

Cadalmin IV - Continues to support research for more than 3 decades

Tuticorin Research centre is equipped with the 43.6' Research Vessel "CADALMIN-IV". Modern boating and sailing equipment like GPS, echo sounder, water sampler and wireless communication system etc. were provided along with fish trawl and prawn trawl and other gears. The speed of the vessel is now 7 knot per hour without load and 2.4 to 2.6 knot per hour with load.

The vessel has been in use for hydrographic studies. Fortnightly samples are being collected from different depths ranging from 10 to 30m. The parameters studied are salinity, oxygen, temperature, pH, nutrients besides primary and secondary production. Regular fishing trips are also made for the NICRA project using the vessel Cadalmin-IV. The trawling operation was carried out at the same grounds off Tuticorin and Punnakayal,

where the small and medium size mechanized commercial trawlers are operating. Fishing is done during day time and is carried out at different depths ranging from 6 to 25 m at a distance of 4 to 25 nm away from the shore. Each haul was of one hour duration. The fishing is done with a view to understand the depth-wise and month-wise species abundance and diversity in a latitude longitude position. The catch by fish trawl was comprised by fishes, crabs, and cephalopod in addition to the non-edible biota. The average catch per hour of operation yielded 28.5 kg of fish, 2.8 kg of cephalopod, 1.4 kg of crab, 1.8 kg of prawn and 10 kg of non-edible biota. Fish composition include *Inistius* spp., *Synodus* sp., *Saurida* spp., *Trachinocephalus myops*, *Leognathus* spp., *Sillago sihama*, *Siganus* spp., *Platycephalus* spp., *Plotosus indicus*, *Dascyllus trimaculatus*, *Lethrinus* spp.,

Seleroides leptolepis, *Upeneus* spp., *Parupeneus* spp., *Scolopsis* spp., *Scarus* spp., *Bothus* spp., *Samaris* sp., *Scarus* spp., *Halichoeres* sp., *Amphiprion* spp., puffer fishes, balistids etc. Cephalopod was comprised by *Sepias* spp., *Sepiellasp.*, *Sepioteuthis* sp., *Loligo* sp., *Octopus* spp. Crabs like *Portunus* spp., *Charybdis natator*, *Calappa* spp., *Matuta* sp., were also landed. The non-edible biota was constituted by sea urchins, star fishes and *Oratosquilla* sp. mainly which were released back to the sea live immediately after taking a representative sample. The main prawn trawling ground in Tuticorin is a ground called 'eral mada', which is near Punnakayal. The operations in this ground using the prawn trawl yielded prawns like *Penaeus indicus*, *P. semisulcatus*, *Parapenaeopsis maxillipedo*.

(Reported by Tuticorin RC)

