Marine fisheries of the south-east coast of India during 2008

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The south-east coast of India comprising the states of Andhra Pradesh, Tamil Nadu and Pondicherry have a total coastline of 2050 km which is 34% of the total coastline of the country. This region is more diverse with respect to the number of species that are landed. In 2007, it was observed that 499 species were landed in Tamil Nadu, 294 in Andhra Pradesh and 115 in Pondicherry. The estimate of marine fish landings for the south-east region for 2008 was 6,63,790 t which accounted for 21% of the total landings in the country. Compared to the landings in 2007, there was a marginal increase of about 2% in 2008. The percentage contributions from Andhra Pradesh, Tamil Nadu and Pondicherry were 64%, 34% and 2% respectively. Contribution from the mechanised sector was 3,90,974 t (59%), that from outboard sector was 2,13,891 t (32%) and from non-mechanised sector was 58,925 t (9%).

Major resources

Important groups according to their landings in the region were oilsardine 74,118 t (11%), lesser sardines 72,710 t (11%), silverbellies 53,734 t (8%), penaeid prawns 43,982 t (7%), Indian mackerel 31,067 t (5%), other carangids 26,244 t (4%), ribbonfishes 23,005 t (3%), other perches 18,910 t (3%), other clupeids 18,738 t (3%), croakers 18,312 t (3%), crabs 17,945 t (3%), *Stolephorus* spp. 13,358 t (2%) and goatfishes 13,300 t (2%). The important species/groups that showed significant increase in landings compared to the landings in 2007 were lesser sardines 18%, Indian mackerel 15%, ribbonfishes 70%, lizardfishes 172%, squids 145% and wolf herring 53%. Those that showed decrease in landings were other clupeids 31%, *Stolephorus* spp. 34% and *Scomberomorus commerson* 45%. Contribution by the major groups towards total marine fish landings in the region for 2008 is shown in Fig.1.

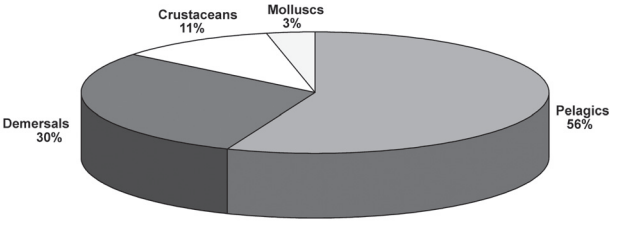

Fig. 1. Groupwise contribution towards total marine fish landings in south-east region for 2008

Major gears

Important gears operated in the region with their contribution were, mechanised trawlnets 1,51,725 t (22.86%), mechanised multiday trawlnets 1,40,563 t (21.18%), outboard gillnets 1,26,079 t (18.99%), multiday sona trawlnets 53,461 t (8.05%), mechanised gillnets 42,423 t (6.39%), outboard purseseines 37,118 t (5.59%) and non-mechanised gillnets 30,101 t (4.53%). Among the mechanised gears, major contributions were from trawlnets, multiday trawlnets and gillnets. Among outboard gears, the important contributions were from gillnets, purseseines, hooks and lines and ringseines. Important gears among non-mechanised sector were gillnets and shoreseines. The overall catch per unit effort (CPUE) for the three sectors were 796 kg $unit^{-1}$ for mechanised sector, 80 kg $unit^{-1}$ for outboard sector and 55 kg $unit^{-1}$ for the non-mechanised sector. In terms of hours of operations, the catch per hour (CPH) for the three sectors were 40 kg h^{-1} for the mechanised sector, 14 kg h^{-1} for the outboard sector and 12 kg h^{-1} for the non-mechanised sector.

Among the mechanised gears, the multiday sona trawlnets had the maximum CPUE per boat which is 2,798 kg unit^{-1} followed by purseseines (2,383 kg unit^{-1}), gillnets (1,617 kg unit^{-1}), multiday gillnets (1,450 kg unit^{-1}), multiday trawlnets (777 kg unit^{-1}) and singleday trawlnets (593 kg unit^{-1}). Among the outboard gears, ringseines had the maximum CPUE of 1213 kg unit^{-1} followed by purseseines (743 kg unit^{-1}) and bagnets (354 kg unit^{-1}). Among the non-mechanised sector the shoreseines had maximum CPUE of 727 kg unit^{-1} followed by boatseines (129 kg unit^{-1}). With respect to catch per hour, among mechanised gear, purseseines had the maximum of 638 kg h^{-1} followed by gillnets (161 kg h^{-1}) and sona trawlnets (62 kg h^{-1}). Among outboard gears the maximum catch per hour was 730 kg h^{-1} for ringseines followed by purseseines (283 kg h^{-1}) and shoreseines (156 kg h^{-1}). Non-mechanised shore seine had maximum CPH of 215 kg h^{-1} followed by non-mechanised boatseine (39 kg h^{-1}) among the non-mechanised sector.

Important species caught by the mechanised sector were silverbellies (12%), oilsardine (11%), penaeid prawns (9%), ribbonfishes (5%) and other carangids (4%). Species mainly caught by the outboard sector were lesser sardines (21%), oil sardine (12%), Indian mackerel (7%), *Euthynnus affinis* (5%) and other carangids (4%). About 26% of the catch by the non-mechanised sector were lesser sardines, 9% Indian mackerel and 7% oilsardine.

Single day trawlnets, multiday trawlnets and outboard gillnets were the gears contributing maximum towards total landings in the south-east region. These gears together accounted for 63% of the total landings. Important species caught in singleday trawlnets were silverbellies (15%), penaeid prawns (6%) and other carangids (5%). In multiday trawlnets, the important species caught were silverbellies (16%), penaeid prawns (12%), oilsardine (8%), croakers (5%), ribbonfishes (4%), lesser sardines (4%) and other perches (4%). Major groups caught in outboard gillnets were lesser sardines (21%), Indian mackerel (9%), oilsardine (6%), other clupeids (5%), crabs (5%) and *Euthynnus affinis* (4%).

Among the important species, oilsardines were mainly caught by gears such as mechanised gillnet (40%), multiday trawlnets (14%), outboard gillnets (10%), outboard ringseines (10%) and outboard purseseines (9%). Lesser sardines were caught in outboard gillnet (36%), outboard purseseines (19%), non-mechanised gillnets (15%), multiday trawlnets (8%), single day trawlnets (7%) and outboard ringseines (5%). Silverbellies were mainly caught by single day trawlnets (41%), multiday trawlnets (41%) and outboard gillnets (9%). Penaeid prawns were caught in multiday trawlnets (38%), multiday sona trawlnets (24%), single day trawlnets (22%) and outboard gillnets (6%). Indian mackerels were caught mainly by outboard gillnets (35%), multiday sona trawlnets (13%), outboard purseseines (13%), multiday trawlnets (10%) and non-mechanised gillnets (8%).

Seasonal variations

In the south-east region, the peak season was July-September and the estimate of marine fish landings during this season was almost the same for both 2007 and 2008 (Fig. 2). Landings were comparatively poor during April-June period and in 2008, the estimate was slightly less than that in 2007 of this period. During January-March and October-December, the landings in 2008 were higher than that in 2007.

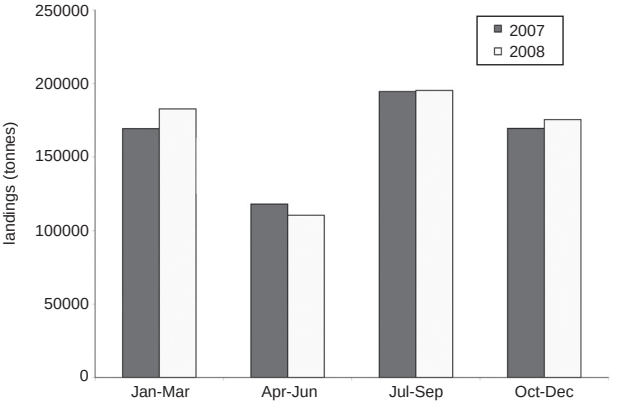

Fig. 2. Total marine fish landings (season-wise), in the south-east region during 2007 and 2008