# Report on *Amyloodinium* spp. cysts infection in clownfish

*Kurva Raghu Ramudu[1], N. K. Sanil[2], P. Vijayagopal[2], Saloni Shivam[1], P. P. Suresh Babu[1], A. Anuraj[1], K. Navanath [1] and Jayasree Loka[1]

[1]*Karwar Research Centre of ICAR-Central Marine Fisheries Research Institute, Karwar*

[2]*ICAR-Central Marine Fisheries Research Institute, Kochi*

**email: ram.raghu77@gmail.com*

A study was undertaken to record the occurrence of parasitic infections in ocellaris clownfish, *Amphiprion ocellaris* (Fig. 1). Of a total eight *A. ocellaris* maintained in hatchery, three were found infected with different developmental stages of *Amyloodinium* spp. and were kept under observation.

Fig. 1. *Amphiprion ocellaris*

Clinical signs and symptoms observed were that the infected fishes became lethargic and came to the surface water of the tank which could be due to respiratory problems developed by the invasion of the parasites. External examination revealed slight dorsal and pectoral fin erosion. Gills were pale in colour with high mucus secretion. Liver and other internal organs did not show any clinical signs of infection. Loss of appetite and irregular swimming behaviour was observed in the infected fishes. The infected fishes were brought to the laboratory in axenic condition. These fishes were processed for standard necropsy study and vital organs like gills, skin, fins, intestine and kidney were examined under microscope for the presence of parasites.

Results indicated that *A. ocellaris* maintained in the hatchery were infected with *Amyloodinium* spp. and prevalence of infestation was 37.5%. The presence of ovoid cysts in the vascular tissue of the gill lamellae were identified as developmental stages of *Amyloodinium* spp. Wet mount of gill revealed numerous groups of brownish round to ovoid structures, each group contains four spherical

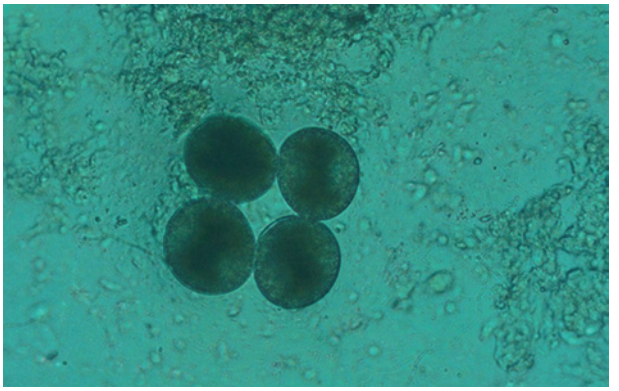

Fig. 2. Wet mount of gill of *A.ocellaris* showing tomonts of *Amyloodinium* spp. (400x)

structures in clusters (Fig. 2), which are presumptive tomonts of *Amyloodinium* spp. In addition, clusters consisting of 2-16 spherical forms were also observed (Fig. 3). Similar structures were reported in silver pompano, *Trachinotus blochii* (Kumar *et al.*, 2015 *Indian J. Fish.*, 62 (1): 131-134).

The infected fishes were shifted to quarantine facility and treated with formalin dip (10 ppm) followed by freshwater bath treatment for ten minutes with vigorous aeration. All fishes recovered from the infection after the treatment. However, avoiding potential source of infection is recommended for successful maintenance of healthy ornamental fishes in marine aquariums.

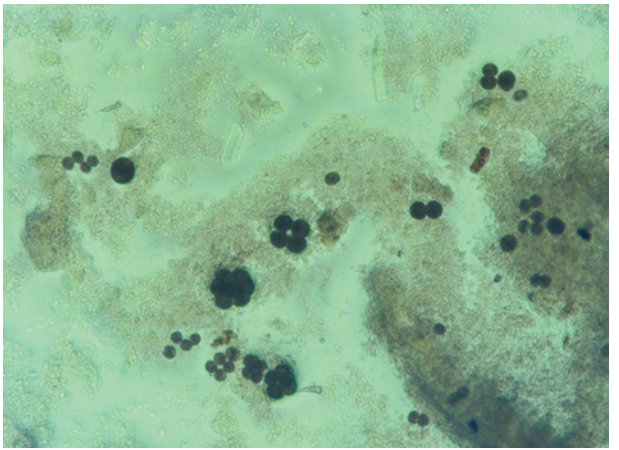

Fig. 3. Clusters of *Amyloodinium* spp. cysts with 2-16 spherical forms in gill tissue of *A. ocellaris* (100x)