

## Salient achievements in the past five years

- ◆ A cost-effective and rapid Duplex PCR Assay of White spot syndrome virus (WSBV) developed by the Division, was released by the Director General, ICAR. The kit has been commercialized after extensive field trial. .



- ◆ Developed a formulated pellet feed “Scylla Pusthi”



for mud-crab fattening using indigenous raw materials, which is an eco-friendly substitute for the traditional feeds, has been released by the Director General, ICAR, and is propagated among the crab farmers.

- ◆ A formulated bio-enriched pellet feed for marine ornamental fish, a substitute for fresh feeds has been developed and propagated among aquarium hobbyists, ornamental fish breeders and farmers after its release by the Director General, ICAR.



- ◆ A fermentation process for enrichment of soybean flour and a mixture of oilcakes has been developed and the fermented product has been successfully used as partial substitute for fishmeal in shrimp feeds.

- ◆ A phytase producing *Bacillus* strain has been isolated from mangrove swamp which was identified and designated as IJ- *Bacillus licheniformis* MTCC-6824 by the Institute of Microbial Technology (IMTECH), Chandigarh and purification of the enzyme has been achieved (Patent being filed)



- ◆ Weaning of juvenile mud crabs, *Scylla serrata* from fresh feed to dry pellet feed has been achieved.
- ◆ Technology for floating and sinking pellets for fish and crustacean feed using twin-screw extrusion process standardized.
- ◆ A process has been developed for enrichment of Eicosapentaenoic acid from sardine oil by Argentation chromatography.
- ◆ Phylogenetic relationships in four species of marine ornamental fish *Amphiprion sebae* established and putative sex-specific markers were developed in domesticated *A. sebae*.