

Table 10. Marine fish landings of major gears of different sectors with catch rates in the north-west region during 2005 and 2006

Sector	Gear	2005					2006				
		Total (landings '000 t)	Effort (x000)		CPUE (kg/unit)	CPH (kg/h)	Total (landings '000 t)	Effort (x000)		CPUE (kg/unit)	CPH (kg/h)
			Units	AFH				Units	AFH		
Mechanised	MTN	411	270	12025	1520	34	508	292	11786	1740	43
	MPS	9	4	31	2314	296	11	5	52	2396	214
	MDOL	194	542	5016	358	39	264	609	5653	434	47
	MGN	39	205	3717	189	10	50	223	3899	227	13
	MHL	2	8	110	305	21	0	2	64	141	5
Motorised	OBN	41	562	4364	72	9	56	487	3955	116	14
Traditional	NM	4	179	734	23	6	10	139	562	72	18

MTN: Mechanised trawl net; MPH: Mechanised purse seine; MDOC: Mechanised dolnet; MGN: Mechanised gillnet  
MHL: Mechanised hook and line, OBN: Outboard gillnet; NM: Non-mechanised

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

S. R. Krupesha Sharma, M. K. Anil and A. Udayakumar  
Vizhinjam Research Centre of CMFRI, Vizhinjam

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.