Government of **Western Australia**
Department of **Fisheries**

NAAHTWG Slide of the Quarter (October – December 2006) - Barramundi (*lates calcarifer*) with lamellar epithelial hyperplasia associated with *Amyloodinium sp*.

Contributed by John Humphrey, Berrimah Veterinary Laboratories, Darwin. Case 2006-0877

History

Mature barramundi reared in and pond-based, receiving estuarine water. Fish showed inappetence for several days before being observed to be swimming in a lethargic manner below the surface of the water and lying in shallow water near the edge of the pond.

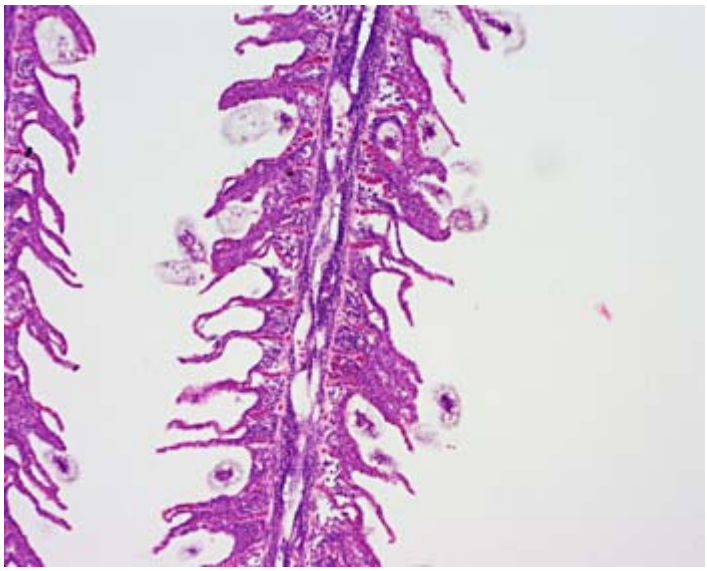

Figure 1. - Barramundi gill with *Amyloodinium* 1 x100

Gross/Sub-gross Examination

There were no gross or sub-gross lesions. High numbers of brown, ovoid bodies of approximately 300-400 microns were present in all affected fish on examination of wet mounts of gill filaments.

Histopathology

Gills show moderate-to-severe regionally extensive hyperplasia of primary and secondary lamellar epithelium, with, in many areas, fusion of adjacent lamellae, separation of epithelium from underlying vascular spaces and cystic cavitation within the hyperplastic epithelium. Numerous protozoan organisms are seen intimately associated with the epithelium and, in many cases, attached to the epithelium by a slender stalk.

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Diagnosis

Severe generalised lamellar epithelial hyperplasia with lamellar fusion associated with *Amyloodinium sp*.

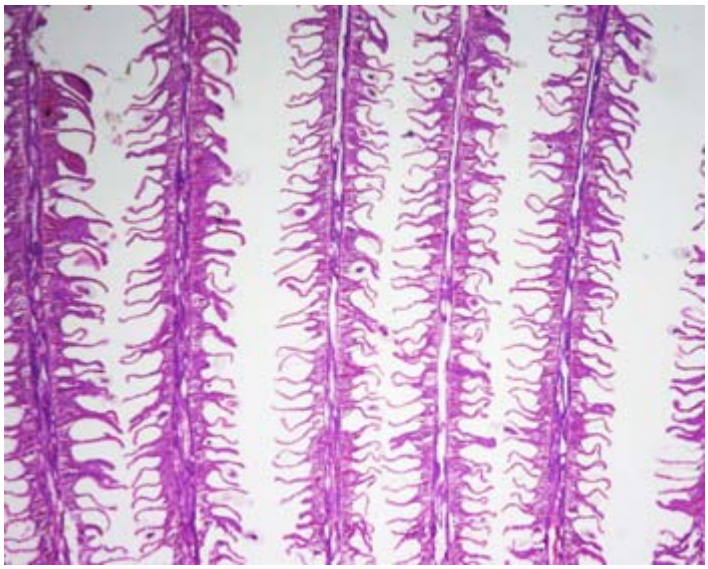

Figure 2. - Barramundi gill with Amyloodinium 3 x40

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