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LAND

A "RARE TREASURE," THE DESERT NATIONAL WILDLIFE REFUGE IS HOME TO DIVERSE WILDLIFE, AND IS A HUB OF RESEARCH AND RECREATION — BUT THE AIR FORCE HAS IT IN ITS SIGHTS. WE TAKE A DEEPER LOOK INTO THIS CONFLICTED LANDSCAPE AND WHAT'S AT STAKE IN THE DISPUTE.

BY HEIDI KYSER

First of all, a mountain lion isn't really a mountain lion; it's a cougar. "They don't live in the mountains," explains ecologist David Choate, who's been studying the big cats of Southern Nevada for the past seven years, "and they're in no way lions."

Choate has a map of the Desert National Wildlife Refuge spread on the dash of his U.S. Geological Service pickup to show the range of cougars and, more importantly, their prey, desert bighorn sheep. The 1.6 million-acre refuge was created in 1966 to protect all the plant and animal life in the wild lands a half-hour north of Las Vegas, but bighorn sheep get special attention, due to hunters' love of pursuing the agile, curved-horn ungulates across the rugged terrain. (The sport's best-known fan, Franklin D. Roosevelt, first established the Desert Game Range here in 1936, when it also encompassed part of the Spring Mountains to the south.)

Second, the chances of actually seeing a cougar are slim to none, even with Choate, who knows the elusive animals as well as anyone in Southern Nevada. He spent three years on the refuge, camping in the hills for weeks at a time, trapping cougars to put tracking collars on them, returning to town only occasionally for provisions. That exercise in patience was part of an intense, multi-institution study of the area's plant and animal life designed to determine, among other things, what had caused the bighorn sheep population's decline, from as many as 1,200 individuals in the late '80s to

as few as 400 today. Choate's job was to figure out if cougars, the sheep's only predators, were killing them off. In three years, he and cougar biologist Brian Jansen caught only five cats out of an estimated total population of six to 10. Clearly, they're not the problem.

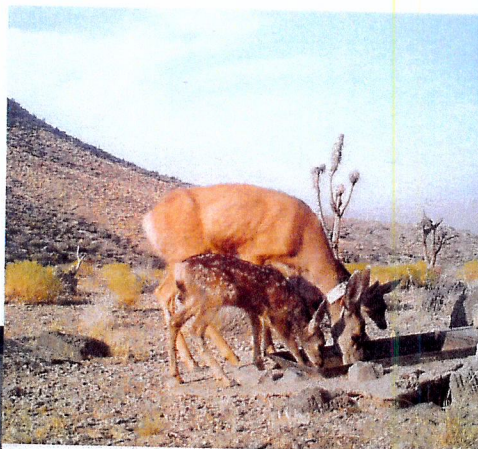
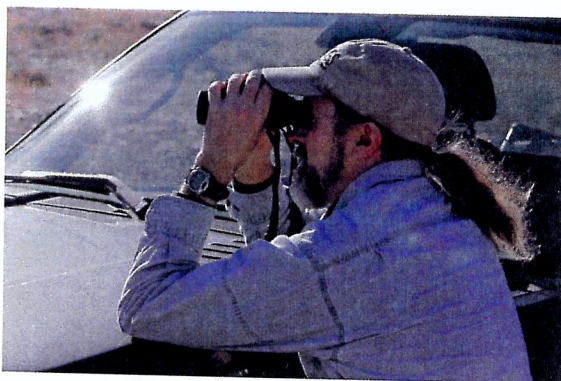
More likely culprits, the scientists involved in the study believe, are disease and drought. Bumping along the lower half of rocky, rutted Alamo Road, the refuge's main north-south thoroughfare that Choate says chews up a set of street tires every 2,000 miles, it's not hard to believe this desert could grind down even the hardest of wayfarers. Yet it's ideal terrain for bighorn sheep, which can handle extreme temperatures and run up and down 20-degree slopes covered in rocks — and they might be

thriving were it not for a persistent pneumonia strain that appears to be killing them. Even the handful of cougars that roam the daunting mountain peaks and parched valley floors seem to be attached to the land. Using radio telemetry, Choate tracked one young male, M3, as he wandered from the Sheep Range that elongates the refuge's eastern half, south through Gold Butte and all the way down to the Grand Canyon. There, evidence would suggest, M3 got in a fight, probably over food or a mate. Mortally wounded, he headed back toward the Sheep Range. Choate's team found M3's body at the south end of the range. He'd come home to die.

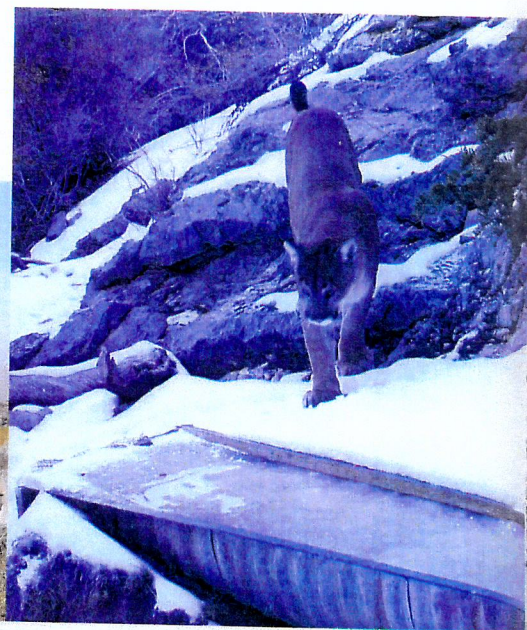
Okay, maybe that's anthropomorphizing a little. Some local humans are as drawn to the Desert National Wildlife Refuge as the bighorn sheep, and they can't help but romanticize its wild nature.

"This is the largest protected area this close to an urban environment anywhere in the country outside Alaska," says Jose Witt, who directs Friends of Nevada Wilderness' local operations. "There's really been no mining out there. Very few roads. Very pristine habitat. To have that so close to a population of 2.2 million is a rare treasure."

Such passion comes in handy when defend-



Cat eyes: David Choate, a visiting assistant professor of life science at UNLV, scans the Sheep Mountains for wildlife. Above and right, denizens of the Desert National Wildlife Refuge stop for a drink.



ing an area under siege, which is how Witt's group and other conservationists perceive the refuge to be at present. The Department of Defense recently floated a proposal to expand the control over the area by the U.S. Air Force, which currently shares jurisdiction in parts of the refuge with the U.S. Fish and Wildlife Service. The proposal would potentially put some now-public areas off-limits to humans.

"I want to make it clear that no decisions have been made," says James Sample, a Colorado State University employee who directs range-planning programs for the Secretary of the Air Force. "We are going to look at every option, analyze all the potential impacts, formulate our recommendations, and then it goes to Congress, which has the final say."

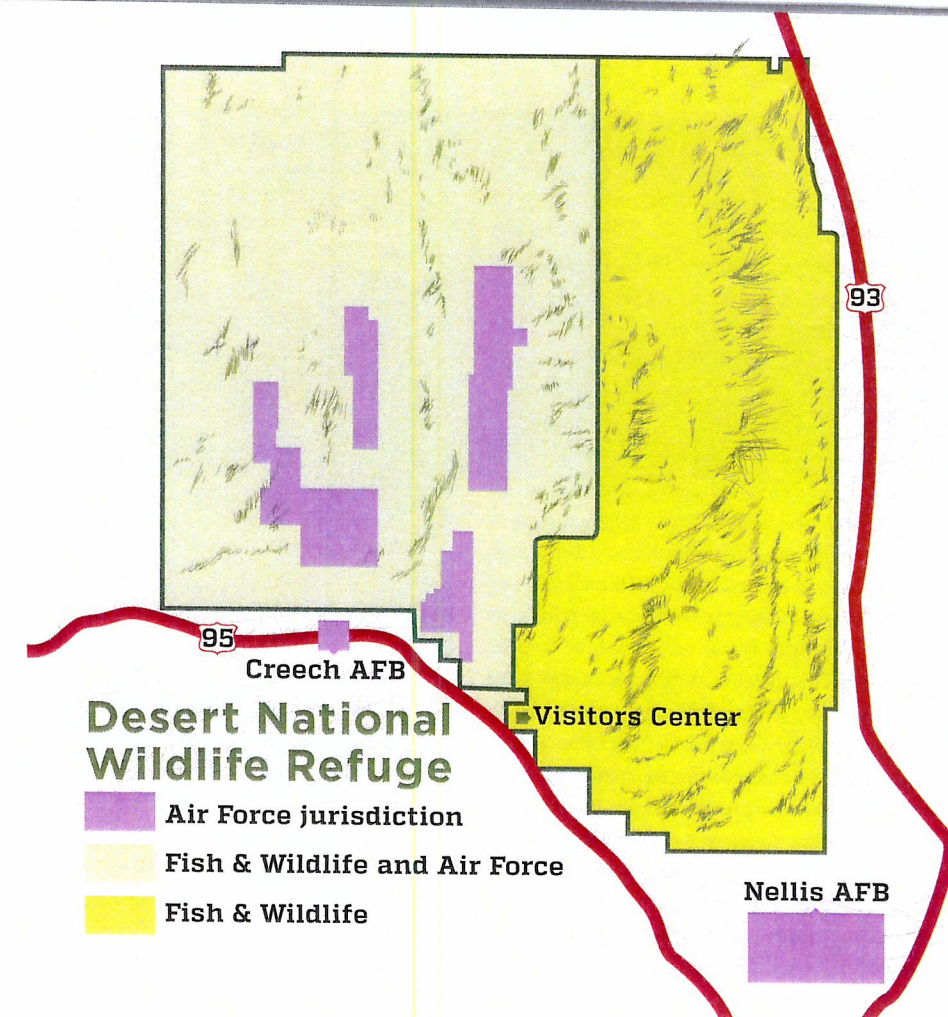
Sample stresses that the lengthy process leading up to those recommendations includes considering the 1,300-plus public comments received so far. Nevertheless, he adds, "We need more capacity on the Nevada Test and Training Range. ... We need to increase capacity so we can train more like we fight."

It has prompted a smattering of local and national nonprofits to coalesce behind Nevada Wilderness' campaign, cleverly hashtagged #DontBombTheBighorns. What's behind the rhetoric? Is there anything worth saving on those hundreds of thousands of acres? And if so, at what cost?

Mapping it out

Take out a pencil and blank sheet of paper. On it, draw a big rectangle and lop off the bottom left corner. Now, draw a vertical line a little right of center. Finally, in the bottom half of the left-hand side, draw four narrow vertical boxes. You've just sketched a rough map of the 1.6 million-acre Desert National Wildlife Refuge.

Here's how it breaks down. The part on the left, encompassing 826,000 acres, overlaps the Nevada Test and Training Range, or NTTR, co-managed by the Air Force and Fish and Wildlife Service. Fish and Wildlife has primary jurisdiction over all of it except the boxes, which comprise 112,000 acres controlled by the Air Force, because it blows up stuff there. The part on the right is the publicly accessible part of the refuge, some 700,000 acres where Fish and Wildlife has sole juris-



diction. If you've toured the visitors center at Corn Creek, bagged Gass Peak, driven your Jeep along Mormon Well Road, hiked up to Hidden Forest cabin or camped in cougar country with David Choate, this is the part of the refuge that you've been on.

The illustration helps to explain the defense department's proposal to change the refuge.

Inside the four boxes, which in reality are dry lakebeds and desert valley floors, are targets (on Google Earth, you can actually see bullseye formations scraped into the land). During training exercises, Sample says, pilots fly toward them from the northwest, entering your map at the upper right-hand corner and moving diagonally down and to the left.

In actual combat, according to Sample, anti-aircraft weapons are deployed as planes approach their targets. Corporations such as Lockheed Martin and Northrop Grumman make so-called threat emitters that simulate ground-to-air defense systems for training exercises. In order to create a realistic scenario, the threat emitters would need to be installed on the approach to the target — that is, to the northeast.

There's the rub. Although the Air Force al-

ready has access to all the airspace over the refuge (along with the additional 2.1 million acres of the NTTR that are outside the refuge), it can't use the land northeast of the targets on the refuge for training exercises under the current arrangement. For that, it would need primary jurisdiction over parts of the NTTR and public area that Fish and Wildlife now manages.

"The problem is, as soon as we start attacking those boxes from farther away, we're increasing the weapons safety perimeter," Sample says. "As part of the requirements for safety, we have to keep people out of anywhere where there's a 1-in-100,000 chance of something happening. ... In every proposal we're looking at, we're keeping the impact area the same."

Choosing from the various possible combinations of options for transferring jurisdiction and redrawing boundaries, the Air Force has come up with five proposals, from the most modest, leaving things as they are, to the most extreme, turning over control of the NTTR to the Air Force and expanding it to include a million acres of the refuge. The five proposals are included in a Legislative

Environmental Impact Statement, or LEIS, a formal document that will eventually go before Congress for a final decision on the matter. Between here and there lie the usual environmental studies, draft proposals, public comment periods and so on.

Those speaking on behalf of the Air Force stress that their goal is not to damage sensitive habitat or deny people access to recreational areas.

"We know that we don't understand all access and use issues," says Michael Ackerman, who works in the Air Force Civil Engineer Center's environmental impact assessment group. As the project manager for this LEIS, Ackerman led a series of open houses last October to gather public input. "We got feedback on access to different areas — hiking areas, such as Hidden Forest, which wouldn't be impacted by any of the current proposals; about 18,000 acres of the North Range (near Beatty) where there are plans for mountain biking — and generally on the wilderness feel of the area. About half of the feedback was related to wildlife biology and public access."

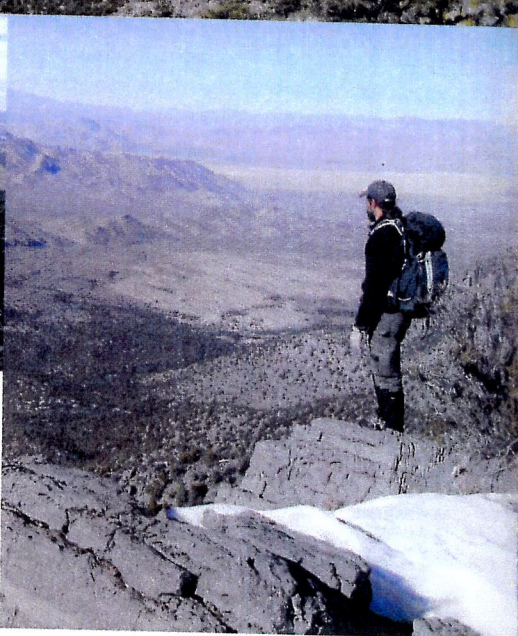
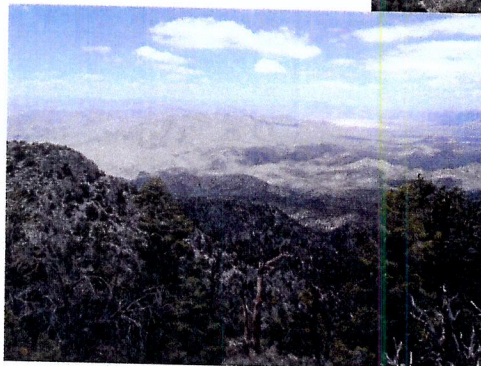
Ackerman says that his team will take this feedback into account as it develops its draft LEIS over the coming year. That will be published late 2017, followed by public hearings and another comment period. The final LEIS should be ready by September 2018, when it will be turned over to the Department of the Interior, which will review it and send it to Congress. All this is timed to have the Air Force's 20-year lease on the land renewed before it expires in November 2021.

According to Sample, even if the largest jurisdictional transfer proposed were enacted, it wouldn't necessarily mean permanently kicking people off the parts of the refuge that the Air Force would take over. "We put emitters in public areas elsewhere and put fences up to keep people out," he says, adding that the Air Force and Fish and Wildlife are considering ways to expand nondefense access to the NTTR as part of the LEIS process.

That said, civilians are now only allowed on the part of the NTTR that overlaps the refuge for limited scientific research, tribal activities and a two-week hunting season, when hunters are allotted half a dozen highly prized permits for bighorn sheep. And that's with Fish and Wildlife having primary jurisdiction.

Regardless of which proposal is adopted, and how much human access it results in, one

Desert in danger: Dramatic valleys, petroglyphs, sand dunes and snow-capped mountains show the range of the Desert National Wildlife Refuge.



nagging issue remains: the sheep, cougars, foxes, mule deer, desert tortoises and other animals living there. What will become of the plants they eat and springs they drink from? The Department of Defense is in the business of defending the country; wildlife biology isn't its core competency.

In response to this concern Ackerman says, "A majority of what the Air Force needs to do is not high-disturbance activity. With the new weapons systems, what aircraft do is drop munitions from higher altitudes at greater speeds, so the greater area gives them the possibility to do that. The disturbance to the ground would be limited."

Even if nothing were exploded on the Air Force's expanded territory, installing and maintaining threat emitters would require infrastructure — concrete pads and roads at least, which would disturb habitat. Further complicating things, woven into the arcane jurisdictional tapestry of the refuge are 1.3 million acres that Fish and Wildlife proposed for wilderness designation in the early 1970s, some of them in the NTTR. To be able to use the threat emitters in those areas, that designation would likely have to be dropped.

It doesn't exactly scream stewardship. "The exact details would be worked out," Ackerman says, noting that the Air Force would probably partner with the Bureau of Land Management, Fish and Wildlife and other agencies for land management. "As a federal agency, it's incumbent on us to ensure

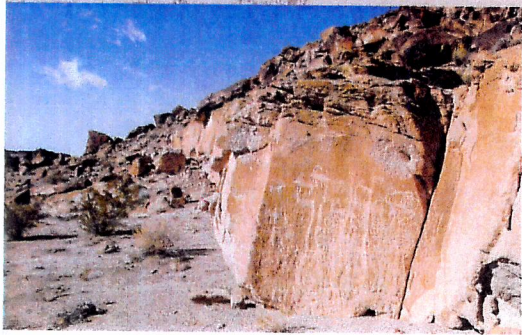
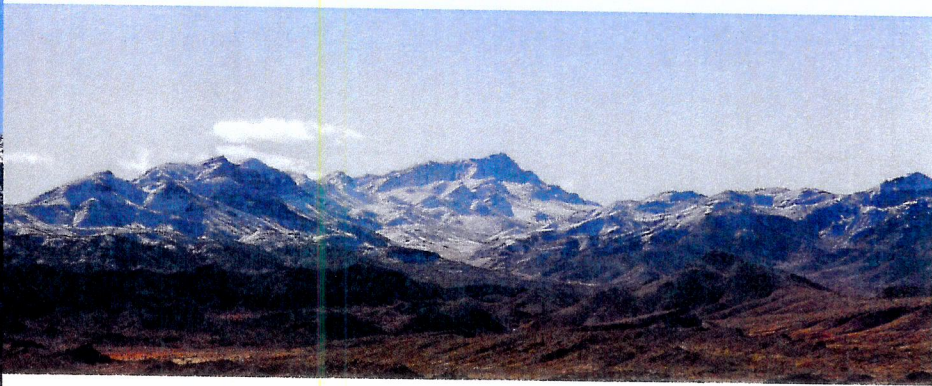
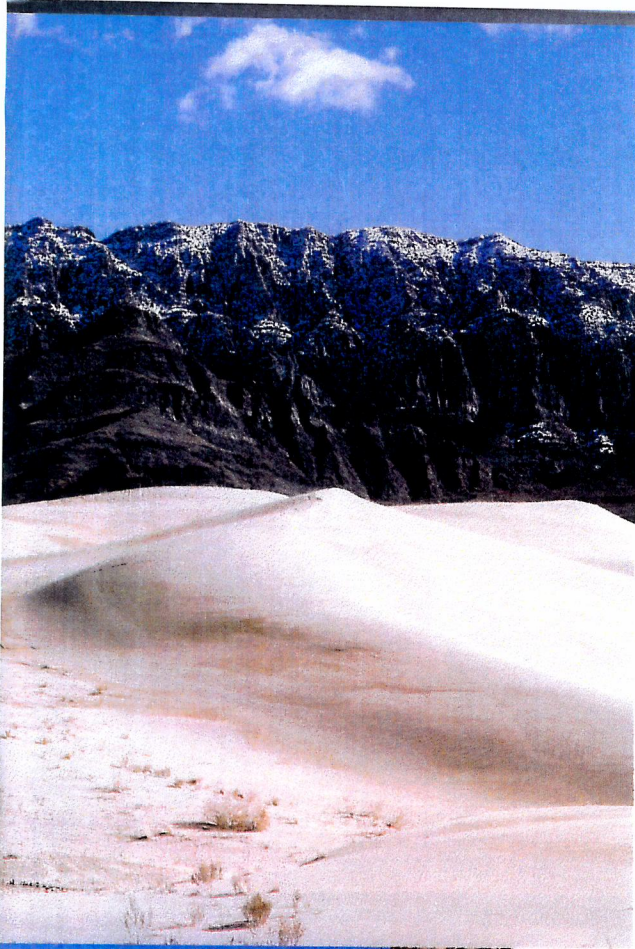
and protect those species even though that's not our primary mission."

Perhaps the biggest question in all this is: Whose idea was it? Opponents have no idea. When asked if the Air Force requested the change, Sample simply said, "It's one solution to meet our needs."

Some conservationists see the hidden hand of politics at play. Proposals for transferring jurisdiction over the NTTR from Interior to Defense have twice been appended as riders to the National Defense Authorization Act. Those riders, scrapped during reconciliation, were added in the House by Representative Rob Bishop of Utah. (A well-known opponent of federal lands, Bishop has also attacked the Southern Nevada Public Lands Management Act, proposing to have the sale of all federal lands here directed to the national general fund rather than going to their current use: conserving sensitive areas and creating public recreation opportunities.)

In February of last year, Sample testified before a Natural Resources subcommittee in support of a similar rider proposing to close some public lands in the Utah Test and Train-

DESERT NATIONAL WILDLIFE REFUGE, LEFT PAGE: DAVID CHOATE; RIGHT PAGE: CHRISTOPHER SMITH



ing Range. His reasoning: the area was needed as a weapons safety buffer for Air Force training similar to what's envisioned for the NTTR. President Barack Obama signed the act with the temporary land closure in December.

Taking it in

Most people access the Desert National Wildlife Refuge from the south, off Interstate 95, but there's another way in: from the north, off Highway 93, through the Pahrana-gat National Wildlife Refuge. Alamo Road, which begins just past the Pahrana-gat Refuge visitors center, runs 72 miles to the south, connecting it with the Desert Refuge visitors center at Corn Creek.

Alamo Road was graded last fall, and in February, despite heavy rains that tend to cause flooding, the northern half of the road was smoother than the southern half. Leaving Pahrana-gat, anyone with a high-clearance vehicle could drive south through the freshly watered high desert — rolling plains filled with Joshua trees, flat-top pink and red hills girded with bands of chiseled rock, giant slabs of stone rising diagonally from the blan-

ket of scrub like shark heads breaking the water, jumbles of boulders on the side of the road vandalized with delinquents' initials and the snow-capped Sheep Mountains looming to the southeast like a patron saint.

Some distance in — a policy of respect prevents giving the exact location — is Eagle Head, where one can find a concentration of the Native American petroglyphs and lithics (rock chips for tool-making) that are scattered throughout the refuge, cultural artifacts attesting to the Southern Paiutes' primary claim to the land. From Alamo Road, it's a short walk down a wash dotted with coyote tracks and *tinajas*, natural pools that form in hollowed-out spots on the surfaces of flat rocks. A stone's throw from one large petroglyph panel are the remains of a long-defunct cattle pen. Mingled among the lithics, an occasional rusted can.

Continue south down Alamo Road, and soon you'll be at Desert Dry Lake, which refuge manager Amy Sprunger jokes is a gold mine for Las Vegas towing companies. (It seems visitors frequently overestimate their vehicles' off-road capacity and get mired in the soft dirt.) Just before the dry lakebed, on the east side of Alamo Road, is an expanse of powdery dunes, formed by sand blowing up from the lakebed and accumulating at the

foot of the mountains. A 15-minute moderate uphill walk puts visitors in the middle of the dunes, an ideal place for picnicking during cool weather and maybe even spying an Apache helicopter, one of which flew by during Sprunger's February tour.

Eagle Head, the dunes and the dry lake bed are all at risk of being taken over by the Air Force under a couple of the proposals included in the defense department's LEIS. The area is beautiful, to be sure, but is it worth preserving at the expense of giving pilots the best training possible?

Yes, Sprunger says, because of three things: its diversity, size and pristine nature.

"There's nothing else like this in the lower 48," she says, explaining that the Refuge Administration Act creates an important distinction between Fish and Wildlife lands and BLM lands: Refuges have an explicit conservation mission. Only activities compatible with it are allowed. As a result, refuges are enjoyed by those who care about keeping them intact, such as the Fraternity of Desert Bighorn, which, along with the federal government, has invested hundreds of thousands of dollars into maintaining sheep habitat and improving springs access.

Sprunger is unapologetic about the relatively small number of visitors that the refuge attracts, some 70,000 per year, according to Fish and Wildlife's latest estimates. (By comparison, the BLM says Red Rock National Conservation Area attracts more than 80,000 people a month.) Since the Corn Creek facility was built three years ago, refuge visitation has been rising steadily — and will continue to, Sprunger believes — but its best-kept-secret aspect is also part of its importance.

"There are so few places left where you can find true solitude, see dark skies at night, study nature at its wildest," she says. "We have to hang onto those that are left. Once they're gone, there's no getting them back." ■