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The Powder Blue Tang, *Acanthurus leucosternon*, Not Easily Kept

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Amongst the more difficult marine fishes to keep is the Powder Blue Tang. Yes, though it is amongst the most commonly offered species of Surgeonfishes you see at retail fish stores, this Indian Ocean beauty rarely lives for more than a few days to weeks in captivity.

It is likely a host of contributing factors that make *Acanthurus leucosternon* such an easy-dying species for aquarists. The fish takes a beating being held and shipped from such long distances through the chain of custody to the "end user". It is also one of the species of fish that have a large (dozens to hundreds of square meters) territory in the wild and doesn't take well to the "small clear boxes" which are our tanks. Lastly, this is clearly a "grazing" species that samples algae and related benthic infaunal organisms on a continuous basis during the day, and frequently succumbs to a lack of nutrition.

However, there are some "success stories" with the Powder Blue and some solid points to make that greatly increase one's chance of keeping it in an aquarium. Here I'd like to offer my observations, accumulated first and second-hand experience with what DOES work in maintaining *Acanthurus leucosternon* alive and well.

Selection

Bad specimens of *A. leucosternon* are easy to spot. Most have darkened blue body areas, perhaps with a white "stress" bar, torn fins, and other evidence of accrued shipping and handling damage. Decent specimens are harder to assess. These all have the quality of "brightness", that is, clear eyes, constant movement and an awareness of your presence. "Spaced-out" specimens should be left in the dealer's tank.

Index of fitness is a fisheries term for the "fullness" of the body of a fish. It's quantified as the circumference of an animal divided into its length. Specimens with a higher value are obviously fatter than ones with lower indices. You want to select for a Powder Blue that is not too thin, particularly in the upper body area (the flank, up and behind the eyes). Skinny specimens rarely recover.

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Young *Amphiprion chrysoaster* with a symbiotic crab (*Neopetrolisthes maculata*) in the anemone

The Breeding of the Clown Fish

Amphiprion chrysoaster (Cuvier, 1830) endemic to The Mascarene Islands (Indian Ocean).

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Introduction

The complete study of the biological cycle of many species of clown fish has been mostly acquired in the last 20 years, especially regarding the subject of aquaculture (Jacquin 1975; Bertachy, 1979; Breitenstein, 1980). The clown fish species most studied is *Amphiprion ocellaris* (Alayse, 1982). The technique used for this fish has been used for a long time to establish the protocol or guidelines for the breeding of other clown fish such as *A. allardi* (Terver, 1975), *A. chrysopterus* (Allen, 1975), *A. darki* (Scaya, 1982) or *A. percula*, *A. melanopus*

and *Premnas bioculeatus* (Job et al., 1997). While the large-scale culturing of clown fish has not always been successful, technically the breeding of the clown fish is a real success considering the difficulty in obtaining good survival of coral fishes which usually go through one or many larval stages, start out at a very small size, and are extremely sensitive to external factors.

As far as we know no study has been carried out on the breeding and the biological cycle of the clown fish (*Amphiprion chrysoaster*). Only Moe (1992) mentions this species in the list of coral fish that could be bred. Originating from The Mascarene Islands (Réunion, Maurice and Rodrigues), *A. chrysoaster* is the only fish of the *Amphiprion* species in the Réunion waters. This is the reason why, given the chance by the Aquarium de la Réunion to work with a few fish, and because of the existing breeding protocols, it seemed interesting to attempt the breeding of the clown fish (*A. chrysoaster*) to find out more about this species.

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