spawn when the temps went up to 84-86F and when I switched to marine salt. Perhaps they just thought it was time.

I had my bees for over 1 year before they decided to spawn. In watching my fish, I noticed a dominant female emerged. She will be much larger and will rule the roost. She may allow some females around her but not the males. I also noticed, she would take particular liking to some males but \*hate\* others. I am guessing that most people find these fish harder to spawn as they have too few choices for the females to find a partner they like.

When courting is due to begin, you need to watch the female. She will become very large and a black ovipositor will clearly stick out. In a week or two she will spawn or drop the eggs. Some breeders indicate that they can become paler if she wants to spawn however, I didn't not observe this in my three spawns. The males will become much more muted and their black can fade to charcoal or brown.



The male will actively court the female if she is receptive and the males will not fight over her. She flits about like bee and examines nesting spots and

checking out the attributes of each male. With my bees, the female looked at other males and sat beside their shell, but always spawned with my puniest little runt of male! Outside of spawning behaviour, she really beat up on him.

The male will entice her to visit his shell. She will come over and rest on the top of it while he wiggles his tail inside.



Every now and then, he will come out and bump her body with his head and rush back into the shell.



The female will go in a sit with him but may not yet be spawning. In the below picture, she is looking out, while he is face first in the back of the shell.



Courtship can be a slow process over 1-2 days. These fish don't appreciate being watched!

**Spawn :** It isn't easy to catch the spawn, and I don't recommend you try to. If you peek, she may just leave the shell and the courtship has to start all over again. Once the female is in the shell, she will be upside down to lay her eggs on the roof of the shell and the male will fertilize them. After the spawn, the male will guard the eggs.

Now that my fish are spawning, they seem to spawn on a regular basis with each female being receptive every 3-4 weeks or so.

**Eggs :** There can be as few as 30 eggs to 100. They are white, conical shaped and are large enough to be easily visible. In most fish, that white opaque egg isn't fertile, however, in bees you can't make that assumption. I put several under the microscope to verify they had been fertilized before I threw them out.

I didn't have a snail free tank so I removed the male and his shell. He ate most of his eggs after a few days. As I didn't clean the tank out right away, I looked in after a bit and saw a single fry!

For the male's second spawn, I immediately took the eggs away and artificially hatched them. I put them in a ¾ gallon, flat-bottomed bowl with an air stone. On the first and third day, I added 3 drops of APP+ brand antifungal (at Petsmart). On the 4<sup>th</sup> day, you can see eyes and the eggs will jump around. Once I saw this, I did a major water change with tank water. I had not problems with egg fungus and had nearly 100% hatch rate.

**Fry Care :** The fry are the tiniest I have encountered (much smaller than sparkling gouramis fry). They are too small for me to get a picture of even after 2 weeks!

The fry are very sensitive to water changes- ph, temp etc. Make sure you have them in a good place if you decide to hatch them artificially. I had one of those fabric mesh containers and I fastened it onto the side of the parents tank. I put sand on the bottom of it so that the food wouldn't fall through. Right before the eggs were due to hatch, I dumped them back in. Adults may or may not eat the fry (after one year of actively trying to spawn these fish, there was no way I was going to experiment to find out!)

The fry really do need infusoria, cyclops or rotifers. If you look closely at them, you will see them drifting aimlessly in mid water. That is how they eat! They don't eat off the bottom. Also, they are too small for microworms until 14+ days old. Some BBS are smaller than others and its best to know in advance which eggs to try feeding once the fry are old enough. In the early days, you may have good success with feeding vinegar eels as they are all over the tank. You will need to keep swishing the tank (very gently) to keep food in the middle of the water. The fry cannot have lots of current from a filter.

Expect the fry to mature very slowly!

**Editor's Comment:** *Another excellent article by Michelle, well written and very understandable.*