Sporting Environment with David Van Wie

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Our Endangered Species Scorecard

The Endangered Species Act may not be popular among developers, but in the last 40 years it's been successful in saving from extinction 99% of the animals and plants listed. The author says that's a pretty good score.

When you hear the phrase *endangered species*, what comes to mind?

Exotic African rhinos and Sumatran tigers? Beady-eyed black-footed ferrets? The tiny, yet persistent population of desert pupfish?

These and other critically-endangered species capture the public's attention and encourage us to open our wallets to support research and conservation efforts.

What about here in Maine? The piping plover gets plenty of press. Perhaps you care more about the peregrine falcon, or the Canada lynx?

Ever hear of the Roaring Brook mayfly? This elusive insect was first discovered near Mt. Katahdin, and has since been found in only a few high-altitude streams in northern New England.

Or the tidewater mucket, one of three species of endangered freshwater mussels in Maine?

Charismatic Macrofauna

Not all endangered species fit into the category that is sometimes called "charismatic macrofauna" – those doe-eyed cuddly animals that capture our imagination, or ferociously symbolize an entire ecosystem.

Yes, sometimes a slithering snake or bright blue fish can be pretty charismatic, but other less lucky and more homely species languish in obscurity and teeter on the edge of oblivion because they aren't cute enough to win the public's support.

Some endangered species are not animals at all.

Furbish's lousewort, the first plant listed on the federal endangered species list, is a rare herbaceous plant that occurs only in Aroostook County, Maine. This perennial member of the snapdragon family was famous for being one of several factors that killed the massive Dickey-Lincoln Dam project, first proposed in the 1960s, which would have flooded 57 miles of the upper St. John River.

Conflicting Concerns

For some folks, the words *endangered species* bring an eye roll at the thought of environmentalists-run-amok who are worried about the sky falling on yet another obscure critter or unrecognizable plant that fell behind in the 'survival of the fittest' marathon.

By its nature, endangered species conservation frequently runs into conflict with human development and economic interests when such development encroaches on "critical" or "essential" habitat.

It is up to our government leaders, as policymakers, to weigh economic interests against ethical concerns and also look at the broader ecological (and economic) value that protecting these species will bring.

Some of the benefits we get by protecting endangered species and biodiversity include ecological stability, food security, potential medicinal and chemical properties, ecotourism and other ecosystem services, such as clean water, clean air and natural pest control.

Ecosystem Value

Maine is blessed with a dazzling diversity of habitats, from the tidewater of Kennebunkport to the alpine tundra atop Mt. Katahdin. With this diversity comes a rich heritage of wildlife and plant communities that many of us, both residents and tourists alike, appreciate as integral to "the way life should be."

Maine wouldn't be Maine without <u>all</u> the pieces and parts, however tiny and rare, of the ecosystem and landscape.

When a species becomes endangered, the concern is not just about that one species. It is really about the health of the entire ecosystem that provides a home for that species.

The black racer snake is at the northern edge of its range in York and Cumberland counties. It used to be found as far north as Skowhegan. The habitat it requires is under assault from development, fragmentation, and human activity.

Loss of habitat for black racers affects not just the elusive snake itself, but other species with similar habitat requirements, such as the cottontail rabbit. And by losing a predator like the black racer, the community may see an increase in rodents, small mammals and other prey species.

Keystone Species

Some species, like the rusty-patched bumblebee, play an outsized role in the ecosystem and even our economy. Hundreds of plants, including cash crops like apples and blueberries, rely on bees to pollinate for successful reproduction. Many, many other species may rely on the plants that depend on the bees. And so on.

Without bees, the entire plant community would shift. These types of species, like bees, are called *keystone species,* due to the number of plants and animals that

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rely on their critical role in the ecosystem.

Bottom Dwellers

Freshwater mussels, including the yellowlamp mussel, tidewater mucket, and brook floater mussel in Maine, are the most endangered group of animals in North America, according to Maine Department of Inland Fisheries & Wildlife.

An important food source for otters, raccoons, muskrats and other wildlife, these mussels are threatened by habitat degradation (shoreline development), water pollution and invasive species. Native freshwater mussels filter the water, helping to keep our ponds and streams clear and clean.

Because mussels are inconspicuous and lack the charisma of other species, the public may underestimate the ecological and economic value of these lowly bivalves wallowing in the muck. Maine's Shoreland Zoning regulations are an important protection for the mussels' habitat, which is home to many other aquatic and riparian species.

Record of Success

The federal Endangered Species Act (ESA) has been highly effective in protecting wildlife, fish and plant species from extinction. Every species on the list is there because of human impacts on the environment.

The ESA enjoyed strong bipartisan support when it was passed more than 40 years ago. Since then, the Endangered Species Act has prevented 99 percent of the species under its protection from going extinct, with many species recovering to healthy populations.

We have seen dramatic recoveries in the bald eagle, the sea lion, the California condor, the brown pelican, humpback whales and hundreds of other species. These successes are worth celebrating.

Arctic terns are on Maine's Threatened Species list. The numbers of breeding pairs on coastal islands are at a fraction of historic levels. *Van Wie photo*

Here at home, the Maine Endangered Species Act continues to protect vulnerable species that are important to our state, both in parallel with the federal law, and also independently when a species is threatened or endangered in Maine, but not listed federally.

Species like the piping plover and least tern manage to hang on, thanks to our efforts, with a good chance for continued survival.

Scorecard for Stewardship

All of these protected species are important indicators of how well we balance human development with our natural environment. For those of us who love nature and the outdoors, the endangered species list is a virtual scorecard for our stewardship, tracking the winners and losers as the human population continues to grow.

I'd like to believe we can live up to the challenge. And who doesn't like to see more winners?

MAINE WILDLIFE QUIZ: BEAVERS by Steve Vose

Beaver

Beavers *(Castor canadensis)* spend most of their lives living a semi-aquatic existence. Beavers are slow on land, but good swimmers.

Evolution has provided the beaver with the unique ability to close off its ears and nose to keep out water, and they can hold their breath underwater for 15 minutes.

A large flat tail and webbed hind feet make them efficient swimmers and well-adapted to watery environments.

Once widely distributed across all of North America, beavers were almost eliminated in the late 1800s because of unregulated trapping.

With proper management, however, beavers have been reestablished and are now common in many areas.

Many of Maine's marshes, lakes, ponds and streams hold abundant populations of this omnivorous rodent.

Telltale signs of beavers inhabiting these biomes include beaver dams. Engineering marvels, beaver dams work to increase water depth, allowing beavers to store food where it will not be frozen into the ice during the winter season.

Within these small ponds, beavers build domed houses (lodges) constructed of mud, small sticks and vegetation.

Beavers construct underwater entrances to their lodges, which helps protect them from predators. Though dens provide effective protection from predators, beavers are still preyed upon by black bears, coyotes, lynx, bobcats, fisher, and dogs while they forage for food onshore.

If they are able to avoid predators, beavers typically live 5-10 years in the wild.

When frightened, a swimming beaver will slap the water with its broad tail. This alarm serves as a warning to other beavers that danger is near.

Herbivores, beavers feed on the leaves,

twigs and inner bark of hardwoods such as aspen, birch, willow, oak and maple.

Beavers cut down trees using their sharp front teeth. These teeth continually grow, so they must constantly be worn down by chewing on tree trucks, stripping bark and feeding.

The soft and warm pelts of beavers remain a valued commodity in the fur trade. The Maine trapping season for beaver starts in October and runs until April or March, depending on the Wildlife Management Area.

Questions

1. What unique ability do beavers have that allow them to swim without water entering their airways and ear canals?
2. How long can a beaver hold its breath underwater?
3. What adaptation do beavers possess that allows them to be very efficient swimmers?
4. What animals prey upon beavers?
5. How long do beavers live in the wild?
6. What does a beaver do to alert other beavers that danger is near?
7. What do beavers eat?

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