Where Rivers Flow, Biodiversity Grows

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Kierán Suckling founded the US-based Center for Biological Diversity in 1989. The highly successful Center uses science, law and creative media to protect species on the brink of extinction, primarily in North America. Kieran talked to us about the Center's work and the importance of biological diversity to humans and the planet.

WRR: What inspired you to focus on biodiversity?

KS: When I was at university, I was working on a doctoral dissertation looking at both the extinction of species and the extinction of languages. There's a clear but not well-understood link between the two – the areas of highest biodiversity also have the highest language diversity, and the same forces are killing off both. I had a summer job surveying owls in New Mexico for the US Forest Service, and I became so entranced by owls that I quit school and started the Center.

WRR: How do rivers figure into the Center's work?

KS: Rivers figure very prominently in our work, because it's all about the water – that's where all species great and small congregate. And of course water is a critical resource that humans also desperately need. River systems are not only the zone of our highest biological diversity, but also of the greatest human endeavors, which is a recipe for an extinction crisis. So we put a lot of work into trying to protect rivers.

We've had a lot of success through the Endangered Species Act (ESA) approach. We don't have many laws that actually protect the rights of rivers, but there are lots of laws in the US to protect imperiled plants and animals. To protect a river, one of the most powerful things you can do is try to protect species associated with them. One of the primary tools we use is to get a "critical habitat" designation under the ESA. We've gotten 10,000 miles of Western US rivers protected this way, as part of efforts to help preserve habitat for raptors, plants, fish. We've recently launched a campaign to protect the endangered aquatic species of the US Southeast, whose waterways have gotten less attention than Western rivers. We had our first victory there in October, when US Fish and Wildlife issued an initial positive decision to list 404 riverine species as endangered in this region.

Kieran Suckling

WRR: You've written, "Since European settlement, more than 120 freshwater species in North America have vanished forever." What have we lost?

KS: We've lost incredible species that would have made our modern lives much richer. Here in the US Southwest, we no longer have river otters, for example – they went extinct more than 50 years ago.

They were not only charming, interesting animals, but also the top riverine predator. Our rivers have suffered tremendously because of this loss.

We've also lost many native trout and salmon all across the country, which were part of ecological and cultural heritage. Humans evolved with these species in an environment of great biological diversity, and when we wipe out that diversity, we suffer a loss that is hard to grasp, but is quite profound.

WRR: We have many partner activist groups working in places where the loss of a not-so-charismatic species may be considered a small price to pay for a big dam that promises to bring electricity or water to a poor nation. Generally, these activists are also working without the legal protections we have. Any advice for them?

KS: One of the important advances in the past 20 years was the Convention on Biological Diversity, which protects biological diversity from exploitation for commercial use. It was signed by virtually all developing nations, and its passage was a big victory for developing nations. So it would be really ironic for dam-building southern nations to start chipping away at their own biodiversity with major dam-building schemes. We've had enough time to learn about the many downsides of the Western development model. A smart response is to find another development path to prosperity, one that doesn't sacrifice biodiversity and the environment.

It's very tough to work in nations that don't have legal protections for endangered species or rivers. I would urge groups to use their ongoing campaigns to call attention to what will be lost, and to press for laws that will help prevent the loss of species and protect healthy, functioning ecosystems.

You also need a diversity of tactics, and even a diversity of groups with different perspectives working together. More interaction between the traditional environmental groups and the social justice groups could lead to creative campaigns, for example.

WRR: What change would you make to laws that protect endangered species?

KS: Our species-protection laws are designed to protect a minimum viable population of a particular species. We are not managing for abundance, which is what we need for ecosystems to work properly. A lot of species are being protected at levels that prevent them from going extinct, but not at levels sufficient to do their jobs in the ecosystem. For example, most woodpecker species are not on the brink of extinction, but they exist at such low numbers they can't eat enough tree-damaging insects to fulfill their ecological role. Now our western forests are in trouble. And in the East Coast, horseshoe crab levels have dropped enormously, though they're not going to go extinct any time soon. The crab eggs were a huge food source for the red knot, a migratory bird that is now endangered due to vastly less food available to it.

Ultimately, if we can protect and restore our rivers, we'll find that most of our other environmental problems get fixed along the way. Logging, mining, grazing, pesticides, overpopulation, the extinction crisis…they all intersect where the waters flow. It doesn't matter whether you live in a desert or a rainforest, you have to focus on keeping rivers full and healthy.