A case of encysted endoparasitic copepods in the Spiny cheek grouper

During the routine biological investigations on Epinephelus diacanthus (Spiny cheek grouper), a fish with a pair of cysts attached to the abdominal musculature was observed. The cysts were oval, thin-walled, dark grey coloured, measured approximately 3 cm in diameter, and located adjacent to each other. The cysts were firmly attached to the abdominal musculature and contained black cystic fluid. Microscopic examination

of the wet impressions of the cystic fluid revealed the presence of large numbers of nauplii of copepods. Histopathologically, the cystic wall consisted of fibro-collagenous and adipose tissue. The copepods were found attached to the walls of the cyst. Preliminary studies involving amplification of a 1000 bp region of internal transcribed spacer-2 of rRNA indicated the resemblance of observed copepods to *Tigriopus* sp. While the occurrence of copepod

parasites in fish is common, reports on endoparasitic copepods are rare and this is the first report from Indian waters. The cysts usually will be visible only when fish are filleted. The encysted parasitic copepods may not be harmful to fish, but they may adversely affect consumer preference and lead to fillet rejections.

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