UBC prof gets seahorse global protection

It is the first marine fish to have its trade regulated

Nicholas Read

Vancouver Sun

Monday, December 02, 2002

They are among the most distinctive creatures in the sea. As recognizable as they are unusual, they appear, to most laypeople, stately, graceful and infinitely appealing.

They are also endangered.

But now, thanks in large part to the efforts of University of B.C. marine conservation scientist Amanda Vincent, the seahorse has become the first marine fish genus to have its trade regulated internationally.

At last month’s meeting of the Convention on the International Trade in Endangered Species (CITES) in Santiago, Chile, three-quarters of all the signatory nations in attendance voted to place all 32 species of the seahorse on its Appendix II list.

That means that when a signatory country approves a shipment of seahorses (dead or alive) for export, it must provide written assurance that the shipment will not threaten

UBC scientist Amanda Vincent displays some of the wares -- from traditional medicines to tacky seahorse key chains -- made from seahorses the world over.

CREDIT: Ian Smith, Vancouver Sun
in any way the survival of seahorses in their wild environment.

Until now, no fish species had ever been accorded such protection.

"There's an opinion that marine fish cannot go extinct," Vincent said in an interview at her UBC office. "This is a point of view held by many fisheries managers. It is not a point of view I have much sympathy with."

Vincent, who runs Project Seahorse, an international consortium of conservationists dedicated to preserving the seahorse, describes the CITES listing as "a call to action."

"A lot of conservationists make the mistake of believing that when a species has been listed, it's a victory. It's not. The victory comes when we can go to the signatory nations and say the issues have been addressed and the problems solved."

Despite its equine appearance, a seahorse has no biological connection with Black Beauty, says Vincent. It's simply that when it was discovered, its resemblance to terrestrial horses was clear to everyone who saw it. Hence its name.

It is, she declares, most assuredly a fish -- with gills and a smooth skin stretched over an intricate skeleton -- and is harvested in 77 countries the world over.

But never as a main catch, only a secondary one. That's because seahorses can't be caught in vast numbers like other types of fish, and because their commercial value is limited.

Even so, seahorse parts are commonly traded for use in traditional Asian medicines to treat everything from broken bones to childbirth pains to impotence. In fact, it was an electronic billboard in Germany advertising seahorses as being "good for men with weak tails" that prompted Vincent to launch what became a worldwide investigation into their trade 10 years ago.

They're also enjoyed as decoration. You can buy dried seahorses as ornaments, jewellery or toys (there are even such things as seahorse yo-yos, Vincent says), and live ones as aquarium fodder, though she advises that they're extremely difficult to keep alive in captivity, so no one should try.

They're also bycatch victims. When ships trawl for shrimp, only about five per cent of what those ships bring up from the ocean floor is actually shrimp. The rest, which can include seahorses, is commercially useless and thrown away.

That's why 20 of 32 species of seahorse appear on the World Conservation Union's red list of endangered species. The other 12 could be endangered too, says Vincent; it's simply that not enough data have been collected on them to know.

It's also why she believes the CITES designation is so important.

"The challenge now is for countries to regulate the vast international trade so well that seahorse populations begin to recover. The CITES decision certainly marks a good beginning for the future of the world's seahorses."
In addition to its curious, even endearing, appearance, the seahorse is noteworthy for its reversal of sex roles.

It is the male seahorse that gives birth to the young. After implanting its sperm in the female's eggs, the female transfers those eggs to the male, which then incubates them for 10 days to six weeks, depending on the species before giving birth.

No sooner does that happen, than he gets pregnant again. Each day, even while the male is pregnant, pairs of seahorses will dance a ritual mating dance -- "a gentle ballet," observes Vincent -- for 10 or so minutes. But after the male has given birth and immediately before mating, they will dance for a full nine hours.

Then mating takes place and the male is made pregnant again.

Because of that, seahorse males never stray far from home, and are faithful their whole lives, which can last five or six years, though no one really knows for sure.

They are, in other words, every woman's dream -- and, Vincent can't resist adding, "every man's nightmare."

Because they prefer warmer climes, there are no seahorses off the B.C. coast. Southern California is as far north as they reach in the Western Pacific.

They thrive in shallow seabeds, and usually live among sea grasses, mangroves (groves of trees that take root in sea water), coral reefs and estuaries -- all of them, Vincent notes, disappearing habitats.

There is a Canadian seahorse, however. The lined seahorse is found all the way from Uruguay to Nova Scotia. It's about 12 to 15 centimetres long, and can change colour from white to yellow to brown to black to green to purple, depending on how it wishes to camouflage itself.

Because Asian countries use seahorses as raw materials in traditional medicines, they are the most apprehensive about new trade restrictions on seahorses, Vincent says.

Thus getting Asian countries and communities -- including Vancouver's -- to understand the urgency of the situation is one of Project Seahorse's most important challenges.

Vincent emphasizes that Asian nations are not the villains in the seahorse's decline. In fact, she believes that it's only through collaboration with fishermen, medical practitioners and governments that recognize the seahorse's use that conservation of them will work.

It's equally important to realize, she says, that despite being the first marine fish to receive a CITES listing, it's not the only one that's endangered.

What she hopes is that it will be an ambassador for other equally imperilled, but less charismatic, fish that are just as important to maintaining a healthy ocean ecosystem.

She also insists that, Western sensibilities to the contrary, it wasn't the
seahorse's recognizability that earned it its distinction. The CITES listing was entirely a scientific decision, she says, based on years of research and discussion.

Not that she doesn't confess to having a certain fondness for them herself.

"Of course, I'm absolutely besotted by them," she says, "but that's another issue."

© Copyright 2002 Vancouver Sun