



The Raleigh Aquarium Society

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January 8th, 2009

Next Meeting: Thursday at 7:30pm February 5th, 2009

Meetings are held on the first Thursday of each month at the [North Carolina State University College of Veterinary Medicine](#) located at [4700 Hillsborough Street in Raleigh](#). Visitors are welcome! Snacks and light refreshments are provided. A raffle of fish and fish related items follow the meeting. Due to Security Issues, NCSU has required that the doors going into the downstairs lobby remain locked. Please be on time, as we will have a designated person standing by the door to let you in. If you are late, you may try knocking or call Linda Twaddle at 919-880-3782 or John Patterson at 919-264-4011.

Meeting Agenda

Aquaculture and the future of aquaria

Hosted by Brian Campo, The Reef Farm

Those in the freshwater side of the hobby already know about and have probably taken part in the benefits that aquaculture has on their hobby, but marine aquaculture is still in its infancy. Despite the dire need both in the hobby and in the wild, aquacultured livestock within the industry comprises less than 5% of the total offerings available. Brian has been in the hobby on and off since childhood and has been practicing commercial marine aquaculture at his facility (The Reef Farm) for nearly 2 years. The Reef Farm is a charter facility of the Association of Sustainable Reef Aquaculturists (ASRA) tasked with developing low cost techniques for large scale aquaculture.

The marine aquaria industry has undergone numerous advancements in equipment and technology allowing almost anyone with a tank to have a part in making aquaculture a larger part of our hobby. With regulations tightening and import costs soaring the time has never been better for aquaculture to take hold of the industry and everyone can get involved no matter what your skill level is. Join us to learn more about what is being done as well as how you can get involved in defining the future of the hobby. You'll also get to experience a picture tour of a local facility that is one of the pioneers of large scale commercial aquaculture.

Business Meeting

Business meetings are open to everyone who is interested in participating in Committees, general business of the club and the Workshop and Swap Meet planning. Business Meetings are held on the 3rd Thursday of the month at the NC State Vet School, upstairs in the lobby area as follows:

January 15, 2009

February 19, 2009

March 19, 2009

April - no meeting

May - no meeting

June - no meeting

July

August - no meeting

September - no meeting

October

November

December



ARTICLE INFORMATION:**Author:** Tamara Weiss**Title:** Twenty Misconceptions About Seahorses**Summary:** Tamara provides a handy list of common misconceptions concerning seahorses.**Contact for editing purposes:** theo@aquarticles.com**email:** webmaster@seahorses.ws**Date first published:** June 2004**Publication:** <http://www.seahorses.ws>**Reprinted from Aquarticles:****ARTICLE USE:*****Internet publication (club or non-profit web site):***

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Fish Stores Say the Darndest Things - Twenty Misconceptions About Seahorses

By Tamara Weiss
Aquarticles

Seahorses have always been a mystery, fascinating man from the earliest times. Aristotle wrote about them. Even in modern times, relatively little was known about seahorse biology until 20 years ago, when the first serious attempt at researching their biology was made. But even with ground breaking new research, they are shrouded in as much fantasy as fact, and much misinformation exists about them. Much of this is perpetuated by ill informed fish stores, some by the media sensationalizing the almost unreal seahorses. Twenty of the most common misconceptions are addressed here.

1. Seahorses are invertebrates.

Because of their unique appearance, seahorses have been described as all manner of animals, from insects to amphibians. They lack scales, have an exoskeleton, have eyes that move independently, lack a tail fin and generally look un-fishlike. However, they are actually just bony fish, just like goldfish. A more fish-like relative to the seahorses is the stickle back. Other, more interesting (but still fish) relatives are pipefish, sea dragons, and sea moths.

2. Seahorses are short lived.

Seahorses are only short lived if you compare them to the lives of especially long lived species such as angel fish (+20 years) or clownfish (+10 years) While it depends on the species, seahorses live between 3 and 7 years, dwarves being the exception, clock in at 18-24 months. However,

many stores say this because many wild caught seahorses are mistreated and die very quickly in captivity.

3. The natural diet of seahorses is Brine Shrimp.

By far the most common misconception, and potentially the most harmful, Brine Shrimp is not part of the natural diet of seahorses, and should not be given as their staple diet. Brine shrimp are from salt ponds and lakes, not the ocean, and have evolved a very different lifestyle than that of normal seahorse food. Most seahorses won't even recognize the strange, upside down swimming shrimp as food. Those that do are unable to digest the largely calcium based body. Enriching with a fatty supplement may help, but is still of dubious value. Brine shrimp is often referred to as having the nutritional value of potato chips, but a more accurate comparison would be to styrofoam as little, if any nutrition at all is gained by seahorses eating them.

4. Seahorses are filter feeders.

This is one of the crazier things I've heard about seahorses. I'm sure this piece of misinformation was started by someone who, feeding their seahorses the wrong foods, never saw it eat. Probably the same person who said seahorses are short lived.

5. Seahorses eat algae.

Another patently wrong fact about seahorses that is sometimes given by well meaning fish stores. Seahorse do not eat algae, they are strictly carnivores. This tall tale probably comes from what appears to be seahorses eating algae when in fact they are snicking small shrimp that live in the algae, and may even accidentally ingest some.

6. (While looking to purchase a pet seahorse.) This seahorse eats frozen.

If a seahorse is wild caught, it is highly unlikely to be eating frozen food. Many fish stores offer frozen food, but never actually see them eat, and assume putting frozen food in the tank equals eating frozen. A desperate seahorse may even snick up a piece of frozen once. But eating frozen means vigorously consuming frozen food. Ask to see it eating frozen. If it doesn't eat frozen in front of you, its not going to eat it when you get home.

7. Its captive bred.

Fish stores, catching on to consumer interest in captive bred seahorses are starting to claim their wild caught seahorses are captive bred because that is what the consumer wants. Asking what species it is should clear up whether its captive bred or not. All commercial seahorse farms sell their seahorses by species name. If they don't know, its not captive bred. Also, if its under \$50 (\$40 online) or full grown, its likely not captive bred.

8. You can keep a seahorse in a 10 gallon aquarium.

10 gallons is one of the worst sizes for seahorses. Its too small for most species of seahorses, and too large for dwarves, where food dispersal over such a large area is a problem. A 20 gallon or larger for most large seahorses is necessary, and 5 gallon or smaller for dwarves.

9. Seahorses do well in reef tanks.

The argument is that seahorses come from reef habitats, so they should be able to live in a reef tank happily. Unfortunately, this is not the case. Many seahorses come from grass beds, and those

that live in a reef live in areas that are protected from the harsh crushing waves associated with a reef. In reef aquariums, the fast moving water, high temperatures, and aggressive tank mates all condensed in a small space make for horrible living conditions for seahorses.

10. Anemones are okay with seahorses.

Anemones do just fine with seahorses. Seahorses, on the other hand, are not okay with anemones. Unless you are looking to feed your anemone an expensive meal, keeping anemones with seahorses is a bad idea. And just because it hasn't eaten your seahorse yet or you know someone who's kept an anemone with a seahorse without a problem, don't assume that it will continue to work out. Seahorses only have to get tangled into the tentacles once. Being weak swimmers, they are unable to free themselves from the grasp of an anemone.

And there is another seldom mentioned reason why seahorses and anemones shouldn't be kept together. Even a sting from a fairly weak stinging anemone can wound a seahorse. Their exoskeleton is covered by a sensitive layer of skin that affords no protection from stinging animals. Wounds from stinging animals can easily turn into unbeatable infections.

11. Seahorses do just fine with (aggressive coral such as bubble corals, elegance corals, galaxy corals, etc . . .):

The same as with anemones, seahorses are easily wounded by the stingers of various corals which easily lead to infections that could cost you the life of your seahorse. Because it hasn't been stung YET, don't assume it won't. Always be sure to make sure any corals you place with your seahorses do not sting.

12. Seahorses are safe with (tang, damselfish, clownfish, puffers, various other aggressive fish).

When picking tank mates, you must choose very peaceful fish. Seahorse can't compete with faster fish for food, and stress easily when confronted with fast moving fish. Even fish that normally act peacefully towards seahorses may turn on them. Some algae eating fish pick at seahorses because of the algae that often grows on their skin. If you have a fish that isn't recommended to be kept with seahorses, then don't. Just because it hasn't attacked and killed your seahorse yet doesn't mean that it won't. There are plenty of examples of supposedly aggressive fish living peacefully with seahorses for months before out of the blue showing its aggressive side and killing the seahorse faster than you can net the offender.

13. Seahorses can't have any other fish in the aquarium with them.

The flip side to this, of course, is that while many people believe its impossible to keep seahorses with other fish, there are in fact many peaceful fish that are slow eaters that do not out compete seahorses for food. These are usually gobies, although some other types do well with seahorses.

14. The natural fauna of the aquarium will feed your seahorse.

New seahorse owners are often told that the "bugs" that occur naturally in their aquarium are enough to support a seahorse. This is false; seahorses are voracious eaters, and will quickly deplete a population of naturally occurring shrimp. Even aquariums with refugiums set up just for the purpose of supplying food are unlikely to be able to support seahorses. Seahorses need to be provided with a steady supply of food from outside the aquarium. At most, a tank with a well established colony of shrimp may provide the occasional extra treat.

15. Seahorses can't be kept alive in captivity.

While seahorses are certainly not the easiest fish to keep in captivity, its far from impossible. Many dedicated individuals have been able to keep they're seahorses alive through old age. With the introduction of captive bred seahorses, it became even easier for the average aquarist to keep seahorses alive and healthy.

16. Seahorses can't breed/be raised in captivity.

Not only can they be raised in captivity, but there is a booming market from captive bred seahorses. Even hobbyists without the high tech equipment of commercial farm can raise seahorse young successfully with a little bit of dedication. Despite the claim of some extreme conservation groups that there is no proof that seahorses can be captive bred, several public aquariums and research facilities have successfully closed the life cycle on various species of seahorses, and have reported on their accomplishments.

17. You need a license to keep seahorses.

In November 2002, all species of seahorses were added to the CITES appendix II listing, set to take effect May 2004. This will restrict the trade of seahorses, and any countries following CITES guidelines will have to follow collection guidelines that prevent depleting wild populations in order to export their seahorses. Importing and exporting seahorses will require special licenses. However keeping seahorses once they are in the country does not require a license. If you purchase a seahorses that is properly imported, or if the seahorse is captive bred, you do not need any special permits or licenses to keep them. To learn more about seahorse restrictions, see <http://seahorse.fisheries.ubc.ca/cites.html>

18. Keeping Seahorses as pets depletes wild populations.

This is actually partially true. Keeping wild caught seahorses does in fact remove animals from the ocean. However, a much bigger threat to seahorses is the harvest of seahorses for Traditional Chinese Medicine. Approximately 24 million seahorses are harvested annually for the TCM market, the number of seahorse havested for aquariums numbers in only the hundreds of thousands. While a lot, compared ot other threats, it is only a drop in the bucket. Additionally, more and more aquarists are also demanding captive bred seahorses to take the pressure off wild populations, an example TCM practioners should follow.

19. Seahorses are used as an aphrodisiac in Traditional Chinese Medicine.

Western cultures often report that various animals and animal parts are used by asian cultures as aphrodisiacs, and in most cases, incorrectly. The western mindset does not understand the use of animals in medicine, and in many cases seeks to belittle its importance. Aphrodisiacs are seen as a luxury, something unnecessary to survival, so if TCM is using an animal, especially a threatened or endangered one, for a luxury item, it makes the use seem futile and wasteful. In reality though, most animals reported to be used as an aphrodisiac are used to treat a wide range of ailments, from headaches to heat disease. Seahorses, ironically, are one of the few used as aphrodisiacs in some cases. However, more common uses include fertility, asthma, broken bones, and kidney disease to name a few.

20. Seahorses mate for life. If they're partner dies, they won't find another mate.

Early seahorse research by Amanda Vincent discovered that the seahorse species she was studying, *Hippocampus whitei*, had elaborate pair bonding rituals that occurred on a daily basis and seemed to reinforce a strictly monogamous relationship. Each day, the male and female would perform elaborate courtship dances before going their separate ways to hunt for food, but return to the same patch of sea grass at night. In the presence of other seahorses, they would still wait for their mate to return.



Journalists, fanciful animal conservationists and seahorse enthusiasts everywhere grabbed on to the romanticized notion that seahorses mate for life. However, this was only one species, and no true test of their fidelity was really performed. Many other species were discovered to not be monogamous, changing partners each time they mate, sometimes even mating with more than one during the same brood. Other apparently monogamous species only act monogamous if their mate does arrive for their daily greeting. If not, they search for and settle down with a new mate.

There does seem to be some difference in how monogamous various individuals are, some waiting weeks to find new mates while others not even a day. There are even some reports that some don't find new mates. But certainly, that is not all seahorses, nor even the majority of them.



Trading Post



Monthly Web Links

[Raleigh Aquarium Society Forum](http://groups.yahoo.com/group/raleighaquariumsociety/) on Yahoo Groups
<http://groups.yahoo.com/group/raleighaquariumsociety/>

[Potomac Valley Aquarium Society](http://www.pvas.com/) in the Washington D.C. area <http://www.pvas.com/>

[Atlanta Area Aquarium Association](http://www.atlantaaquarium.com/) in Atlanta, Georgia
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[Carolina Fish Talk](http://www.carolinafishtalk.com/) <http://www.carolinafishtalk.com/>

[Charlotte Area Aquarists Society](http://www.aquacharlotte.net) www.aquacharlotte.net

[Marine Aquarium Society of the Carolinas](http://masotc.net/) <http://masotc.net/>

[North Carolina Koi & Watergarden Society](http://www.nckws.com/) <http://www.nckws.com/>

[Carolina Aquatic Plant Enthusiasts](http://www.ncaquaticplants.org/) <http://www.ncaquaticplants.org/>

[Aquatic Gardeners Association](http://www.aquatic-gardeners.org/) <http://www.aquatic-gardeners.org/>

[KingFish Services](http://www.kingfishservices.net/) <http://www.kingfishservices.net/>



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Please contact John Jankowski at raleighaquariumsociety@yahoo.com if you are an active member of the Raleigh Aquarium Society and do not have an up to date membership card. Membership cards can be picked up at any meeting.

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Raleigh Aquarium Society

Application for Membership

Membership privileges include:

- Ability to post items in trading post section of monthly newsletter
- A discount card good at participating local pet stores
- All club discounts on club functions
- Education from the most knowledgeable aquarium experts in NC
- Yearly Membership - \$15.00 (includes spouse and children)

(Membership dues run from March 1st each year. New members joining any other time will be pro-rated at \$3 + \$1 for each month remaining in the year.)

Name(s): _____

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