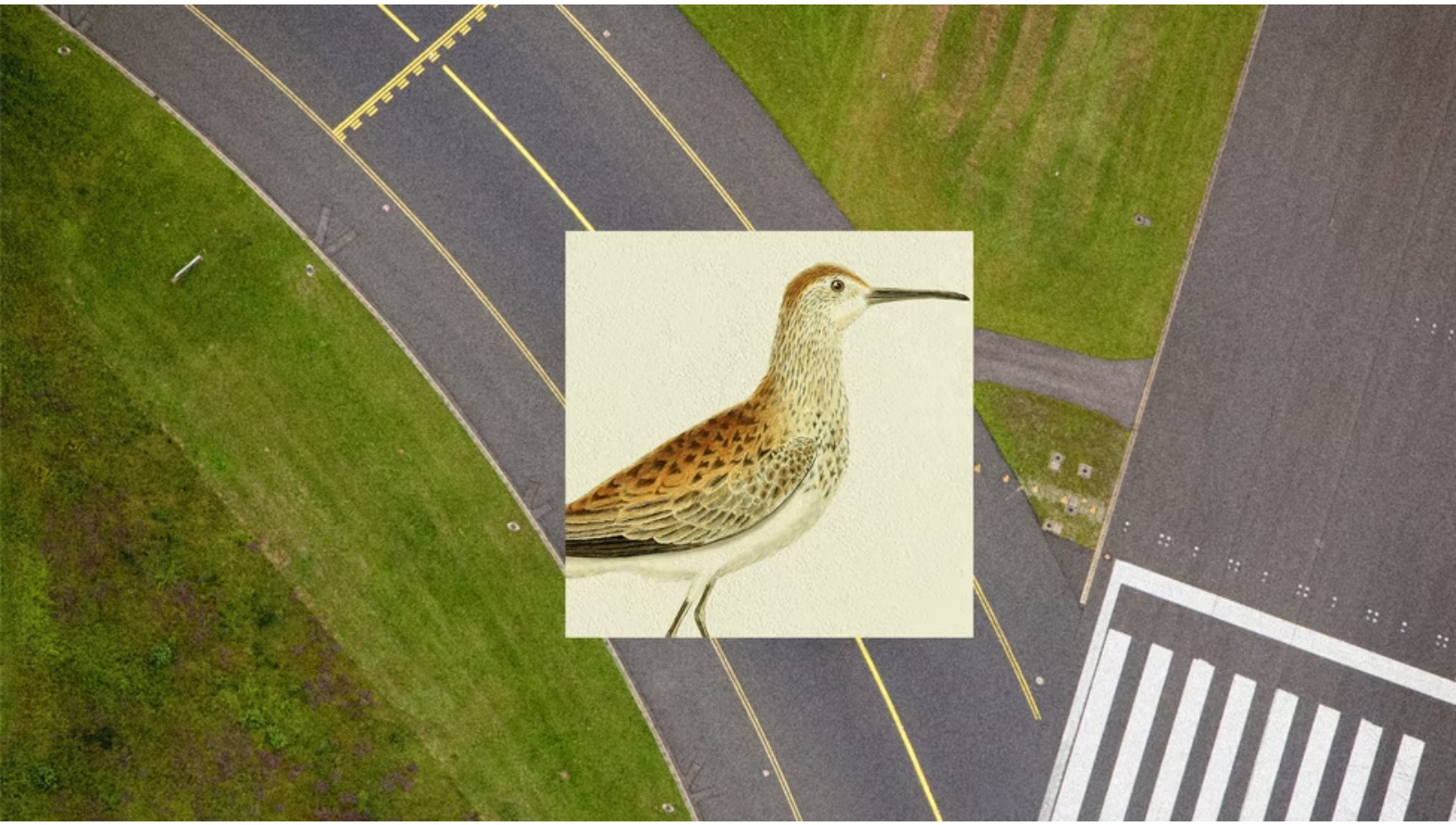
PLANET

Some Animals Have No Choice but to Live at Airports Now

Vulnerable birds, snakes, and frogs are clinging to survival in the lawns next to taxiways and runways.

By Katherine J. Wu



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For the past several decades, Portsmouth International Airport at Pease, in New Hampshire, has hosted a frequent flier with no known credentials. It comes and goes as it pleases, always bypassing security; it carries no luggage, not even a government-issued ID.

But unlike the other passengers that regularly flock to Pease, the upland sandpiper—a spindly, brown-freckled bird native to North America's grasslands—has no destination apart from the airport itself. The fields between Pease's runway and taxiways are now the only place in the entire state where the species is known to regularly reproduce. Each year, about seven sandpiper couples nest in the airport's meticulously mowed grasslands, fledging roughly a dozen chicks, according to Brett Ferry, a wildlife biologist at the New Hampshire Fish and Game Department. Should they be snuffed out, Ferry told me, "that would be it for New Hampshire's breeding population."

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New Hampshire's sandpipers aren't alone in their plight. Across the United States (and, really, the world), all sorts of animals that have lost their natural homes to urban development and human-driven climate change are seeking sanctuary at airports. Vulnerable butterflies have camped out at the dunes near LAX; an endangered garter snake has found one of its last refuges at San Francisco International Airport. Terrapin turtles searching for egg-laying sites have triggered traffic jams on JFK's runways. But perhaps no group is in greater peril than the Northeast's grassland birds, which, in recent decades, have found themselves almost exclusively relegated to airports and airfields. It's a responsibility that these travel hubs never asked for, and mostly do not want. Now the regional survival of many species may hinge on the hospitality of some of the country's most bird-averse spots.

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By most accounts, upland sandpipers, eastern meadowlarks, grasshopper sparrows, and other grassland birds have roots in the Midwest, only arriving en masse to the Northeast during the 19th century as European settlers converted massive tracts of

land into agricultural fields. The birds found grass short enough to forage for insects in and tall enough to cloak their burrow-esque nests, and their population boomed. But just a century or so later, as America's farming prospects shifted west, East Coasters began to abandon their fields. Some land regressed into forest; some was developed for other use. Almost as quickly as grassland-bird numbers had surged in the area, they plummeted.

In many northeastern states, grasshopper sparrows and eastern meadowlarks are now listed as endangered, threatened, or of special concern. Upland sandpipers, once abundant throughout the region, appear to have entirely vanished from Rhode Island, according to Charles Clarkson, the director of avian research for the Audubon Society of Rhode Island; they may soon be gone from Vermont too. The birds have several holdouts scattered throughout the region—among them, private farmlands, Maine's blueberry barrens, even a few of New York's landfills. But as reliable grasslands continue to grow scarcer, airports in particular "have become disproportionately important," says Pamela Hunt, New Hampshire Audubon's senior biologist for avian conservation.

Airports, of course, were never designed to be conservation sites—if anything, their core dictate is antithetical to that. "Our mission at the FAA is safe air travel; that is it," says Amy Anderson, a wildlife biologist with the Federal Aviation Administration. That mission is very often synonymous with making the country's travel hubs "less attractive for wildlife." Airport lawns, which primarily serve as an aesthetically appealing buffer for water runoff and planes that skid off runways, are regularly mowed with blades that can destroy nests; they're treated with chemicals that kill off the insects that many birds and small mammals eat. Creatures that mosey onto runways, where they can damage hardware or compromise landings and takeoffs, can expect to be shooed away with all manner of noise cannons, lasers, pyrotechnics, or even trained peregrine falcons. During emergencies, animals that can't otherwise be dealt with may even be shot. When animals end up on these properties, it's generally

not because they're pristine or safe. It's "because they have no other option," Clarkson told me.

For certain animals, these odd real-estate choices have paid dividends. The San Francisco garter snake and its primary prey, the California red-legged frog—federally listed as endangered and threatened, respectively—have found a stable home on SFO property, according to Natalie Reeder, the airport's former wildlife biologist. Of the half dozen or so populations of garter snakes still found in California, SFO's is the only one that is not in "really big trouble," Reeder told me.

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But SFO's haven is more an exception than the norm. After many years of sustaining a "very nicely growing population" of burrowing owls—a state-listed species of special concern—the airport in San Jose, California, stopped maintaining the birds' artificial burrows, and their numbers plunged, says Sandra Menzel, a senior biologist at the natural-resource-management company Albion, who has studied the birds. A survey conducted last year found just one breeding pair at the airport, down from a 2002 peak of around 40. (An SJC spokesperson told me that "the reasons for the decline in owl numbers at the Airport are not fully known," and pointed out that the birds have been declining in general "throughout the South Bay.") In the Northeast, too, there's been "all sorts of conflict," says Patrick Comins, the executive director of the Connecticut Audubon Society. In his state, he told me, grassland birds staked out territory at Meriden-Markham Municipal Airport—only to later be crowded out by an intensive mowing regimen and space-hogging solar panels. (MMK didn't respond to a request for comment.)

From the airports' perspective, having vulnerable species on site is usually more trouble than it's worth—especially when their winged tenants start to endanger *humans* attempting flight. Since the late 1980s or so, when the FAA started keeping track, birds and planes have collided more than 220,000 times—incidents that have, at times, downed entire aircrafts. The most serious concerns are usually big, flocking species, such as gulls or geese. But "even a 10-gram songbird, if it hits right, could take out an airplane," Scott Rush, a wildlife ecologist at Mississippi State University, told me.

The tactics that airports deploy to avoid bird strikes don't always work. Oregon's Portland International Airport has, for many years, been aggressively stripping its grounds of vegetation, to the point of exposing the underlying soil, to deter grass-loving geese. "It looks like the moon," says Nick Atwell, the senior natural-resources and wildlife manager at the Port of Portland. But the anti-goose strategy inadvertently transformed the airport's landscape into perfect, barren bait for a threatened bird called the streaked horned lark. Despite PDX's best efforts to keep the larks off runways, *they're* now posing a strike risk. Atwell worries that the airport could become, or already is, an ecological sink: a habitat that lures in animals, only to accelerate their decline.

That may have already happened at New Jersey's Atlantic City International Airport. In the early 2000s, the airport set aside 300 acres of its property as a sanctuary for upland sandpipers and other grassland birds, even modifying its regular mowing schedule in the summer to spare their nests. But within months of the intervention, "things went a little haywire," says Chris Boggs, a U.S. Department of Agriculture scientist who's been working with the airport since the early 1990s. Boggs estimates that total recorded bird strikes skyrocketed by 60 to 70 percent. He remembers

scraping broken sandpiper bodies off the pavement, unable to stop himself from tallying up who was left. “We had three,” he would say to himself. “Now we have two.” By 2019, the airport had resumed its regular mowing protocol. It had wanted to help the birds, Boggs told me. Instead, “we were killing them off.”

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At a few northeastern sites, humans and grassland birds have negotiated a truce. Pease, in New Hampshire, is one; another is Massachusetts’ Westover Air Reserve Base, one of the largest sanctuaries for grassland birds in the entire Northeast. Sandpipers, grasshopper sparrows, and eastern meadowlarks can all be found breeding on its 1,300-plus acres of viable habitat, which are far quieter and less traveled than commercial airports, says Andrew Vitz, the state ornithologist. Massachusetts Fish and Wildlife has aided in several of the site’s conservation efforts, including the planting of bird-friendly grasses.

Replicating those efforts could, in theory, turn more of the Northeast into hospitable grassland. Airports could, for instance, swap out some of their turf grass for hardier native species that require less summertime mowing, as Westover has. But many such proposals still feel like Band-Aids at best, says José Ramírez-Garofalo, a biologist at Rutgers University who is studying grassland birds at landfills. The birds are mostly confined to fragmented, artificial plots of land where people’s needs will almost always trump animals’.

In an ideal world, airports would just be layovers for grassland birds on their way to roomy tracts of protected land that they could call their own. But those habitats no longer exist. “If we truly want grasshopper sparrows and upland sandpipers to be a significant part of the community, it’s going to take a heck of an effort” to create space for them, says Brian Washburn, a wildlife biologist with the U.S. Department of Agriculture—efforts that people may not be willing to make. Which leaves animals

still turning to airports as places of last resort. Creatures' options are now so limited that even the ones repeatedly booted off the premises will often try to run, slither, or dig themselves back on, says Guiming Wang, a wildlife ecologist at Mississippi State University.

These strange, human-made habitats are now some of the last places in the Northeast where birders can glimpse grassland species and hear their whirring calls. "People from all around the region will come and see them," Ramírez-Garofalo told me. But with the world's appetite for travel increasing, experts such as Hunt, of New Hampshire Audubon, worry that even these few stable bird populations won't be around for long. "It's perfectly reasonable to think that despite everything we're doing, they'll still blink out," she told me. As airports' human clientele grows, their tolerance for their wild and rare residents may only further shrink.

Katherine J. Wu is a staff writer at *The Atlantic.*

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