Opinion: The economics of endangerment

Why we (fail to) protect Earth's most vulnerable species

By Holly Moeller

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VANCOUVER, B.C. — Seahorses. The last thing I expected to have on my mind in the city that just hosted the Winter Olympics, complete with a fuzzy Sasquatch mascot that couldn’t be more unlike the sleek sea creatures. But there is no more appropriate place to talk about the seahorse than the University of British Columbia, where scientist Amanda Vincent leads Project Seahorse, a team of researchers who use the iconic fish to spearhead marine conservation efforts worldwide.

Thirty-four species of seahorse populate the world’s coastal waters, where they are threatened by habitat loss (when reefs are dynamited to catch fish, or when coastal development covers seagrass beds with silt-laden runoff, for example) and overfishing. Seahorses are common bycatch in shrimp trawls, but they’re also netted for use in Eastern medicine, or to be dried into colorful souvenirs. Extensive trade and environmental pressure threaten many species with extinction, yet the charismatic appearance of seahorses (and their curiously fantastic reproductive strategy in which males give birth) makes their story a compelling one.

Perhaps that’s why Vincent and Project Seahorse triumphed in 2004, when the Convention on International Trade in Endangered Species of Wild Fauna and Flora added seahorses to a growing list of over 30,000 species. Listing protects species by restricting (or, in severe cases, altogether banning) international trade in live individuals and goods made from their bodies (like furniture or leather). Because CITES has so many members (175 countries have signed on since the convention entered into force in 1975), listing a species is a long and controversial process with global repercussions. In the case of the seahorse, listing set a new precedent by opening the door for protection of commercially important fish species.

It’s a door that many countries would rather have left shut.

So, when bluefin tuna and several species of sharks were considered for listing at the CITES conference earlier this month, conservation groups and commercial fishermen waited uneasily in the wings for the verdict. In favor of listing the tuna: the United States, statistics on dramatic population declines, and the majority of the delegates in attendance. Opposed: Japan — where bluefin belly is among the most prize of sushi items, and China, which is also the world’s largest market for shark-fin soup. A two-thirds majority is required to list a species, so although most countries voted to ban bluefin tuna trade, the Japanese-led minority still carried the day.

In fact, no marine species were granted protection by CITES at the Doha, Qatar, meeting. Nor were the polar bear, or some thirty-odd corals used the in the jewelry trade, despite strong scientific evidence of their vulnerability to extinction. It’s a frightening result and a slap in the face to the UN’s International Year of Biodiversity, when the world is supposed to focus on species conservation and lowering extinction rates.

Of course, it’s also an unsurprising result. When politics meet economics, outcomes frequently favor profit, not protection. And a CITES listing is hardly a one-stop shop for conservation success. While...
CITES members agree to be bound by its trade restrictions, their national governments may not ratify all listings, or may not exact sufficiently harsh punishments to stop trade. Indeed, trade in endangered species is notoriously hard to control: on-the-ground enforcement (which, in some cases, requires constant monitoring by armed guards) is expensive, and smugglers can slip through even the most zealously guarded borders.

Some economists argue that listing drives the price of the forbidden goods up, making poachers more likely to take risks and increasing the threat to a species. To combat this effect, some suggest farming endangered species to meet the market's demand. Sale revenues can even be used to pay for enforcement of trade bans and protection of wild populations.

While these “supply-side policies” seem sound in principle, in practice they fail with distressing frequency. It's technically challenging to raise an endangered species in captivity — many are slow-growing or have finicky dietary requirements — and even harder to make a farming operation commercially viable. Sea turtle farms, for example, often rely on harvesting eggs laid by wild turtles — hardly a sustainable practice — and government subsidies to knock the edge off high operational costs.

Even when farms are producing commercially viable products, it's hard to imagine why increased supply (and therefore, lower prices) would not just increase demand. How many rhino ranches would we need to glut the market and put poachers out of business? In the meantime, we also make it easier to trade in poached ivory: Once you've mixed your wild-caught tusks into a larger market of farm-raised ones, they become almost impossible to identify or track. By contrast, if all trade is forbidden, it's easy to identify poached items: They're the only ones out there!

As usual, the actual results are complicated and depend upon microeconomics, the life history of each species, and the amount of cash available for protective measures. In many cases, we've come a long way: Shooting an elephant in Africa is no longer every young American man's fantasy, and we no longer insist on turtle-shell bowls.

However, these cultural changes began by acknowledging that a species was in trouble, and the results of last week's CITES meeting seem frighteningly like a denial. Of course, countries want to protect their sovereignty and their right to sushi and shark-fin soup. And it's distressingly easy to bury one's head in the economic sand and assume there are still plenty of fish in the sea.

But the reality is that our oceans are dying. We may have no better dumping ground for polluting chemicals and bargefuls of trash, and we may not be able to prevent climate change and ocean acidification from fundamentally changing marine life. By contrast, cutting back on our harvest of tuna and sharks seems like a tractable first step.

First, though, we need to impose trade restrictions to lock down international markets. In a few years' time, when the next CITES meeting is held, the case for listing tuna and sharks will only be stronger. Two-thirds of our planet is ocean: let's hope we can get two-thirds of our land on board to protect it.

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