

Project Seahorse: Conserving the Oceans' Medicinal Resources



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Jennifer Pepall

[Photo: Participants at Project Seahorse workshop in the Philippines.]

To some people, it's a charming sea creature. But in many parts of Asia, the seahorse is prized for its medicinal properties. Used to cure ailments ranging from asthma to impotence, more than 20 million seahorses are harvested each year to supply the traditional Chinese medicine market. More than 45 countries now trade in dried and live seahorses and with demand increasing at a rate of 10% per year, researchers, fishers, and traders alike have noted serious declines in Asian seahorse populations.

It is only recently, however, that conservation efforts have targeted the seahorse or any other marine medicinals. "Most of the attention with respect to traditional Chinese medicines has focused on the use of charismatic large mammals, such as rhinoceroses, tigers, and bears," says [Amanda Vincent](#), a biology professor at McGill University in Montreal, Quebec. "We have not paid enough attention to the other 11,500 species of plants and animals involved in traditional Chinese medicine."

First case study

In 1996, Dr Vincent wrote a report on the seahorse trade that was the first case study of a marine species used in traditional Chinese medicine (TCM). She is also one of the founders of [Project Seahorse](#), a global program for seahorse conservation and research, which is supported by the International Development Research Centre (IDRC) and other organizations. With funding from IDRC, Project Seahorse hosted a July 1998 workshop in the Philippines on trade in marine medicinal products, which brought conservationists, aquaculturists, and TCM traders together for the first time.

Before the workshop began, participants were asked to prepare lists of marine species that are used for medicinal purposes in their respective countries. One woman from South Africa compiled this information with the help of a questionnaire that she had translated into 38 languages. A Chinese participant brought a list of 410 species. Based on their efforts, Allison Perry, a McGill University graduate with Project Seahorse, is compiling the first known directory of marine animals and plants used in traditional medicine. Such information is critical to understanding the extent and volume of trade as well as the species that are at greatest risk, says Dr Vincent.

Conservation project

During the workshop, participants visited the world's first seahorse conservation project, an initiative established by Dr Vincent and the Philippines' [Haribon Foundation](#) in the fishing village of Handumon. "For some, it was their first exposure to living seahorses and the idea of community-based management," she says.

By the end of the workshop, the participants had created a multi-stage action plan to improve the sustainability of trade in marine medicinals. Their plan — which involves research, publication of results, aquaculture development, and public education activities — reflects the multi-disciplinary, multi-sectoral nature of the meeting. For example, research by the education director of one the largest global retailers of TCM showed that whole seahorses are rarely used in medicines, but are an essential ingredient in patent medicines made in China to enhance virility. This type of information motivated the entire group to propose creative solutions ranging from reducing the amounts of seahorses harvested to finding acceptable substitutes.

Bolder measures

"On the last day, several Chinese traditional medicine traders came forward with conservation initiatives that were even bolder than those we had proposed," notes Dr Vincent. She and her colleagues had been encouraging fishers not to sell pregnant seahorses, but instead to keep them in cages until they gave birth. The traders, however, went one step further by raising the possibility that they might stop accepting pregnant seahorses.

A Project Seahorse member is currently writing the IDRC workshop proceedings, which will be translated into Chinese to ensure wide distribution. The proceedings and action plan were also incorporated into briefing materials for another international workshop on seahorse husbandry, management, and conservation held at the [John G. Shedd Aquarium](#) in Chicago from December 6-9. This event was linked to the Shedd Aquarium's special exhibit on seahorses and their relatives.

Convergence of issues

"The reason I work with seahorses — apart from the fact that I am besotted with these little fishes and that they are at risk — is that they represent a convergence for some of the most pressing marine conservation issues," explains Dr Vincent. The seagrasses, mangroves, and coral reefs that form their habitat are all under threat. The declining numbers of seahorses jeopardize the precarious livelihood of the subsistence fishers that catch them. Aquaculture and the creation of marine protected areas offer potential benefits but also pose technical, social, and logistical difficulties. "The seahorse stands as a symbol for many serious concerns, all packaged in an attractive animal," she concludes.

Jennifer Pepall is an Ottawa-based writer. (Photo: A. Vincent)

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