



Marine Fisheries Information Service

Technical and Extension Series

Number 197

July - September 2008



CADALMIN

Central Marine Fisheries Research Institute

(Indian Council of Agricultural Research)

Post Box No. 1603, Cochin - 682 018, Kerala, India

WWW.cmfri.org.in

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

P. KALADHARAN AND P. U. ZACHARIAIAH

Visakhapatnam RC of CMFRI and Tuticorin RC of CMFRI

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.