A report on swimbladder disorder in the honeycomb grouper, *Epinephelus merra*

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Swimbladder or airbladder is a thin layered epithelial sac filled with air, lying above the alimentary canal of bony fishes that regulates buoyancy of the fish so that the specific gravity of the fish always matches the depth at which it is swimming. Swimbladder disorder (SBD) is a condition caused by sudden temperature changes impacted stomach resulting from improper feeding or due to bacterial or viral infections of the bladder characterised by inability of the fish to keep a normal upright position in water. Normally gold fishes suffer from SBD due to their globoid body shape. Fish with SBD may float on their side or their back, swim in circles or take head-down posture.

A honeycomb grouper (*Epinephelus merra*) maintained at Marine Aquarium of Vizhinjam Research Centre of CMFRI was found to float with head-down position (Fig. 1). The fish was not feeding for two days. On careful examination, a swelling of about 2 cm diameter was found on the abdomen anterior to vent. Based on the signs, the condition was diagnosed as SBD which could have developed due to impacted stomach pressing on the swimbladder. The fish was relieved of the ailment by inserting a 23 gauge sterile hypodermic needle fitted to a 2 ml syringe into the bladder and aspirating the gas by taking extreme care not to pierce the intestine or the kidneys. The suspected condition was relieved by injecting 1 ml of soap solution into the vent using a sterile tuberculin syringe without the needle. The fish showed normal movements within 30 min and started feeding after 24 h (Fig. 2).

The recommended treatment regime for SBD includes fasting for 2 or 3 days, increasing the tank temperature, avoiding dry floating feeds and deflating the swim bladder. SBD can be prevented by good tank husbandry. The reason for development of SBD in the present case can be attributed to impaction in the alimentary canal probably due to overfeeding. By aspirating the air, the swimbladder was deflated. A lavage with lubricant could break the impaction facilitating the exchange of gases making the fish move normally.