

New Aquaculture Techniques

The horizon looks bright for the fish hobby and conservation.

Posted: May 22, 2009

We've seen an unprecedented increase in interest related to aquaculture within the hobby. Slowly, hobbyists everywhere have recognized the benefits of keeping aquacultured species and the overall value aquaculture brings to the hobby.

We can produce our own corals easily now – something that was unheard of just a short time ago. We can buy aquacultured freshwater fishes and even some aquacultured marine fishes. Aquarium aquaculture at the hobbyist level has increased the availability of rare coral species and allowed for a flowering of the reef aquarium hobby to occur by reducing costs and providing economic incentives for serious reefkeepers.

Best of all, hobbyists are interested in aquaculture for more than the practical benefits of keeping aquarium-ready fishes and corals. We're increasingly concerned about conservation and sustainability in our hobby, and these topics are just as important as our livestock's survivability.

Big Changes Coming

However, these developments are just starting to be realized. Last Friday, May 15, 2009, I attended the monthly meeting of the Southern California Marine Aquarium Society (SCMAS). Justin Credabel, a well-known reef hobbyist, scientist and coral aquaculture expert, presented information about cutting-edge coral propagation techniques and reef conservation.

Justin has been involved on the retail side of the reefkeeping hobby for more than 12 years. He recently moved to Los Angeles and has joined Underwater World to help create an aquaculture division there.

Justin's discussion was truly fascinating. The level of information presented at the SCMAS meeting is a perfect example of why it is so useful to belong to a local reef hobbyist club. You can't get information of this quality in many other places.

Justin Credabel spoke at length about developments in aquaculture, his own experiments, microculture (propagation from a very small amount of coral material, possibly even a few cells) and his own experiences with keeping several difficult coral species, including *Goniopora* spp.

His methods are right on the cutting edge of coral aquaculture. We may soon see microcultured corals, sexually propagated corals and unique coral fusions appearing in the hobby, if Justin Credabel's talk was any indication.

These revolutionary coral propagation techniques could potentially turn the hobby on its head. We might be able to fulfill all of the hobby's coral needs through captive propagation if Justin's methods prove fruitful and wholesalers are able to capitalize on expertise like his.

Furthering Conservation Goals

Justin also spoke about his desire to create a national registry of all coral species, complete with a sophisticated numerical coding system to track coral populations, down to the species level and to the coral's place of origin in the wild.

This system could help hobbyists know exactly what they're getting when they buy a coral frag from a local retailer. It could also make reef conservation efforts much more effective by allowing researchers to identify wild corals in danger, and then replacing those dead corals with captive-bred genetic stock that is nearly identical to the threatened corals.

Justin has even loftier goals, however. He wants to catalog all of the life within various coral ecosystems, including the species of zooxanthellae that specific coral populations are found with. From there, he wants to use this information to preserve reef habitats around the world.

Justin is heavily involved in education and outreach. He seems genuinely concerned about coral reef preservation and the hobby. Justin and his work are probably the best proof of the argument I frequently make within this blog that reefkeepers are vitally important to coral reef conservation and humanity's understanding of corals in general.

Reefkeepers Are Born Scientists and Conservationists

Justin is a reef aquarium hobbyist with a passion for conservation. Justin, and hobbyists like him, can make a huge

difference in reversing world-wide coral reef decline.

The line between researcher and hobbyist is blurred when it comes to the reefkeeping hobby. In a lot of ways, reefkeepers are scientists working toward the preservation of their system's inhabitants.

Though reefkeeping hobbyists may not always have the same goals as scientific researchers, we often have practical experience with species that most researchers studying coral reefs in the wild have never attempted to keep or breed.

From this body of knowledge and the continuing work of hobbyists like Justin Credabel, the hobby can have a tremendous impact on coral reef survival in the wild.

There are some animal rights activists who say we should not keep corals, marine fishes or any exotics at all. I say that, while their hearts are in the right place, their methods and proposed solutions to environmental threats are often totally misguided.

In general, if people can't keep corals, they won't care about corals. Keeping a reef aquarium puts reef survival literally right in front of your face. It isn't much of a leap for reefkeepers to generalize their experiences with a reef tank to develop concern for wild reef environments.

I've met reefkeepers who are some of the most concerned, dedicated people when it comes to conservation and marine ecology. Hobbyists may be able to play an active, vital role in restoring wild reef populations by maintaining these species in captivity, and then providing their genetic material when the time comes to reestablish these species on the reef.

In many other petkeeping hobbies, the difference between experts in the field and the average hobbyist is often quite large. This isn't the case when it comes to aquarists and reefkeepers in particular. We are often better educated, more informed and ultimately better able to aid in our chosen charges' survival than most other petkeepers.

Reefkeepers often have more experience and understanding of their system's inhabitants than researchers studying these creatures in the wild. Just read my blog entry "Reefs Show Signs of Rallying," for a discussion of this topic.

Justin Credabel is a prime example of the bridge between hobbyists and researchers. Justin is applying his research and scientific methods to the reefkeeping hobby for the benefit of hobbyists and, much more importantly, to help preserve the world's coral reef resources. As reefkeepers, you should be proud of Justin and proud of yourselves for helping to advance these important conservation goals.

[Back to Blogs>>](#)