

feature

BY WENDEE NICOLE

CONSERVATION JEWELS

*Expanding our National Wildlife Refuge System
to safeguard America's wildlife legacy*

Rolling hills stand crumpled in the distance, softly carpeted in velvet hues of muted green. Hiking through this desert chaparral and sagebrush ecosystem, colors pop to life: purple California bluebells and bright orange poppies between chamise and manzanita, with sprightly yucca and cholla cactus growing amid rock outcroppings where one might spot a rattlesnake catching some sun. Juxtaposed between Los Angeles and San Diego, Western Riverside County remains relatively untouched and undeveloped, but it is in one of the fastest growing regions in the U.S. It's also the focus of a groundbreaking, bipartisan conservation initiative known as the Western Riverside Multiple Species Habitat Conservation Plan that will hopefully culminate in America's next national wildlife refuge.

A plan long in the making, a new refuge here fits squarely within President Biden's America the Beautiful Initiative, which aims to conserve 30% of America's land by 2030, as well as Defenders' new campaign to expand the National Wildlife Refuge System that capitalizes on long-standing work to defend and increase funding for the refuge system.

"With a million species at risk of going extinct, there's no better place to truly address this crisis and achieve the goals of America the Beautiful than the refuge system," says Curt Chaffin, Defenders' senior government relations representative.

The only federal lands system set aside specifically to conserve wildlife habitat, the 567 wildlife refuges the system comprises encompass only 4% of U.S. lands, yet they provide habitat for more than 513 federally threatened and endangered species—nearly a third of all those protected under the Endangered Species Act. Refuge lands also provide ecosystem services, protecting watersheds for drinking water and estuaries at the mouths of marine ecosystems, providing carbon storage, and preserving habitats that will give wildlife "refugia" in a changing climate. They also offer recreation activities, such as fishing, hiking, birdwatching, photography and nature-based learning.

Hiking in the Western Riverside region



QUINO CHECKERSPOT BUTTERFLY | ANDREW FISHER/FWS

with Juan Rosas, conservation associate with Hispanic Access Foundation (HAF), the conversation turns to his own experience in nature. "My whole life, I grew up hiking and fishing, and I was grateful that my parents really gave me the opportunity to love the great outdoors," says Rosas. "So when I started doing outreach at Hispanic Access, I was surprised a lot of people aren't interested in this. The main reason is that most minority communities are not around areas that are accessible."

In California, 62% percent of communities of color live in nature-deprived areas, twice the percentage of white communities. A new wildlife refuge could change that. HAF and Defenders are advocating that the proposed refuge boundaries be nearer the Hispanic communities of Hemet and San Jacinto, allowing them greater access to nature.

"It's sometimes hard to love what you can't see," Defenders' president and CEO Jamie Rappaport Clark recently wrote in an essay celebrating the refuge system. "Urban wildlife refuges [like Western Riverside] provide wonderful opportunities for more people to connect with nature. They are juxtaposed against high-density city centers and are some of the most spectacular outdoor classrooms in the country. ...These conservation jewels are wonderful places to rekindle your connection with nature and to renew your spirit."

Despite bringing 65 million visitors annually, contributing \$3.2 billion to local economies, and providing more than 41,000 jobs, the federal budget for refuges has declined in relative terms in the last decade. The U.S. Fish and Wildlife Service (FWS) is more than \$100 million short of 2010 funding levels, accounting for inflation. Many wildlife refuges do not even have an onsite staff biologist, and a massive backlog of repairs exists. "We are front and center trying to advocate for additional funding for the system," says Chaffin.

Defenders' campaign is focused on equitable access, adequate funding and defense against incompatible uses—like a road through Izembek National Wildlife Refuge, a high-voltage utility line through Upper

Mississippi River National Wildlife and Fish Refuge and illegal harvesting of horseshoe crabs at Cape Romain National Wildlife Refuge. But expansion is key. To safeguard our country's incredible wildlife legacy, Defenders and partners are advocating for expansion of the National Wildlife Refuge System, starting with the following five places.

WESTERN RIVERSIDE COUNTY

- * **FLAGSHIP SPECIES:** Quino checkerspot butterfly, red-legged frog, Parish's meadowfoam
- * **HABITATS:** Desert montane ecosystems, including coastal sagebrush and chamise chaparral
- * **THREAT:** Urban sprawl

Western Riverside County lies within the California Floristic Province, one of 25 global biodiversity hotspots—areas with extraordinary concentrations of native species found nowhere else that are experiencing rapid loss of habitat. More than 146 native and 33 threatened or endangered plants and animals live here, including the federally endangered Quino checkerspot butterfly—but only if their habitat remains. Mountain lions, black bears and burrowing owls make use of the vast landscape. Not 30 miles from here, in the 1860s, a hunter shot the last-known jaguar in California, on Mount San Jacinto.

In this land rich with wildlife, the Western Riverside County Regional Conservation Authority crafted the largest "multiple species habitat conservation plan" in the U.S. in 2003, which included commitments to conserve up to 500,000 acres of land by local, state and federal governments.

"What's beautiful about the plan is that it requires everybody to do something, and it only succeeds if everybody does their part," says Aaron Hake, interim regional conservation deputy executive director for the agency. After years of collaborative planning, U.S. Rep. Ken Calvert (R-Calif.) and Rep. Mark Takano (D-Calif.) recently introduced legisla-

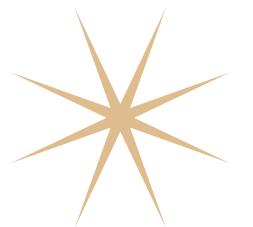


WOOD STORK | © ROWING WILD MEDIA

tion to create Western Riverside County National Wildlife Refuge. Sen. Dianne Feinstein and Sen. Alex Padilla have also publicly committed to securing support in the Senate.

It's no secret that this part of Southern California is rapidly developing. "It's important we're proactive to get these lands into conservation in a meaningful way," adds Hake. "The plan recognizes that we have flora and fauna that exist nowhere else in the world, and if we don't do something now to keep their habitats intact and linked together, we'll never get that opportunity back."

Defenders sees this refuge as a bellwether for refuge expansion and America the Beautiful in general. "There is an incredible combi-



nation of tremendous biodiversity, local buy-in, equitable access and bipartisan support,” says Chaffin. “It really checks all the boxes.”

SOUTHWEST FLORIDA

- * **FLAGSHIP SPECIES:** Florida panther, Florida black bear, crested caracara, Everglade snail kite
- * **HABITATS:** Grasslands, forests, scrub, wetlands, rivers and estuaries
- * **THREAT:** Urban development and sprawl, road expansion, sea-level rise

When most people think of Florida, they don’t envision a vast wild landscape of private lands hosting myriad threatened and endangered species. “It really is reminiscent of the African savanna, a wild prairie landscape with species like Florida panther moving through it, Florida black bear, as well as habitat for the eastern indigo snake, crested caracara, gopher tortoise, burrowing owl, Florida grasshopper sparrow, wood stork, Everglade snail kite and

more,” says Julie Morris, Florida and Gulf Coast programs manager for the National Wildlife Refuge Association.

A long-term, multi-stakeholder landscape-level conservation effort in southwest Florida aims to provide habitat connectivity and wildlife corridors for the Florida panther and 73 other federally and state-listed species by preserving a mosaic of important habitat, possibly by creating a new refuge or conservation area to help connect Florida Panther National Wildlife Refuge northward to Everglades Headwaters National Wildlife Refuge and Conservation Area.

“The landscape included in the study area is ground zero for Florida panther expansion,” says Elizabeth Fleming, Defenders’ senior Florida representative. “Panthers have figured out where the viable habitat is, and there’s no extra room in south Florida. For the population to grow, it has to expand northward.”

Fortunately, there’s been long-standing cooperative conservation efforts with engaged stakeholders across the board: sportsmen,

ranchers, scientists, conservation organizations and local, state and federal government. But the region is under tremendous threats from development and climate change. Florida recently surpassed New York to become America’s third most populous state.

Development accelerated with the shift to the work-from-home economy, and people moving in often have no idea that Florida is among the most species-rich states, with many animals and plants not found



AMERICAN PIKA | WILL THOMPSON/USGS

elsewhere in the nation. Fleming also points out that when people start retreating from coastal areas because of climate-induced sea-level rise, they will move inland—to some of the most biologically diverse places in need of conservation. “We have an opportunity to protect them,” she says, “but our window is limited so we must act now.”

GREATER HART-SHELDON NATIONAL WILDLIFE REFUGE COMPLEX

- * **FLAGSHIP SPECIES:** American pronghorn, greater sage-grouse, California bighorn sheep, American pika
- * **HABITATS:** High desert sagebrush-steppe
- * **THREAT:** Development

One of America’s most iconic species thrives in what is poetically known as the Sagebrush Sea, a rolling expanse of high desert sagebrush that extends as far as the eye can see and is one of the most endangered ecosystems in North America despite its massive size. Twice a year, more than 7,000 American pronghorn migrate about 100 miles between Hart Mountain National Antelope Refuge in Oregon and Sheldon National Wildlife Refuge in Nevada. Together, the two refuges provide about a million acres of protected pronghorn habitat. “In the spring and summer, they give birth to the next generation, which follows the same ancestral path back year after year in one

of the longest ungulate migrations in North America,” says Mark Salvo, Oregon Natural Desert Association (ONDA) program director.

The Bureau of Land Management has also identified Greater Hart-Sheldon as important climate

refugia for greater sage-grouse, which are in desperate need of a lifeline. “The populations have declined 40% in 20 years,” says Mariel Combs, Defenders’ senior federal lands policy analyst. “The situation is dire for this iconic bird—considered a bellwether for the Sagebrush Sea, and its condition may signal the decline of the entire ecosystem—which includes hundreds of at-risk plant and animal species.”

FWS is required to craft a comprehensive conservation plan for each refuge every 15 years, yet Hart Mountain’s plan is 27 years old. ONDA and Defenders want the Biden administration and FWS to start the conservation planning process at Hart Mountain and are urging the federal government to consider alternatives that would expand the boundaries of Hart Mountain southward. “This ecosystem is relatively intact and parts are slightly higher elevation, so it should be more resilient long term than other sagebrush habitats,” says Salvo.

JOHN HEINZ NATIONAL WILDLIFE REFUGE AT TINICUM

- * **FLAGSHIP SPECIES:** American eel, red-bellied turtle, coastal plain leopard frog, migratory songbirds, river otter
- * **HABITATS:** Freshwater tidal marsh, riparian forest, meadow
- * **THREAT:** Development

While most urban areas lie within an hour of a national wildlife refuge, John Heinz National Wildlife Refuge in Philadelphia was created



GREATER HART-SHELDON FISH CREEK RIM | © JIM DAVIS

in 1972 as an “urban oasis right in the city,” says Combs. The last 200 acres of freshwater tidal marsh in the state of Pennsylvania, Tinicum Marsh once spanned 5,000 acres. Darby Creek, a tributary of the Delaware River, also runs through the refuge.

In January, U.S. Secretary of the Interior Deb Haaland visited John Heinz to promote urban wildlife refuges and tout Biden’s bipartisan infrastructure law, which, in part, authorized \$26 million in funding for the Delaware River Basin ecosystem as part of the administration’s America the Beautiful Initiative. The Delaware River Basin provides habitat for more than 400 birds and 90 fish, including the imperiled American eel, the only species of freshwater eel found in North America.

Importantly, the refuge provides access to nature for Philadelphia’s Eastwick community, which is predominantly a working class, African American community. “The Friends

of John Heinz National Wildlife Refuge plays a big role in helping to bring resources like funding to the refuge to promote initiatives that help bring in diverse audiences,” says Jaclyn Rhoads, the group’s president. “That includes funding to work with local schools in the Eastwick community and to do programs that bring students out for field trips.”

“People view refuges, as, ‘Oh, it’s just for the wildlife, but really it’s about connecting people to that wildlife,” adds Rhoads. “The more people know about it and get to enjoy the trails, the more we can really look to have greater protection, acceptance and enjoyment of these areas.”

When the refuge was established, it included a 1,200-acre boundary, but it currently stands at 993. Defenders supports expansion of the refuge to help alleviate long-term flooding impacts and preserve Tinicum Marsh for migratory birds and imperiled species.

Although an official expansion is not yet underway, local stakeholders have engaged in long-term planning for Eastwick. “This community was historically redlined and has been subject to chronic flooding over the years,” says Combs. “It’s a real problem for those citizens. We want to work in tandem with FWS and community partners to make sure that any acquisition supports community needs.”

LAGUNA-ATASCOSA NATIONAL WILDLIFE REFUGE

- * **FLAGSHIP SPECIES:** ocelot, Aplomado falcon, migratory birds
- * **HABITATS:** Taumalipan thornscrub
- * **THREAT:** SpaceX, roads, energy development, lack of habitat connectivity

Set in the Lower Rio Grande Valley, Laguna Atascosa National Wildlife Refuge protects one of the last populations of ocelots, which live only in one specific habitat: Taumalipan thornscrub. “The thorny forest matrix of plant materials is terrific habitat for these cats because it provides protection,” says Sharon Wilcox, Defenders’ senior Texas representative.



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Nocturnal, small, quick-moving spotted cats, ocelots weigh 15 to 30 pounds—similar to a medium-size dog. They’re critically endangered: Only 60 to 80 wild ocelots remain in the U.S., with the lone breeding population in Texas, and they’re too-frequently struck by vehicles. “The leading cause of death to ocelots in Texas is vehicular strikes,” says Wilcox. “We must expand and restore refuge lands as part of a broader landscape-level initiative to reconnect vital ocelot habitat and ensure these cats safe passage in the last vestiges of their home range.”

Laguna Atascosa stands at just over 97,000 acres, although FWS has approved an acquisition goal of 153,314. Conservation Fund (CF), a nonprofit focused on acquiring larger parcels of land for conservation, has been working to expand the refuge for decades. After purchase, CF turns the land over to FWS.

“When we buy property, it usually has the thornscrub the ocelot needs on it but also some open space for Aplomado falcons,” says Andy Jones, CF’s senior project director. A federally endangered species, the falcon was reintroduced here in 1993. The refuge supports nearly 420 species

of birds, including many migratory species. Birders around the world have dubbed Lower Rio Grande Valley one of the “birdiest” places in the U.S.

Yet the national wildlife refuges of South Texas, including Laguna Atascosa as well as Lower Rio Grande Valley National Wildlife Refuge, are under threat from Elon Musk’s SpaceX. “While FWS has spent millions in land acquisition and restoration in the immediate area,” says Wilcox, “SpaceX threatens to undo that work by disturbing these natural areas.”

Just south of Laguna Atascosa near the economically important and ecologically sensitive Laguna Madre estuary, Musk’s project to send people to Mars has expanded its operations without proper environmental review. Debris from rocket launches has fallen to Earth, putting sensitive marine, estuarine and terrestrial ecosystems at risk, including endangered ocelots, sea turtles and snowy plovers. Decades of

work connecting habitats for ocelots and other species in the region could be threatened if SpaceX continues developing unabated. ♦

—Wendee Nicole writes
from her home in San Diego.

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