

Marine Aquariums Coral Reef Impact

Is the marine aquarium hobby responsible for ruining coral reefs?

By Jeremy Gosnell

Q. I have read that the saltwater aquarium hobby is decimating coral reefs by overfishing. Is that true? Why do they capture any livestock from the ocean, why can't people settle for captive-bred and raised livestock? I also heard a rumor that a law is in the works preventing any import of live-caught livestock into the U.S. for saltwater aquariums. Is this the case?

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A. I too have read that the saltwater aquarium hobby is making an impact on natural coral reefs. While at the 2008 DEMA Show in Las Vegas (a trade show for scuba diving companies and marine conservation societies), I had the opportunity to talk with marine conservationists first hand. Representatives from Oceana, PADI Project Aware, Earth Echo and more were present at the show. Naturally, one question that I asked was if, in their experience, the aquarium industry was decimating natural coral reefs by overfishing selected species. To my surprise, the answer many conservationists gave was that not only was the aquarium industry not destroying natural coral reefs, it was in some cases helping to preserve them.

In some small island nations where economic opportunity is thin, islanders were using dynamite to blow coral rock into small chunks that could be collected and sold to the limestone industry. These reef chunks were used in the construction of roadways. On other islands indigenous people were using crude and homemade long lines and nets to capture fish for the food industry. In both cases, many species were killed and the reef systems took a huge impact. Organizations like the Marine Aquarium Council (MAC) and, independent retailers and wholesalers traveled to some of these islands and taught the islanders how to net-capture live fish for the aquarium trade. The islanders quickly learned that this was far more profitable than blowing up coral reefs for limestone and began exporting live fish for aquariums. In these cases, the saltwater aquarium trade has been an asset, both economically and environmentally, to island nations and coral reefs.

However, not all cases where live fish are collected for aquariums are this optimistic. Cyanide fishing, used to stun fish for easier capture, has decimated many reef environments. While banned nearly worldwide, the practice still takes place today. I have lost several species to what I believe was kidney failure due to cyanide capture. As a scuba diver and marine conservationist, I can not stand the site of a fish I see flourishing in the wild laying nearly lifeless in an aquarium store's sales aquarium. Responsibility on the part of retailers, distributors and individual aquarists could put an end to many of the ethical concerns with the environment and our hobby. Nearly all of the aquarists I know are highly responsible, ethical and have an enormous amount of knowledge about coral reef ecosystems. From an education and awareness point of view, the saltwater aquarium hobby is nearly unrivaled.

Considering that only a handful of species are available that have been captive-raised, it is unlikely aqua-cultured livestock could support an active saltwater aquarium hobby at this point. That is changing, though. Breakthroughs in breeding saltwater fish species, even those with prolonged larval stages, are taking place nearly every day. I do believe the day will come when nearly all saltwater fish offered for sale will be captive-bred. Responsible exporters, responsible retailers and responsible aquarium owners can all work together to limit the hobby's impact on the wild.

I am not aware of any legislation that would not allow the import of wild-caught saltwater fish into the United States. When I consider the economic impact of such a law I would have to think it's unlikely that it would pass. Legislation like this would almost certainly not have the intended effect. Europe, Asia, and even South America all import and sell tropical saltwater fish. It's unlikely that any of the crude and unethical collection methods would stop due to this type of law and likely that much of the U.S. led support for island nations that are collecting responsibly would diminish. Climate change, rising ocean temperatures and ocean acidification, runoff from clear-cutting, and overfishing for the food industry are far harder on coral reefs than the aquarium industry. Most marine conservation groups focus their attention on those escalating problems.