

Surgeonfish – Loved to Death?

(by Ina Fischer)

I love surgeonfish. They are incredible beautiful, pride, nevertheless caring and curious fish. No surprise, so many hobbyists would love to keep them in their tanks. But surgeonfish are also often diseased, emaciated, unhappy and thus aggressive creatures. Fortunately more and more people recognize the special needs of this family. With this article I want to contribute to an ever growing number of happy and relaxed surgeons in our tanks.

An experience report



Three surgeonfish live in my tank with a size of 2,00x0,65x0,60m – one *Zebrasoma flavescens*, one *Zebrasoma scopas* and one *Acanthurus japonicus*. They share their home with one *Siganus vulpinus* and several damsels like *Pseudochromis fridmani*, *Dascyllus melanurus* and *Chrysiptera parasema*.

Both *Zebrasomas* are with me since 2.5 years. My *A. japonicus* moved in 1.5 years ago.

Since I started as marine hobbyist, I always wanted to keep surgeonfish. In order to offer an optimal habitat to them, I've put a lot of thinking into set up and decoration of the tank and did some research on the species' demands before purchasing any doctor fish. I'm sharing these thoughts here in the hope to inspire and encourage more aquarists to make up their minds before they decide for a specimen of this family.

Tank size:

Surgeonfish need space. Plenty of space.

Space to move around, space to rest and space to avoid others when not in the mood for company. It needs quite a tank to satisfy these needs. It is difficult to oversimplify advice on the size of the tank, but in my view a *Zebrasoma flavescens* needs at least 500l (ca. 132 gallons) to thrive. Also a *Paracanthurus hepatus* will not be a happy creature over the long term in a 400l (ca. 106 gallons) tank.

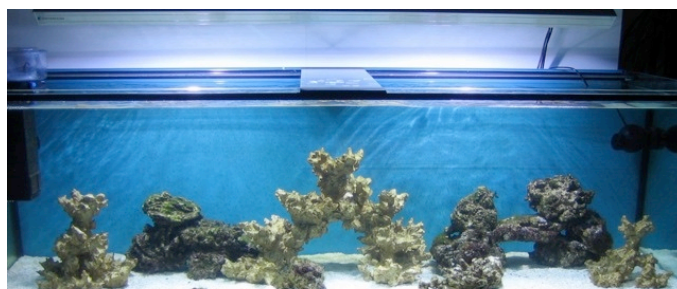
It also seems irresponsible to purchase fish with the knowledge that they will outgrow their tank, but in the hope somebody else with more space will accommodate them. How many hobbyists with the capacity and more importantly the will to host the throwouts are there?

Size of the tank is not the only factor to consider. An aquarium of sufficient dimensions still needs the right decoration to offer plenty of swimming space. Space is very important, also when considering that surgeonfish need company. For my stocking of surgeons plus the Foxface I see the size of my tank as the absolute minimum limit, although I don't keep any other larger species, but only territorial damsels.

For the *A. japonicus* especially important is the length of the aquarium. A cube with same space doesn't offer this species the needed length to do laps. This open space needs to be supported by well placed decoration to make an aquarium a good home for surgeons.

Decoration:

Decoration of a tank to host surgeonfish needs careful planning. Clearly not too many rocks and/or coral should be placed to ensure enough swimming space. However, fish need hiding grounds to rest at night too. In the dark no fish should be seen swimming restlessly through the tank. My fish use the night to rest. An often underestimated, nevertheless important consideration in order to keep their stress level low and contribute to their health. As such the right structures, offering shelter, are mandatory.





Surgeonfish also love variation. Swimming along the quay wall bores them over time. Optimal structures offer cavities and overhanging rocks they can swim through. The opportunity to hide from watchers, e.g. at the backend of the aquarium, is a welcome refuge.

Although my surgeonfish love to roam around together, each of them retreats from time to time over the day. The opportunity to separate from others is important to offer. In my opinion the ideal decoration is hard to build with live rock only. Artificial decoration with its often more delicate features is a good addition.



Nutrition:

Surgeonfish need to be well fed to tolerate competitors. Starving fish become aggressive towards anything that potentially takes feed away from them. Moreover emaciated fish are a pitiable sight.

Good nutrition includes variety.

Discussions over adequate diet of surgeonfish often lead to the conclusion that only algae should be fed. I don't agree. Certainly I feed algae to my surgeonfish, but not exclusively. I also feed different salads, dandelion, courgette, cucumber, etc. The surgeons and also the foxface love these additions and each of them has its personal preferences among them. I feed vegetables every day, not only to ensure they are well fed, but also to keep them entertained.

Additionally I supplement the vegetarian offers with frozen food, flakes and

granulates.

Even in their natural habitat surgeonfish take up animal protein when grazing algae via microorganisms, living on such plants. We also have to be aware that we cannot offer the same variety in algae as the ocean does.

Therefore I see the increase of variety by those additions as beneficial to the health of my surgeonfish. Their condition proves me right.

Socialization:

Beside a balanced nutrition and a suitable tank design, company is another important factor to successful keeping of surgeonfish. Best is intraspecific socialization, but also congeneric company will be accepted under optimal conditions. When I observe my 3 surgeonfish swimming together with the foxface, I feel how important



socialization for them is. They don't fight, rather really enjoy each other. As a matter of fact they spend most of the time together. They feed and swim through the tank like their own little school of surgeons. Just at night time each of them has its own

preferred hiding space to rest. I cannot even say who dominates this group. I thought it would be the *Z. flavescens* as he was the one introduced first to the tank. However, usually a *A. japonicus* wants to play the boss. Anyway, as hostility and aggressions among them are lacking, it is hard to tell. In general I'd like to remark that socialization of *Zebbrasoma* species with an *A. japonicus* is relatively fuzz-free. But I wouldn't add another *A. japonicus* into a tank of a size like mine. I'd guess that complications start then.

The other, significantly smaller fish contribute to the well-being of the surgeonfish. They know there is no danger around when damsels and other smaller fish carry on in their daily activities. As the damsels only have a relatively small home-range, enough room is left for the surgeons.

Some food for thought:

I often hear/read that certain surgeonfish can only be kept in the long term when using UV-light to clean the water. One certainly hears that in relation to *A. Japonicus*, but also Powderblue tangs and other *Acanthurus* species (*A. nigricans* und *A. Achilles*). I think this is only partly true. My *Japonicus* surgeonfish never



had a *Cryptocaryon* infection nor any other disease. He is of best health. I emphasize again that if surgeonfish are kept considering the above described parameters, they can live a healthy and long life in our tanks (given they arrive in reasonable condition). Even the most healthy fish will not thrive when being kept in a too small tank, where decoration and corals leave no swimming space for them, or when nutrition is not sufficient or simply not of enough variety. And it doesn't work out either when fish are constantly stressed by competitors or have no social environment at all.

We can also assume that introducing a surgeonfish to a tank just set up 3-4 weeks ago, doesn't contribute to its well-being, and frequently fluctuating water parameters do neither. Water quality, same as tank size, is not only expressed in certain values of single water parameters, but rather by keeping a stable environment the organisms can live with. A good quarantine of the tank itself upon set up and whenever a fish is introduced, is the best one can do to keep newcomers and existing tank mates healthy and happy. Stress through constant handling should be avoided as far as possible.

It confirms again that it is important to consider the needs of those fish and organisms in focus before making a purchase decision. Some things simply cannot be combined. If one wants to keep sensitive stony corals mainly, surgeonfish shouldn't be added to the tank to starve in the long term for the sake of water parameters suitable for the corals. When planning a tank, I'd recommend to make up

your mind about your future focus and if it is on corals or rather fish. Once your decision is made, it is easier to decorate and set up your tank accordingly.

I'd wish my thoughts help more people to weigh the pros and cons before purchasing surgeonfish. There are so many great alternatives.

Remarks by the Editor

The aquarium described above does neither comply with the advice provided in the SAIA FishSelector nor with the SAIA Fish Lists, and shouldn't be taken as role model.

Why does ESAIA e.V. publish the article nevertheless?

A tank, if huge or small, is always a compromise. Still we should do everything to offer a nature-orientated habitat and optimal conditions to our marine pets.

This article, written by a dedicated marine hobbyist, contains a lot of inspiring food for thought. Possible the most important one is: Think before stocking your tank. Not every species is suitable for a certain set up. The same message is transported by SAIA FishSelector and the SAIA Fish Lists. These tools are available to everybody inspired by the author's thoughts.