Seagrass, *Ruppia maritima* growing along backwaters of Karnataka coast- a possible source of salt tolerant gene

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During the survey carried out for inventorying the marine and estuarine biodiversity of coastal Karnataka for the Karnataka Biodiversity Board in December 2005, considerable populations of thin bladed grass species were collected from Kundapur (13.64306 °N & 74.6586 °E) and Mavinahole (13.9833 °N & 74.5616 °E) estuaries as well as from the intertidal areas of Devgad Island (14.8225 °N & 74.0644 °E) and these were later identified as *Ruppia maritima* L popularly known as beaked tassel-weed.

These halophytic aquatic weeds are bushy fan like submerged plants with slender grass like leaves less than one mm wide. The stipular sheaths at the base covered and clasped the stem. The stems were branched, 25-30 cm long and less than one millimeter wide. Roots were seen arising from the nodes and were with slender horizontal rhizomes. Flowers and fruits were absent at the time of collection. The plants were submerged in salt water of 18-28 ppt, spreading compactly in the sandy substratum. Seaweeds such as *Hypnea musciformis*, *Gracilariopsis* sp. and *Ulva reticulata* were also found along with this grass. *Ruppia maritima* belongs to Class: Alismatidae; Order: Najadales and Family: Ruppiaceae.

This grass is an excellent sand binder and can prevent coastal erosion. The seeds and other parts too are eaten by waterfowls. Besides Karnataka, this grass is reported only from Tamilnadu coast. There is immense scope for gene transfer studies using this salt tolerant seagrass growing very rarely in certain estuaries of Karnataka. The salt tolerant genes from this seagrass could be transferred to paddy and tiger prawns to raise salt tolerant varieties.

Note on hand jigging fishery for squids and cuttlefishes at Devipattinam in the Palk Bay and at Keelakarai in the Gulf of Mannar, south-east coast of India

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Hand jigging for squids and cuttlefishes operated from thermocole float both at Devipattinam and Keelakarai has mainly three parts: Japanese made jig (bait like object with 1-2 tiers of hooks), weight attached to it, and 7 to 14 m long line tied to latter. The design and structure of the Japanese made jig have been described earlier (*Mar. Fish. infor. Serv., T&E Ser.*, 137, 1995). The details about the fabrication and operation of thermocole float are already available (*Mar. Fish. infor. Serv., T&E Ser.*, 191, 2007).

The hand jigging, mostly operated during day time and sometimes during full moon night, is the gear by which the major part of squid and cuttlefishes are caught along the Devipattinam and Keelakarai coast. About 100 motorized canoes using 6-10 thermocole floats go out for fishing with this gear at Devipattinam while about 60 canoes carrying 6-9 thermocoles are operated at Keelakarai.
On the mass mortality of triggerfish *Odonus niger* (Rupell) along Dhanuskodi coast

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On 3rd and 4th October 2007, several fishes of the species *Odonus niger* (locally known as Karuppu Klaathi) were washed ashore along the coast for a stretch of nearly 4 km from Dhanuskodi check post to Arichumunai. On an average, 60 fishes were found lying in every 15 m of the stretch. Estimated total number of dead fishes were 16,000. Some fishes were washed ashore by the waves in half dead condition (Fig. 1). On close examination of the live specimen, it was noticed that the skin and gills are covered with parasites. Crustacean parasite was identified as copepod of the genus *Caligus* (Fig. 2). Analysis of water sample from the area

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An estimated 229.9 t cephalopods was landed in 2006 at Kilakarai with an average estimated CPUE of 10.5 kg. Peak catch was landed during June-July. Cuttlefishes constituted 29.2% while squids formed 70.8% of the catch. Among the cephalopods, *S. lessoniana* was found to be the dominant species (70.79%), followed by *S. pharaonis* (17.71%). Among the cuttlefishes, *S. pharaonis* was found to be dominant (60.63%).

Hand jiggling fishery of squids and cuttlefishes forms subsistence fishery at both the landing centres. Further observation has to be made in order to know the trend in catch from this gear.