

Fish & Chips

A Monthly Marine Newsletter

December 1998 Issue

From Us

Article by Elizabeth M. Lukan 12/14/98

Thanks to everyone who subscribed to Fish & Chips. In only a month, we have nearly 120 subscribers. We are very proud of this, but promise to not let it get to our heads. We certainly hope we can keep a steady flow of new subscribers each month. But, we wanted to take this moment to say kudos to each of you who thought enough of our newsletter to give a go at subscribing.

I've included a new section in this issue called **Help Wanted**. These are questions, etc. from fellow subscribers that have been sent to me. A lot of you have been doing this, which I don't mind, but I can't answer all of them and some of them are just way over my head. Remember I never said I was an expert! Those questions that I can't answer for whatever reason, I've started offering to publish here. I will either post email addresses with the questions or act as an intermediate to keep your email address private, whichever you wish. I think it will be especially helpful since you can't post images on the newsgroups without causing an uproar and so many people want to id something in their tank. Anyway, try to give a hand to your fellow subscribers.

Now that we've successfully managed a second issue and already have drafts of the January issue in the works, I'd like to note that if anyone wants to look at the past issue (November), they can be found on the ONElist archive site (www.onelist.com/archives.cgi/FishNChips). Unfortunately, the archives are in text only format and do not include any of the pictures. So, if you'd like to receive a back issue in html format with pictures, send your request to us directly (FishNChipsED@xoommail.com).

(information updated 4/14/00: archives at ONElist removed, for back issues see Fish 'N' Chips Website (<http://www.marinefiends.com/>)) (site url updated 8/24/04)

We wish everyone a Happy Holiday and wonderful New Year!

Critter Corner - Polka-dot / Yellow / Blue-spotted Boxfish

Article by Elizabeth M. Lukan 11/27/98

General Information:

The young Yellow Boxfish has an almost perfect box shaped body which becomes more elongated as it grows older. It also changes from the yellow or cream color when young to different colors when older, mostly yellow-green. The spots also change from dark-blue in the young fish to white with blue rings in the adult. The body is enclosed in a bony structure covered with a thin layer of skin with fins sticking out and no spiny dorsal fin.



Scientific Name:

Ostracion cubicus

Boxfishes belong to the Tetraodontiformes order which also includes puffers, porcupinefish, and triggers.

Boxfishes belong to the Ostraciidae family. Boxfishes are also commonly called cowfishes and trunkfishes (for example, the popular, Long Horned Cowfish - *Lactoria cornutus*).

Home Aquaria:

Although many of the offerings in the fish stores are tiny, some as small as a dime, these fish can grow to 15-18 inches, therefore a large aquarium is recommended - 100 gallons and up. Boxfish like to hide, so hiding places should be offered and will provide a retreat from any perceived danger. The Yellow Boxfish requires no special lighting or temperature, very good tank conditions and water parameters are needed. Strong water movements cannot be handled by the young boxfish as they are slow swimmers. Make sure they can't get sucked into any powerheads or filters you may have. They should be kept in Fish Only tanks as they will pick on (eat) soft corals, tube worms, etc. in reef tanks. The Yellow Boxfish should never share an overcrowded tank or have aggressive or fast moving tankmates. The Yellow Boxfish will swim all levels of the tank (top, middle, bottom).

According to Mark Taber's Survey On Fishkeeping (from Albert Thiel's website (<http://www.athiel.com>) and posts to rec.aquaria.marine.misc and rec.aquaria.marine.reefs newsgroups) which quoted Frank M. Greco's list of fish unsuitable for captivity, the Yellow Boxfish should not be kept in the home aquaria. The fact that boxfish are so prone to ich was the reason for their being added to the list. Per Mr. Greco, "...a survey I did of local area wholesalers found that a minimum of 30% and a maximum of 100% of these fishes died. Necropsy found that most, if not all, of these animals were infested with *Amyloodinium* and *Cryptocaryon*. The degree of survival past the wholesaler/shopowner portion was small as well, if memory serves. And, these fishes tend to be copper sensitive to boot, IME (in my experience) with them. So utilizing copper on these fishes during quarantine seems to cause more problems than it's worth. Many die from it and those that do not are never quite right afterwards. Malachite green is a good substitute, but it's just not as effective as copper."

While conversing with Mark and Frank to obtain their okays to quote, Frank requested that I also add the following to the article. "...you should also note that my designation of this fish as difficult is, at best, a subjective one. My reasonings behind listing this fish thusly are, IMO (in my opinion), sound ones. But, as in almost all cases, my experiences may not be the same as those of others. It is important that this be made known. My listings are not absolute, nor should they be taken that way."

Thanks go to Mark Taber (mttaber@email.msn.com) and Frank M. Greco (pHrank2139@email.msn.com) for their permissions to quote.

Foods & Feeding:

Before bringing your boxfish home, make sure it is eating at the store. You must be 100% sure your fish is eating. A boxfish that isn't eating may already be stressed and any stressed fish won't survive long, especially a boxfish with their ability to release toxins and susceptibility to *Cryptocaryon*, etc. Larger and older fishes are harder to start feeding than younger ones.

Because they are naturally slow moving, shy, and rather clumsy, the Yellow Boxfish may very easily be outcompeted for food by tankmates, especially if the tankmates are aggressive fish. It is vital that you make sure your boxfish is eating regularly. If you keep your boxfish with more aggressive fish, it is best to feed them first, then concentrate on feeding your boxfish. That way, competition for food will be less.

The Yellow Boxfish is an omnivore and will eat all kinds of live, frozen, flake, and veggie foods.

Small fish (dime size) can be offered live and frozen brine shrimp as well as cubed frozen food like Ocean Nutrition's Formula I and II (thawed or not, depending on how well it is taken). If they refuse the Formula I or II, you may try adding it at the same time as the brine shrimp and they may try it and you can slowly decrease the brine shrimp offered until they have switched. As they grow, they will develop a huge appetite and will even "beg" for food (swimming to you whenever you near the tank). Overall, a variety of foods is best, including seaweed (Ocean Nutrition's Seaweed Selects or nori (dried seaweed used to wrap sushi - unseasoned)). As in last month's Kole Tang article, the seaweed can be offered in a suction cup clip or rubberbanded to a piece of rock or tank ornament.

Behavior:

They are such slow movers that they are easily caught by hand. They move awkwardly using their side fins and the tail fin only in case of emergency or to get food. It is common for them to "sit" still in one spot for very long periods of time.

This fish can be extremely dangerous to other tankmates and itself. If threatened or stressed, they can release a toxin into the water which will kill everything in the tank, including themselves. Invertebrates are not safe from this toxin either. They may also release this toxin on death. If your boxfish looks diseased, stressed, or on the brink of death, it is vital that you remove it to a quarantine tank. A boxfish close to death will be lethargic and will experience rapid color fading in the minutes or hours before death. If one dies in the aquarium, remove it immediately, every second counts for the life of whatever else is in the tank. Hobbyists report all livestock in a 65 gallon tank dead in an hour and animals dying within seconds of a boxfish death.

Because of this ability to release a toxin, the yellow boxfish, and boxfish in general, are usually considered to be for the more experienced hobbyists as they are better suited in maintaining a stable environment, etc. Although it has been reported that they will rarely release this toxin, it is still a possibility, and one best kept in mind when considering purchasing this fish.

If the tank has been hit with the toxin, hobbyists suggest the following to help combat it's effects: remove fish to quarantine tank, perform 100% water change, make sure protein skimmer is running at top efficiency, add activated carbon to filtering system, when adding fish back do not put the water they are in back into the tank, another water change after system stabilizes (a week or so). Removal of the toxin from the tank is not entirely possible as it will settle into live rock, ornaments, bio bed, filters, etc. Using this method may prevent the death of your biological filter as the toxin is reduced and further dilution is possible through the subsequent water change(s), protein skimming, and addition of carbon.

Some reports note that this fish may or may not be aggressive towards it's own kind, therefore, care should be taken when adding a new boxfish into a tank with an established boxfish. I cannot say for certain if this is true or not, but it was found in some of my research. Most hobbyists mention the Yellow Boxfish's gentle nature (even so far as taking food from the hobbyists hand and being petted), but I couldn't find anyone having kept more than one in a tank so I cannot say if this is true or not.

Disease Fighting:

Boxfish develop skin diseases easily (Cryptocaryon, etc.) and are very difficult to treat. They cannot be treated with copper, which causes some controversy among hobbyists with some reporting success treating with copper, others report death, I prefer to go against using copper as my research shows more against than for. Why take the chance with an animals life? Do not give your boxfish a freshwater bath as is sometimes recommended as a treatment, as a matter of fact, avoid removing your boxfish from the tank as it will just stress them and a stressed

boxfish may release it's toxin. I would only recommend removing a boxfish, as I noted above, when already stressed, diseased, or on the brink of death.

Although they will survive nicely in normal water parameters, it is important to keep those parameters under control. No ammonia, nitrites, etc. If you let these parameters slip, you are asking for an outbreak of disease.

Boxfish will not tolerate cleaner wrasses well, but hobbyists report them allowing themselves to be cleaned by shrimp. They don't like being cleaned by wrasses because they don't have scales. Scaleless fish can be injured by cleaner wrasses who will harass them long after there is anything left to clean and since boxfish swim so slow they can't easily get away.

Cost:

Store: From \$15 to \$40 with a 12 inch one going for \$80. Two stores were checked in Queens, New York for prices.

Online: From \$10 (small) to \$14 (large). Two online sites were checked to obtain these prices.

This fish is only occasionally available through local fish stores, but is usually more available via online services.

Photo Credits:

The Ostracion cubicus image was obtained at the Exotic Tropicals Animal Atlas website (www.exotictropicals.com). According to David Brough, he obtained the image from a book called "Creating Your Own Netscape webpages" by Andy Shafran and published by QUE Corp. 1995. The book noted permission given to use the photo for "internet publications." Thanks go to David for helping me get a great photo to go with my article!

Help Wanted

Anemone ID... Can anyone ID this anemone? Send responses to fishnchips@mail.com (**information updated 4/26/00: response no longer needed**) with subject of "Anemone ID" and Dan or I will forward them to the requester.



Breeding Seahorses... Please send any and all information regarding breeding seahorses to Alec Wilson at alec.wilson@virgin.net - Alec will gladly accept anything you may have, an article, link, etc.

What the ... ?

Article by Elizabeth M. Lukan 12/12/98

AMYLOODINIUM - Amyloodinium ocellatum is commonly called Oodinium, Marine Velvet, or Saltwater Ich. Possible signs of the disease are cloudy eyes, gasping for breath, listlessness, and white spots. Positive signs of the disease are gold or brown spots, rough skin, and rubbing against rocks, etc. Treatment can be done by a freshwater dip and copper (as long as inverts are not in the tank).

CRYPTOCARYON - Cryptocaryon irritans is a parasitic infection where white spots appear on the body and fins. Fish will scratch themselves against rocks and breathing may become rapid if gills are affected. Treatment can be done by copper or other anti-parasite remedies, but this is incompatible with inverts. Cleaner shrimps and wrasses will remove the parasites, but may not keep up with a major infestation. Cryptocaryon is often referred to as the marine equivalent of the freshwater white spot disease, Ichthyophthirius, or Ich.

DORSAL - The dorsal fin is the fin directly on top of the body. For example, the fin that sticks out of the water on a shark.

INVERTEBRATE - Commonly called inverts by many in the hobby. Invertebrates are animals without

backbones like anemones, corals, shrimps, snails, and crabs.

OMNIVORE - An omnivore is an animal who will eat both meat and vegetables.

Feeding Anemone Survey Results

Article by Elizabeth M. Lukan

12/12/98

General Survey Information:

The survey posed the following questions to hobbyists:

- Do you feed your anemone(s)? Yes Or No.
- If Yes, What?
- If Yes, How Often?

The survey began on 11/11/98 and ended 12/11/98.

Messages were posted on the rec.aquaria.marine.misc and rec.aquaria.marine.reefs newsgroups and the following websites:

Albert Thiel's site at www.athiel.com

AquaLink at www.aqualink.com

Aquaria Central at www.aquariacentral.com

Aquarium Frontiers On-Line at <http://aquariumfish.com>

Fish Link Central at www.fishlinkcentral.com

The Age Of Aquariums at www.geocities.com/Heartland/Acres/3540/main.html



Data Gathered and Compiled:

I received 42 responses to the survey. Not all respondents answered all the questions. Many left out how often the anemone was fed. Also, many hobbyists had more than one anemone and each was fed (or not) differently. Some hobbyist fed one anemone and not another, others had clownfish that fed one and they fed another, and so on. So, with this in mind, anybody noting different feeding methods for different anemones was given another response indicator in my data. Therefore, out of 42 respondents, I ended up with 49 actual responses.

Data Breakdown:

Each response was divided into Yes, No, or Clown Fed.

For each food type mentioned a point was given to that particular food item.

For each timeframe mentioned, a point was given to the appropriate category. For example: fed every 2-3 days would be 3 times a week, fed every 2 weeks would be 2 times a month and so on. This was done to limit the amount of categories. Also, many respondents noted feeding the tank on one schedule and the anemone

specifically on a different schedule, with the anemone grabbing food during feedings or clowns feeding them. In these cases, I've divided the points into the appropriate categories. For example, if the tank was fed twice a week and the anemone twice a month, each would receive .5 points.

The Results:

Do you feed your anemone(s)? Yes Or No

Yes - 32

No - 9

Clown Fed - 8

If Yes, What?

Bloodworms (live or frozen) - 3

Clam - 4

Coralife Invertebrate Smorgasbord - 1

Crab - 2

Fish (live or not) - 2

Flake Food - 1

Frozen Food (Formula I or II) - 5

Frozen Food (Prime Reef, etc.) - 2

Krill - 2

Mussels - 3

Nauplii - 1

Non-Flake Fish Food - 2

Oysters - 1

Plankton - 2

Reefcare Blocks - 1

Scallops - 4

Shrimp (fresh or frozen) - 17

Shrimp (Brine -live,frozen,dried) - 16

Shrimp (Ghost - live) - 1

Shrimp (Mysis - frozen) - 1

Silversides - 10

Spirulina - 1

Squid - 3

Tubifex Worms - 2

Vitamin Supplement - 3

Zooplankton - 1

If Yes, How Often?

Daily - 3.5

Once a Week - 9.5

Twice a Week - 8.5

Three Times a Week - 1.83

Once a Month - 1

Twice a Month - 5.33

Three Times a Month - .33

My findings:

Do you feed your anemone(s)? Yes Or No.

Overwhelming Yes! There were very few respondents who do not feed their anemones. Only a few noted that they only offer their anemone(s) strong light, water movement, and whatever they filter out of the water as a sole source of obtaining nutrients. Of those who had clowns that actively fed their hosts, many noted that if the clown didn't do it, they would personally. Many responded that prior to feeding, their anemone was smaller than originally purchased and once being fed regularly, they've grown in size. A few hobbyists reported that some of their anemones willingly accept food and others would rather filter feed and ignore all offerings. I am assuming this is based on the type of anemone and would best be covered in another survey. Therefore, my findings are that majority of the hobbyists are taking an active role in the feeding of their anemones, which is a definite good thing.

If Yes, What?

Majority (52 points) of the respondents offer their anemones foods which can be obtained in your local fish store. These include bloodworms, brine shrimp, Formula I, zooplankton, etc.

The remaining food items are obtained from the supermarket, etc. (36 points). These include shrimp, clams, mussels, squid etc.

Only three responses noted adding any kind of vitamin supplements to their offerings.

If Yes, How Often?

Most of the respondents feed once or twice a week.

Noteworthy Comments:

Many respondents put a great deal of effort into responding to our survey. Some comments, tips, etc. that I've gleaned from their emails. They are in no particular order.

- Market purchased shrimps (those usually considered for human consumption) can be offered raw, shelled, with shells, cutup, or whole.
- If freezing market purchased food, line them up on trays or plates without touching, then freeze. Remove from the tray and bag. This way you can remove one shrimp or whatever at a time and they won't be frozen in a clump.
- The turkey baster is great for getting food to your anemone.
- Offer food as close to the mouth of your anemone as possible, especially if you've got fish or shrimp that will steal it from them.
- Clowns mentioned most as feeding their hosts: Clarkiis, Perculas, Maroon, Tomato. This is in order of noted times.
- A number of people blend numerous offerings together using a food processor or blender. This includes market and pet store purchased items. For example: raw shrimp, Formula I, vitamin supplement, etc.
- Anything your anemone spits out and the other inhabitants won't eat soon should be removed from the tank to avoid fouling the water and creating excessive nutrients.
- Whenever frozen foods were mentioned, the respondent almost always noted defrosting it first.

Thanks:

Thanks to everyone who took the time to respond to our survey. I hope my first attempt at a survey has been

worth your effort. Thanks again!

Photo Credits:

Photograph taken and permission given for use by Mike Wilson. Thanks Mike for a beautiful photo to go with my article.

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