

# Refuges at Risk

America's 10 Most Endangered National Wildlife Refuges

2005



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# National Wildlife Refuge System





CARIBOU HERD, ARCTIC NATIONAL WILDLIFE REFUGE: © MICHIO HOSHINO/MINDEN PICTURES

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# Introduction



From butterflies to bison, cactus to caribou and salmon to songbirds, the National Wildlife Refuge System protects a wide variety of plants and animals

making it unquestionably one of America's greatest gifts to posterity. The American bison, red wolf and whooping crane all live on today chiefly because, beginning in 1903, the federal government had the foresight to set aside prime habitat where wildlife can thrive—or struggle to survive. In 2004, the ivory-billed woodpecker, thought to be extinct for more than 60 years, joined their esteemed ranks. Rediscovered in the aptly named “corridor of hope” within the Cache River National Wildlife Refuge in

Arkansas, the ivory-billed is unexpected proof that each of our nation's wildlife refuges is a priceless gem that deserves our protection. Unfortunately, not everyone sees them that way.

When President Theodore Roosevelt established the first-ever national wildlife refuge to protect birds on Florida's Pelican Island in 1903, about 80 million people called this nation home. Today nearly 300 million vie for land and resources, and that number is expected to double in the next century. More people mean more land development, more water use, more mineral extraction and more threats to our country's incredible array of plants and animals. For species on the brink of extinction, these safe havens are their last great hope. That's one reason why—on paper—federal law requires that wildlife protection be paramount in the more than 540 federally protected wildlife refuges across the country. Yet more often than not, the very places set aside to safeguard wildlife face their own sobering set



JAGUAR: © STAFFAN WIDSTRAND/NATUREPL.COM (CAPTIVE)



YOUNG ALLIGATOR: © KATHY ADAMS CLARK/KAC PRODUCTIONS



of threats: invasive species, air and water pollution, funding shortfalls and government neglect. To draw attention to this dilemma, Defenders of Wildlife is releasing its second annual list of the 10 most endangered national wildlife refuges, highlighting the challenges the refuges face while also offering viable solutions to ensure that they will survive in the centuries to come.

Not surprisingly, making the list a second year is the severely imperiled Arctic National Wildlife Refuge. Despite opposition to oil and gas drilling by a majority of Americans, the Bush administration and congressional leaders still refuse to protect the “crown jewel” of the refuge system. Other refuges profiled in this report face threats that originate just outside their borders, as in the case of the Sonny Bono Salton Sea National Wildlife Refuge in California and the lesser-known Moapa Valley National Wildlife Refuge in Nevada. Both are battling to hold on to water that if siphoned away from the refuges will further jeopardize already endangered species and may seal the fate of at least one. Elsewhere the future of refuges, such as those on the Mexican-U.S. border, hinges on an even more complicated matter: U.S. immigration policy. To the east, Florida Panther National Wildlife Refuge faces a threat that confronts virtually every refuge in the country—expanding development beyond its boundaries. In this case, that development threatens one of the world’s most endangered animals, the Florida panther. But there is still time to turn around the fate of these at-risk refuges if we make sound decisions now.

Managed by the U.S. Fish and Wildlife Service (FWS), the National Wildlife Refuge System still teems with life. Some 700 bird species, 220 mammal species, 250 reptile and amphibian species and 200 fish species find shelter and sustenance within it. Together, our refuges form an important series of stepping stones for millions of migrating birds, and also provide a solid foundation for species that need it most—residents such as the ivory-billed woodpecker, kept alive and hidden all these decades by one 55,000-acre, federally protected piece of wildlife paradise.



DESERT TORTOISE: © LARRY MINDEN/MINDEN PICTURES



BLACK SKIMMERS: © TALE-FEATHERS.COM

# Arctic

## NATIONAL WILDLIFE REFUGE

### A L A S K A

**T**ucked away in the spectacular northeast corner of Alaska, the Arctic National Wildlife Refuge is a sweeping, awe-inspiring expanse of more than 19 million acres of marsh-studded tundra and lagoons laced with rivers dramatically situated between the rugged foothills of the Brooks Range and the wide, icy waters of the Beaufort Sea. Ten major rivers pass through the refuge, making it an important feeding ground for millions of migratory birds that fly in to nest from the Lower 48 and at least five other continents. Each year more than 100,000 caribou trek a thousand miles across the tundra to their summer calving grounds along the coastal plain, a journey undertaken by their ancestors for tens of thousands of years, and second longest only to the migration of the wildebeest on Africa's Serengeti. An important onshore denning area in the United States for polar bears, the refuge also harbors arctic foxes, Dall sheep, eagles, grizzlies, lynx and wolves. Overflowing with life, it's arguably America's wildest spot—but also one of the country's most vulnerable.

### THE THREAT

Americans overwhelmingly oppose opening the refuge to oil drilling, but the Bush administration and congressional leaders continue down a destructive path, determined to drill in one of the world's most fragile and ecologically sensitive ecosystems. And it makes no sense: Even if operations began tomorrow, no oil would flow from the refuge for at least 10 years. That's a long time to wait for what would likely be less than a year's supply of oil. But that's how long it would take to conduct exploratory drilling and put in place the pipelines, roads, airports, dwellings



OIL OPERATION, PRUDHOE BAY, ALASKA: © BRYAN & CHERRY ALEXANDER

and processing plants that would accompany oil development—in the process turning the refuge's coastal plain into a large industrial complex.

Drilling in this fragile ecosystem would irreparably harm caribou, polar bears, musk oxen and snow geese, among other wild animals. Biologists project that the birthrate of the Porcupine caribou herd could fall by 40 percent if drilling is allowed. Similarly, polar bears, highly sensitive to disruption, might decide to abandon their dens and leave their cubs to die. And with spills a certainty—not just a possibility—the impacts of drilling on wildlife would be catastrophic. At the Prudhoe Bay oil field just west of the refuge, there's an average of more than one spill a day and, according to Alaska's Department of Environmental Conservation, 55 contaminated sites.

### THE SOLUTION

Congress must pass legislation to permanently protect this treasure trove of charismatic creatures. A national energy policy that pushes for fuel efficiency and greater use of renewable energy is a much better way to kick our dependence on foreign oil. According to the U.S. Environmental Protection Agency, increasing fuel efficiency standards for new vehicles by a mere three miles per gallon would save more oil than could ever be produced on the refuge.

The Arctic National Wildlife Refuge should not be the casualty of an outdated energy policy.



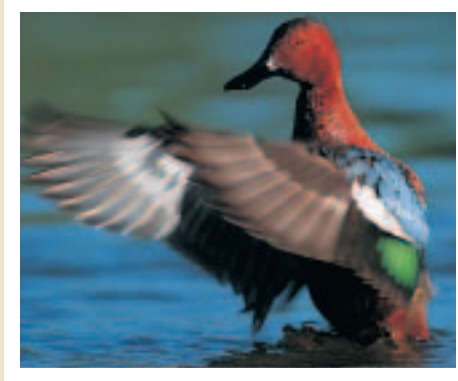
SADLEROCHIT RIVER VALLEY, ARCTIC NATIONAL WILDLIFE REFUGE: © SCOTT T. SMITH

# Browns Park

## NATIONAL WILDLIFE REFUGE

C O L O R A D O

**T**his 20-square-mile refuge is nestled in a remote northwest corner of Colorado adjacent to Dinosaur National Monument and shelters elk, moose, mountain lions, otters, pronghorn and sage grouse. It also provides essential habitat for 20,000 water birds and hundreds of thousands of songbirds that stop to refuel as they make their seasonal journeys through the sky. About 2,500 ducklings hatch here each spring, and in winter thousands of elk descend from snowier elevations to feast on the open grasslands that spread away from the cottonwood-lined Green River. Great-horned owls nest in these trees, and nearby crags shelter golden eagles and cliff swallows. Its relatively mild climate and sheltered location make it an ideal place for wildlife.



CINNAMON TEAL: © WENDY SHATTIL/BOB ROZINSKI

Land Management (BLM) lands, including the Diamond Breaks Wilderness Study Area, it faces another problem related to grazing concerns: The Green River is the only source of water for cattle in the area, but the only way they can get to it is to trudge through the refuge. For decades FWS allowed cattle access to eight water gaps in Browns Park—and that's why the surrounding vegetation is completely denuded today. Last year, FWS gave BLM notice that cattle would no longer be welcome anywhere on the refuge. But as of mid-year, cattle are still being herded down the trails to the water gaps—and the area remains stark and uninviting for most forms of native wildlife.

### THE THREAT

Not all of Browns Park refuge is owned by the federal government. For years, FWS has leased two parcels of state land considered significant habitat for the vast array of wildlife that live there, including some 200 species of mammals. When one of these leases expired in 2000, FWS entered into an agreement with the Colorado State Land Board to purchase the parcel for \$250,000 and incorporate it into the refuge permanently. The land board and Moffat County commissioners reneged on the deal, issuing a permit that allows cattle to graze on the land for just \$500 a year while they spend \$37,000 on a grazing study. With this prime wildlife habitat lost, FWS officials have had to make the costly move of erecting fencing to prevent cattle from moving farther onto sensitive lands in the refuge. In 2006, the lease on another important parcel within the refuge will expire and its future is uncertain. This 600-acre expanse is the biggest wetland within the refuge's boundary and a critical feeding and nesting ground for canvasback ducks, mallards, redheads and teal, among other waterfowl species.

With the refuge abutting Bureau of

### THE SOLUTION

The Colorado State Land Board and Governor Bill Owens owe it to the taxpayers of Colorado to revoke the rancher's grazing permit and allow FWS to purchase both tracts of land. At the very least, FWS should be allowed to renew the leases for a minimum of 50 years. Further, FWS must enforce its demand for BLM to close and restore water gaps on the refuge.



GREEN RIVER, BROWNS PARK NATIONAL WILDLIFE REFUGE: © SCOTT T. SMITH



# Buenos Aires

## NATIONAL WILDLIFE REFUGE

### A R I Z O N A

**N**ear the base of the rugged Baboquivari Mountains and less than an hour's drive from Tucson lies Buenos Aires National Wildlife Refuge, a sanctuary established in 1985 to provide critical habitat for the endangered masked bobwhite quail. Kept afloat by a captive-breeding program within the refuge, the rare bobwhites are the only known wild population of the species in the country. The refuge's 118,000 acres are mostly grasslands, but Buenos Aires also boasts cottonwood- and sycamore-lined streams that meander amid expanses of live oak. It's here that other endangered species make a last stand: Cactus ferruginous pygmy owls and southwestern willow flycatchers find shelter here, attracted by streams and ephemeral ponds. Jaguars, although rarely seen, are known to traverse the mountain range. Gila monsters and rattlesnakes claim the dryer sections. Also present are bobcats, coati mundis, javelina and kit foxes.

### THE THREAT

Once stripped nearly bare by cattle allowed to overgraze the land, the area now faces an even bigger threat: Immigrant traffic from Mexico, spurred eastward by the clampdown on traditional points of entry through urban areas, now funnel through remote areas of the Arizona desert, damaging the landscape as they desperately make their way across the border for work and a better life. Based on the numbers of undocumented migrants captured, experts estimate that 1.2 million people cross through the desert each year. In one instance, law enforcement officials stationed along a popular foot trail on the refuge counted 1,000 people passing by in a 24-hour period.

In their ongoing efforts to seal the border—and also to prevent deaths on this searing stretch of land—U.S. Border Patrol officials are given carte blanche to drive off-road vehicles through fragile habitat in pursuit of undocumented migrants and drug smugglers. For conservationists, it's a catch-22: Preventing damage to the refuge depends on the Border Patrol's ability to impede illegal movement through the refuge,



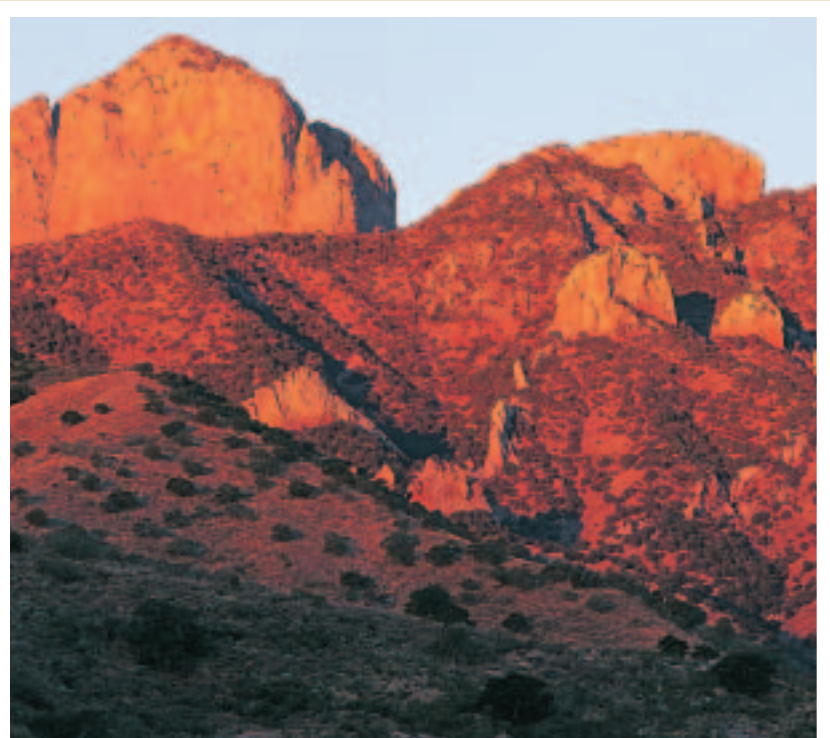
ABANDONED VAN, BUENOS AIRES REFUGE: USFWS

but at the same time the officers cause their own share of damage. The patrol also brings with it a high level of militarization—camps complete with helicopter pads, high-voltage lights and septic tanks. But when these camps go up, the migrants move on, searching for less scrutinized avenues through other areas—with the Border Patrol and more camps close behind.

### THE SOLUTION

Using high-tech surveillance equipment and erecting a vehicle barrier along the refuge's border with Mexico are short-term solutions to curb damage to the desert's delicate landscape.

Ultimately these efforts will only shift human traffic further east, creating the same problems in other delicate wilderness areas. In the end, the only lasting solution is to reform the Border Patrol's policy of funneling migrants into the desert and to realistically address the important issue of migrant labor in the United States.



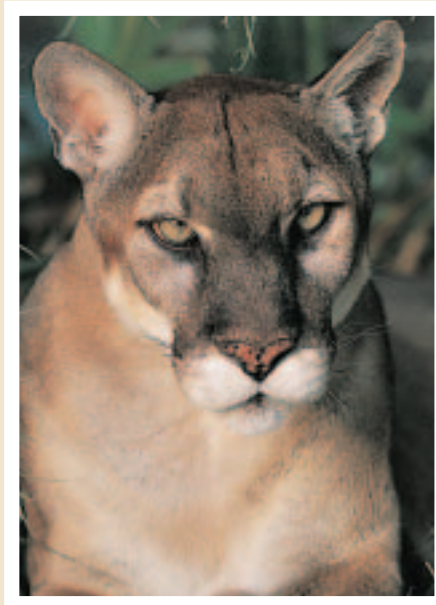
BABOQUIVARI PEAK IN BROWN CANYON, BUENOS AIRES NATIONAL WILDLIFE REFUGE: © JACK DYKINGA

# Florida Panther

## NATIONAL WILDLIFE REFUGE

### FLORIDA

**D**ominated by hardwood hammocks, pine forests and cypress swamps, and containing one of the greatest densities of native (and increasingly rare) orchids in North America, the 26,400 acres (40 square miles) that make up the Florida Panther National Wildlife Refuge is a haven for black bears, bobcats, wood storks and alligators. It's also the home of its namesake—the Florida panther—a subspecies of puma and one of the world's most endangered animals. Of the fewer than 100 panthers that survive in the wild, five to 11 traverse the refuge during an average month on their way to Big Cypress National Preserve, Everglades National Park, Fakahatchee Strand State Preserve, Okaloacoochee Slough State Forest, Picayune Strand State Forest and adjacent private lands.



FLORIDA PANTHER: © LYNN M. STONE (CAPTIVE)

run-off, water shortages and airborne mercury pollution blown in from power plants. But the biggest problem for the refuge, established in 1989 to provide optimal panther habitat and protection, is the development boom just beyond its borders.

Panthers, territorial animals that need as much as 200 square miles of land each, do find an oasis here, but the safe haven is just one part of an interconnecting system of habitats that is increasingly fragmented by large-tract housing developments, roads, shopping centers and golf courses. Florida's human population has doubled since the 1970s with, on average, 1,000 people moving to the state every day. More people mean more roads, and more roads often mean more dead panthers. From 1972 through June 2005,

motor vehicles killed 78 panthers, with 39 of those deaths occurring since 2000. Despite the problem, plans persist to widen area roads to support a proposed 5,000-acre private university campus and new town on primary and secondary panther habitat near the refuge.

### THE THREAT

Invaded by non-native species—such as melaleuca, a thirsty Australian tree planted in the early 1900s to drain the wetlands for farming—the refuge also faces challenges from agricultural

### THE SOLUTION

To keep the refuge connected to panther territories and travelways, the U.S. Fish and Wildlife Service and the Army Corps of Engineers must incorporate sound, scientific evaluations of long-term cumulative impacts in their biological opinions and permitting decisions. Proposed projects, especially major ones such as the new university and town developments and area road expansions, must not cut off panther movement into and out of the refuge. On State Road 29 and U.S. 41, and other stretches of highway with a record of panther fatalities, transportation officials must install wildlife underpasses and fences that allow panthers and other animals to safely cross the roads that fragment their habitat.



SOUTH FLORIDA SPRAWL: © LARRY W. RICHARDSON



# McFaddin

## NATIONAL WILDLIFE REFUGE

T E X A S

The upper coast of Texas becomes speckled with color in spring when McFaddin National Wildlife Refuge fills with grosbeaks, orioles, vireos, warblers and other migratory songbirds completing their exhausting journey across the Gulf of Mexico. Alligators glide amid vast stretches of cord grass on the 55,000-acre coastal preserve, which is also a year-round haven for river otters and mottled ducks, a species found only in the fresh and brackish wetlands of the Gulf Coast. Mottled ducks rely heavily on refuge habitat, but a recent study shows their numbers are declining on refuges throughout their narrow range.

McFaddin is the state's largest freshwater marsh, but it also comprises thousands of acres of brackish, saltwater wetlands—essential winter habitat for the tens of thousands of snow geese and more than two dozen duck species that feed in the watery expanse.

### THE THREAT

The heyday of the Texas oil and gas boom is long gone, but the recent surge in oil and gas prices has renewed interest in the reserves beneath McFaddin—a refuge already dotted with oil and gas wells. To find out where energy reserves lie in the refuge, the gas and oil industry is conducting intensive seismic surveys. The



YELLOW WARBLER: © ROLF NUSSBAUMER

process involves blazing trails across marshlands in tank-like swamp buggies equipped with drills, drilling holes and setting off explosives at the bottom of the holes. From the resulting shock waves, oil and gas companies can determine the location of deposits. But the exploration process is only the beginning. Next comes the sinking of wells, more habitat disturbance as roads and infrastructure are built, and the possibility of oil spills and gas leaks.

Unfortunately, the presence of the energy industry on national wildlife refuges is far from an isolated threat. In fact, nearly a quarter of the nation's more than 540 national wildlife refuges are either currently used for oil and gas production and distribution or have been in the past, according to a 2003 U.S. General Accounting Office report. On many of these refuges, including McFaddin, much of this oil and gas activity is the legacy of "split estates" through which the federal government owns the surface rights but private owners control the mineral rights below.

### THE SOLUTION

Shockingly, unlike the National Park Service and the Forest Service, FWS has essentially no regulations to govern oil and gas operations on refuges. This prevents FWS from enforcing restrictions on where, when and how operators can drill and explore for oil and gas beneath refuges and leads to spills, habitat damage and other environmental problems. FWS must adopt regulations that give refuge managers more authority over extractive industry activities on refuges. Over the long term, Congress should dedicate funding to buy out private mineral estates within national wildlife refuges.



MOTTLED DUCK: © CLIFF BEITTEL



# Mingo

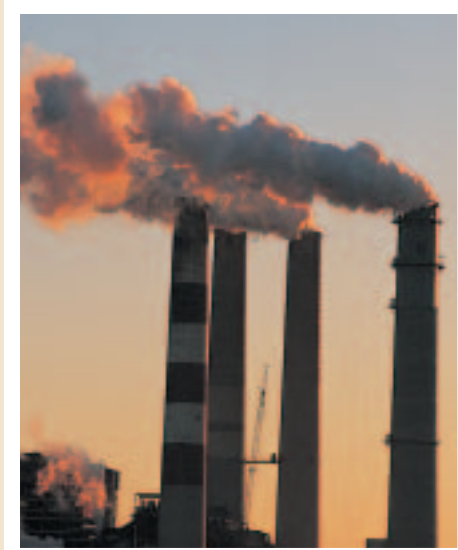
## NATIONAL WILDLIFE REFUGE

### MISSOURI

**M**ingo National Wildlife Refuge is the only remaining large tract of bottomland hardwood forest left of the original 2.5 million acres that once covered Missouri. Today this lush, ancient swamp is an important link in the Mississippi River flyway. The refuge attracts a wide array of songbirds, including seven types of vireos and more than two dozen species of warblers. During fall, the wetland fills with as many as 100,000 mallards and thousands of pintails, wigeons and wood ducks arriving to raise their broods. Eagles, great blue, little blue and yellow-crowned night herons nest here amid the oaks, tupelos, swamp cottonwoods and the northernmost cypress trees in the country. And it's not far from where the ivory-billed woodpecker was rediscovered in Arkansas. Although there have been no sightings in Mingo yet, wildlife experts say it's possible the refuge could support four or five breeding pairs.

### THE THREAT

Despite the fact that the federal Clean Air Act provides special protection for nearly 8,000 acres within Mingo's 21,676 acres, the Illinois Environmental Protection Agency has issued permits to allow the construction of a coal-fired power plant just 85 miles northeast of the refuge. Several plant and tree species—including ash, black cherry, flowering dogwood, sassafras and common milkweed—already suffer from smog, according to FWS surveys conducted from 1998 to 2000, and a new power plant would only compound the pollution problem. The Peabody Prairie State Generating Company coal-fired power plant is expected to emit more than 25,000 tons of air pollution annually.

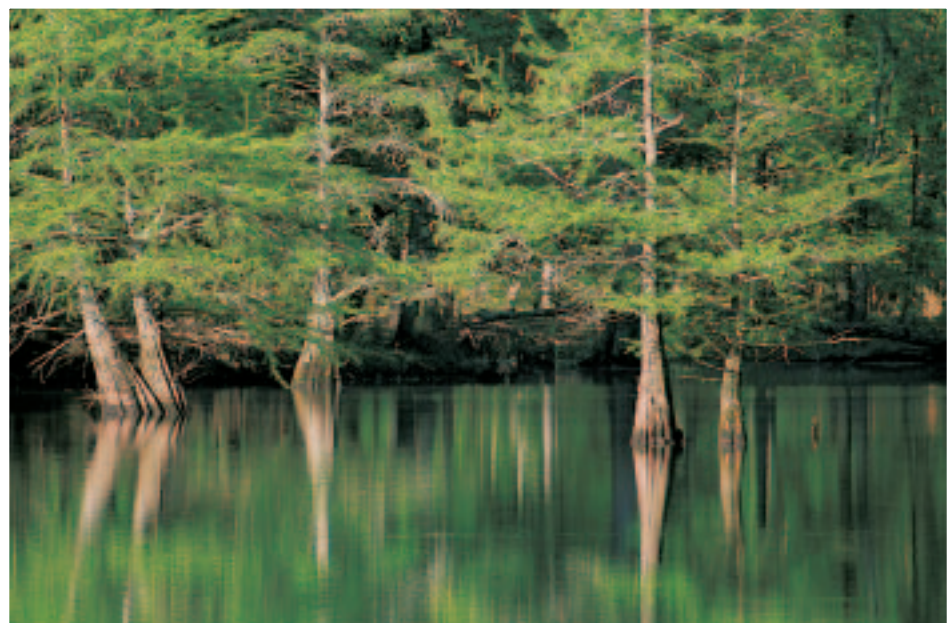


COAL-FIRED POWER PLANT: © RICK POLEY

In evaluating the proposal, FWS scientists found that soot- and smog-forming pollutants emitted from the power plant would adversely affect the refuge by creating visibility problems due to haze. But the Illinois EPA issued the permit anyway, accepting Peabody's skewed numbers, which discounted nighttime pollution. Company officials argued that during the darkness of night, sight-obscuring haze—also known as smog—doesn't count. Overlooked is the fact that the concentrated pollutants don't just block the view, they can also damage trees, wildlife, soil and water quality—as well as lungs.

### THE SOLUTION

A coalition of environmental groups appealed Peabody's power plant permit all the way to the U.S. Environmental Protection Agency (EPA) in Washington, D.C. This appeal has temporarily halted the project. Both the U.S. EPA and the Illinois EPA need to revamp the pollution permit to protect the Mingo Wilderness and the health of area residents and wildlife.



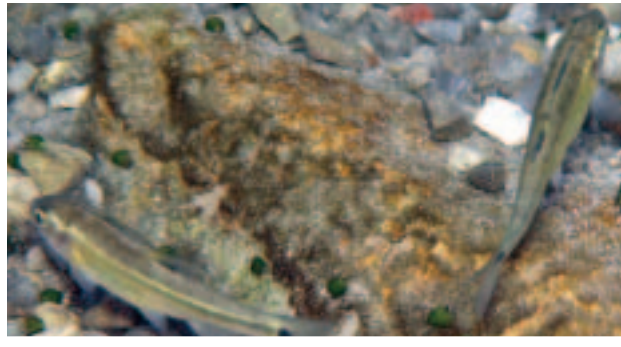
CYPRESS TREES ON THE MINGO RIVER, MINGO NATIONAL WILDLIFE REFUGE: © WAYNE NELSON/EARTH IMAGES

# Moapa Valley

## NATIONAL WILDLIFE REFUGE

N E V A D A

One of the four refuges that make up the immense Desert National Wildlife Refuge Complex, Moapa Valley lies just 60 miles outside of Las Vegas. It was created in 1979 to prevent the extinction of the Moapa dace, a rare fish found only in the five-thermal-spring oasis near the center of the small refuge and in the six miles of stream along the upper Muddy River. Cold water acts as a natural barrier to these fish, which measure only three inches, keeping them from migrating from their original habitat.



MOAPA DACE: USFWS/GRANT WEBBER

### THE THREAT

In the Nevada desert, everyone's scrambling for water. According to the U.S. Geological Survey, the Colorado River—an important source of water for millions of people across the arid West—produced the lowest flow on record between 2001 and 2003. As a remedy, the Southern Nevada Water Authority (SNWA), in one of the most intensive water development projects ever proposed, is hoping to tap into ground water sources throughout Nevada, including the aquifer beneath Coyote Springs Valley 15 miles outside the Moapa Valley refuge. This aquifer directly feeds the springs of the refuge, which have already suffered unprecedented declines in flows from excessive groundwater pumping. SNWA's proposal and a developer's plan to build a new city in pristine lands near the refuge would compromise the aquifer even more and further endanger the survival of the 1,000 or so Moapa dace that cling to existence.

Unfortunately, instead of fighting these ill-advised plans, high-ranking officials in the Bush administration and the Interior Department are proposing that FWS relinquish the water rights it holds at the refuge. But if that happens and siphoning of the aquifer begins, the first thing that will go is the overflow from the natural thermal springs, and with them, the Moapa dace.

### THE SOLUTION

In an area where water is scarce but demand for it is high, there will always be efforts to tap more sources. But when it comes to habitat destruction on national wildlife refuges and potential extinction of species, FWS needs to more strongly assert its water rights and ensure that SNWA focuses on avenues of development that pose the least possible threat to wildlife. Before launching into projects in this area, the authority should also conduct careful studies to see what effects they would have on wildlife and habitat. Its current plan to monitor the aquifer while it is being drained is not an acceptable option. Once billions of dollars are invested, it's unlikely SNWA will let the extinction of a fish stand in its way. And even if something could be done, by then it would probably be too late.



STREAM FLOWING FROM A THERMAL SPRING: © SCOTT T. SMITH



# Oyster Bay

## NATIONAL WILDLIFE REFUGE

NEW YORK

**J**ust outside the concrete and asphalt ecosystem of New York City

exists a small but significant stretch of wild habitat on the north shore of Long Island. Composed of salt marsh, tidal-bottom bay and a small fresh-water wetland, Oyster Bay National Wildlife Refuge serves as essential habitat for 15 species of finfish that use its waters as a nursery. At about 3,000 acres, this is the largest of the seven refuges that comprise the Long Island Refuge Complex. It's a roosting place for bald eagles and an important stopover for thousands of migratory waterfowl, especially diving ducks, and shorebirds that feed on the refuge's abundant shellfish. Among the most common are American black duck, bufflehead, greater scaup and red-breasted merganser. The bay waters also attract harbor seals, gray seals, Kemp's ridley sea turtles and loggerheads, and it shelters one of the largest populations of diamondback terrapins on Long Island. New York's oldest commercial oyster farm operates on the refuge, harvesting 90 percent of the state's oyster harvest. Fittingly, it all happens in the backyard of Sagamore Hill, the home of President Theodore Roosevelt, who started the national wildlife refuge system more than a century ago.



BALD EAGLE: © KRISTA SCHLYER (CAPTIVE)

### THE THREAT

As in other areas of New York, Oyster Bay faces water-quality issues due to failing septic systems, polluted storm water run-off, an outdated sewage treatment facility, pollution from motorboats, and future development that would further erode important habitats and increase sewage flow into Oyster Bay from even

more homes and businesses.

Also jeopardizing the health of the bay is the future redevelopment and decontamination of two sites where massive heating oil storage tanks have leached pollutants into the water. Exxon-Mobil's plans for the tanks no longer in operation on Cold Spring Harbor have yet to be disclosed. Tanks on the eastern waterfront owned by Commander Terminals LLC are still in operation, and it is unlikely that Commander will address contamination concerns any time soon.

### THE SOLUTION

The primary way to save Oyster Bay is to slow the pace of development. To do this, municipalities bordering the refuge need to join together to develop a comprehensive plan to better address the cumulative impacts of the proposed development within the Oyster Bay watershed. In addition, the U.S. Environmental Protection Agency should designate Oyster Bay a "no discharge zone," which would prohibit boats from dumping sewage into the estuary. To remedy the contamination from the oil tanks, local and state authorities should work together to assess the extent of the contamination and then develop a plan to carefully, but promptly, decommission and decontaminate the sites.



HARBOR SEAL: © NORBERT WU/MINDEN PICTURES



# Pocosin Lakes

## NATIONAL WILDLIFE REFUGE

### N O R T H C A R O L I N A

**R**ecognized internationally as an important waterfowl area, Pocosin Lakes National Wildlife Refuge hosts the largest concentration of migratory waterfowl on the eastern seaboard. As many as 25,000 tundra swans, 65,000 snow geese and tens of thousands of ducks, including green-winged teal, pintails, widgeon and wood ducks, concentrate in its expansive wetland during winter. But the 113,000-acre wilderness is better known as one of the four national wildlife refuges that played a significant role in helping to return one of the world's most endangered canids into the wild. Red wolves—declared extinct in the wild in 1980—survived only in captivity until a reintroduction program successfully returned them to a portion of their ancestral home in Pocosin Lakes.



RED WOLF: © STOFFER PRODUCTIONS/ANIMALSANIMALS.COM (CAPTIVE)

within 3.5 miles of the refuge—that would see 31,000 landings and departures each year, approximately one every 15 minutes. This round-the-clock barrage of noise from takeoffs, landings and low-level holding patterns would disturb resting and feeding waterfowl and could cause them to eventually abandon the sanctuary. The possibility that birds will collide with the jets is another real danger—and not just for the birds. The Navy's own assessment rates the likelihood of catastrophic bird collisions that compromise pilot safety as "severe" during no less than six months of the year. Although Defenders and a coalition of other conservation groups won a temporary injunction against construction of the landing field in 2004, the Navy con-

tinues to push forward with the project.

## THE THREAT

Although it's an integral part of the Atlantic flyway, the refuge will soon see another sort of flight pattern should military officials get their way. The U.S. Navy is proposing the construction of a fighter jet landing field—a training runway positioned

## THE SOLUTION

Defenders is a plaintiff in a lawsuit that has so far stalled the project. A U.S. District Court ruling in February found that the Navy's Environmental Impact Statement was flawed and filled with inaccurate assessments on how the landing field would affect surrounding wetlands. The court also stated that, despite the

Navy's utterances to the contrary, both national security and environmental responsibility could be achieved from an alternate site. The Navy had sought a stay after the injunction was ordered but was denied by the 4th Circuit Court in May. The Navy is currently appealing the ruling and the fate of the landing field and Pocosin Lakes refuge is far from certain. Defenders will continue to exhaust all legal action to block the site. In addition, the Bush administration and members of Congress should ensure that the Navy pursues alternative sites for the landing field—far enough away from the refuge to keep its wildlife protected.



SCUPPERNONG RIVER, POCOSIN NATIONAL WILDLIFE REFUGE: © GEORGE OSTERTAG

# Sonny Bono Salton Sea

## NATIONAL WILDLIFE REFUGE

### CALIFORNIA

W

hen mudflats turn into chattering carpets of shore birds, it's a signal that

spring has arrived at the Sonny Bono Salton Sea National Wildlife Refuge. With nearly 95 percent of California's inland wetlands lost to development in the last century, the refuge is a critical refueling point for birds making the journey from Mexico and Central and South America to Canada and Alaska. But it's also full of life all year long, with 400 types of birds found here—nearly two-thirds of all the bird species in the United States. Located on the south end of California's biggest inland lake, which refilled when a swollen Colorado River surged past a dike in 1905, the refuge is an important part of the vibrant Salton Sea ecosystem. The sea is the only North American inland breeding site for the endangered brown pelican and supports 80 percent of the world's American white pelican population and a large population of endangered Yuma clapper rails. An unusual assortment of subtropical species, such as frigatebirds and blue-footed boobies, join the egrets, herons and gull-billed terns that feed along the shores of California's desert jewel.



DEAD FISH ON THE EDGE OF THE SALTON SEA: © TOM BROWNOLD

## THE THREAT

Although it began as a freshwater lake, a combination of naturally salty soils, high evaporation rates and mineral-laden agricultural runoff has already made the land-locked Salton Sea, which abuts the refuge, 25 percent saltier than the ocean. But recently the sea's troubles have become even more urgent thanks to an agreement to divert 300,000 acre-feet of water into the thirsty faucets,

pools and golf courses of Southern California. This water transfer will reduce the amount of water that flows into the sea and lower the lake's water level by as much as 26 feet, exposing up to 120 square miles of sea bottom to the area's intense heat and whipping winds. Deadly dust storms will result, similar to those that occurred for decades on Owen's Lake after the diversion of water to the city of Los Angeles began in the 1930s.

The planned water transfer could also cause the sea to become too salty to support fish as early as the next decade. And with the fish go the fish-eating birds, including brown pelicans and double-crested cormorants. Further, this water transfer would also concentrate toxic levels of selenium—known for its deadly effect on bird reproduction—in the rivers and drains that surround the sea.

## THE SOLUTION

Fortunately, the Salton Sea, and with it, the Sonny Bono refuge, can be saved. Just like Lake Tahoe and Mono Lake, the Salton Sea can be "restored" to provide a safe and healthy place for the birds, fish and people that depend upon it. As part of the agreement to allow the water transfer project, the state of California promised to develop a restoration plan for the Salton Sea to be presented to the California legislature at the end of 2006. In order for the state to fulfill its promise, two important actions must be taken. First, the state secretary of resources must design a restoration project that provides for cleaner water and ecological restoration of fish and wildlife habitat. Second, the state and federal government must secure funding to ensure that the Salton Sea restoration project is implemented. Failure to design and implement a restoration plan not only dooms the Sonny Bono refuge, it creates an ecological and public health disaster of huge proportions.



SUNSET, SALTON SEA NATIONAL WILDLIFE REFUGE: © CLIFF BEITTEL

# Conclusion

**R**eminders of what once was, national wildlife refuges comprise every type of habitat found in the country. From deserts to tropical islands and coastal marshes to prairies, they show us a bit of what the early explorers saw, but they also offer much more.

For some native plants and animals, refuges provide a last chance to survive. For the bird enthusiasts among us, refuges provide unrivaled bird-watching opportunities, as well as other activities, such as canoeing, hiking, fishing and nature photography. And with at least one national wildlife refuge in every state and territory, most are within an hour's drive of major cities. Yet the National Wildlife Refuge System is still often overlooked. The system currently has a crippling operations and maintenance budget backlog of billions of dollars, and nearly 200 refuges have no staff on-site. Consequently, the system-wide goals of restoring habitat, monitoring wildlife populations and offering quality recreation and education programs are severely compromised.

Defenders of Wildlife is dedicated to drawing attention to the refuge system's splendor and plight, and is committed to working with federal, tribal, state and local agencies; private organizations; and landowners to ensure that this system of priceless safe havens—respite without parallel anywhere in the world—is better protected.

As the country once again marks National Wildlife Refuge Week in early October, it's the perfect time for the United States to renew its commitment to a system that is mandated by federal law to put the survival of wildlife and wild lands first. In making decisions today that strengthen refuges that are in danger of decline, we carry on the noble tradition of protecting something for the future, just as the people of previous generations did for us.



FALL BIRDWATCHER: © MASLOWSKI PRODUCTIONS





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