

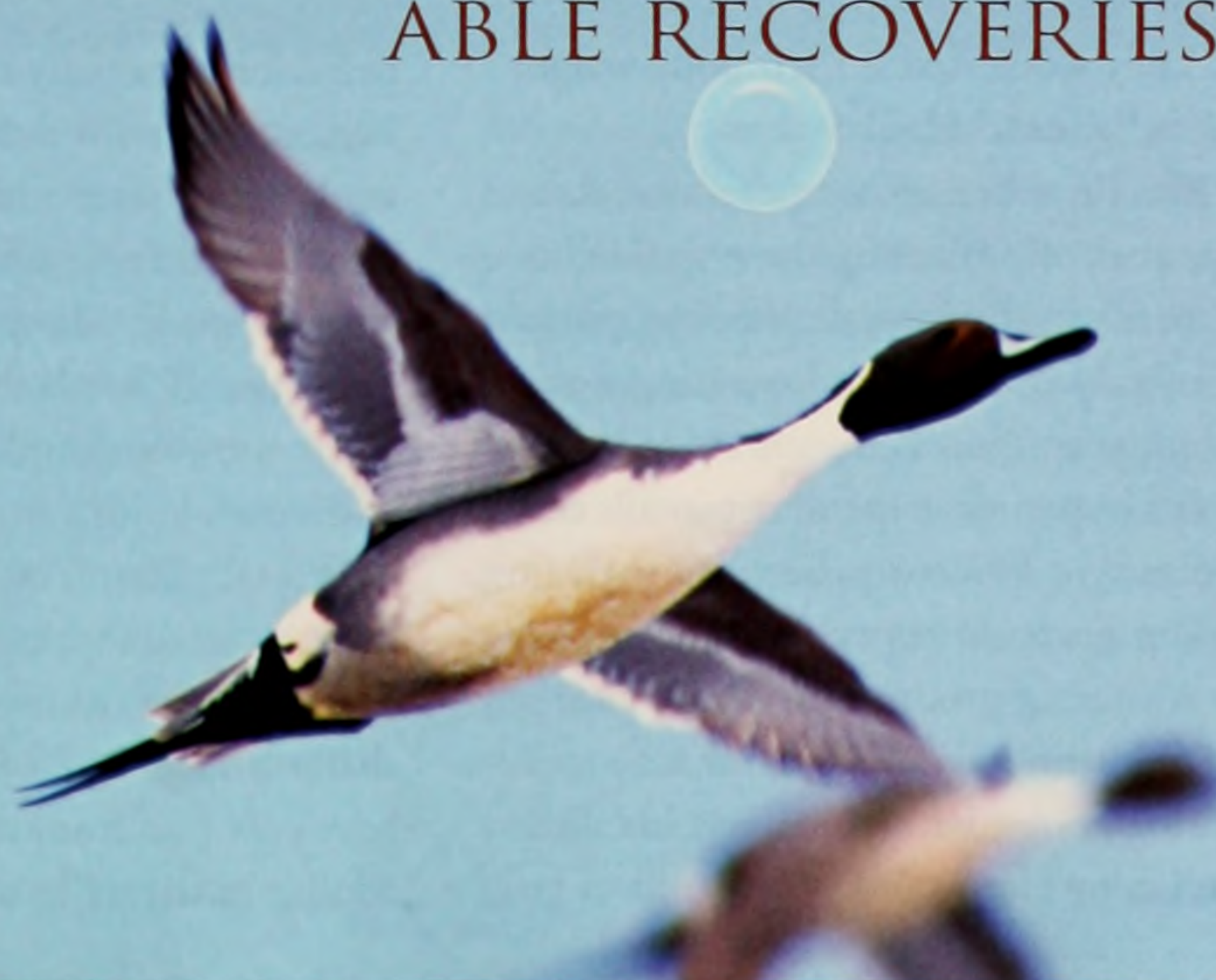
THE CASE OF THE
DISAPPEARED
DUCK

PINTAILS IN FLIGHT BY NEAL AND MARY JANE MISHLER

RING



WHY HAVE PINTAIL
NUMBERS BEEN
DROPPING OVER THE
PAST FEW DECADES,
WHILE OTHER SIMILAR
WATERFOWL SPECIES
HAVE SHOWN REMARK-
ABLE RECOVERIES?



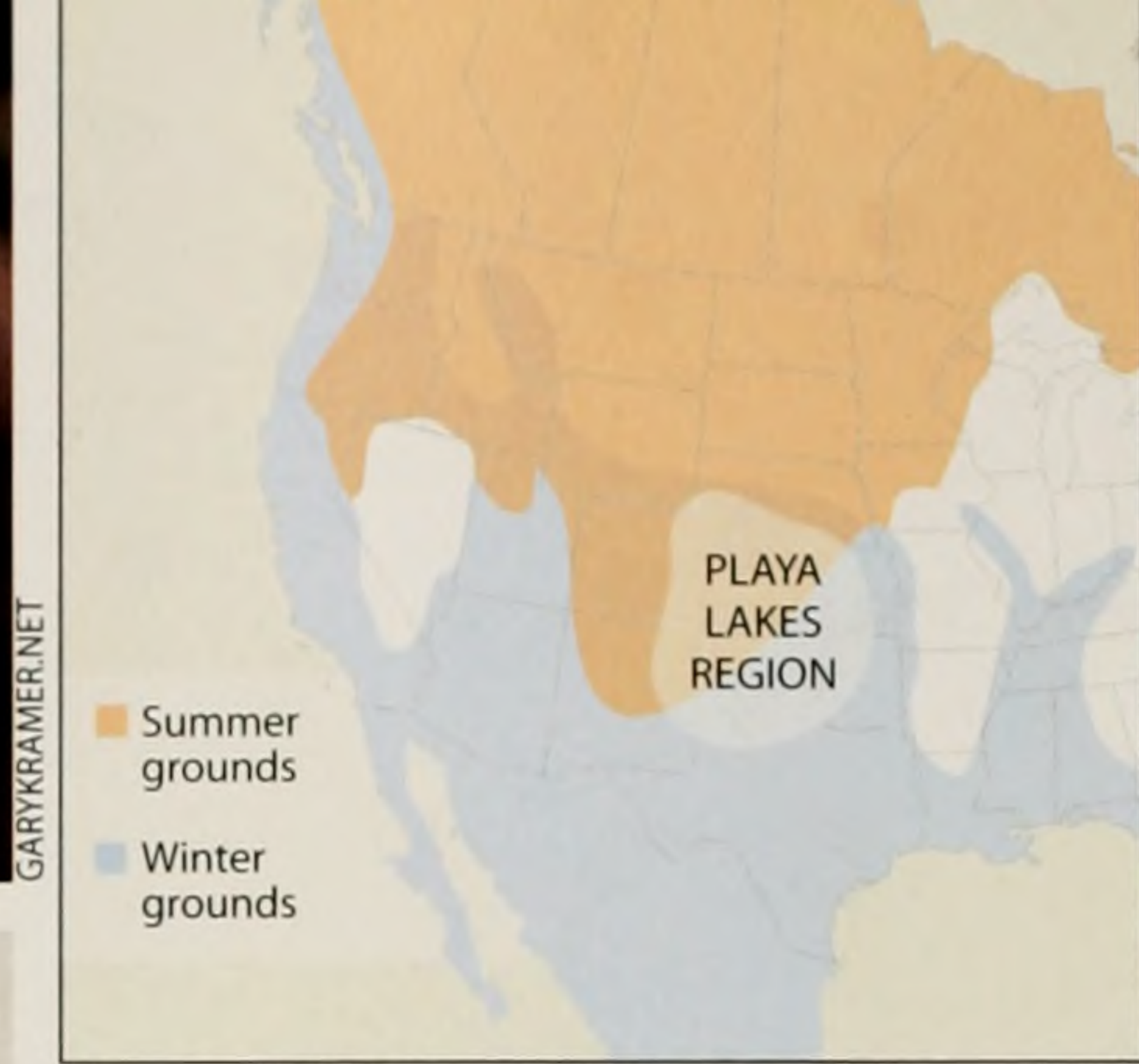
Pintail hen PTT 39534 left California's Central Valley on March 15, 2003.

Three days later, she stopped in northern California and then, by the beginning of the following week, flew to southern Oregon. After another layover in southeastern Oregon, she winged almost nonstop over Idaho and Montana. Satellite signals finally fixed her location in southern Saskatchewan, just north of the Montana border.

On May 3, apparently unable to shake her itch to travel, the tan-colored duck headed south to the Missouri River in western North Dakota. She evidently liked the spot, for she stayed there ten days before flying over Montana once again, en route to the northern Rocky Mountain Front. By the first week of June, the pintail returned to southern Saskatchewan, hobnobbing with tens of thousands of other pintails that recently arrived from wintering grounds in Texas, New Mexico, and California. And then, in what is perhaps symbolic of the plight of the species, PTT 39534 vanished. The duck's signal died on July 21, 2003, at Montana's Lake Francis.

That particular bird was among several dozen pintails fitted with tiny transmitters in 2003, the fourth year of a project aimed at determining pintail migration routes. The study, named Discovery for Recovery, was conducted jointly by Ducks Unlimited, the U.S. Geological Service (USGS), and the private Tuscany Research Institute. A single member of the institute personally donated \$1 million to launch the project.

It is a rare individual who makes that kind of financial commitment to a bird, but pintails (also called sprigs) have long engendered a special reverence from waterfowlers and bird watchers. And the pintail's puzzling decline, with populations dropping while other puddle duck numbers have climbed, is intriguing enough to inspire exceptional contributions to find a solution.



PROBLEMS ON THE PLAYAS Like southern versions of northern prairie potholes, playa lakes (far right) are shallow wetlands filled with a rich stew of invertebrates that ducks need to build fat and protein. A major wintering area for pintails from across North America, the Playa Lakes Region has been degraded by siltation and dehydrated by water withdrawals.

The pintail drake is considered the most graceful and elegant of the ducks. From the tip of his gray beak to the end of his pointed tail, he is as long as a mallard but noticeably slimmer—a thoroughbred to the mallard’s draft horse. Hens are less handsomely colored but otherwise sport the same elegant visage.

Lately, however, their good looks have not been doing pintails much good. Continental populations have steadily declined over the past 50 years. Surveys showed a sharp drop from a high of 10 million pintails in 1955 to fewer than half that just one decade later. Since then, pintail numbers have been up and down, but mostly down. The 2001 estimated population was around 3 million, well below the goal of 5.6 million birds set in 1986 by the North American Waterfowl Management Plan. (State and federal duck managers established the plan to restore continental waterfowl numbers.) Meanwhile, since the late 1980s, populations of most other waterfowl species have either been rising or holding steady.

THE PLAYA LAKES PUZZLE

For the past decade, waterfowl biologists from California to Montana have studied aerial surveys, analyzed data, and monitored habitat trying to learn why pintail populations won’t recover like other duck populations have. One key factor seems to be habitat conditions of pintail wintering grounds—California’s Central Valley and, especially, the Playa Lakes Region of the Texas panhandle and parts of New Mexico, Kansas, Colorado, and Oklahoma. (Pintails

that breed in Montana may spend winters in any of these states.)

“There’s no place else with as many playas as what we have down here,” says David Haukos, a U.S. Fish and Wildlife Service migratory bird biologist at Texas Tech. The small (less than 30 acres) and shallow wetlands, he says, are “a center of plant and animal biodiversity—life kind of revolves around them.”

Unfortunately, these biological centerpieces—sort of the southern high plains’ equivalent of the northern plains’ prairie potholes—are in trouble. Sedimentation is the main problem. Cultivation of land surrounding the wetlands sends silt into the basins, reducing the time they hold water and causing playa lakes to produce less natural vegetation.

“We winter pintails from all over North America,” Haukos says. “If conditions deteriorate in the playas, that can have continental impacts.” The biologist explains that if ducks can’t build up enough fat and protein in winter, they are less able to survive the rigors of spring migration. Even if they survive, “they won’t nest if their body weight is not sufficient,” Haukos says.

While Texas biologists understand the importance of protecting these vital habitats, there’s another puzzle affecting pintails that nobody can explain: Increasingly, migrant pintails from the north arrive in Texas each fall in poorer shape than pintails did 20 years ago. Evidently, between their breeding grounds in prairie Canada and their wintering grounds in Texas, something is hurting pintails. But what?

“To be honest with you,” says Haukos. “I really don’t know.”

DISCOVERY FOR RECOVERY LAUNCHED

He’s not the only one. In 2000, a team of federal and state biologists launched a project to learn what factors limit pintail recovery. For the next four years, the Discovery for Recovery project tracked pintails to learn where they go after leaving wintering grounds in California, New Mexico, and Texas. It turns out the birds end up practically everywhere.

After netting pintails from California’s Central Valley and fitting them with tiny backpack transmitters, USGS research biologist Mike Miller parked himself at a computer terminal and began monitoring the birds. Some wound up in Oregon, the Dakotas, Montana, Canada, Alaska, and even Russia. And they made their trips incredibly fast. One rocketed from northern California to the southern coast of Alaska—an 1,800-mile trip over the ocean—in less than 30 hours. “Pintails,” Miller says, “are flying machines.”

The research scientist says the study revealed other important facets of pintail behavior, especially their habitat use. For instance, pintails avoid large lakes and wetlands in state and national waterfowl refuges and favor small, shallow, temporary wetlands. Many of these “ephemeral” or “seasonal” wetlands, as biologists call them, are wet dimples on private farm and ranch lands.

“Pintails like to associate with cattle pastures in the spring, when the snow melts and the rivers come up and create shallow flooding,” Miller says. “You also have cow pies from the previous year adding nutrients to the wet environment.”

Freelance writer Dave Carty lives in Bozeman.



DENVERBRYAN.COM

Researchers also found that pintails like shallow wetlands in wide open areas, where they can see long distances.

Pintails seem to be extremely particular about where they breed. If they don't find shallow wetlands and flooded pastures when they head north in spring—due to drought or other factors—they keep flying. Eventually the birds may find what they need in northern Canada or Alaska, but by then they may be too exhausted to breed for that year.

The pintail's specialized breeding require-

ments may partially account for why the birds have done poorly in recent years while populations of many similar duck species have increased. Like mallards, gadwalls, wigeon, and several other species, pintails are in the category of dabbling, or puddle ducks. They feed mainly in wetlands, tipping down (dabbling) to feed on underwater vegetation or aquatic insects just below the water surface.

Since the late 1980s, numbers of other puddle ducks have rebounded after dropping in the early 1980s. That's been due to

ample precipitation in the Prairie Pothole Region, where most of these ducks breed, and to the Conservation Reserve Program (CRP), a federal program in the United States that pays farmers to retire unproductive land and plant it in grasses (which ducks use for nesting).

During the 1990s, pintail numbers rose slightly in response to rains that filled dry wetlands, but not as much as other dabblers, particularly mallards. "One reason is that pintails don't use the dense CRP cover as much as other ducks do," says Jeff



STUBBLE TROUBLE When shortgrass prairies in southern Canada were converted to wheat, pintails nested in the spring stubble (left), only to have their nests plowed under. Recent plantings of winter wheat allow the ducks to bring off broods before the tractors arrive.

RODNEY SCHLECHT

GARYKRAMER.NET

Herbert, assistant FWP Wildlife Division chief. “They prefer shortgrass cover.”

Herbert and other northern waterfowl experts also say the recent drought and declining habitat in prairie Canada likely contribute to the pintail population’s struggle to recover. And when biologists talk “habitat” in that critical part of the pintail’s range, they often mean “agriculture.”

A BETTER WHEAT FOR PINTAILS

Historically, pintails have nested in short prairie grass near seasonal wetlands. These days, however, much shortgrass prairie in southern Canada provinces has been plowed up and converted to wheat fields. After harvesting wheat in late summer, Canadian farmers often leave the foot-high stubble over the winter. The stubble looks enough like short prairie grass to attract nesting pairs of pintails the following April. But when the spring planting season rolls around the following month, the farmers plow up the stubble—and any nests in it.

Increasingly, however, Canadian farmers are planting what is called winter wheat in the fall after their regular wheat harvest. Winter wheat sprouts the next spring, providing nesting cover for pintails. And it is not harvested until summer, well after most pintails have hatched and left the nest.

This agricultural conversion has not gone unnoticed by Ducks Unlimited

Canada. “We are taking a multifaceted approach to encourage the adoption of winter wheat,” says the organization’s conservation planning biologist, Karla Guyn. “The first thing we did was establish an eco-agriculture chair at the University of Saskatchewan, which is held by a winter wheat breeder.” That breeder, adds Guyn, developed new varieties of winter wheat that work well on southern Canada farms.

Wide-scale adoption of winter wheat will take time. That variety of the grain is not nearly as common in Saskatchewan and Alberta as it is in Montana and North Dakota. Encouraging Canadian farmers to change lifelong habits means getting them to embrace a cultural shift. With that in mind, Ducks Unlimited Canada launched a program that pays nominal sums to influential farmers in important waterfowl areas to grow winter wheat and then spread the word.

“So far,” says Guyn, “the response has been good.”

MONTANA’S PINTAILS

Meanwhile in Montana, North Dakota, and other United States breeding areas, state waterfowl biologists are praying for rain. And, at least in spring and early summer of 2005, they got it.

“Pintail numbers here have been down during the drought years,” says Jim Hansen, FWP’s Central Flyway coordinator. “But we figure that’s a temporary situation.

When the water comes back, the pintails will be back more where they’re supposed to be.” Although Montana’s pintail population (as well as those in Alaska and northern Canada) has been holding steady over the past decade, the state is embracing what biologists call a “landscape-level” approach to conserving pintails.

“The concept makes sense,” says Hansen. “Instead of looking at an individual pond here or there, we will look at an entire ranch or an entire portion of a county and try to figure out what we can do to help pintails and landowners—grazing systems, conservation easements, wetland preservation, that type of thing. We’re looking at the big picture rather than just focusing on one small project at a time.”

Such an approach does make sense. Pintails are truly a continental duck, covering much of western North America from the Gulf Coast to the Bering Sea. They use habitats as diverse as soggy southern rice plantations and dry northern wheat fields. Waterfowl managers understand that if they hope to identify and then address the reasons for the bird’s frustratingly persistent population decline, they’ll need to examine every aspect of the pintail’s various habitats and behaviors. Biologists, hunters, and other conservationists hope that enough research will help them solve the case of the disappearing duck and find ways to restore populations of this graceful, elegant bird across western North America. 🐼