



Conservation Pays

How Protecting Endangered and Threatened Species Makes Good Business Sense





DEFENDERS OF WILDLIFE

Defenders of Wildlife is a national, nonprofit membership organization dedicated to the protection of all native animals and plants in their natural communities.

AUTHOR

Jim Yuskavitch

PROJECT DIRECTOR

Cindy Hoffman

RESEARCH TEAM

Frank Casey

Timm Kroeger

Paula Manalo

Heather Rorer

EDITORIAL TEAM

Kate Davies: Editor

Jen Lee: Art Director

Peter Corcoran: Designer

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1130 17th Street, N.W.
Washington, D.C. 20036-4604
202.682.9400
www.defenders.org

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Introduction

Data showing that saving imperiled species is economically valuable continue to mount, which is good news for people and wildlife.

One of the greatest testimonials to America's desire to protect its native plant and animals and preserve its wildlife heritage is the Endangered Species Act (ESA).

Throughout the country, the ESA is safeguarding our treasured natural resources to ensure that they will be here for the benefit and enjoyment of future generations of Americans. Since Congress passed this landmark legislation with broad citizen support in 1973, it has been the key to preventing endangered and threatened species such as bald eagles, gray wolves, manatees, sea otters and other animals from vanishing forever.

One benefit not widely recognized in ESA success stories, however, is the economic one. Saving species from extinction pays, not only in terms of healthy, intact ecosystems but also in dollars—dollars that may reach into several hundred millions. People want to see eagles, wolves, manatees, sea otters and other wildlife and will spend lots of money to do it. Recognizing this, savvy entrepreneurs have started businesses ranging from operating wildlife tours to selling souvenirs commemorating endangered species, and small communities have organized festivals and other special events to celebrate rare animals and attract tourism dollars. In some cases, the pres-

ence of a species is the primary reason visitors come to an area. In others, it complements a business strategy and provides welcome extra income. The reintroduction of wolves to the greater Yellowstone area in the mid-1990s, for example, has drawn wolf enthusiasts from all over the world to the park. These visitors account for an additional \$35 million in spending each year. In Issaquah, Washington, local salmon streams offered community leaders looking to boost tourism in this small town with something to celebrate. A fall festival marking the salmon run is now a popular annual affair that draws 200,000 people and reaps a total economic benefit of more than \$7.5 million per year.

Data showing the economic value of saving imperiled species continue to mount, which is good news for people and wildlife. This report examines some of these data and shares this good news in the context of a dozen ESA success stories. It offers specific examples of how business owners, resource managers, civic leaders and local citizens throughout the country are affirming the aesthetic, ecological and economic value of nature and the plants and animals in their communities that are protected by the ESA. These citizens recognize that saving species at risk is not only the right thing to do, it's good business.

Staghorn and Elkhorn Corals



FLORIDA KEYS © RICK POLEY/SHUTTERSTOCK

Coral reefs are among the wonders of the underwater ocean world. Composed of limestone excreted by tiny living creatures called cnidarians, coral reefs offer not just visual beauty but also habitat for many other kinds of sea life. Add a warm, semi-tropical environment, and you have one of the world's biggest tourist attractions.

The coastal waters of southern Florida are blessed with a system of coral reefs, including staghorn and elkhorn coral, which are also found in the waters of Bahamas and Caribbean. Populations of those two coral species have declined by 90 percent since 1980 due to disease aggravated by hurricanes, increasing predation, bleaching, sedimentation and changes in water temperature and salinity attributed to global warming. They were listed as threatened under the ESA in 2006.

Diving and snorkeling tourism centered on south Florida coral reefs, including both the natural and artificial variety, is substantial. "It's not just the reefs, but the habitat created by the reefs and the fish that live there," says

Gary Mace, owner of Conch Republic Divers in Tavernier and vice president of the Upper Keys Association of Dive and Snorkel Operators.

Such underwater attractions resulted in 18.15 million reef user-days in the southeast Florida counties of Broward, Palm Beach, Miami-Dade and Monroe from June 2000 to May 2001. This includes fishing, diving, snorkeling and boating tours. These visitors added \$4.3 billion to the region's economy and created 70,000 full- or part-time jobs associated with coral-reef-based tourism with a payroll of \$1.2 billion.¹

Billed as the "dive capital of the world" the Florida Keys draw divers to

explore both natural and artificial reefs. Nevertheless, recreational-use figures show that both residents and visitors prefer swimming among natural reefs by about a 2:1 margin. For example, from 2000 to 2001 locals spent 4.39 million person-days exploring artificial reefs while natural reefs racked up 9.35 million person-days. Out-of-town visitors explored artificial and natural reefs at 4.92 and 8.80 million person-days, respectively. Sales generated by visitors to artificial reefs were more than \$1.65 billion. For natural reefs, the sales total was \$2.7 billion.²

Even though artificial reef diving is considered an activity for the more experienced diver, Mace finds that many skilled, long-time divers still prefer to explore the natural reefs and the varied fish and other animals they harbor. At least 23 dive shops in the upper Florida Keys alone cater to reef-diving enthusiasts and two glass-bottom-boat touring companies serve nondiving tourists who want a look at the natural wonders of the reefs. "Those dive shops bring in a lot of money to the upper Keys, but not just for the shops," says Mace. "They also bring in money for motels, restaurants and other businesses." Ultimately, it is Florida's reefs driving that economic engine. "We get more diversity than they do on the Gulf Coast because we have the reefs," Mace says.

The reefs provide a number of other economic benefits beyond dive tourism. Reefs reduce beach erosion by dissipating the force of waves before they reach shore. They produce sand that helps replenish beaches,³ and support fisheries with an estimated worth from \$15,000 to \$150,000 per square kilometer depending on the species caught.⁴ Reefs also provide habitat for other animals tourists enjoy observing including the endangered Caribbean monkseal and hawksbill, green and leatherback sea turtles.

NATURAL-REEF-RELATED RECREATION IN SOUTHEASTERN FLORIDA (2000-2001)

- ★ Generated \$2.7 billion in retail sales in the region
- ★ Accounted for wage income of \$1.2 billion
- ★ Employed 43,320

Bull Trout



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Anglers are always looking for a new challenge and in some parts of the West, they've found one in the bull trout, a species that can weigh five pounds or more. Unfortunately, these trout are diminishing in number due to habitat loss, even as they grow in popularity as a gamefish.

To survive, the bull trout requires extremely clean, cold water—a commodity in increasingly short supply thanks to a variety of human activities. Consequently, the bull trout was listed as threatened under the ESA in 1998 throughout its U.S. range, which includes California, Oregon, Idaho, Montana and Nevada.

Despite its threatened status, limited fishing for bull trout is permitted under a provision of the ESA that allows such activity in areas where this fish is more common and carefully managed, such as Hungry Horse Reservoir, Lake Koocanusa and the South Fork Flathead River in Montana and Lake Billy Chinook and the Metolius River in Oregon. In these and other areas with sustainable opportunities to catch bull trout you will find anglers pursuing

them, bringing additional income to local communities in the process.

"I see dozen of guys coming to this area to fish for bull trout," says Jeff Perin, owner of The Fly Fisher's Place in Sisters, Oregon, a business benefiting from the local Metolius River bull trout fishery. "I consider bull trout fishermen to be an important part of my business." Perin notes that his store

**POTENTIAL INCOME FROM
BULL TROUT ANGLERS IN
MONTANA ALONE**
★ \$9.8 million to \$12.1 million
per year

features an entire bin of flies specifically for catching bull trout. In the business for 20 years, he has seen interest in bull trout fishing steadily rise.

A recent economic study found that a recovered bull trout fishery would result in 218,000 to 295,500 bull trout angling days per year within the Columbia River basin and 3,000

to 4,000 days per year in the Klamath River basin.⁵ In Montana alone, a state where anglers spend an average of \$44 per day fishing and fish 11.7 days per year, that translates into \$9.8 to \$12.1 million of additional income generated by bull trout fishing. With an economic multiplier applied, those figures become \$18 to \$22 million statewide.⁶

Compared to the overall trout fishing industry, the contribution of bull trout to the angling economy may seem comparatively small.⁷ Sportfishing in Montana generated \$312 million in 2001, and Oregon tackle-shop owner Perin estimates that only about 10 percent to 15 percent of the anglers on the Metolius River are focusing specifically on bull trout. Still, the expected increased income is substantial for the small communities and businesses that are located in bull trout country.

For Perin, the benefits of the local bull trout fishery are twofold. Bull trout anglers provide income above and beyond his typical rainbow trout fishing customers and, because the best bull trout fishing opportunities are during the winter, they also extend his profit-making season. That's an important consideration for small, seasonal and tourism-dependent businesses such as sporting goods, fishing guides and boat rentals. "Bull trout fishing takes place mainly in my off season, so it's an important fishery for us," says Perin.

Actions taken to recover bull trout populations include improved stream quality that will lead to decreased drinking water treatment costs for communities and better habitat for other economically valuable sport fish that live in the same streams and rivers. As bull trout recover across their range, the opportunities to bring additional income to other communities near bull trout waters will increase as well.

Pacific Salmon

Entire cultures and economies have evolved around the salmon and steelhead of the Pacific Northwest and the Columbia River basin stocks in particular.

Today, 26 stocks of Pacific salmon and steelhead, including 13 found in the Columbia, are listed under the ESA as either endangered or threatened.³ Overfishing and the loss of the river, estuarine and ocean habitat essential to the salmon life cycle contributed to their decline, but the primary cause in the Columbia River Basin is the series of dams on the river and its tributaries that impede the passage of migrating fish.

The Columbia's salmon, which also range up and down the Pacific coast during the ocean phase of their life history, continue to bring economic and cultural benefit to the people of the Pacific Northwest, but at a level far reduced from what it once was. A 1996 study estimated that if the Columbia River basin were still producing salmon at mid-1800s levels, it would generate as much as \$507 million in personal income and create as many as 25,000 jobs. That's considerably less than the 1976 to 1996 average of \$31.8 million created by the current Columbia River runs of two million or fewer—a mere two to three percent of historical production levels. The difference is the equivalent of 23,760 lost family-wage jobs.⁸ Moreover, most of the current catch is hatchery-raised at public expense.

“Over the last 20 years, the overall income of our residents has been proportional to the size of the salmon runs,” says Steve Fick, president of Fishhawk Fisheries, a fish-processing business at the mouth of the Columbia River in Astoria, Oregon. In this city largely built on the salmon fishing and processing

industry, you can drive along the docks and see what's left of these once-bustling salmon-related businesses. Still, the Columbia River salmon economy is hanging on, and the potential to revitalize it is there—if dams are managed to allow fish to pass more easily and logging and grazing practices not detrimental to fish habitat are adopted.

The impetus is there, too: Consumer preference for wild caught salmon over farmed fish is growing. “There is a tremendous market for wild salmon and that demand is making the value high,” says Fick. Four years ago commercial salmon producers were getting 20 or 30 cents per pound for coho salmon. Now it's up to \$1.25 per pound, and prized Columbia River chinook salmon is going for \$1.35 per pound.⁹

The commercial salmon industry also helps drive Astoria's tourism industry. Out-of-towners come to eat at a seafood restaurant, sightsee along

a working dock and purchase fresh salmon at a local market.

West of the Cascades, Issaquah, Washington, a town about 20 miles west of Seattle, has turned the mere presence of salmon into a profit center. Several important Puget Sound salmon spawning streams flow through the city, so in 1970 when the community was looking to create a special event to boost tourism, the choice of a salmon celebration seemed obvious.

The Issaquah Salmon Days Festival, timed to coincide with the annual salmon spawning run in early October, is a four-day extravaganza that attracts as many as 200,000 people and brings about \$7.5 million to the community each year, including more than \$1.5 million spent at the festival alone. About 2,000 local citizens volunteer to help plan and run the event, donating more than 12,600 hours of their time. In addition, 67 nonprofit organizations that support the community of Issaquah also participate.¹⁰

“Our community considers the Issaquah Salmon Days Festival to be an important asset,” says the Issaquah Chamber of Commerce's director of festivals Robin Kelley. The festival combines fun and opportunities to learn more about Pacific salmon and the environment. There's live entertainment from four stages, several hundred vendors who sell arts, crafts and food, a parade, golf tournament, activities for children and booths for local nonprofit organizations.

Although most Salmon Days attendees are day visitors, the many vendors in town to sell their wares fill the hotels and restaurants, giving local businesses an additional boost.

While it is unlikely that the Pacific salmon populations will ever return to historical numbers, the sheer value of restoring them to sustainable levels—estimated to be as much as \$475 million in the Columbia River basin alone—makes it well worth the effort.¹¹

ISSAQUAH SALMON DAYS FESTIVAL
★ Attracts roughly 200,000 visitors
★ Brings about \$7.5 million to the community, including \$1.5 million from the festival alone



GIANT SALMON PUPPET, ISSAQUAH SALMON DAYS/FISHER MOUNTAIN PHOTOGRAPHY

Bald Eagles

One of the Endangered Species Act's major success stories, the bald eagle is a symbol of American freedom, strength and ideals. The physical features of this great bird—its impressive size and striking plumage—also make it a bird that Americans want to see and celebrate. As a result, for many communities blessed with eagle populations, this great raptor is a symbol of American economic prosperity. It is also an American success story.

By 1963, the bald eagle population in the lower 48 states had plummeted to just 417 nesting pairs. In 1967, the bald eagle was protected throughout much of the lower 48 states under a precursor to the ESA. Captive breeding and reintroduction programs, stepped up law enforcement to curtail illegal killing of eagles, habitat protection and the banning of the pesticide DDT in 1972 resulted in its remarkable comeback. Today there are 7,066 nesting eagle pairs in the lower 48 states.

Communities situated on bald eagle migration routes or wintering areas have found fertile opportunities to celebrate the comeback of this great American bird while attracting significant tourism dollars. Eagle festivals and organized eagle watches are popular along the Mississippi River, where some 2,500 bald eagles spend the winter months and tens of thousands of people come to view them.¹²

One example is Eagle Watching Days, held in Sauk City and Prairie du Sac, Wisconsin, each January. The event features a banquet, educational programs about eagle biology and conservation, entertainment, children's activities, food booths, tours and the opportunity to see live eagles. In 2004, about 11,600 people visited the area to see eagles, with 78



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percent saying that eagle watching was the primary reason they came. Nonresident eagle tourists spent more than \$1.14 million in the area that year, representing a 21 percent increase in eagle tourism income since 1994.¹³

In Iowa, the Clinton Eagle Watch demonstrates how many small towns capitalize on their local wintering eagles to garner additional income. This annual event offers a mix of programs and eagle watching tours and in 2006 generated just under \$57,560 to this community of about 28,000 residents.¹⁴ “Another eagle event, Quad City Bald Eagle Days, attracts as many as 20,000 attendees¹⁵ to an area that includes Davenport and Bettendorf, Iowa and Rock Island and Moline, Illinois. “We have had a long love affair with eagles,” says Joe Taylor, president of the Quad Cities Convention and Visitors Bureau, about this mid-January festival that marked its 40th anniversary in 2007.

EAGLE-RELATED TOURISM IN SOUTH-CENTRAL WISCONSIN (2004)

- ★ Attracted 11,600 nonresidents—78 percent mainly to see eagles
- ★ Accounted for \$1.14 million in direct expenditures (food, lodging, etc.)

Taylor points out that bald eagles are easy for casual observers to see because of their size and the fact that they don't move around much in the winter in order to conserve energy. This means that eagle festivals and watches attract tourists who are not necessarily dedicated birders, thereby increasing the potential “customer base.” According to Taylor, the benefits of having eagles in the community goes beyond the festival. “The eagles are a source of community pride,” he says, “and many community groups and businesses use the eagle in their marketing and advertising.”

An eagle festival held in Essex, Connecticut, each February is one of a number of East Coast eagle events. On the West Coast, one of the most well-known eagle events is the Upper Skagit Bald Eagle Festival, in Concrete, Washington, a small town that draws an estimated 10,000 people to view the eagles that winter in the area. The festival, which attracts about 4,000 people, turns 21 in 2007.¹⁶

“The eagles bring in lots of day trippers to the community and a few who stay on overnight,” says Vicki Johnson, one of the festival board members. Many other communities in the United States are capitalizing on local eagle populations to attract more tourist dollars to their areas, proving that one of America's great birds is also great for local economies.

Whooping Cranes

Each September, North America's largest wading bird is the star of The Whooping Crane and Wildlife Festival, a great example of how local people have combined support for an endangered species recovery program with a festival that has helped put their community on the map and additional income in the bank.

Few species have been closer to the cliff of extinction than whooping cranes. Named for their throaty, "whooping" call, an estimated 1,400 of these birds lived throughout North America in the middle of the 19th century. But by 1942, due largely to hunting and the loss of wetlands to farming and development, only 15 individuals survived. The whooping crane was designated as endangered throughout its range in 1967 under the law that preceded the ESA.

To save this bird from its precarious perch, a captive-breeding program was

instituted. By recent counts, there is one wild self-sustaining western population of about 200 birds, 58 nonmigratory whoopers plus a reintroduced eastern migratory flock of 40 in Florida, and another 125 birds distributed among eight captive-breeding program sites.¹⁷

One of those sites, Necedah National Wildlife Refuge, serves as a flight school for young Florida-bound cranes. The refuge encompasses 43,656 acres of marshes and ponds in central Wisconsin, a state that historically was one of the whoopers' summer homes. From late June to early July, young captive-bred birds hatched at other sites are brought to the refuge and trained to follow ultra-light aircraft. Beginning in early

October, the aircraft lead them on the 1,000-mile flight to Florida where they spend the winter months. Come fall, the hope is that they will migrate north again on their own, swelling the ranks of the reintroduced eastern migratory population.

The residents of the village of Necedah and the staff of the wildlife refuge put on the first festival marking the departing fall flight of whooping cranes in 2000. Five hundred people showed up. By 2002 it had grown to about 3,600 attendees from 15 states and eight foreign countries. In 2005, about 4,000 people were on hand for the party. Visitors hailed from 23 states and as far away as New Zealand and Russia. More than a quarter of the attendees stay in the area for more than one day, spending money locally on motels, campgrounds, restaurants and shopping.¹⁸

The festival now consistently brings in more than \$40,000 each year, an important economic shot in the arm for a community of fewer than 900 residents.¹⁹ "The festival has definitely helped our economy and put Necedah on the map both nationally and internationally," says Dave Arnold, the festival's general chairman. "Had they not selected Necedah for the whooping crane program, a lot of people here would have been very disappointed."

Publicity about the whooping crane program has also increased visitation to the refuge by people who want to see the birds and who spend their money at area businesses. The refuge hosts about 150,000 visitors each year.²⁰

The town of Port Aransas, Texas, where another wild flock of whooping cranes spends the winter, has been holding its own festival each February since 1996. Billed as the Annual Celebration of Whooping Cranes and Other Birds, it features excursions to see the cranes in the wild. A number of Port Aransas tour operators offer guided whooping crane viewing trips as well.

WHOOPING CRANE FESTIVAL, NECEDAH, WISCONSIN (2005)

- ★ Drew about 4,000 people to this village of less than 900
- ★ Accounted for an additional \$42,610 in revenue



Shorebirds



RED KNOTS © DOUG WECHSER/OWREO

Sandy Hook, New Jersey, boasts one of the East Coast's largest piping plover nesting colonies and attracts droves of people who come specifically to see these diminutive birds. Listed as threatened in 1985—and now endangered in some parts of their range—the piping plover belongs to the shorebird family. Shorebirds are revered by the dedicated birders who travel the world's beaches, estuaries and mudflats to see them.

Birding in general is big business these days, but shorebird watchers are the high rollers of the breed, spending more than four times more on birding equipment than generalist birders. Anywhere large concentrations of plovers, pipers and other shorebirds gather, you will also find flocks of shorebird watchers, binoculars around their necks, wallets in their pockets. For example, an estimated 390,000 birders visit New Jersey to view shorebirds each year.²¹ Another 74,000 travel to neighboring Delaware to watch these coastal birds.²²

One of the hottest viewing areas is on New Jersey's Delaware Bay, where thousands of migrating shorebirds stop to eat the eggs deposited on the beach by horseshoe crabs each year between late April and early May. These birds, the at-risk red knot among them, attract hordes of birders from all over the world who

ESTIMATED ECONOMIC IMPACT OF BIRDWATCHERS VISITING DELAWARE BAY FOR SPRING SHOREBIRD MIGRATION

★ \$5.6 million to \$9.3 million
per year

spend between \$2.8 million and \$4.6 million in the bay area. The total impact, as that money circulates through the economy, is \$5.6 million to \$9.3 million annually.²³ Throughout the year, shorebird watchers spend between \$6 million and \$10 million on bay-area birding trips,

for a total economic multiplier effect of \$12 million to \$20 million.²⁴

"We encourage birders to wear their binoculars around and tell business owners that they are there to see the shorebirds," says Pat Sutton, program director for the New Jersey Audubon Society's Cape May Bird Observatory. "Local businesses are aware of the economic contribution the birders make."

Coastal preserves, refuges and nature centers also attract shorebird watchers and their dollars. "Shorebirds are a large draw for us," says Pete Bacinski, director of the Sandy Hook Bird Observatory, which offers birding tours throughout the area. A study conducted between 1993 and 1994 in Massachusetts on the Parker River National Wildlife Refuge—a favorite spot for viewing piping plovers and other shorebirds in winter—found that most visitors came specifically to watch birds and estimated that refuge visitors annually contribute between \$609,000 and \$1.5 million to the area's economy.²⁵

Shorebird watching and its economic benefits are not confined to the East Coast. Communities on the West Coast also recognize the birds' value for attracting visitors. The Long Beach Peninsula Visitors Bureau in Washington state, for example, promotes birding, including shorebird watching, on its Web site and recommends local charter boat operators that offer birding tours.

Considering the money birders contribute to local economies, any community with shorebirds in the vicinity has reason to celebrate—and many do. San Diego, California; Clearwater, Florida; Grand Isle, Louisiana; Ocean City, Maryland; Hoquiam, Washington; Great Bend, Kansas; Homer, Alaska; Milton, Delaware; and Kiptopeke, Virginia, are just a few of the communities that hold annual birding festivals featuring shorebirds.

Louisiana Black Bears

Once upon a time, many folks in St. Mary Parish, Louisiana, considered the Louisiana black bear a nuisance. But that changed when residents of Franklin, the parish seat, joined forces with the Black Bear Conservation Committee, a group of loggers, farmers, conservationists, government officials, researchers and others instrumental in devising a recovery plan for this threatened bear. In an effort to protect the bear and rally the community, they created the Bayou Teche Bear Festival, an annual April affair the Louisiana Association of Fairs and Festivals named “best new event” in 2004.

The Louisiana black bear, a subspecies of the American black bear, once ranged throughout the bottomland hardwood forests of eastern Texas, Louisiana, Mississippi and southern Arkansas. By the turn of the 20th century, most were gone. On a hunting expedition

in 1902, President Theodore Roosevelt refused to shoot a Louisiana black bear that others had captured and tied to a tree. A newspaper cartoonist drew a caricature of the incident with “Teddy’s Bear” represented as a fuzzy stuffed creature, and teddy bears were born.

The incident was a boon to toymakers, but did little to benefit Louisiana black bears. Populations stayed low through the ensuing decades. By 1992, when the federal government proposed adding it to the threatened species list, habitat destruction and human-caused mortality from poaching and motor-vehicle collisions had reduced their numbers to a few hundred.²⁶

Today, with ESA protection Louisiana black bears are making an impressive comeback. Bayou Teche National Wildlife

Refuge harbors a relatively robust population, making Franklin, located just south of the refuge, the perfect place to honor the rare bear with a festival.

“We use the festival as a building block to get people to appreciate the Louisiana black bear and as a tourism promotion tool,” says festival manager Laura Goulas. In 2001, wildlife watching in Louisiana had a total economic effect of nearly \$370 million, and the festival’s organizers see great potential. The 5,000 to 7,000 people who attend the festival learn about the bear through seminars and displays and enjoy shopping for arts and crafts, food booths, activities, a parade for children and more.²⁷ The event has been turning a profit since day one. The secret is to offer something for everyone. “Whether you have \$100 in your pocket or \$1, you can have a good time,” says Goulas.

Other towns in Louisiana black bear country have joined in the fun. In Rolling Forks, Mississippi, in the heart of Louisiana black bear country, the Great Delta Bear Affair entices as many as 6,000 people to take in wildlife education seminars, tour nearby wild areas, explore Indian mounds and learn about Louisiana black bear conservation. A new event is the “wildlife Olympics” for kids that involves both physical and academic activities.²⁸

With Delta National Forest and Yazoo National Wildlife Refuge nearby, Rolling Springs and Sharkey County have excellent wildlife viewing opportunities and the festival is helping to get the word out. “We’re positioning ourselves as a wildlife tourism destination and the festival is great publicity,” says festival coordinator Meg Cooper.

As the population of Louisiana black bears increases, so will bear-viewing opportunities and the tourism dollars wildlife watchers bring to communities near good bear habitat.

LOUISIANA BLACK BEAR FESTIVAL ATTENDANCE

- ★ Bayou Teche Bear Festival (Louisiana): 5,000 to 7000
- ★ Great Delta Bear Affair (Mississippi): 6,000



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Southern Sea Otters



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If you asked visitors to California’s coast to name the animal they most associate with the region, most would probably say it is the southern sea otter. This symbol of the near-shore ocean environment is widely familiar to the American public and drives a significant number of tourists to visit California’s oceanside communities, making an important economic contribution to those destinations.

Once ranging along the West Coast from Washington to Mexico, southern sea otters were nearly extirpated by the mid-1800s, primarily due to the relentless efforts of fur hunters. Listing as threatened under the ESA in 1977 helped bring the southern sea otter population up to current levels, which over the last three years averaged 2,751 otters—just 17 percent of the estimated historical population of 16,000.²⁹

For the city of Monterey and its environs, the sea otter serves as an unofficial mascot and, according to some local outfitters, attracts a significant number of people who come specifically with the

hope of seeing these animals floating and frolicking in the bay and surf.

“We talk a lot about the sea otter as an icon,” says Ken Peterson of the Monterey Bay Aquarium. “They are huge as a visible symbol of the California coast and play a major role in people deciding to come here to visit.” Peterson notes that the sea otter exhibit is one of the Monterey Bay Aquarium’s most popular.

Evidence of the sea otter’s popularity is apparent throughout the Monterey Bay area, where their image adorns everything from banners and T-shirts to mugs and posters. Sea-otter-related gift and souvenir

items account for more than 20 percent of sales at the aquarium’s gift shop.³⁰

While visitors can watch sea otters from shore, and even from the windows of dockside restaurants, many people want to get closer to these animals. A number of local outfitters serve this market. “When we rent kayaks, a leading question customers ask us is where the best place is to see otters,” says Anjanette Adams, general manager of Monterey Bay Kayaks. She adds that sea otters are so widely associated with Monterey Bay that tourists are virtually “pre-programmed” to want to see one when they visit. Whale-watching tour operators are also including opportunities for their customers to observe sea otters as interest in these animals has grown.

As the sea otter population expands along the coast adjacent to Santa Barbara and Ventura counties, economists predict sea-otter-related tourism will provide an additional 60 to 320 jobs and an additional income of \$1.5 to \$8.2 million, not including any multiplier effects as those income dollars circulate throughout the community. Southern sea otters also provide a number of economically important nonmarket services. Based on what Californians say they are willing to pay to have sea otters along their coast, that value is as much as \$21.4 million.³¹

Sea otters play a critical ecological role as well. By controlling sea urchin populations that feed on kelp, they help keep kelp forests healthy. Properly functioning kelp forests provide ecological services valued at about \$7,600 per acre per year. These include erosion reduction, habitat for mussels, clams and other invertebrates and a number of species of fish, and carbon storage that can help reduce global warming.

If southern sea otters are permitted to expand their numbers and range to their biological capacity throughout the California coastal environment, more than \$100 million in additional economic benefit could be realized.

PROJECTED TOURISM-RELATED BENEFITS OF CALIFORNIA SEA OTTER POPULATION EXPANSION IN SANTA BARBARA AND VENTURA COUNTIES

- ★ 60 to 320 jobs
- ★ \$1.5 million to \$8.2 million in additional income

Gray Wolves

Prior to the mid-1990s, the remote Lamar Valley was one of the less-visited parts of Yellowstone National Park. Today, the valley bustles with visitors because it is the best place to see the animals that are the second biggest draw for park-goers after grizzly bears: gray wolves. Wolves were reintroduced in Yellowstone National Park in 1995 and 1996. In 2005, about 90,000 people visited the Greater Yellowstone Area specifically to see wolves.³²

Not so long ago, except for several small populations in the upper Midwest, wolves were nowhere to be seen in the lower 48 states. By the 1930s, gray wolves were all but extirpated, victims of a U.S. government-sponsored eradication campaign. Gradually attitudes toward wolves changed and their ecological value was recognized. Currently there are protections for gray wolf populations in the northern Rockies and the Southwest, and the Great Lakes population has recently recovered.

Today, in addition to their vital and valued role as a top predator, recent studies have found that wolves are an important economic driver as well. Yellowstone's 90,000 wolf watchers, for example, added nearly \$35 million in additional income to businesses in the region of Idaho, Montana and Wyoming that surrounds the national park, including gas stations, hotels, restaurants, guide services and car and equipment rentals along with increased sales of wolf T-shirts, stuffed toy wolves, books about wolves and other wolf-related souvenirs. As these "wolf dollars" circulate through communities, they leverage the total economic impact to about \$70 million per year³³—definitely something to howl about.

An estimated 151,000 people per year see wolves in the Yellowstone area and

many more would like to.³⁴ As a result, local wildlife-watching businesses have adapted to serve the growing demand to view wolves in the wild, which includes couples willing to pay \$1,000 or more for a two-day guided excursion.

One such business is Yellowstone Safari Company, based in Bozeman, Montana. "Wolves fit into our business really well," says Susi Sinay, who co-owns the company with her husband, Ken. The Sinays actively plugged wolf watching on their Web site. As word got around that Yellowstone had wolves, customers began to call specifically about wolf-viewing. "The wolf is a very special animal that people want to see," she says.

Wolves are easiest to observe during the winter months, typically from November through January. Before wolves were reintroduced to Yellowstone,

winter was a slow time of year for many tour operators. With the growing interest in wolf viewing, tour operators are able to extend their income-generating season through the winter. The Sinays, for example, have recently increased the number of their winter wolf tours by 50 percent.

They, like other tour operators, also book cabins and motel rooms for their guests, spreading the economic benefits of wolf watching to other local businesses. "We really feel the wolves are a major economic benefit," says Sinay. "We have more income and that means we can hire more employees."

Wolves in the upper Midwest also mean black ink on the balance sheet. One third of the tourists who visit Ely, Minnesota, stop at the International Wolf Center. The center's retail store generated \$120,000 in net revenues in 2004 that eventually made its way into the local community. The center brings in as much as \$3 million per year to Ely and provides nearly 70 jobs in tourism and related businesses.³⁵

As wolves continue to establish themselves in the West, more and more rural communities will find—as 70 percent of residents surveyed in the Greater Yellowstone Area did—that the economic benefits of these animals far outweigh any drawbacks.³⁶

WOLVES IN THE YELLOWSTONE AREA (2005)

- ★ Drew an additional 90,000 visitors to Yellowstone National Park
- ★ Generated direct expenditures of \$35 million
- ★ Had a total economic impact of \$70 million



Manatees

Lumpy and homely, the manatee has a potato face that just about everybody seems to love, and people from throughout the United States—and even the world—travel to Florida just to see it. Those visitors spend more than \$20 million each year at two Florida manatee-viewing hotspots.

Manatees range from Virginia to Texas, but are concentrated mainly in Florida during the winter months. These slow-moving and gentle herbivores live in slack-water rivers, coastal areas and saltwater bays. Vulnerable to motorboats, a significant number of manatees are killed each year in collisions, although habitat loss is the primary reason they were listed as endangered throughout their range in 1967. Currently, only about 3,000 West Indian manatees remain in the United States.³⁷

There are two primary locations in Florida where the public can see manatees with relative ease: Blue Spring State Park north of Orlando and Homosassa Springs Wildlife State Park on the Gulf Coast north of Tampa. The manatees tend to concentrate at these springs during the winter, attracted to water temperatures warmer than in nearby rivers and bays. That concentration of manatees attracts a concentration of money-spending tourists as well.

“Manatees are huge at Blue Spring State Park,” says park biologist Meg Keserauskis. “Visitors ask about seeing manatees all the time.” About 200 manatees spend the winter at the park, which offers observation decks for viewing. The park receives nearly 220,000 visitors yearly from outside the county who spend about \$10 million and create 174 directly related jobs for a payroll of nearly \$2.4 million. In addition, the park draws many day-visits



from nearby residents who come specifically to see manatees.

Homosassa Springs Wildlife State Park, which features the “Fish Bowl,” a floating observatory that allows visitors an underwater view of manatees and other aquatic life, attracts large numbers of manatee enthusiasts as well. The park receives nearly 170,000 visits from out-of-county residents yearly. Direct expenditures by those visitors are about \$13.6 million. The 206 tourism-related jobs created produce a local payroll of more than \$3.1 million.³⁸

Local entrepreneurs have learned how to cash in on all this interest in manatees. For example, Bill and Diane Oestreich, owners of Birds Underwater in Crystal River, have been taking people on manatee viewing and snorkeling tours since the late 1980s. People

from all over the world patronize the business, including one couple from Tokyo, who made a three-day whirlwind trip to Crystal Springs just for a manatee tour. A number of other dive shops and kayak rental businesses also cater to manatee watchers. And the Manatee Toy Company sells “products for manatee lovers of all ages.”

Crystal River, a small out-of-the-way community of about 3,500 people, has capitalized on the unique and specialized business opportunity the presence of manatees offers. “The manatees are the reason people come to visit Crystal River,” says Oestreich.

The story is the same from the perspective of Jann Snellings, curator of the Manatee Observation and Education Center, situated on a traditional manatee migration route at Fort Pierce on Florida’s east coast. She is constantly surprised by how many people come to the center from all over the world to see manatees.

“Manatees contribute a lot to the economy,” she says. “Visitors come to the center because we are listed in the guidebooks and they know they can see manatees here.” In addition to their clear economic contribution, manatees also benefit local communities by controlling aquatic weeds and mosquitoes, assisting in nutrient recycling and serving as an indicator of overall ecosystem health.

MANATEE WATCHING IN TWO FLORIDA STATE PARKS (2002)

- ★ Attracted 389,244 out-of-county visitors
- ★ Generated \$23.6 million in direct expenditures
- ★ Accounted for wage income of \$2.38 million
- ★ Created 380 jobs

Humpback Whales



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A pod of humpback whales spouting in the waters of the Hawaiian Islands was once the signal for factory whaling ships bristling with harpoons to ready their fire. Today, the boats plying Hawaii's waters are filled with tourists thrilled by the prospect of seeing these most acrobatic of the great whales and readily depositing millions of dollars into the cash registers of local businesses.

Originally protected in 1970 under a 1969 precursor to the ESA, humpback whales are listed as endangered throughout all U.S. coastal waters after being hunted by commercial whalers nearly to extinction by the 1960s. Current threats to the world's population of 30,000 to 40,000 humpback whales—representing about 30 percent of the historical population—include illegal whaling, entanglement in drift and gill nets and marine pollution.³⁹ Fortunately, tourism is serving as an impetus for protecting them.

The humpback whales' mid-December arrival in their coastal Hawaiian winter feeding grounds dovetails perfectly with the islands' tourist high

season, providing local tour operators and other businesses that serve the tourist trade with additional economic opportunities. That translates into more than \$11 million in tickets purchased by 370,00 people for humpback-whale-watching excursions each year. More than 50 boats and 270 jobs are dedicated to the humpback-whale-watching business from the time the whales arrive in Hawaiian waters in winter to their departure in late April. In addition, some 62,000 visitors take whale-watching snorkeling trips, adding another \$4.5 million to the pot.⁴⁰

Each year, the entire whale-watching industry in Hawaii, including viewing the smaller whale species and dolphins,

generates in excess of \$16 million in boat-excursion ticket sales. Total annual expenditures on other tourist services by some 448,000 whale watchers is estimated at \$19 to \$27 million.⁴¹

According to Dan McSweeney, owner of Kona-based Dan McSweeney's Whale Watching Adventures, the popularity of humpback whales among the public stems from all the publicity and media attention they have received over the years coupled with the fact that they can be seen from the Hawaiian coastline. That visibility often motivates visitors to buy tickets for a whale-watching cruise and the promise of seeing whales close-up.

McSweeney has no complaints that the humpbacks show up during Hawaii's winter "gravy season" because it means that he and other whale watching tour providers have a ready-made customer base of vacationing tourists rather than having to spend money on advertising to attract them to the islands specifically to see whales. "A lot of people here capitalize on the humpback whales and the revenue they generate," he says. "It's a win-win situation."

HUMPBACK WHALE WATCHING IN HAWAII (1998-1999)

- ★ Attracted 370,000 participants
- ★ Occupied 52 boats and created 277 jobs
- ★ Generated \$11.2 million in boat ticket sales

Conclusion

...species protected under the ESA are a valuable economic asset.

Whether it's snorkeling the coral reefs of the Florida Keys, watching wolves in Yellowstone in winter, or cheering on the giant salmon float at a small-town parade, Americans care about wildlife and are willing to put money—big money—where their hearts are.

As we have seen in these pages, entrepreneurs and civic leaders who recognize this economic potential can attract tourists and fashion profitable businesses based on local wildlife resources, generating cash

and jobs. They can even make an animal part of the community “brand,” bringing recognition and visitors who may not otherwise come. And they can help save species from sliding into oblivion in the process.

The success stories highlighted in this report make it clear that species protected under the ESA are a valuable economic asset. Conservation pays, and resource managers and policy makers should pay attention, so that America's people and natural heritage can prosper together.



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DEFENDERS OF WILDLIFE
1130 17th Street, N.W.
Washington, D.C. 20036-4604
202.682.9400
www.defenders.org