Diseases of finfish

Viral diseases—**Grouper iridoviral disease**

Signs of disease

Important: animals with disease may show one or more of the signs below, but disease may still be present in the absence of any signs.

Disease signs at the farm level

- typically high mortalities with many dead and moribund fish

Disease signs at the farm level

high mortality of grouper

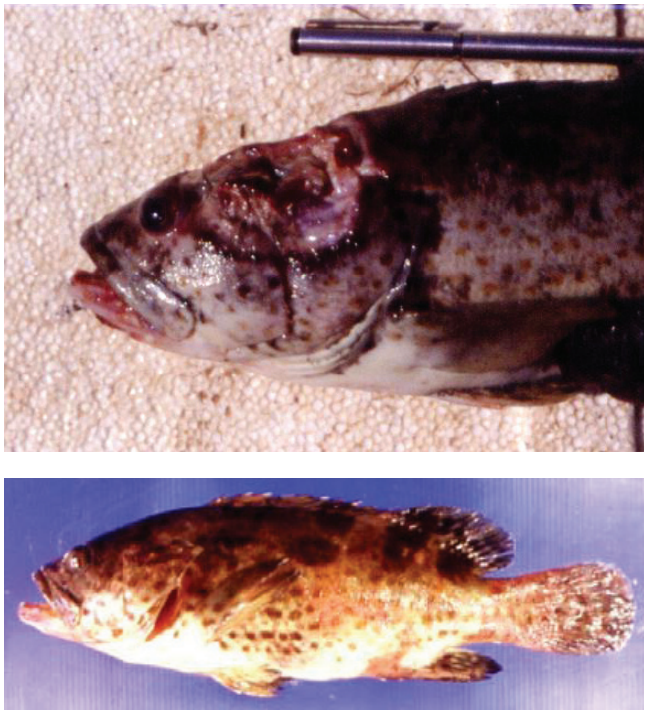
- affected fish are extremely lethargic with mostly darkened body colour

Clinical signs of disease in an infected animal

- extreme lethargy in affected fish, with few visible external signs except darkened body colour

Gross signs of disease in an infected animal

- enlarged spleen consistently observed



Gross signs of infection from GIV in grouper showing deep ulceration in muscular tissue (a) and red boils on body surface (b).

Source: Somkiat Kanchanakhan

Disease agent

The infectious agent is grouper iridovirus (GIV). Synonyms include grouper iridovirus of Taiwan (TGIV) and Singapore grouper iridovirus (SGIV). Since the affected fish become extremely lethargic, the disease is also known as sleepy grouper disease.

Host range

Fish known to be susceptible to GIV:

brown-spotted grouper*	(*Epinephelus tauvina*)
yellow grouper*	(*Epinephelus awoara*)
nursing grouper*	(*Epinephelus malabaricus*)

* naturally susceptible

Australian Government
Department of Agriculture, Fisheries and Forestry

Sourced from AGDAFF–NACA (2007) *Aquatic Animal Diseases Significant to Asia-Pacific: Identification Field Guide.* Australian Government Department of Agriculture, Fisheries and Forestry. Canberra.

© Commonwealth of Australia 2007
This work is copyright. It may be reproduced in whole or in part subject to the inclusion of an acknowledgment of the source and no commercial usage or sale.

Presence in Asia–Pacific

Infection with grouper iridoviral disease has been officially reported from Hong Kong, Indonesia, the Republic of Korea, and Vietnam.

Epidemiology

- GIV disease causes losses not only in fry and juvenile grouper but also in market-sized grouper, a highly priced product in tropical mariculture.
- Horizontal contact and waterborne transmission appear to be the principal mechanisms for virus spread.

Differential diagnosis

The differential diagnostic table and the list of similar diseases appearing at the bottom of each disease page refer only to the diseases covered by this field guide. Gross signs observed might well be representative of a wider range of diseases not included here. Therefore, these diagnostic aids should not be read as a guide to a definitive diagnosis, but rather as a tool to help identify the listed diseases that most closely account for the gross signs.

Similar diseases

Viral encephalopathy and retinopathy

Sample collection

Because of uncertainty in differentiating diseases using only gross signs, and because some aquatic animal disease agents might pose a risk to humans, you should not try to collect samples unless you have been trained. Instead, you should phone your national hotline number and report your observations. If samples have to be collected, the agency taking the call will advise you on what you need to do.

Emergency disease hotline

For your national emergency disease hotline number, see Whom to contact if you suspect a disease.

Further reading

http://www.enaca.org/modules/mydownloads/visit.php?cid=23&lid=558

This hyperlink was correct and functioning at the time of publication

Australian Government
Department of Agriculture, Fisheries and Forestry

Sourced from AGDAFF–NACA (2007) *Aquatic Animal Diseases Significant to Asia-Pacific: Identification Field Guide.* Australian Government Department of Agriculture, Fisheries and Forestry. Canberra.

© Commonwealth of Australia 2007
This work is copyright. It may be reproduced in whole or in part subject to the inclusion of an acknowledgment of the source and no commercial usage or sale.