

A Caribbean Digenean,
Lecithophyllum pyriforme,
Parasitizing an Exotic Cultured
Fish, *Phremias bicelatus*, from
Australia

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The West Indies is frequently proposed as an outstanding location for aquaculture as noted in the bibliography of Hargreaves and Alston (1991). Most culture schemes have proposed the use of exotic species instead of local organisms (Alston, 1991). Several problems can result from the uncontrolled introduction of foreign species, including the introduction of diseases (Williams and Sindermann, 1992). Another concern is the possibility of local parasites and other pathogens causing injury to the exotic species (Dyer et al., 1992a; Williams and Sindermann, 1992). In this report we document another example of an exotic fish that is susceptible to a local parasite.

Clownfishes (Pomacentridae) from the Pacific are being cultured for the marine aquarium trade in the Bahamas and Puerto Rico. On 11 December 1991, we examined one adult each of *Amphiprion sealiæ* 9.0 cm SL (originally from Bali) and *Phremias bicelatus* 6.5 cm SL (originally from Australia) from a culture facility in Puerto Rico. Both were heavily infested with *Cryptocaryon irritans* Brown, 1951 (Ciliophora)—a common cosmopolitan parasite. The specimen of *P. bicelatus* was also parasitized by a single specimen of *Lecithophyllum pyriforme* (Linton, 1910) Yamaguti, 1958 (Digenea: Platyhelminthes) in the posterior intestine. *Lecithophyllum pyriforme* has been found from the Atlantic coast of the USA to the Caribbean, and in the Gulf of California. It has been reported from Puerto Rico (Siddiqi and Cable, 1960), but apparently is not common, and has escaped our previous surveys (Dyer et al., 1992b). This worm has little or no host specificity, and has been found in fishes from five host families. This characteristic would make it a good candidate to infest an exotic host. It normally inhabits the stomach of its host, and the posterior intestine is a new site. It has never been found in abundance and probably does little damage.

Infection of exotic fishes by local Digenea is no surprise, but is seldom documented. All interactions of exotics must be studied before their usefulness can be evaluated.

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