



BOB PEPPING/TIMES

BRIAN MURPHY climbs a ladder to check a box nest Wednesday along Walnut Creek channel in Walnut Creek. The boxes are meant to promote the breeding of wood ducks.

Volunteers try to restore wood duck population

Contra Costa Times

2006

By Denis Cuff
TIMES STAFF WRITER

When California's creeks and rivers ran wild and created riparian forests, a shy and colorful bird called the wood duck flourished in the cavities of old trees.

The birds became scarce in the early 1900s, when people straightened creeks and cleared the trees.

The wood duck is making a comeback these days, though, as conservationists install wooden box nests on creeks, including the Walnut Creek channel that flows through the city with the same name.

See DUCK, Page 4



BOB MCLANDRESS/CALIFORNIA WATERFOWL ASSOCIATION

WOOD DUCKS are on the receiving end of donations from the Mt. Diablo Audubon and the California Waterfowl Association.

WHERE WE LIVE
WALNUT CREEK CHANNEL

C.C. Jones
2006



BOB PEPPING/TIMES

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Duck

2006
Costa Times

FROM PAGE 3

"The only thing the ducks lack here is housing. We're giving it to them," said Brian Murphy, a member of the Audubon Society's Mt. Diablo chapter.

In the past six weeks, Murphy and other Audubon volunteers installed 10 box nests on trees in a partially natural stretch of the creek flowing past the downtown civic park and library.

"It's an experiment to see if the box nests can be successful in an area this urbanized," Murphy said.

Male wood ducks are known for their brilliant colors — iridescent maroon, green, purple and white.

They nest in holes in old trees along waterways.

But this creek, like most in California, no longer is lined with ancient trees.

Property owners and government agencies long ago narrowed Walnut Creek to prevent flooding, allowing storm flows to move so fast that they washed away aging trees before they had time to develop cavities.

The wooden boxes provide a substitute.

The volunteers' work doesn't stop when the boxes go up.

Workers must regularly check the nests to prevent squirrels or starlings from moving in before the ducks do.

On a recent check-up, Murphy climbed up a ladder to inspect a box screwed to a tree.

"Nothing inside. It looks good," he said from atop the ladder.

He had brought wood chips in case the nest needed more insulation. It didn't.

More nests may be added later if the first ones produce ducklings, he said.

The Audubon Society teamed for this project with the California Waterfowl Association, which provided money and technical advice.

These were not the first box nests installed in town. Individuals have installed others on smaller creeks, but this was the

first time a conservationist group has organized a project on Walnut Creek.

The waterfowl association has been organizing wood duck nest projects since 1991 and credits them with increasing wood duck abundance in the Pacific Flyway in California, Oregon and Washington.

"Walnut Creek is one of our more urbanized areas to have a project," said Jeremy Kwolek, a biologist with the association. "But with all the growth in our state, we expect to see more projects in areas like this."

People interested in volunteering for the Walnut Creek wood duck box nest project can call Murphy at 925-937-8835.

Contact reporter Denis Cuff
at 925-943-8267 or
dcuff@cctimes.com.

JOSE CARLOS FAJARDO/TIMES

U.S. ARMY MASTER SGT. RANDALL HIGGINS looks over the vast 5,170 acres of land designated as the Inland Area of the Concord Naval Weapons Station, which will be transferred to the city of Concord from the federal government. The president of the Mt. Diablo Audubon Society argues that Concord could provide bold leadership by making it into a grand park modeled on Golden Gate Park in San Francisco.

JIMM EDGAR • From the environmental community

Q. C. James 5/20/06

Bold vision for Concord, create a grand park

NEARLY 140 years ago, community leaders in San Francisco, out of concern that future families would one day feel overcrowded, came together to create one of the greatest parks in the world — Golden Gate Park, which is home to more than 1 million trees and 120 bird species. About 75,000 people visit it on an average weekend.

The community leaders of the East Bay, after seeing the Golden Gate Park success, took a similar bold step 65 years ago by making public watershed lands in the Oakland and Berkeley hills into the beautiful chain of regional parks that we enjoy today.

The Board of Mt. Diablo Audubon Society believes that now is the time for our generation's community leaders to take the same bold and inspired steps that community leaders in San Francisco and the East Bay also took. Concord, and all of Central Contra Costa County's political and community leaders should come together in support of a sustainable general plan for Concord, including Concord's version of Golden Gate Park.

When compared with other development alternatives, we believe that community leaders will see that the public interest, the local economy and public health will be better served by converting all of the vast lands that are already owned by the public, but currently occupied by the Navy, into a regional park.

With bold vision, Concord can promote moderate new growth in existing developed areas while creating a wonderful new area for its future citizens to enjoy. And they will see the historic value in making part of those lands, Tule Elk, friendly again.

You can have open spaces in your back yard if you are willing to make it happen.

The Board of Mt. Diablo Audubon Society encourages the City Council to visualize what the community can look like in 100 years with a vast regional park, in contrast to more suburban problems that development creates.

This beautiful park would be

a short hop for local residents and would open up a vast open area for active and passive enjoyment. With the North Concord BART Station as a staging point, residents from across the region could come to Concord's signature park.

Residents in Concord and Central Contra Costa County are weary of continued traffic jams caused by rapid growth, widened highways and bridges.

By officially converting the entirety of the Naval Weapons Station public lands into a public park, the City Council will set an inspired example for other local communities.

With bold leadership, Concord can improve the quality of life for generations to come without increasing traffic on our regional roads and highways.

We encourage the residents, community leaders and elected

officials in Concord and across Contra Costa County to give this issue careful consideration.

We believe that our alternative vision should be a major focal point for discussion as Concord moves forward on this critical decision.

Edgar is president of the Mt. Diablo Audubon Society, www.diabloaudubon.com/index.php or 925-934-1334.

Grand public park

C.C. James 6-10-06

Concord should take the lead in creating a grand public park like the Golden Gate Park, with multiple public uses including, sports fields, museums, a model airplane park, nature center, community center and vast open areas with bike and hiking paths.

The Diablo Creek should be a centerpiece to a large regional park open space adjacent to the more public areas. Please bring back the elk with plans to include allowing a small herd of tule elk to use part of the tidal areas of the base (still in Defense Department control).

Please improve our quality of life with a wonderful new park for the East Bay. If you build it we will come.

**Kent Fickett
Orinda**

TODAY'S QUESTION

What should be done with the Concord Naval Weapons Station so that it best benefits the entire East Bay?

Unique opportunity

These lands, used by the Navy and owned by the public, should be left as open space to benefit the entire Bay area just as Golden Gate Park and other parks do. This is a unique opportunity to create something generation after generation will benefit from. The access by BART and highway are added benefits.

**Jim Edgar
Oakland**

Public park

As a longtime local resident, I feel we've had enough new development for my generation. It is time for a serious time out from construction, traffic and cramped quarters along the Highway 242-Interstate 680 corridor. The cooling housing market is telling us people are not clamoring for more housing in our area.

The commentary last week by Mount Diablo Audubon Society was right on the mark. Our community has a historic opportunity to reserve the Navy lands for a large suburban park, one that my kids and grandchildren, will be able to enjoy. Who really wants more people living in our backyards? Let's give this land back to the public, now and forever.

**Patrick King
Pleasant Hill**





NICK DUNLOP

A YOUNG BALD EAGLE, one of two that has hatched in Contra Costa County for the first time documented, flies near its nest on remote land between Orinda and El Sobrante.

SOARING

By Denis Cuff
TIMES STAFF WRITER

Contra Costa Times 7-29-2006

A pair of bald eagles has nested and hatched offspring in Contra Costa County for the first time documented, marking another milestone in the recovery of the national bird.

An East Bay Municipal Utility District ranger earlier this month discovered the nest with two eaglets on remote lands used as a pollution buffer for the San Pablo and Briones drinking water reservoirs north of Orinda.

The two eaglets, a sister and brother, learned to fly and left the nest.

Their appearance mirrors a national trend in which the acrobatic flier with the fierce look is expanding its breeding territory after teetering on the brink of extinction in the 1960s and '70s.

"To have open spaces in the East Bay where you have these beautiful birds is really wonderful," said Roger Hartwell, EBMUD's supervising fishery and wildlife biologist. "You may never see a bald eagle. They avoid people, but it's rewarding to know they're out there."

Wildlife experts say they can find no documented evidence of a Contra Costa bald eagle nest in records dating back to the 1920s.

They might have lived in the area earlier, maybe even centuries ago.

Biologists offer several reasons why the proud eagle parents picked the Contra Costa site to build a home:

- Pine trees planted on water district reservoir lands between Orinda and El Sobrante have matured, providing attractive perching and nesting spots.

- Bald eagle numbers are up nationally since

Bald eagle

(*Haliaeetus leucocephalus*)



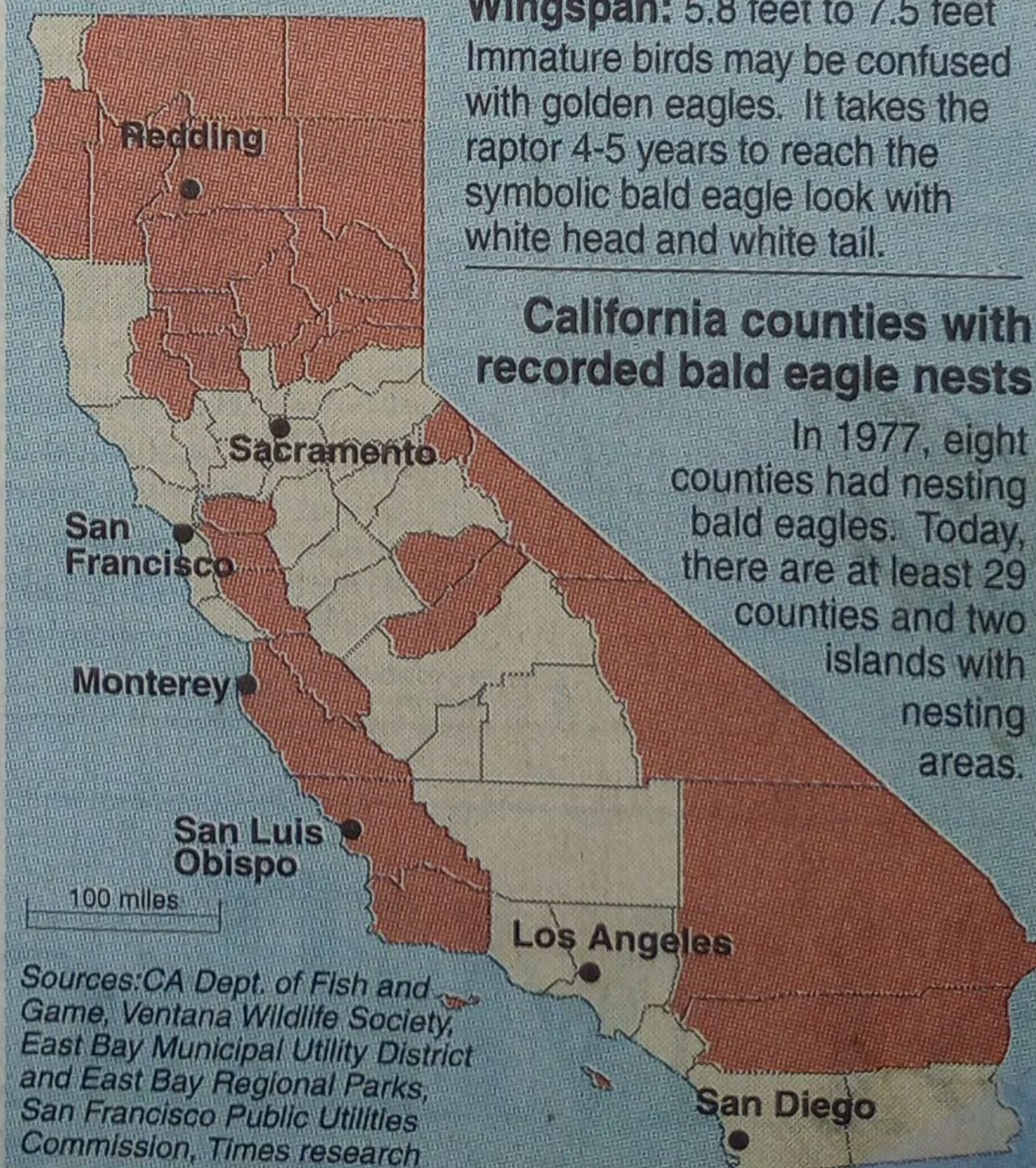
Nick Dunlop

Threatened: The bald eagle, a national symbol, was headed toward extinction, but the banning of DDT in 1972 helped bring it back. The federal government upgraded the bald eagle from endangered to threatened status in 1995 and now is considering removing the threatened status.

Wingspan: 5.8 feet to 7.5 feet
Immature birds may be confused with golden eagles. It takes the raptor 4-5 years to reach the symbolic bald eagle look with white head and white tail.

California counties with recorded bald eagle nests

In 1977, eight counties had nesting bald eagles. Today, there are at least 29 counties and two islands with nesting areas.



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TIMES

Eagles

Contra Costa Times 7-29-2006

FROM PAGE 1

the 1970s, when the eagle benefited from habitat protections and a ban on the pesticide DDT, which weakened eagle egg shells.

Bald eagle nesting pairs in California increased from about 30 in 1977, when they all lived north of Lake Shasta, to about 200 currently, according to the state Department of Fish and Game.

■ Conservationists planted 70 eaglets from Alaska and other areas in Big Sur between 1986 and 2000. Organizers hoped the picky birds would settle along the central coast between San Francisco and Santa Barbara.

It turned out the young eagles weren't big beach fans, but settled inland around reservoirs flush with fish, an eagle favorite.

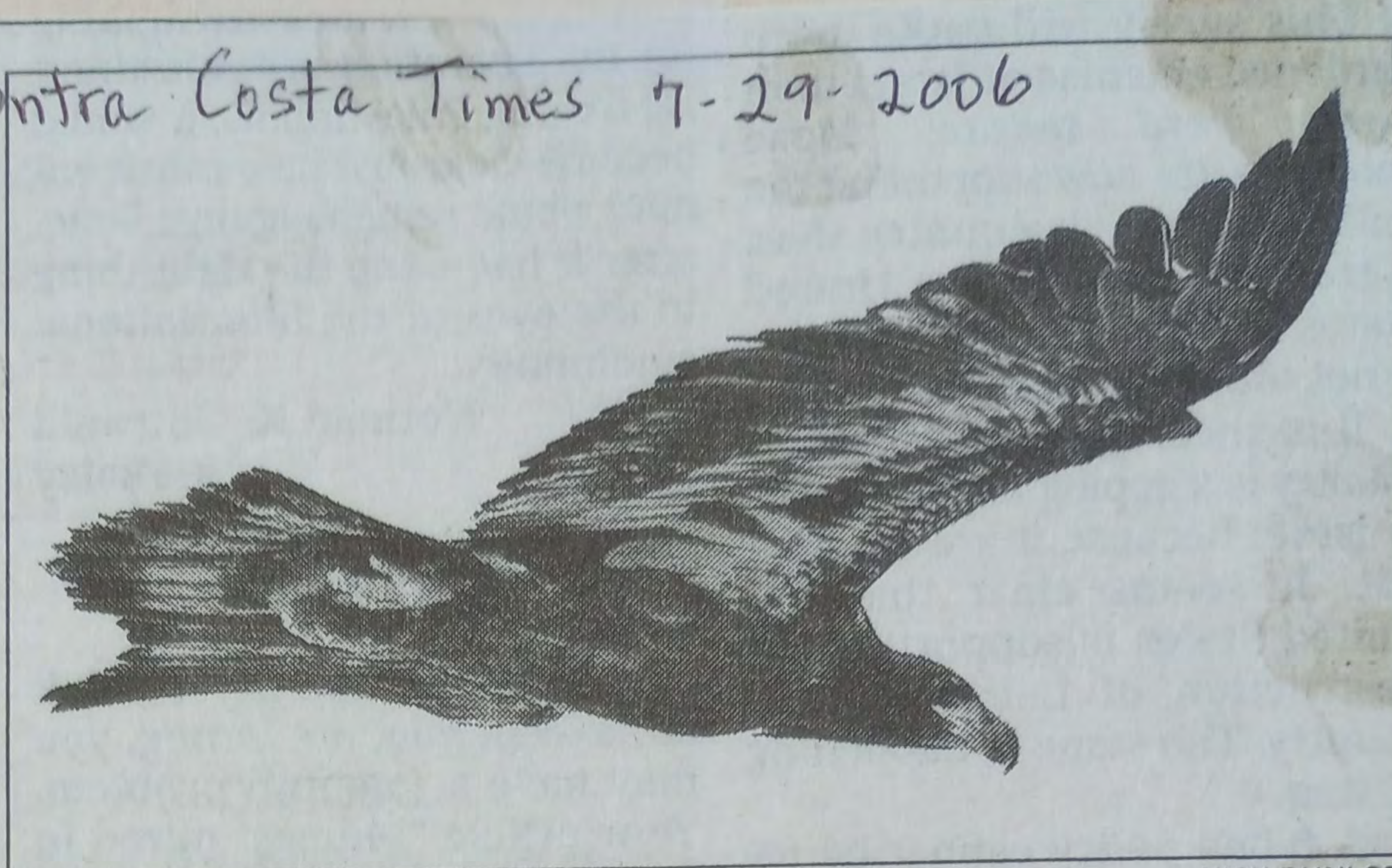
"We believe the eagle pair in Contra Costa are likely related to the eagles introduced to Big Sur," said Kelly Sorenson, executive director of the Ventana Wildlife Society, a partner in the project. Because eagles tend to build nests where they grow up, planting eaglets speeded their spread through California, Sorenson said.

EBMUD officials say they don't know where their eagles came from.

The pair acted with such stealth that they apparently built the nest two years ago and escaped attention until weeks ago.

The water district is not divulging the nest location to minimize the risk of human disturbance.

It is not unusual for bald eagles to visit the Bay Area. But



NICK DUNLOP

A NEWLY DISCOVERED NEST of a bald eagle is a tangible result of efforts to protect wildlife, according to Roger Hartwell, EBMUD's supervising fishery and wildlife biologist.

there were no known nests in the Bay Area in 1996, when a pair built a nest overlooking Del Valle Reservoir near Livermore.

The mom was an Alaskan bird introduced to Big Sur as an eaglet.

The Del Valle pair became instant media stars. Many visitors came to watch the family through binoculars and spotting scopes from the other side of the lake.

Some bird watchers worried the attention would drive them away. The pair stayed, however, until three years ago, when the couple moved onto private land and continued breeding there, park officials said. "We don't think human activity drove them away," said Joe Didonato, the East Bay Regional Park District stewardship manager.

Meanwhile, another bald eagle nest was discovered this year in a rugged site off limits to the public on lands draining into the Calaveras Reservoir in Santa Clara County.

That means there are at least three active Bay Area nesting sites on large swaths of wild territory.

Hartwell of EBMUD said the new eagle nest is a tangible result of his agency protecting its reservoir lands and managing them to protect wildlife and water quality.

Meanwhile, the federal government is considering removing the bald eagle from threatened status because of its rising numbers.

Whether or not that happens, one Contra Costa conservationist says he is delighted by the eagle nest on his home turf.

"They are just awesome, extremely powerful birds," said Mike Williams, vice president of the Mount Diablo Chapter of the Audubon Society.

"I'm glad they're coming back."

Contact Denis Cuff at 925-943-8267 or dcuff@cctimes.com.

Condors flying high above Grand Canyon

By Larry Bleiberg
DALLAS MORNING NEWS

GRAND CANYON, Ariz. — Visitors usually come to the Grand Canyon to look down.

Now there's a reason to look up.

Dozens of California condors, a species nearly extinct 20 years ago, soar in the wild above northern Arizona.

Many can be seen at the South Rim of Grand Canyon National Park, riding thermals in the sky in sight of the thousands of guests who visit daily.

The condors, the largest land-based bird in North America, stand 4 feet tall and sport a wingspan of more than 9 feet. They are easy to spot: large, jet-black birds with triangular white patches on the bottoms of their wings.

The birds have attracted quite a following.

Shelly and Jon Soderberg of Sacramento had been waiting 90 minutes to see them. Joining them were their 12-year-old son and his friend. Suddenly, two condors began circling above the canyon's Bright Angel Trail, briefly perching on rocks a few dozen feet from the rim.

"It's a bit neater seeing them here than at the zoo," Soderberg said as he zoomed in on them with a digital camera.

Saving the birds has taken decades. Condors, which once lived throughout North America, saw their territory decline over the millennia. But the population plummeted in the past century because of habitat loss, pesticides and hunting (the birds are scavengers, and those that eat game shot by hunters are poisoned by the lead in the ammunition).

By 1982, the birds were all but gone. Only 22 remained.

"It's about as close to extinct as you can come," said Thom Lord, field manager for the Peregrine Fund, an international bird conservation group.

If you go

CONDOR VIEWING TIPS

Condors are often seen near the South Rim of the Grand Canyon from spring through early fall. The best time for viewing is 9 a.m.-10 a.m. and around 5 p.m.

FOR MORE INFORMATION

Grand Canyon National Park, including travel resources, www.nps.gov/grca.

Arizona travel resources, www.arizonaguide.com.

Condor information, www.peregrinefund.org, listed under "Conservation Projects."

In a last-ditch effort to save the species in 1987, biologists removed all of the birds from the wild. Then conservationists began a breeding program at zoos in California and Oregon. Success came quickly. After five years, the population had bounced back to a few hundred birds.

When it was time to reintroduce them to the wild, some birds were returned to Southern California, but as an experiment, six were brought to northern Arizona, where they had not been seen since 1924.

The condors had trouble adapting. Most were juveniles that didn't know proper bird behavior. For example, several roosted near the ground, where they were prey to coyotes. Another drank antifreeze and died. And many are still hurt by lead poisoning.

Now there are about 70 condors in northern Arizona, and up to 20 may be in the Grand Canyon area at any time. The conservation effort and reintroduction

► **CONDORS:** Page E3

THURSDAY, AU

Visitors once

► CONDORS From Page E2

has been coordinated by the Peregrine Fund, which helps birds to keep their way.

"We follow them and keep them safe," Lord said. "We want to see them."

All condors are tracked yearly for miles and each is equipped with a transmitter that works like an iPod.

That's why visitors to the Grand Canyon can spot a field assistant on the rim, waving an antenna at the condors in the air.

Field assistants said canyon visitors have questions. So they are searching for phone signals.

Benefield said condors are closely monitored and must be kept away from humans. "We're keeping the birds safe from them or making sure they get too far from the canyon crowd."

But visitors are warned of the scavenger's danger. Christian

Huge much

► California's largest North American-based bird.

► They nest because of power-line collisions.

► At one point across North America, there were 6,000 condors.

Birds warn of a warming world

By *Ellie M. Cohen*

I recently had the honor of speaking to 80 San Francisco middle-school students about climate change and the role of conserving nature in securing our future. When I asked if they could name any greenhouse gases, from across the room students shouted "carbon dioxide."

But when asked what nature provides that we humans rely on every day, the room was silent until one daring girl called out "water."

These bright youngsters did not readily make the link between global warming and "ecosystem services" — nature's provisioning of freshwater, food, timber, fisheries, recreation, pest control, pollination, climate regulation, flood control and more. These services are a focus of the newest Intergovernmental Panel on Climate Change (IPCC) report due out today.

Global warming is projected to produce dire consequences for hundreds of millions of people and wildlife due to sea-level rise, more extreme weather and severe water shortages.

The grim predictions are that by 2050, as many as one-third of all animal and plant species on Earth will become extinct.

Like the canaries in the coal mines in decades past, birds today are warning us of threats to our very way of life. Biologists at PRBO Conservation Science are already witnessing major

Lobby for nature

To ask your state legislators and U.S. representatives to kick the fossil-fuel habit entirely by 2020, as Sweden is committed to, and to make ecosystem conservation an equally high priority, go to:

www.legislature.ca.gov/

www.congress.org

changes from Alaska to Antarctica — and especially here in California.

During the past two years, our scientists at the Farallon National Wildlife Refuge, 27 miles west of San Francisco, found that Cassin's auklets — small seabirds related to puffins — abandoned their nests en masse, an unprecedented breeding failure. Essentially, no chicks survived. At the height of the breeding season, parents couldn't find enough of a typically plentiful food source — shrimp-like krill — which also sustain whales, salmon and other marine wildlife. Wind patterns and ocean currents that drive the typically rich ocean food web off of our coast are changing in unpredictable and potentially devastating ways.

In Central California, migratory songbirds are arriving earlier in the spring to breed and later in the fall to over-winter, disrupting the long-evolved timing between birds and their plant or insect food sources and threatening some birds with extinction.

Our Sonoran Desert study areas experienced the most severe drought conditions on record in 2006, causing dramatically reduced breeding success, and in some cases, no breeding attempts of native songbirds.

To mitigate global warming impacts and help ensure the survival of human communities as well as the

natural communities we rely on, we must redouble society's investments in ecosystem conservation.

Investing in riverside corridor expansion and restoration to manage and store water will provide flood control, recreation and critical habitat for birds and fish. Riparian conservation can mitigate predicted water shortages as less water is stored in the Sierra snowpack and more is released in intense rain storms.

Protecting tidal habitats — and adjacent uplands to which tidal habitats can move as sea levels rise — can reduce the destructiveness of extreme storms, slow impacts of rising seas and increase carbon removal from the atmosphere while continuing to nurture fisheries and birds.

Establishing marine reserves to protect ever-changing ocean food webs is essential to preserving our coastal economy and communities as well as whales, seals, sea lions, sea turtles and seabirds.

Thankfully, politicians are beginning to respond to the growing public outcry to kick our fossil-fuel addiction entirely, but legislation to simultaneously expand conservation efforts is conspicuously lacking.

When talking to those 11-to-14-year-olds last month, I couldn't help thinking how much the world has changed. When I was their age, the landing of a man on the Moon captured the world's imagination, fueling dreams of a future filled with peace and plenty. We must collectively dream again, but this time of neighbors, communities, states and nations working together to stop greenhouse-gas pollution *and* to conserve ecosystems. Our future depends on it.

Ellie M. Cohen is executive director of PRBO Conservation Science, www.prbo.org.

Contra Costa Times 6-15-2007
c.c.
Times
6/15/07

Ordinary birds becoming rarer



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of PRBO Conservation Science, www.prbo.org.

Contra Costa Times 6-15-2007 C.C. Times 6/15/07

Ordinary birds becoming rarer

By Sonya Hubbard
MEDIANEWS STAFF

OAKLAND — "What does a robin look like?"

That's the troubling response that Leora Feeney often hears from third-graders after she tells them that the California Least Tern "is about the size of a robin."

Feeney, who worked for 30 years as a wildlife biologist, volunteers in the Alameda School District and teaches children about birds.

"There has been a big change in the past five years," Feeney said. "The robin was always the standard that kids understood."

Third-graders in Alameda County are not the only ones who might not be able to identify robins, grosbeaks, chickadees and sparrows.

A growing number of America's most common bird species have declined significantly since 1967, according to a report released Thursday by the National Audubon Society.

"These are not rare or exotic birds we're talking about," said Carol Browner, Audubon's chairwoman. "These are the birds that visit our feeders and congregate at nearby lakes and seashores, and yet they are disappearing day by day."

Browner served as EPA administrator from 1993 to 2001.

For a species to be designated as "common," it must have a population of at least 500,000 birds.

The Audubon report states that although these species "are not in immediate danger of extinction ... even birds with significantly higher overall populations are experiencing sharp declines; and with their populations down sharply, their ecological roles are going unfilled and their ultimate fate is uncertain."

The report attributes their shrinking numbers to the loss of habitat, more industrialized farms and urban development, and climate change.

Substances such as pesticides can cause secondary poisoning after the birds eat insects and grasses treated with the chemicals.

Even species that are flourishing such as Canada Geese can be a problem because they represent competition for food.

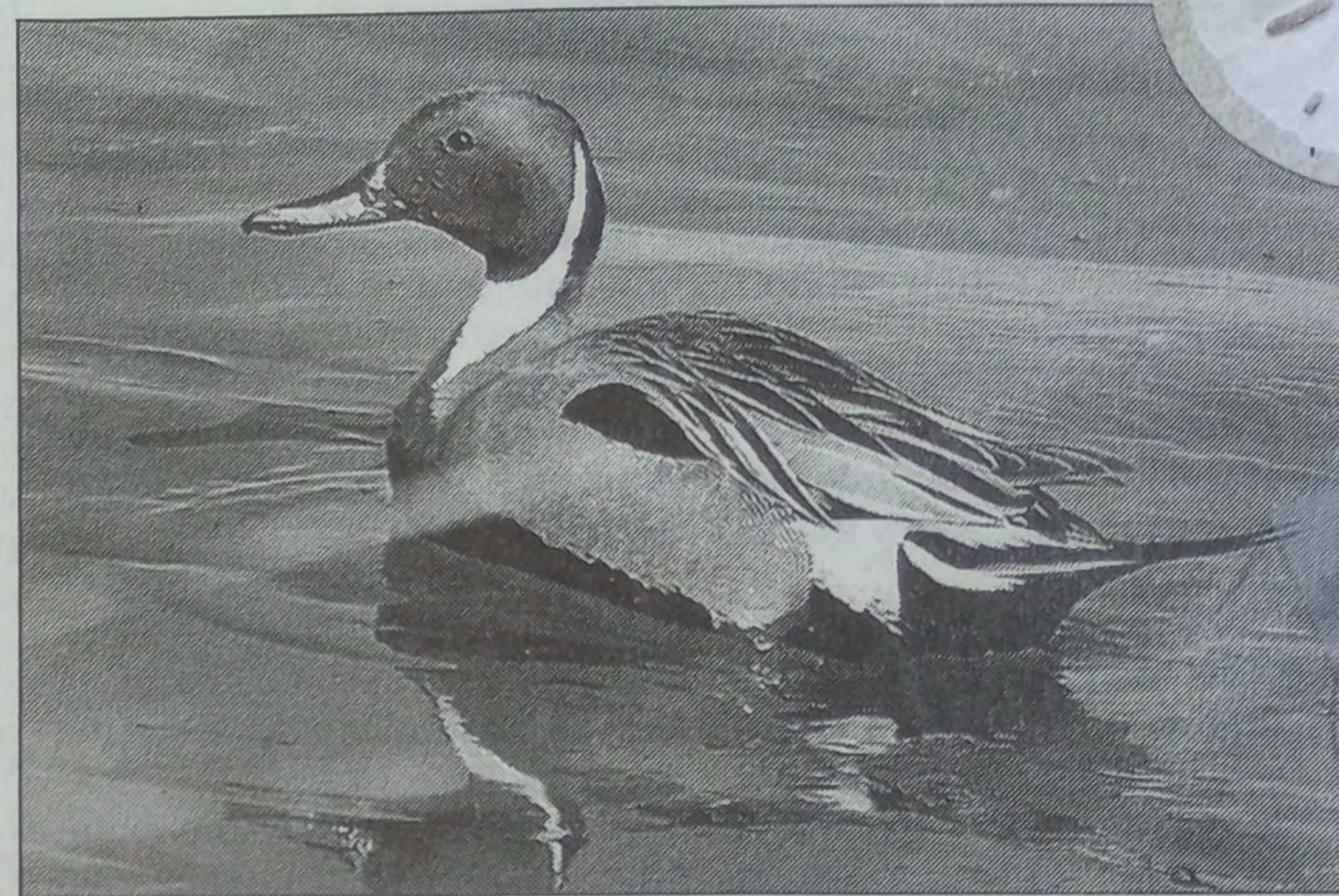
The report's conclusions are based on the number of birds sighted by tens of thousands of volunteers.

The analysis includes data from Audubon's annual Christmas Bird Count program as well as from the U.S. Geological Survey's annual Breeding Bird Survey.

This is the first time that a report has included both sources.

Declining bird populations affect the state and the Bay Area, too.

"I've seen a radical decline in recent years," said Elizabeth Murdock, executive director of



NATIONAL AUDUBON SOCIETY

THE NORTHERN PINTAIL DUCK is among the bird populations that have decreased. Its population is down 77 percent since 1967.

the Golden Gate Audubon Society. "What humans do and where we go is driving this decline in both area seabirds and shorebirds."

"Every time you pull one string of the web in nature, it has consequences throughout the entire system," Murdock said. "That's why we're working to protect bird populations and restore habitats for our native species."

Audubon's report lists California's "five birds of concern" as the Northern Pintail, Horned Lark, Loggerhead Shrike, Lark Sparrow and Evening Grosbeak.

In the Bay Area, some of the bird species in decline include the White-winged Scoter, Surf Scoter, Canvasback, California quail and Olive-sided Flycatcher.

By issuing what they say is a "wake-up call," Audubon officials at both the national and local levels stress that there is still time for people to reverse the current trend.

Simple steps such as landscaping with native plants and those that produce berries and seeds for the birds can help. Pet owners can do their part by not leaving pet food outdoors that could attract predators such as possums, raccoons and skunks and cause them to multiply.

Feeney says that the issue of declining bird populations is bigger than people realize.

"I'm an avid believer that as people lose their connection with nature they become less able to solve even greater problems that relate to survival," she said.

Feeney and other conservationists hope that the decline in common birds like robins can be reversed so that future generations can recognize and enjoy them as they once did.

"Kids used to learn about robins from their families, or from being out in their gardens or backyards. For a number of third-graders not to know what a robin is really raises a red flag."

East Contra Costa County Habitat Conservation Plan

James
4/23/09



San Joaquin Kit Fox

*California Threatened Species
Federal Endangered Species*

Increasing isolation of populations of these cat-sized foxes through habitat loss and barriers to movement limit dispersal to and habitation of existing and former lands.



Golden Eagle

*California Fully Protected Species
Federal Protected Species*

Cattle ranching can benefit the golden eagle if grazing is maintained at levels that stimulate growth of foods used by prey species.



Townsend's Western Big-Eared Bat

California Species of Special Concern

Bats highly sensitive to roost disturbance; pesticide contamination may threaten this species in agricultural areas.



Burrowing Owl

California Species of Special Concern

Population threatened by loss of habitat and decline in populations of rodents, such as ground squirrels.



Tricolored Blackbird

California Species of Special Concern

Loss and alteration of habitat are damaging population. Predation is a major cause of complete nesting failure at some colonies in the Central Valley.



Swainson's Hawk

California Threatened Species

Loss of high-quality foraging habitat is probably the most significant threat to the species' population.



Red-Legged Frog

*California Endangered Species
Federal Threatened Species*

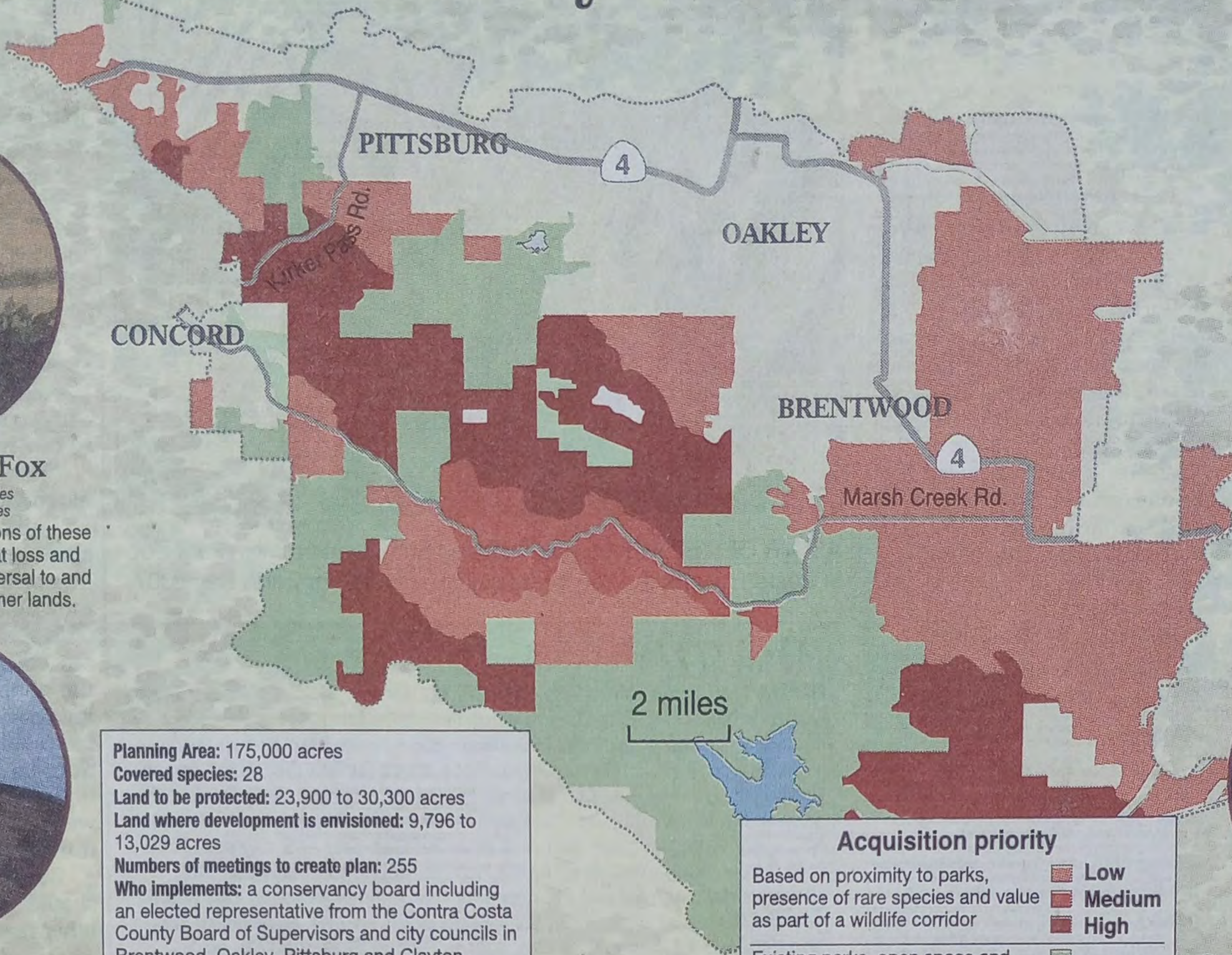
Populations are threatened by numerous human activities, and wind-borne agrochemicals may be an important factor in their decline.



Western Pond Turtle

California Species of Special Concern

The turtle faces many threats, including agricultural activities, loss of upland nesting habitats and presence of nonnative predators.



Alameda Whipsnake

Federal Threatened Species

Alameda whipsnake populations have declined because of loss of habitat resulting from urban expansion.



California Tiger Salamander

*California Species of Special Concern
Federal Threatened Species*

Populations have declined because of widespread habitat loss and habitat fragmentation.



Vernal Pool Fairy Shrimp

Federal Threatened Species

Shrimp threatened by loss of habitat to agricultural lands and urban development, and stochastic extinction because of the small and isolated nature of remaining populations.

Model for success

By Denis Cuff
TIMES STAFF WRITER

CREATORS of the East Contra Costa habitat plan struggled for more than 10 years to devise a new way to protect rare plants and animals while permitting more housing in booming East County.

After all, California had few other conservation plans, and they often were plagued by discord or lawsuits.

Now that it's finished, though, the East Contra Costa habitat plan in-

cludes innovative measures to steer clear of pitfalls others faced in collecting developer fees to buy and preserve habitat.

"I think this plan will be a model," said Sheila Larson, a U.S. Fish and Wildlife Service senior biologist who has closely monitored the East County plan.

"They had a lot of time to look at other plans."

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Habitat

FROM PAGE 1

The East Contra Costa plan got its last needed city approval from the Pittsburg City Council last week.

Pittsburg will now team up with Contra Costa County and the cities of Brentwood, Oakley and Clayton to collect hefty new development fees to protect 47 square miles during the next 30 years for a network of nature preserves.

A new nonprofit conservancy run by a board of elected county and municipal officials will oversee the \$300 million plan, the second major regional habitat plan in Northern California.

Plans have been set up in fast-growing Riverside, San Diego and Orange counties, and others are now being prepared in Northern and Southern California.

The final approval of the East Contra Costa plan came more than a decade after representatives of landowners, conservation groups, builders, local governments, and state and federal wildlife regulators began talking about it.

Their first meeting in 1995 was

aimed at finding a new approach to balancing housing demand in a fast-growing area with requirements to offset damage to rare species such as the endangered San Joaquin kit fox, which hides in grassland burrows, and the threatened Alameda whipsnake, which hides in chaparral in the rugged Mount Diablo foothills.

Habitat plans too slow

Under the traditional approach, builders would negotiate with the Fish and Wildlife Service and the state Department of Fish and Game to hammer out conservation fees for one project at a time.

Developers didn't like this approach, contending that it caused expensive delays and gave no assurance that their projects would get final approval.

Conservationists and wildlife biologists also complained, saying the project-by-project approach protected unconnected chunks of habitat too small to sustain wildlife populations.

So habitat plans were set up under state and federal laws that required builders to pay fees to finance a network of nature preserves. In return, builders got assurances that they would get environmental permits to build without fear of being penalized

for harming endangered species.

Several of the habitat plans, however, moved too slowly to acquire land, conservationists say.

"Habitat conservation plans are good in theory, but too often you would get the sprawl without the conservation," said Jeff Miller, a spokesman for the Center for Biological Diversity, a nationwide conservation group.

Operators of San Joaquin County's habitat plan acknowledge that they started out slowly in 2001 in part because their fees were too low.

"We have learned a lot," said Steve Mayo, a planner assigned by the San Joaquin County Council of Governments to manage the habitat plan there. "Remember, we were the first regional habitat plan in Northern California."

San Joaquin officials ran into trouble when they failed to anticipate land price increases and didn't have an adequate mechanism to adjust them, Mayo said.

Building fees for the San Joaquin habitat plan started out from \$750 to \$1,500 per acre of land to be developed. The fees now range from \$6,500 to \$13,222 per acre, Mayo said.

Those fees and more aggressive pursuit of land deals have

zones will go before the state Fish and Game Commission.

Lead bullets may be banned



■ Fish and Game Commission to consider rule as means to protect California condors

By Kevin Howe

MEDIANEWS STAFF

A ban on lead bullets for hunting in condor country will again be considered by the state Fish and Game Commission when it meets Friday in Bridgeport. The commission, pressured by environmental groups and advocates of the California condor, has been considering a ban of some kind this year.

The proposal before it would require that centerfire rifle bullets, muzzleloading balls, shotgun slugs and buckshot used for taking both game and non-game birds and mammals in the identified current California condor range be lead-free.

This would be identified as the areas within the boundaries of some established deer hunting zones. The commission could also consider making no changes in the hunting regulations, extending the proposed ban area to the "historic" condor range which would add

other deer hunt zones, an area that extends up into the southern Sierra Nevada, or banning them statewide.

On Feb. 2, the Fish and Game Commission voted to serve notice of its intent to amend hunting regulations for 2007-2010 with the aim of eliminating lead bullets in the California condor range, but postponed a decision at its April 13 meeting in Bodega Bay.

Pressure for a ban has been building gradually for the past several years.

Last November, a consortium of environmental activists, including the Wishtoyo Foundation, Physicians for Social Responsibility, the Center for Biological Diversity and the Natural Resources Defense Council, sued in U.S. District Court in Los Angeles seeking such a ban.

The plaintiffs cited studies showing that lead from bullets left in carcasses or gut piles from game animals is a major source of lead poisoning in the endangered birds.

These assertions, based on results of a study that examined and analyzed lead from rifle bullets and shotgun pellets, were published last August by scientists at UC

Santa Cruz in the journal *Environmental Science & Technology*.

The UC Santa Cruz researchers used a "fingerprinting" technique based on unique isotope ratios found in different sources of lead. The technique enabled them to match lead in condor blood samples to lead in ammunition.

In February, Tejon Ranch Corp. announced that nonlead ammunition will be required for all hunting and predator control on its 270,000-acre Southern California ranch starting in 2008 to protect condors that forage there.

Meanwhile, the state Senate Appropriations Committee on Monday postponed a hearing on Assembly Bill 821, which would require the use of nonlead centerfire rifle and pistol ammunition when hunting big game and coyote within specified areas of the state.

Those areas are: within the state Department of Fish and Game's deer hunting zone A South, excluding Santa Cruz, Alameda, Contra Costa, San Mateo and San Joaquin counties; areas west of Highway 101 within Santa Clara County; areas between Highway 5 and Highway 99 within Stanislaus, Merced, Madera, Fresno, Kings,

Tulare and Kern counties; and within deer hunting zones D7-11 and D13.

The act would require the state Fish and Game Commission, to the extent funding is available, to provide hunters in these areas with nonlead ammunition at none or reduced charge through a coupon program. Under the act, a person who violates those requirements would be guilty of an infraction punishable by a \$500 fine for the first offense.

The act would require the commission to establish by Jan. 1 a public process to certify centerfire rifle and pistol ammunition as nonlead ammunition, and to define nonlead ammunition by regulation, with a list to be updated annually.

The law is intended to protect vulnerable wildlife species, including the condor, from the ongoing threat of lead poisoning incurred when the condors or other scavengers eat carcasses containing lead bullets or bullet fragments.

CONSERVATIONISTS, RANCHERS TEAM UP

San Francisco Chronicle Aug. 13, 2007

Under Yolo County ranch transaction, cattle-grazing will share space with environmental and restoration projects



TODD TRUMBULL / The Chronicle

By Kantele Franko
CHRONICLE STAFF WRITER

WINTERS, Yolo County — Along the golden slopes of Bobcat Ranch, recently planted rows of native grasses bend in the breeze, just across a dirt road from the field where grazing cattle served as weed control in May.

Ranchers and conservationists have found common ground at the 7,000-acre spread, literally and ideologically. In late July, Audubon California purchased the ranch in a transaction that reflects a spirit of increasing cooperation among environmental groups and private landowners.



Photos by DAVID PAUL MORRIS / The Chronicle

"People are tired of agriculture and environmentalists butting heads," said Vance Russell, director of Audubon's Landowner Stewardship Program, which will manage the property. "Both agriculture and environment lose when you pave over areas."

► RANCH: Page A8

Rancher Scott Stone at Bobcat Ranch, which was acquired by Audubon California and will be managed by its stewardship program.

with results recorded. In the first year the boxes were out, 71 bluebirds were fledged. In appreciation of his work, the Nature Association presented Yoder with a framed version of Joe Oliver's photograph of a "wet bluebird," a photograph Yoder said he had been admiring for a long time.

FRIDAY, JUNE 15, 2007

S.F. Chronicle

NAT

Big drop discovered in bird populations

By Seth Borenstein
ASSOCIATED PRESS

WASHINGTON — The populations of nearly two dozen common American birds — the fence-sitting meadowlark, the frenetic Rufous hummingbird and the whippoorwill with its haunting call — are half what they were 40 years ago, a new analysis found.

The northern bobwhite and its familiar wake-up whistle once seemed to be everywhere in the East. Last Christmas, volunteer bird counters could find only three of them and only 18 Eastern meadowlarks in Massachusetts.

Twenty different common bird species — those with populations more than half a million and covering a wide range — have seen populations fall at least in half since 1967, according to a study by the National Audubon Society. The bird group compared databases for 550 species from two different bird surveys: its own Christmas bird count and the U.S. Geological Survey's breeding bird survey in June.

Some of the birds, such as the evening grosbeak, used to be so plentiful that people would complain about how they crowded birdfeeders and finished off 50-pound sacks of sunflower seeds in just a couple days. But the colorful and gregarious grosbeak's numbers have plummeted 78 percent in

the past 40 years.

"It was an amazing phenomena all through the '70s that's just disappeared. It's just a really dramatic thing because it was in people's backyards and (now) it's not in people's backyards," said study author Greg Butcher, Audubon's bird conservation director.

Many of the species in decline depend on open grassy habitats that are disappearing because of suburban sprawl. Climate change and invasive species are to blame, too, he said. "Most of these we don't expect will go extinct," Butcher said. "We think they reflect other things that are happening in the environment that we should be worried about."

Compared to 1967, there are 432 million fewer of these bird species, including the northern pintail, greater scaup, boreal chickadee, common tern, loggerhead shrike, field sparrow, grasshopper sparrow, snow bunting, black-throated sparrow, lark sparrow, common grackle, American bittern, horned lark, little blue heron and ruffed grouse.

The northern bobwhite had the biggest drop among common birds. In 1967, there were 31 million of the plump ground-loving bird. Now they number closer to 5.5 million.

In some cases, there are still plenty of birds left, despite large,

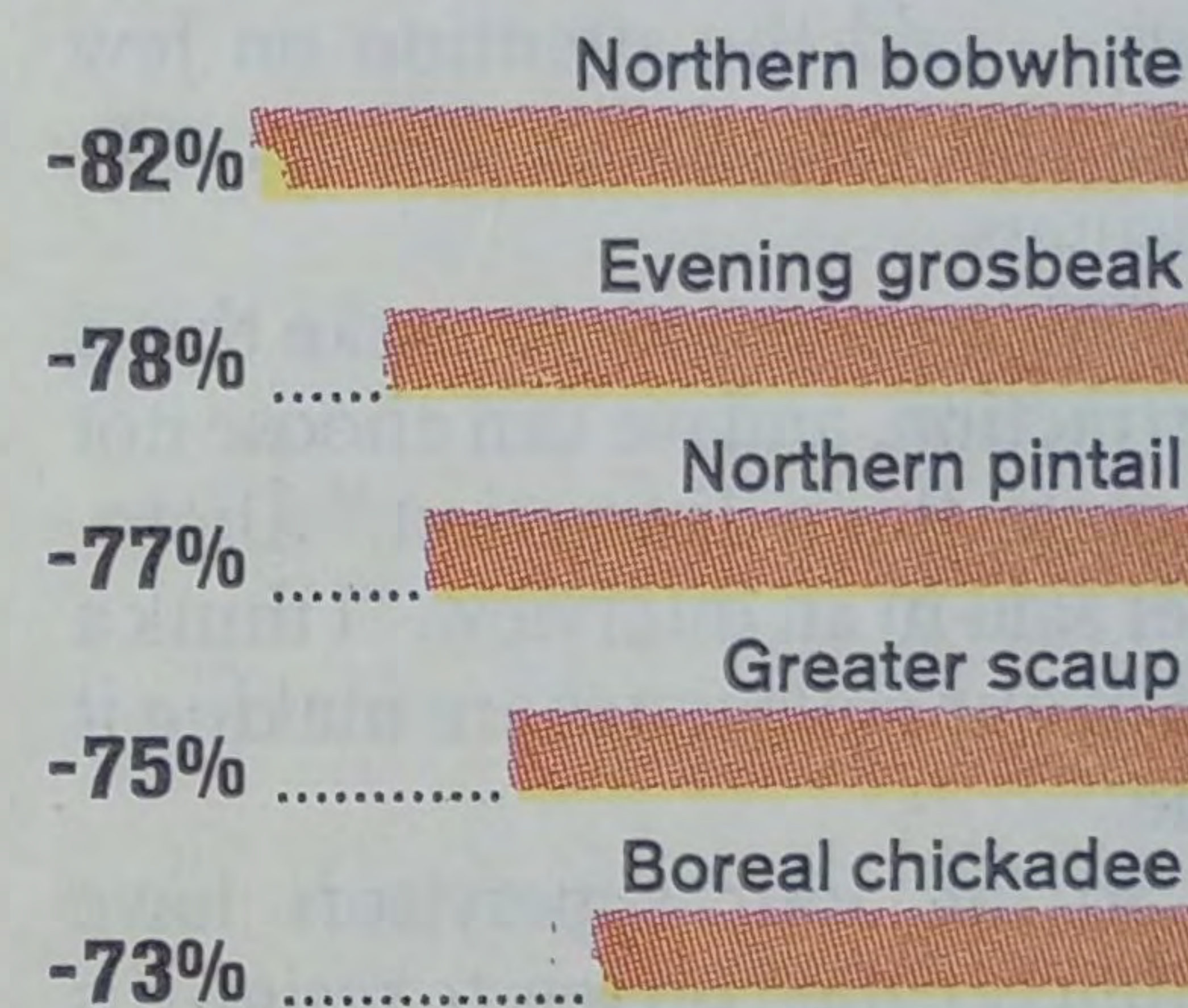
Falling flocks

Twenty common American bird species have seen their populations drop by at least half in the past 40 years.



Evening grosbeak

Population change 1967-2007



Source: National Audubon Society

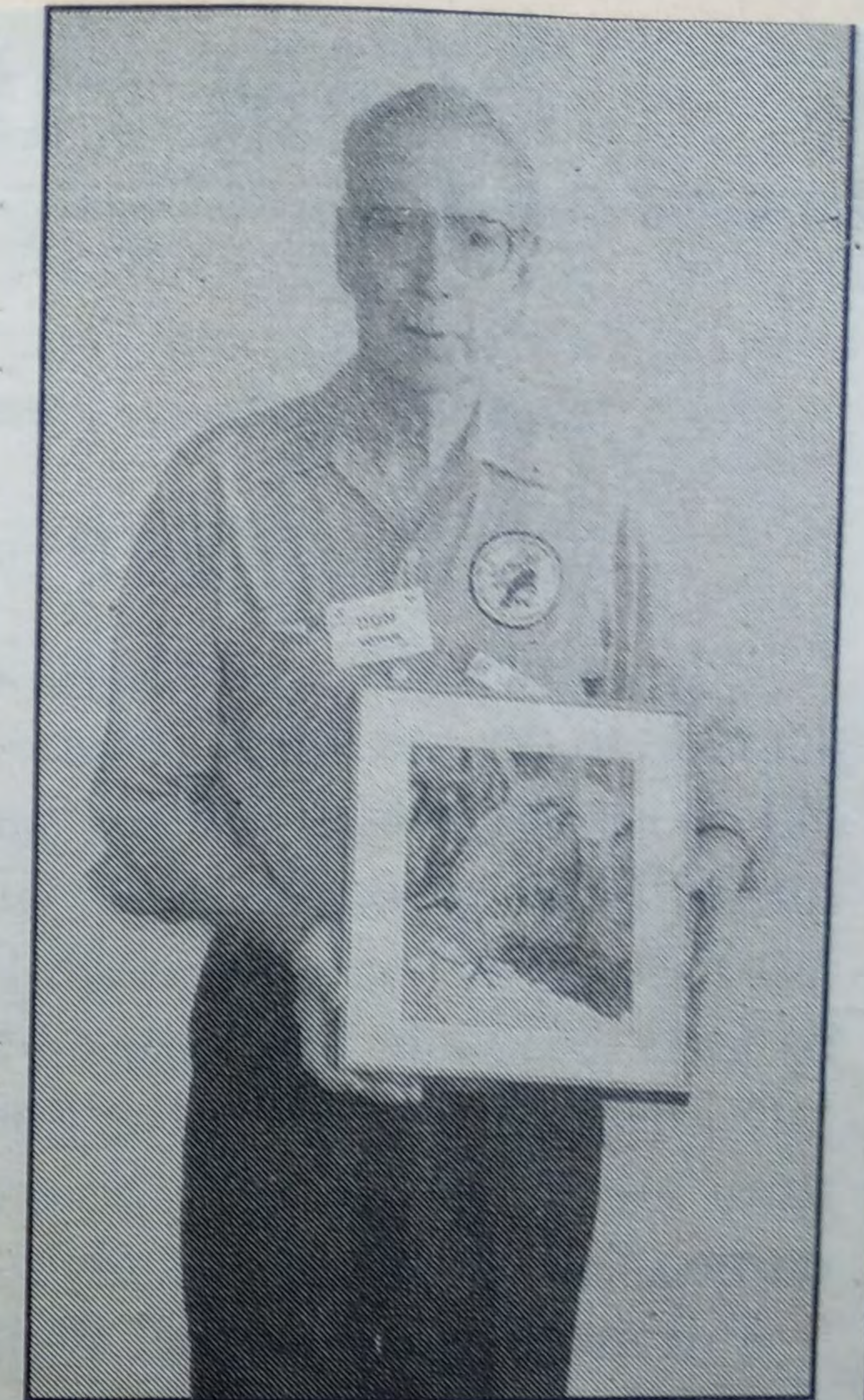
Associated Press

surprising drop-offs. The common grackle is down from around 200 million to 73 million.

But while these birds are in decline, others are taking their place. The wild turkey, once in deep trouble, is growing at a rate of 14 percent a year. The double-crested cormorant, pushed nearly to extinction by DDT, is growing at a rate of 8 percent a year, and populations of the pesky Canada goose increase by 7 percent yearly.

Many of the disappearing birds are specialists, while the thriving ones are generalists that do well in urban sprawl and all kinds of environments, Butcher said.

Rossmore News 9/19/07



News photos by Mike DiCarlo

Don Yoder honored for his work with 'bluebird trail'

At the Nature Association gathering Sept. 12, Don Yoder, right, received accolades from the club president, Bob Carlton (shown at left), for his "years of dedication to the welfare of Rossmore's bluebird flock." Yoder was responsible for overseeing the creation and maintenance of more than 60 bluebird boxes set along the golf course. With the help of many volunteers who gave skills, time and finances, the boxes were created (thanks to members of the Woodshop Supervisors) and monitored once a week, with results recorded. In the first year the boxes were out, 71 bluebirds were fledged. In appreciation of his work, the Nature Association presented Yoder with a framed version of Joe Oliver's photograph of a "wet bluebird," a photograph Yoder said he had been admiring for a long time.



S.F. Chronicle 10/30/07

FLOATING MASS OF TRASH — CAN IT BE CLEANED UP?

Despite pessimism, feds gather data on giant wandering blob of primarily plastic flotsam

By Justin Berton
CHRONICLE STAFF WRITER

The so-called Great Pacific Garbage Patch, a stewy body of plastic and marine debris that floats an estimated 1,000 miles west of San Francisco, is a shape-shifting mass far too large, delicate and remote to ever be cleaned up, according to a researcher who recently returned from the area.

But that might not stop the federal government from trying.

Charles Moore, the marine researcher at the Algalita Marina Research Foundation in Long Beach who has been studying and publicizing the patch for the past 10 years, said the debris — which he estimates weighs 3 million tons and covers an area twice the size of Texas — is made up mostly of fine plastic chips and is impossible to skim out of the ocean.

"Any attempt to remove that much plastic from the oceans — it boggles the mind," Moore said from Hawaii, where his crew is docked. "There's just too much, and the ocean is just too big."

The trash collects in one area, known as the North Pacific Gyre, due to a clockwise trade wind that circulates along the Pacific Rim. It accumulates the same way bubbles gather at the center of hot tub, Moore said.

A two-liter plastic bottle that begins its voyage from a storm drain in San Francisco will get pulled into the gyre and take weeks to reach its place among the other debris in the Garbage Patch.

While the bottle floats along, instead of biodegrading, it will "photodegrade," Moore said

A mammoth garbage pit in the Pacific

The Great Pacific Garbage Patch swirls around an area of the Pacific Ocean about 1,000 miles west of California and the same distance north of the Hawaiian Islands — a week's journey by boat from the nearest port. Scientists disagree about its size, but a marine researcher in Long Beach says it's twice as big as Texas and weighs 3 million tons. Most agree that the mass of garbage is hurting marine life.



▶ TRASH: Page A11

JOHN BLANCHARD / The Chronicle

Man carves out habitats

C.C. Times 11-8-07

■ Walnut Creek's Wisecarver dedicates his life to giving critters a better place to live

By Theresa Harrington
STAFF WRITER

The circle of life fascinates Bob Wisecarver.

An 86-year-old Walnut Creek resident who has spent decades creating habitats for animals and fowl, Wisecarver has been honored recently by several organizations for his contributions to local wildlife.

"Without habitat," Wisecarver said, "you don't have birds or critters."

In recognition of Wisecarver's work creating protective shelters for quail out of wood and other natural materials, the city is naming a quail gully in Borges Ranch the "Bob Wisecarver Quail Habitat Restoration Area."

A little more than a month ago, Wisecarver was out in the city's open space areas regularly, watering plants and adding water to the habitats he created. But he had to stop these excursions when his doctor told him he's not getting enough oxygen in his lungs.

"I'm terminal," Wisecarver said, matter-of-factly. "I have what is called pulmonary fibrosis and there is no cure for it."

Now he's homebound, with oxygen tubes helping to keep him going. While this has slowed him down physically, Wisecarver's mind is as active as ever.

He stays in contact with his buddies at the Walnut Creek Open Space Foundation and Audubon Society, planting seeds for future programs with his ideas.

"I still feed a lot of stuff to fellows who are on the board and I have an agenda that I'm pursuing as heavily as I can, considering where I am," Wisecarver said from his home Tuesday. "I've got 24-7 to sit here and think up projects."

One of his main goals is to inspire younger people to carry on the work of habitat creation. Groups such as the Audubon Society should expand their focus beyond enjoying wildlife to nurturing it, said Wisecarver, who



BOB PEPPING/STAFF

BOB WISECARVER SHOWS OFF a bumblebee house at his Walnut Creek home on Nov. 6. The house features a quarter-size hole in a box half filled with cotton stuffing. It has one side made of plexiglass for easy observation and will need a covering on the top before the bees will use it as a home.

INFORMATION

■ To get more information about the Walnut Creek Open Space Foundation, call 925-939-6610 or log-on to www.wcosf.org.

has a dry sense of humor and tells it like it is.

"Audubon has a lot of little old ladies in tennis shoes with binoculars," he said. "That's the normal person's view of Audubon. This is a deadly problem, because you have a hard time getting new, vital, volunteer type people to become members."

He is concerned about a new open space vision the city is drafting. Although he won't be able to attend the meeting Saturday where plans will be discussed, Wisecarver said he hopes the city will keep the area pristine and continue working to improve its habitat areas.

"We already have plenty of good parks," Wisecarver said. "This needs to be kept — I wouldn't say just as it is — because my thought is it has a long way to go to be a good habitat for the general critters, birds, bees and all the rest of it."

He encourages residents who have never ventured into the open space to get out and see what they've been missing.

"You go back on Shell Ridge, between the ridges, and it's like you're 1,000 miles from anyplace," Wisecarver said. "It's very revitalizing."

The area is more full of wildlife than it was before Wisecarver started creating habitat areas more than 30 years ago. His quail habitat areas have attracted other birds and animals such as cottontail rabbits, he said.

Where less than a dozen quail once gathered, Wisecarver has recently counted as many as 200.

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WILDLIFE DISASTER: Dozens of birds killed, hundreds of thousands more threatened

By Jane Kay

CHRONICLE ENVIRONMENT WRITER

► **Witnesses:** Would-be bird rescuers can do little. **A15**

► **Pilot:** The man at the wheel has been involved in several ship-handling incidents. **A15**



SFGate.com

► See a video of the spill, more photos and updates on this story at sfgate.com.

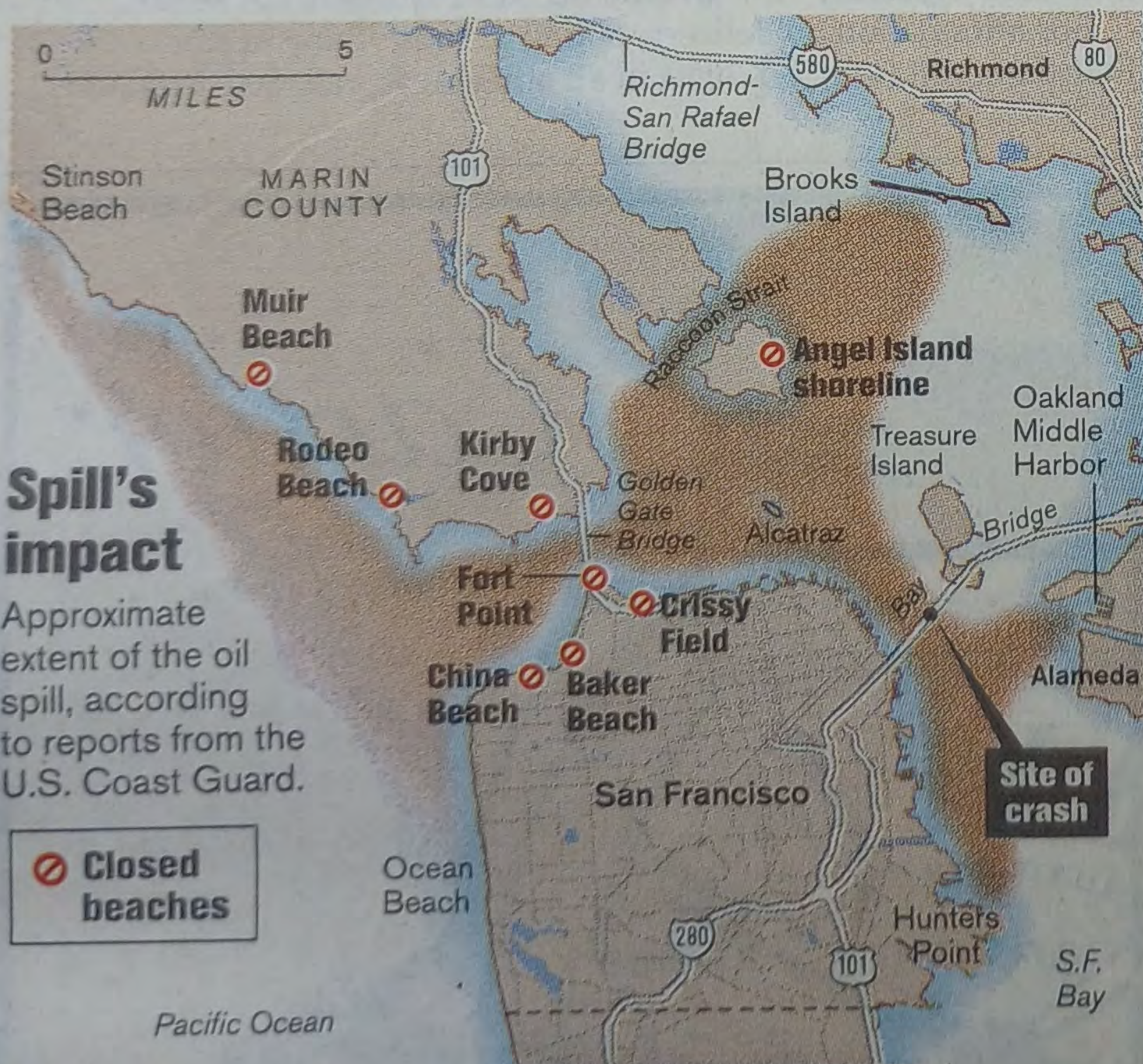
The black oil spreading for miles from the Golden Gate is staining one of the richest wildlife regions on the Pacific Coast and threatening hundreds of thousands of birds as well as marine mammals and fish that feed around San Francisco Bay.

Fuel oil, lighter than crude but heavier than gasoline, can kill birds, fish and other creatures. The 58,000-gallon spill into the delicate mouth of the bay comes at an unfortunate time for migratory birds, such as the 150,000 ducks that have just flown 2,000 miles from Canada's boreal forest to feed over the winter in the bay ecosystem, bird biologists said Thursday.

Dozens of dead and injured birds already have been found around the region, and hundreds more are likely to be spotted before the oil slick is mopped up, officials said.

By late afternoon Thursday, the oil had hit the Far-

► **BIRDS:** Page A15



Spill's impact

Approximate extent of the oil spill, according to reports from the U.S. Coast Guard.

◯ Closed beaches

Sources: U.S. Coast Guard, ESRI, TeleAtlas

TODD TRUMBULL / The Chronicle



KURT ROGERS / The Chronicle

A sheen of spilled fuel oil colors the bay off Angel Island in this view looking toward the point on the southeast side of the island.

How to help

Volunteers: The environmental group Baykeeper is soliciting volunteers at www.baykeeper.org.

More info: More information on how to volunteer eventually will be posted online by the Oiled Wildlife Care Network at www.owcn.org.

Oil slicks: Help track the spill

by reporting oil slicks. Call (985) 781-0804.

Wildlife: Report oiled wildlife at (877) 823-6926. (Do not call this number to volunteer.)

Damage: Submit claims for damaged property at (888) 850-8486.

RESPONSE CRITIC: lax on judging

By Jonathan C. Peter Fimr

CHRONICLE

Emergency officials explain why it took 58,000 gallons of oil that rammed the Bay, leaving a slick that has contaminated hundreds of birds from Headlands and out to

San Francisco officials aren't told immediately threatened legal action by the city responsible for the spill, called for scrutiny of Residents and environmental groups increasingly alarmed — and what they call taking place as late as "Why did it take

As the drag the surface adhesion. There is pollution on the water when the remnants of the spill are still visible.

zens of birds killed,
more threatened

By Jane Kay
ENVIRONMENT WRITER

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RESPONSE CRITICIZED: Coast Guard called lax on judging severity, cleaning up spill

By Jonathan Curiel, Kevin Fagan,
Peter Fimrite and Pat Yollin
CHRONICLE STAFF WRITERS

Emergency officials were pressured Thursday to explain why it took them hours to announce that 58,000 gallons of oil had leaked from a container ship that rammed the Bay Bridge on Wednesday — creating a slick that has contaminated beaches and injured hundreds of birds from Hunters Point to the Marin Headlands and out to the Farallon Islands.

San Francisco officials, frustrated that they weren't told immediately about the severity of the spill, threatened legal action against the company or agency responsible for the disaster. Sen. Barbara Boxer has called for scrutiny of the Coast Guard's response. Residents and environmental groups have become increasingly alarmed at the sprawling contamination — and what they called an anemic cleanup response taking place as late as Thursday night.

"Why did it take them so long to respond?" com-

► **RESPONSE:** Page A14

Bay oil spills

1937: The region's largest oil spill (more than 2.7 million gallons of fuel) happened when the steam tanker Frank H. Buck hit the President Coolidge in heavy fog.

January 1971: 800,000 gallons of oil spills into the bay after two Standard Oil Co. tankers collide.

November

1984: Tanker explodes, leaking as much as 200,000 gallons of oil near the Golden Gate.

April 1988:

432,000 gallons of oil leaks from a tank at Shell's Martinez refinery. The spill, which kills hundreds of birds and mammals, is attributed to a drain valve that was improperly left open. In 1989, Shell agrees to pay \$20 million to settle claims.

Source: Chronicle research

Scooping up the oil

Emergency workers have deployed 3.5 miles of flexible plastic boom in the bay and along beaches to gather and remove spilled oil.

As the boom is dragged along the water's surface, the oil adheres to it. Then the boom is pulled back onto a boat, where the oil is removed and stored in a holding tank.



A flock of pelicans swoops over the bay in this view looking toward Alcatraz from Sausalito just before sunrise. The Bay Area is home to dozens of bird species, and 50 of them have been listed as declining or rare. The recent oil spill has killed or injured nearly 2,700 birds.

NO RESCUE: Spill aid at Farallones called too hard; Monterey Bay event a mystery

By Jane Kay

CHRONICLE ENVIRONMENT WRITER

Federal and state wildlife officials have decided to ignore two large groups of contaminated birds, saying they lack resources to rescue the Farallon Islands victims of the recent San Francisco Bay oil spill as well as hundreds of birds injured in an unrelated incident at Monterey Bay.

Biologists with the U.S. Fish and Wildlife Service said they concur with scientists running the UC Davis Oiled Wildlife Care Network and the state Department of Fish and Game who said it wouldn't pay to capture more than 250 birds at the Farallones that had been contaminated by a container ship's toxic fuel after the Nov. 7 spill.

And in a second event that started Nov. 8 around Monterey Bay, a greasy, sticky protein substance thought to be linked to a naturally occurring algal bloom has injured about 600 birds, mainly surfscoters and grebes. The Department of Fish and Game decided that be-

► **BIRDS:** Page A8



PAUL CHINN / The Chronicle

Bird-watchers at Lakeshore Park at Lake Merritt in Oakland include (from left) Sandy Prosnitz, Ruth Tobey and Bei Brown at an Audubon Society event.

BIRDS TO WATCH

See lists of the 50 threatened bird species in the Bay Area, including this tricolored blackbird.

A8



LANCE IVERSEN / The Chronicle 2004

'CLOCK IS TICKING': Bird Conservancy, Audubon Society urge new efforts

By Jane Kay

CHRONICLE ENVIRONMENT WRITER

Nearly one-third of the nation's bird species are in need of immediate help or they could disappear forever, according to two leading conservation organizations that for the first time have joined to produce a national "watch list" of winged wildlife.

Of the 217 bird species placed on the list by the National Audubon Society and the American Bird Conservancy, 50 are found in the Bay Area. That includes the California clapper rails nesting above tidal marshes, coastal sooty shearwaters and Western sandpipers that run on sandy beaches.

Also on the list are Clark's grebes, sanderlings, snowy plovers, black turnstones and rare marbled murrelets. Those species are among the nearly 2,700 birds that have been killed or injured by toxic fuel since a spill in San Francisco Bay three weeks ago.

"These imperiled birds are sending us a message that the envi-

► **WILDLIFE:** Page A8

50 Bay Area bird species make national watch list

► WILDLIFE

From Page A1

ronment we share with them is in trouble. When we improve habitat, the birds improve. If we damage habitat, they decline," said John Flicker, president of the 115-year-old National Audubon Society, which advocates for the roughly 700 breeding species found in the United States.

"For watch list birds, the clock is ticking. Many will slide into extinction if we don't take action," he said.

Some of the most serious threats to America's birds are the harmful effects of invasive species, such as cowbirds that take over nests; development and agricultural expansion that destroy feeding and breeding territory; and global warming, which raises sea levels and changes ocean conditions, according to bird scientists.

Of the 217 birds on the watch list, 98 are categorized as "red," indicating most at risk of extinction. The other 119 are categorized as "yellow," which means the species is "seriously declining or rare." The watch list was released Wednesday.

California had 73 species on the list and 22 in the red category. All of Hawaii's 39 imperiled species were put in the red category. Of the 50 Bay Area birds on the list, 14 were in the red category.

The list is a synthesis of the known science regarding population size, range, threats and population trends.

The groups that prepared the list want other organizations and government agencies to use it to decide which birds need better protection under the Endangered Species Act. They also want more money for recovery programs and better management of threats within the birds' ranges.

"We need to use every tool at our disposal, from private action to the Endangered Species Act," said George Fenwick, president of the American Bird Conservancy, which was founded to further protect declining bird populations. "The United States is going green-

Species status: Declining or rare

Of the 217 bird species placed on the list by the National Audubon Society and the American Bird Conservancy, 36 of the 50 found in the Bay Area are on the list of seriously declining or rare species:

Common name	Scientific name
Allen's hummingbird	Selasphorus sasin
Ancient murrelet	Synthliboramphus antiquus
Black skimmer	Rynchops niger
Black turnstone	Arenaria melanocephala
Buller's shearwater	Puffinus bulleri
California thrasher	Toxostoma redivivum
Clapper rail	Rallus longirostris
Clark's grebe	Aechmophorus clarkii
Costa's hummingbird	Calypte costae
Elegant tern	Thalasseus elegans
Heermann's gull	Larus heermanni
Hermit warbler	Dendroica occidentalis
Lawrence's goldfinch	Carduelis lawrencei
Long-billed curlew	Numenius americanus
Marbled godwit	Limosa fedoa
Marbled murrelet	Brachyramphus marmoratus
Mountain quail	Oreortyx pictus
Nuttall's woodpecker	Picoides nuttallii
Oak titmouse	Baeolophus inornatus
Olive-sided flycatcher	Contopus cooperi
Red knot	Calidris canutus
Sage sparrow	Amphispiza belli
Sanderling	Calidris alba
Short-eared owl	Asio flammeus
Snowy plover	Charadrius alexandrinus
Sooty shearwater	Puffinus griseus
Surfbird	Aphriza virgata
Swainson's hawk	Buteo swainsoni
Thayer's gull	Larus thayeri
Varied thrush	Ixoreus naevius
Wandering tattler	Tringa incana
Western sandpiper	Calidris mauri
White-headed woodpecker	Picoides albolarvatus
Williamson's sapsucker	Sphyrapicus thyroideus
Wrentit	Chamaea fasciata
Yellow-billed magpie	Pica nuttalli

Source: National Audubon Society and American Bird Conservancy

er, and birds are nature's best ambassadors for this new environmental ethic."

Efforts should be made to eradicate invasive species, eliminate

the worst pesticides, combat global warming and plan appropriate development, Fenwick said.

Recent measures taken to help birds include California's law that



PAUL CHINN / The Chronicle

Hilary Powers uses a spotting scope to identify birds at the Audubon Society event at Lakeshore Park in Oakland.

bans the use of lead shot in condor territory. New protections also have been passed to limit the threat that dogs and people pose to snowy plovers that nest on parts of the state's coastline.

Bird watching is a popular pastime in the United States — an estimated 60 million people show an interest in birds, a figure larger than the membership of AARP, according to the American Bird Conservancy.

Yet since the administration of President Ronald Reagan, the Endangered Species Act has been underfunded, and in recent years government officials have added only a few species to the protection list, said Greg Butcher, Audubon's director of bird conservation.

"San Francisco Bay has many important bird areas. We're encouraging people to go out and improve the habitats that are there. Plant natives, pull out invasive, improve your own backyard," Butcher said. "Even city dwellers share the need for clean air and clean water with birds. It turns out that what's good for birds is also good for people. When birds are out of kilter, nature is out of kilter."

Online resource:

Read about the watch list:

♦ links.sfgate.com/ZBQU

E-mail Jane Kay at jkay@sfgate.com.

WORKERS FROM Patriot Environmental Services comb Rockaway Beach in Pacifica on Friday looking for debris from the Nov. 7 oil spill.

PATRICK TEHAN/MEDIANEWS

Most of Bay oil spill cleaned up

Contra Costa Times 12/30/2007

■ Hazardous-materials workers have scoured 68 of 69 miles of shoreline affected by accident

By Paul Rogers
MEDIANEWS STAFF

Outdoor lovers who head for a walk on Bay Area beaches this weekend will be hard-pressed to see any remnants of the region's worst oil spill in more than a decade.

Nearly two months after the Cosco Busan, a 900-foot cargo ship, sideswiped a tower of the Bay Bridge, spilling 58,000 gallons of bunker fuel into San Francisco Bay, hazardous-materials workers have cleaned 68 of the 69 miles of shoreline where oil washed up.

As of Friday, the number of cleanup workers had fallen from 1,400 at the height of the operation to 111.

"You'd have a pretty hard time finding evidence of oil now," said Capt. Paul Gugg, the Coast Guard's top official overseeing the cleanup. "There are some stains on the back sides of rocks, but it's mostly out of sight."

The operation is evolving into more of a maintenance operation, Gugg said. Crews are responding to occasional reports of tar balls on a beach or heading out to steam clean jetties and

other areas where evidence of oil may turn up.

The Nov. 7 incident, which caused the first major spill in the Bay since 1996, remains under investigation by the National Transportation Safety Board.

The Coast Guard is expected to complete its own inquiry, known as an Incident Specific Preparedness Review, by April, Gugg said.

The ship, detained for weeks after the incident, motored out of San Francisco Bay on Dec. 20 after a 100-foot tear in its hull was repaired. Its owners also posted a \$79.5 million bond, equal to the value of the ship.

Federal officials, the city of San Francisco and crab boat owners have sued the ship's owners. State authorities suspended the license of the pilot of the vessel, Capt. John Cota of Petaluma, who may have it revoked completely.

Environmental toll

On the environmental front, wildlife officials say sightings of oiled birds have tapered off.

"We haven't seen one in about two weeks," said Lt. Rob Roberts of the state Department of Fish and Game's Office of Spill Prevention and Response.

Fish and Game tests on eel grass beds along the floor of the Bay have not turned up evidence that oil sank to the bottom,



PATRICK TEHAN/MEDIANEWS

A WORKER from Patriot Environmental Services finds little debris while combing Rockaway Beach in Pacifica on Friday.

Roberts said.

"We have no evidence of any of the oil submerging," he said, adding, much of it may have broken up or evaporated.

Similarly, on Friday, the Army Corps of Engineers found no oil along the bottom of the Bay near Oakland Harbor when it dragged 25 absorbent pads roughly the size of basketballs along the bottom to test for contaminated sediment.

"The wildlife impacts were moderate compared to what could have been. We were lucky," said Warner Chabot, vice president of the Ocean Conservancy, an environmental group in San

Francisco.

Chabot noted that oil tankers the size of the Exxon Valdez regularly sail in the Bay, and more oil could have leaked from the Cosco Busan had it hit the bridge harder.

The damage to wildlife has been significant.

In the most recent tally, 31 birds were still being treated in wildlife centers overseen by UC Davis. Rescuers collected 1,084 live oiled birds, and of those, 649 died and 404 were cleaned and released.

Many of the birds released were fitted with radio collars to track their survival rates, said

Sylvia Wright, a spokeswoman for UC Davis.

An additional 1,851 birds were collected dead, 997 of them contaminated by oil.

Biologists believe the bird death toll from the spill may actually be 20,000, Wright said.

"For every one bird we find dead, we estimate that at least 10 also died, and they flew away or sank or were eaten by something," she said.

Oil washed up on shorelines from Drake's Bay at Point Reyes National Seashore to Half Moon Bay in San Mateo County. It also tarred the waterfronts of San Francisco, Oakland and Richmond. Thanks to favorable tides, no significant amounts were seen south of Hunter's Point in San Francisco.

The last mile

Most of one mile of shoreline that remains to be cleaned is spread out over a small area just south of the Berkeley Marina, and around Belvedere in Marin County.

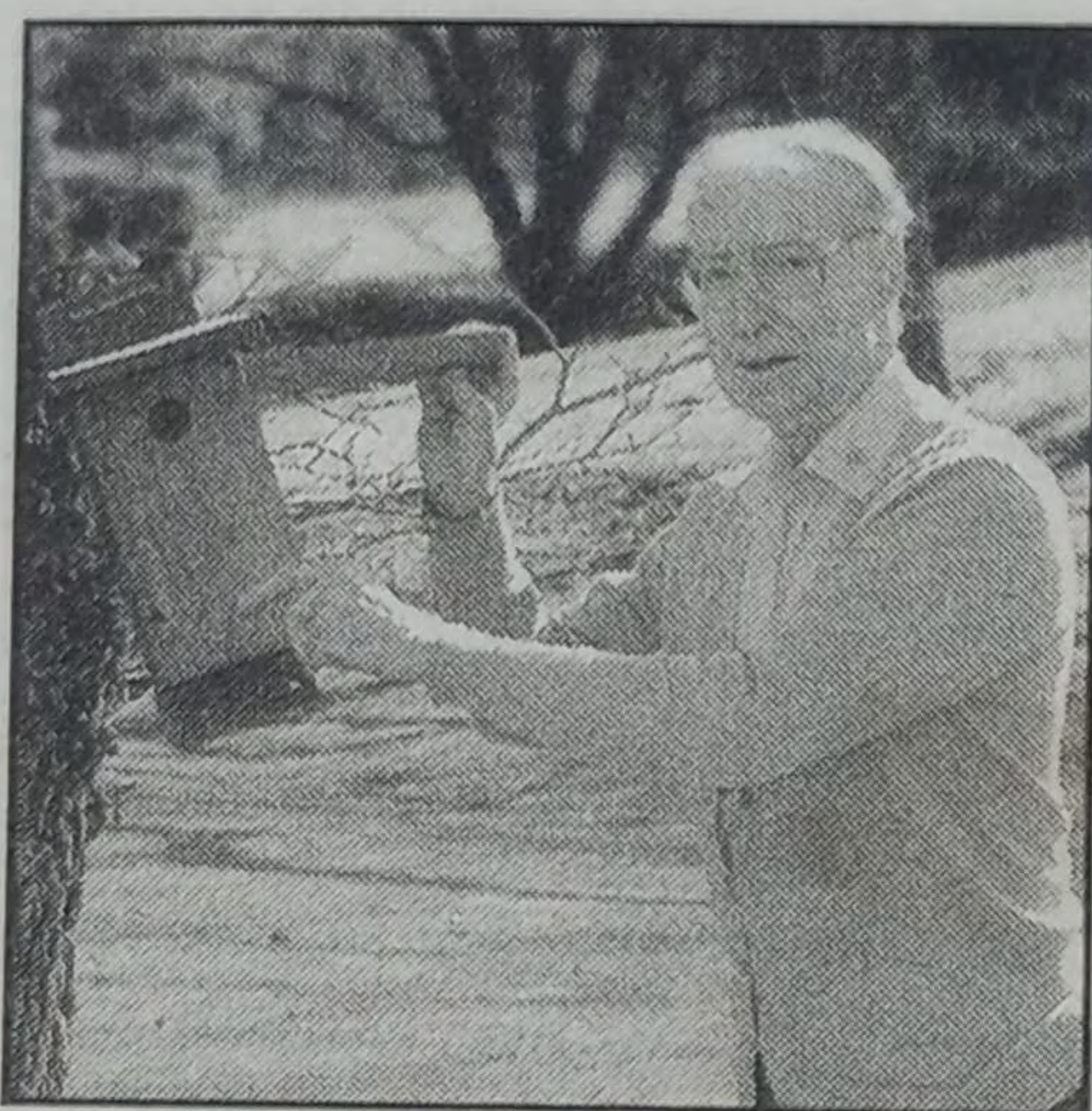
Bluebird box man, emergency volunteer, Don Yoder, dies

Don Yoder, the Rossmoor bluebird man who also played an important role in emergency preparedness in Rossmoor died on July 8.

In 1984, when Yoder retired from work and moved to Rossmoor, he built about a dozen bluebird nesting boxes and placed them on the Rossmoor golf course. His goal was to provide the western bluebird a safe place to nest, away from predators.

In March 2007, when he retired from managing the boxes, there were 19 boxes hanging on trees on the north (Creekside) course and 39 on the south (Dollar Ranch). Last year, he counted 79 bluebird fledglings as well as 43 other types of birds.

From 1984 through 2007, Yoder ran a one-person operation. During early spring



Don Yoder with a bluebird box.

into late fall, he serviced the boxes every Monday, the day the golf courses are closed. Servicing included cleaning, repairing, and when necessary, replacing the boxes. Yoder also carefully monitored the boxes and kept meticulous records as to how many occupants the boxes had and the resulting fledgling count.

Continued on page 44

Bluebird man Yoder dies

Continued from page 37

As director of the California Bluebird Recovery Program and his association with the North American Bluebird Society, he received calls from people all over the country who have found his name on the Web.

Last year, Yoder turned the bluebird box program over to the Nature Association, one of the many organizations to which he belonged. The Wood Shop took over the job of making the boxes.

He was on the board of Mutual 28 and was the CB radio voice for Ptarmigan Entry 11. He was responsible for a weekly round to survey for blown-out night lighting and acted as a liaison for any landscape lighting problems in the Mutual. The Mutual flew his flag at half staff on the day he died. Don and Sue Yoder flew their flag every day since they had both served in the military.

He was also a member of the Emergency Preparedness Committee and a volunteer at the emergency radio control station, a CB radio group that will be the source of communication during an emergency in Rossmoor.



Birders rally for Christmas count

By Dana Mentink

TIMES CORRESPONDENT

IN THE LATE 1800s, birds spent their Christmas season flying for their lives. Lacking published field guides, ornithologists of old identified birds by shooting them and comparing the skins to stuffed specimens.

Called the Christmas Side Hunt, participants would select a sidearm and attempt to bring down the biggest pile of birds possible. Things changed on Christmas Day in 1900, when ornithologist Frank Chapman proposed a radical new idea: a Christmas Bird Census, the intent of which would be to count birds instead of kill them.

The practice became an annual event, renamed the Christmas Bird Count (CBC). It has grown from Chapman's original 27 volunteers to more than 50,000 birders who will participate in Audubon's 108th Christmas Bird Count.

The objective is simple. According to the national Audubon Society, it is an effort "to monitor the status and distribution of bird populations across the Western Hemisphere."

It's part of their "Citizen Science" philosophy to enable lay people, "to connect with the natural world through fun activities that generate vital information for the conservation of birds."

And the effort is undertaken the old-fashioned way, by volunteers with keen eyes and willing hearts, armed with notepads and binoculars.

While the concept seems simple, the information collected by committed Christmas Bird Count volunteers proves useful in a myriad of ways. In June, Audubon issued an analysis called "Common Birds in Decline" in which CBC data revealed population drops in many bird species, which focused national attention on habitat loss and climate change.

The data is also tapped to develop the WatchList, a joint effort of the Audubon and American Bird Conservancy to identify less common birds that may be at greater risk for extinction due to their declining numbers and limited range.

During the target weeks of Dec. 14 to Jan. 5, birders across the country step out and start counting. Locally, the Mt. Diablo Audubon Society (MDAS) leads



SCOTT J. HEIN

MT. DIABLO AUDUBON SOCIETY members participate in last year's Christmas bird count in Mt. Diablo State Park's Mitchell Canyon. Above right, a varied thrush listens for danger. A Western bluebird, above left, often shows up for the valley's annual Christmas bird count.

"You can hardly find any count above ours that isn't on an ocean or open bay. I think the diversity of species in Contra Costa County would surprise most people."

— Jimm Edgars, the MDAS president

two separate counts on Dec. 15 and Dec. 19.

Each count covers a circle, 15 miles in diameter. One is in the central Contra Costa area, the center of which is the intersection of Treat Boulevard and Clayton Road, and one for east Contra Costa centered in the Brentwood area. Participants are also able to count birds at their own backyard feeders if their property falls within the designated circle.

MDAS board member at

large, Jean Richmond has participated in the Christmas Bird Count for more than 40 years. The Alamo resident is an expert on all things pertaining to birds and the author of *Birding California*.

"Years ago the circle was adjusted slightly to include my backyard. That's good because it's the only place we've sighted a hooded oriole. They're rare," Richmond said.

According to Jimm Edgars, the MDAS president, the slight

change in the East Contra Costa circle enabled the inclusion of parts of four important wildlife areas: the Big Break Regional Shoreline, the Clifton Court Forebay, Vasco Caves Regional Park and Las Vaqueros reservoir.

Edgars is proud that area birders have counted more than 150 species in their Christmas Bird Count over the years.

"You can hardly find any count above ours that isn't on an ocean or open bay." Edgars encourages newcomers to be a part

of the MDAS and enjoy the wealth of sightings the area has to offer. "I think the diversity of species in Contra Costa County would surprise most people."

Edgars has been a co-compiler for the bird count for the past 28 years. This year he shares the job with Lafayette resident Maury Stern. The annual information is gathered and submitted to the national database via a Web site, www.birdsource.com.

Edgars has submitted more than 40 years of data collected on the Concord Naval Weapons Station property, to the Concord Reuse Committee. "It gives them a good picture when they're putting together the environmental impact report," Edgar said.

The Christmas Bird Count is carried out faithfully, rain or shine. Jean Richmond remembers one year in particular when the elements proved uncooperative. "We were in Morgan Territory on the back side of the mountain and we had rain, sleet and a ferocious wind that tore my son's poncho to shreds," Richmond said. The results are worth braving the weather, especially when a rare bird is spotted. Over the years Richmond has counted such feathered notables as the tufted duck, loon and the occasional bald eagle.

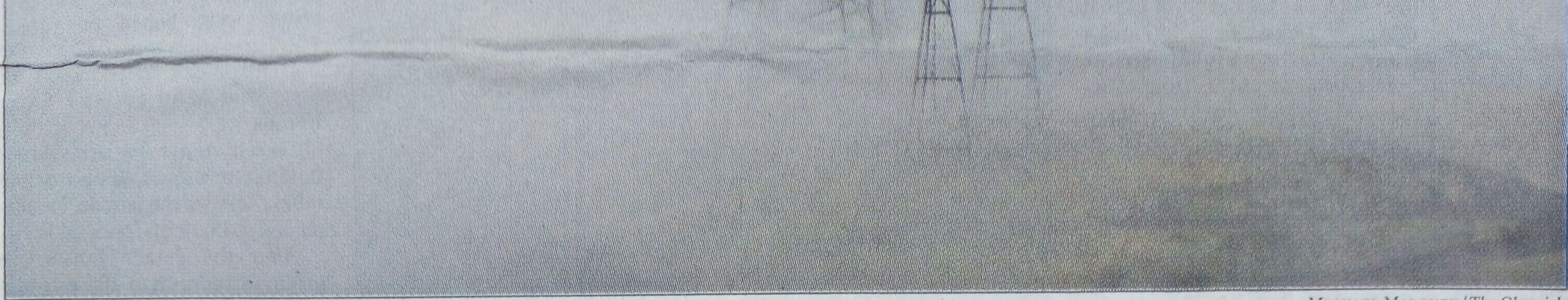
Christmas counters break up into small and large groups. Roaming teams of volunteers and the stay-at-home variety tally any and all birds they are lucky enough to spot. Though rare bird sightings must be described in detail by a knowledgeable birder, there is always plenty of room for the novice.

"Even the most competent birder can't identify what they don't see," Richmond said. The more eyes that search, the better the result.

Richmond summed up the unquenchable enthusiasm birders feel for their feathered friends. "When people tell me birders are crazy, I don't disagree."

Frank Chapman no doubt got the same reaction when he proposed counting instead of killing. Lucky for the birds, local folks are just crazy enough to participate in a centuries old tradition of Christmas conservation.

Reach Dana Mentink at danamentink@comcast.net.



MICHAEL MALONEY / The Chronicle

Wind turbines rise above the fog on the hills of the Altamont Pass. Wildlife groups are seeking to relocate or remove some of the power generators.

San Francisco Chronicle Jan. 2, 2008

By Charles Burress
CHRONICLE STAFF WRITER

The long hot summers of the San Joaquin Valley suck great tsunamis of cool coastal air through the Altamont Pass, producing winds so powerful that a person can lean nearly 45 degrees without falling down.

Such awesome force gave birth in the early 1980s to the world's largest collection of wind turbines, pioneers in what is now America's fastest-growing form of renewable energy and an increasingly important weapon in the battle against global warming.

But the Altamont Pass Wind Resource Area is also a symbol of the wind industry's biggest stain — the killings of thousands of birds, including majestic golden eagles, by turbines. The result has been a



Alameda County

A golden eagle was found dead near one of the Altamont Pass wind turbines.

wrenching civil war among those who are otherwise united in the struggle to save the planet and its creatures.

It's been nearly a year since a controversial legal settlement was forged among wildlife groups, wind companies and Alameda County regulators. That agreement, opposed by some parties to the dispute, promised to reduce deaths of golden eagles and three other raptor species by 50 percent in three years and called for the shutdown or relocation of the 300 or so most lethal of the approximately 5,000 windmills at Altamont.

But five scientists appointed by the county say the settlement and accompanying efforts to reduce bird deaths are not on track to meet the 50 percent goal, and they

► **ALTAMONT:** Page A7

Get involved

To address the issue of wind power and bird deaths at Altamont, contact:

- The Alameda County Planning Department, which is coordinating a legal settlement and scientific review: (510) 670-5400.
- The Alameda County Board of Supervisors, which will eventually revisit the Altamont issues: (510) 272-6984; www.acgov.org/board.
- The Golden Gate Audubon Society: (510) 843-2222; www.goldengateaudubon.org.
- FPL Energy, the largest wind operator in the Altamont: www.fplenergy.com.
- The American Wind Energy Association: (202) 383-2500; www.awea.org.
- Center for Biological Diversity: (415) 436-9682; www.biologicaldiversity.org.

Wind turbines take a de

► ALTAMONT
From Page A1

recently surveyed the Altamont to determine which additional turbines should be removed or relocated to spots less likely to kill birds.

Known officially as the Scientific Review Committee, the panel agreed Dec. 21 that more turbines need to be removed or relocated. It issued a new list of 309 targeted turbines, plus 102 more if the wind companies refuse to continue a current, temporary shutdown of all their windmills into February. The wind operators had previously agreed to a two-month shutdown, for November and December.

The newly named lethal turbines are in addition to the dozens already shut down under the settlement's plan to gradually remove the most deadly windmills.

FPL Energy, the company with the most turbines in the Altamont, has not seen the specifics of the new recommendations from the scientists and cannot comment, company spokesman Steven Stengel said last week.

The scientists' findings are advisory for a continuing "meet and confer process" among all the parties, who are under instructions from Alameda County officials — who exercise regulatory authority over the wind farms — to negotiate mutually acceptable solutions.

"We are deeply distressed about the continuing bird deaths and about the companies not being on track for the 50 percent reduction," said Elizabeth Murdock, executive director of the Golden Gate Audubon Society, a chief plaintiff in the lawsuit that has reshaped the battle over the birds.

But Stengel said, "It is too early in the process to accurately judge whether we are on track." The scientific review is meant to find ways of protecting the birds without putting the companies out of business, he said.

No one knows for sure how many birds are killed by the Altamont turbines — a 2004 California Energy Commission report estimated the golden eagle toll to be between 75 and 116 a year, while total bird kills were put in the 1,766 to 4,721 range. The Audubon Society lawsuit targets four raptor species — golden eagle, red-tailed hawk, American kestrel and burrowing owl — which suffered 456 to 1,129 fatalities per year, the study estimated.

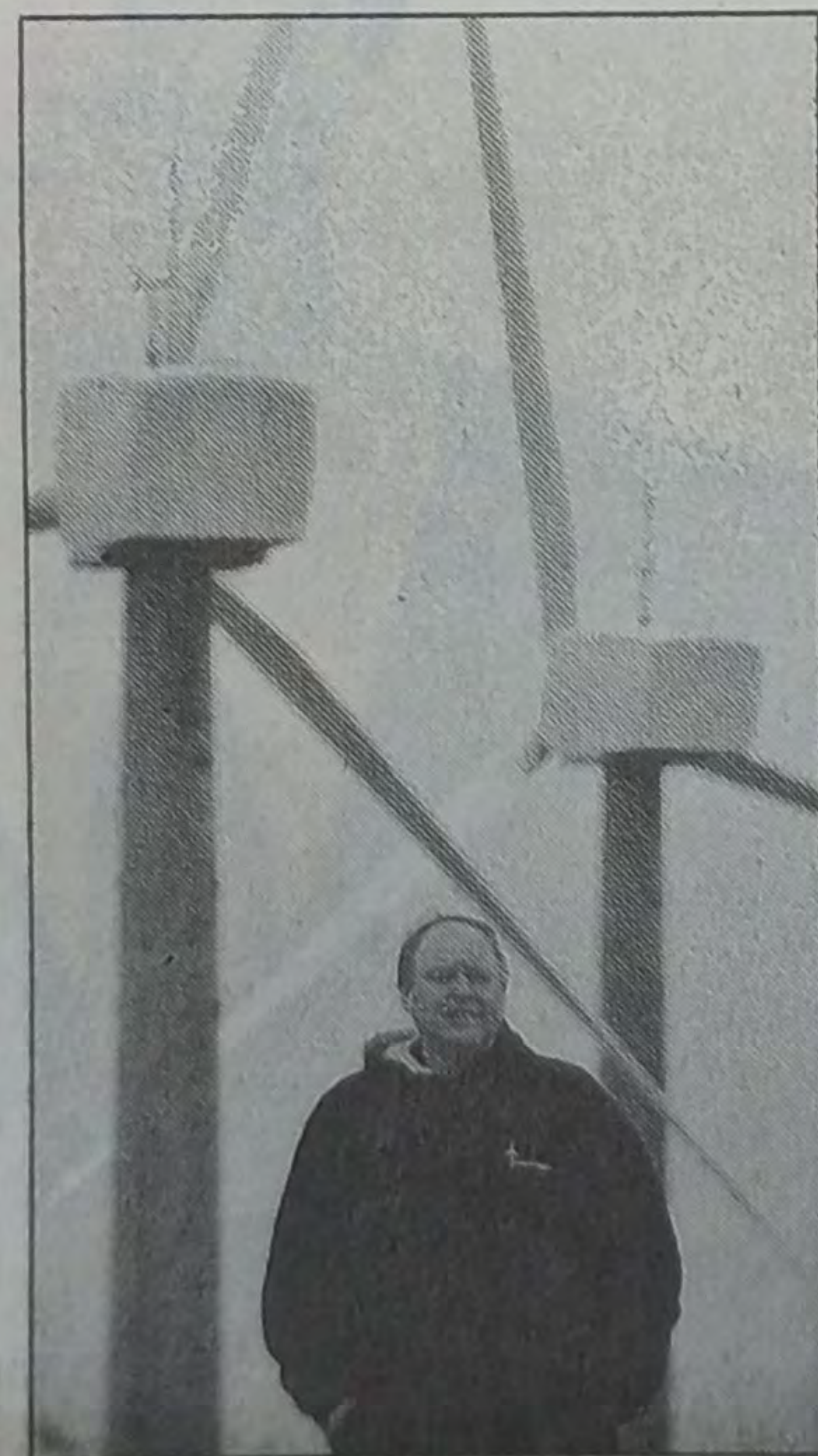
Subsequent data indicate that bird deaths have not decreased since the settlement was reached last January and that efforts to achieve a 50 percent reduction in

S.F. Chronicle 1/2/08



Alameda County

Members of Alameda County's avian-mortality monitoring team count dead birds at Altamont Pass.



MICHAEL MALONEY / The Chronicle

Rick Koebbe, president of PowerWorks Inc., with some of the company's wind turbines.

three years are far behind, said Shawn Smallwood, an independent consultant in avian ecology who co-authored the 2004 California Energy Commission study and is one of the five county-appointed scientists.

James Walker, president-elect of the industry-backed American Wind Energy Association, said the wind companies also want to save

A deadly toll at Altamont



Source: California Energy Commission

JOHN BLANCHARD / The Chronicle

birds and are helping to fund the study of the problem. He also said wind power helps save bird lives by combatting global warming, which the National Audubon Society acknowledges as a threat to many bird species.

Rick Koebbe, head of Altamont Winds Inc., another of the half-dozen firms that own turbines in the Altamont, said the impact on

birds has to be weighed against the human deaths and diseases that are reduced by using wind power instead of pollution-producing fossil fuels.

Numerous surveys and studies of dead birds have taken place in the Altamont going back to at least 1992, but the analysis, according to a 2005 Government Accountability Office review of the studies,

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Turbines take a deadly toll

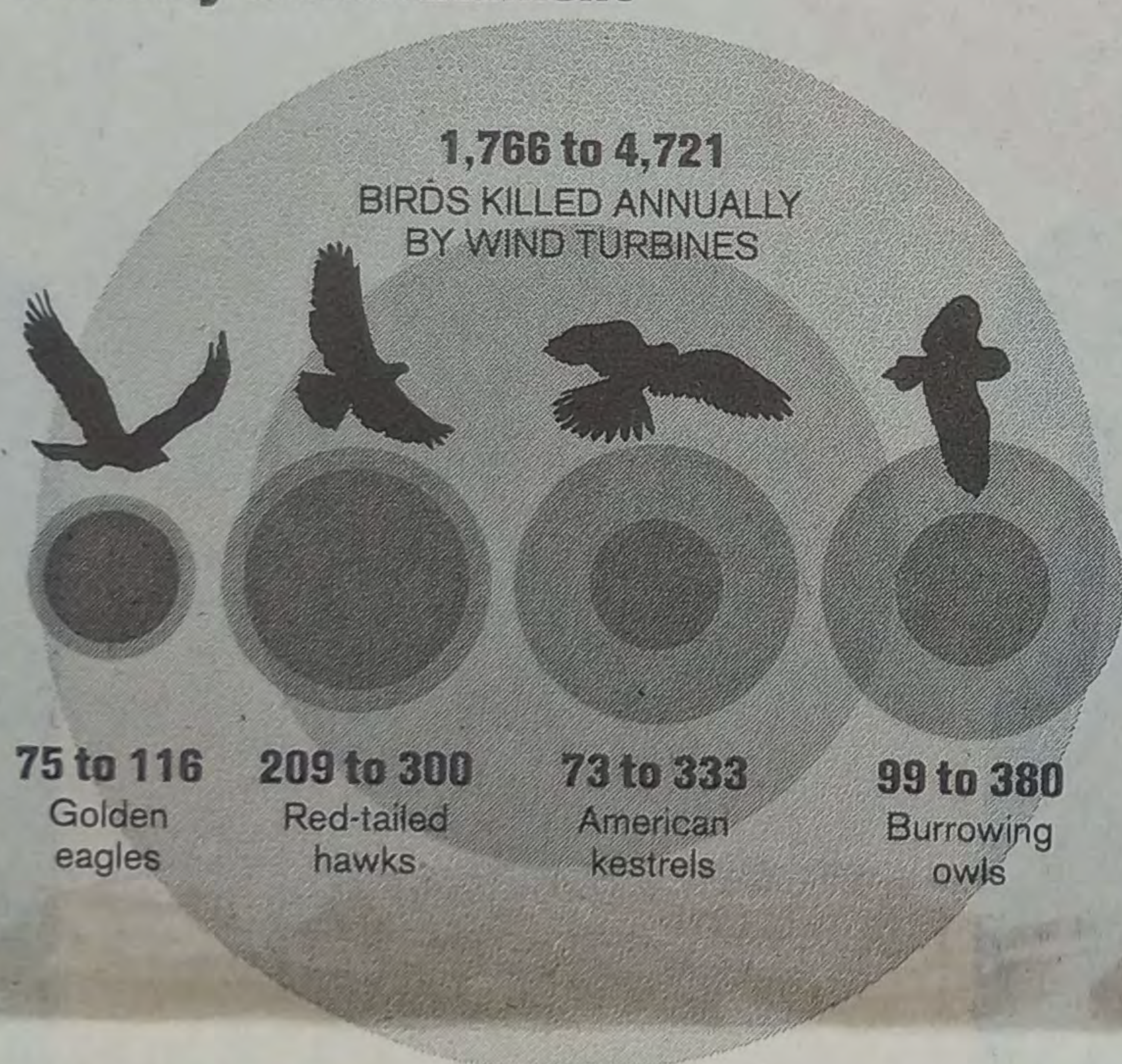
Chronicle 1/2/08



Alameda County

Alameda County's avian-mortality monitoring team count dead birds at Altamont Pass.

A deadly toll at Altamont



Source: California Energy Commission

JOHN BLANCHARD / The Chronicle

behind, said an independent avian ecology study and county-appointed

president-elect Rick Koebe, head of Altamont Winds Inc., another of the half-dozen firms that own turbines in the Altamont, said the impact on

birds and are helping to fund the study of the problem. He also said wind power helps save bird lives by combatting global warming, which the National Audubon Society acknowledges as a threat to many bird species.

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birds has to be weighed against the human deaths and diseases that are reduced by using wind power instead of pollution-producing fossil fuels.

Numerous surveys and studies of dead birds have taken place in the Altamont going back to at least 1992, but the analysis, according to a 2005 Government Accountability Office review of the studies,

"has been complicated by confounding variables."

The problem is not simply birds running into spinning blades. Many dead birds have been found around turbines that were turned off. Some have been electrocuted by live wires near operating turbines, while others apparently were killed by predators.

Despite the perplexing data, many experts agree that a chief cause of bird deaths is the sheer number of windmills at Altamont, which features many old, small turbines in the 100-kilowatt range. More modern wind farms employ taller, more powerful machines able to generate 1 to 3 megawatts.

Replacing the many old turbines with fewer, more powerful ones — a process termed "repowering" — is official county policy and would be "a big part of the solution," Murdock said. The idea is that bigger turbines would not only dramatically reduce the spinning blades to about one-tenth of their current number but also turn more slowly and be higher off the ground, presumably moving them farther away from raptors that dive for mice and other prey.

"Repowering is supposedly the silver bullet, if there is one," said Chris Gray, chief of staff for Alameda County Board of Supervisors President Scott Haggerty, whose district includes Altamont.

But full repowering would cost about \$1 billion — money that the wind companies may not be able to afford, Walker said.

Finding the right balance for wind and birds is the central focus of the settlement agreement, which brought a legal truce to a 3-year-old lawsuit by five chapters of the Audubon Society and Californians for Renewable Energy.

The plaintiffs had sued Alameda County, contending that the renewed wind-power permits approved by the county in 2005 violated the California Environmental Quality Act and didn't do enough to protect the birds. About 78 percent of the Altamont turbines are in Alameda County, with the remainder in Contra Costa County, which is not part of the lawsuit or settlement.

Implementing the agreement and its core mandate of figuring out which turbines are the most dangerous has meant spending a lot of hours among the windmills for the scientists.

"This is one of the places that had the highest mortality rates," said Rutgers University biologist Joanna Burger, pointing to a ridge of turbines as she and the four other scientists huddled against the chilly wind on their recent four-day tour.

It's a formidable task among the thousands of windmills that stand in irregular rows like a scattered army of propeller-headed sentinels on the rolling hills and ridges of Altamont. The site is spread over 50 square miles, an expanse larger than the city of San Francisco.

An invaluable help in their search was Brian Karas, part of the bird-death monitoring group, which consists of six full-time workers who spend their days dodging rattlesnakes and cow pies to search for and count dead birds.

Holding a map flecked with different-colored Post-it notes, Karas rattled off mortality data. "Kestrel," he said pointing to one turbine where a dead kestrel was found. "Nothing, nothing," he said of the next two turbines, where no dead birds have been found. "Two red-tail," he said of the fourth windmill.

Although the settlement is supported by the county, most of the wind companies and the Audubon societies, it also faces opposition. Koebe's company refused to join the pact, in large part because it didn't want to pay legal fees of the plaintiffs, he said.

Also opposing the settlement is the Center for Biological Diversity, which filed a separate suit directly against the windmill companies, saying the firms were illegally killing wildlife protected by state and federal law. An Alameda County Superior Court judge rejected the suit, ruling that migratory birds are not "public trust property." The decision has been appealed; no court date has been set.

Alameda County Supervisor Gail Steele voted against the pact because she wanted a more accelerated reduction in bird deaths. "I understand this is an economic hardship to the wind farms, but how do you know how much of a hardship?" she said. "Nobody ever opens their books."

Nevertheless, Steele said, both the wind industry and the birds need to be protected.

"All environmentalists should support both things," she said.

Online resources

2004 California Energy Commission report on Altamont bird deaths:

♦ links.sfgate.com/ZBVR

2005 U.S. Government Accountability Office report on wind power's impacts on wildlife:

♦ links.sfgate.com/ZBXU

E-mail Charles Burress at cburress@sfgate.com.

WHERE ARE ALL THE BIRDS?

Startling new figures on rate of extinctions say 12% of species to be in peril by 2100

S.F. Chronicle 7-4-06

By Jane Kay

CHRONICLE ENVIRONMENT WRITER

The world's birds are disappearing in greater numbers than previously calculated, and the number of extinctions will grow even more dramatically by the end of the century, according to a grim study published today in the journal *Proceedings of the National Academy of Sciences*.

The study, the most thorough analysis of global bird species, says 12 percent of existing species — about 1,250 — are threatened with extinction by 2100.

Up until now, scientists had documented the extinction of about 130 bird species since the year 1500. But the study's authors — from Stanford University, Duke University and the Missouri Botanical Garden in St. Louis — say the more accurate estimate is about 500 extinctions out of more than 10,000 known bird species. That would be about one extinction per year over the last 500 years.

And that rate is 100 times higher than what was considered natural before human influence, the study said.

Over time, humans have cleared land for agriculture and other uses. They've hunted birds for food and sport. And they introduced other dangers, such as non-native birds, rats, snakes and diseases. Predictions of increased extinctions over the next century are based on these continuing threats as well as anticipated habitat loss linked to global warming.

Scientists say the decline of both the diversity and abundance of birds portends problems for the planet. Birds play a part in seed dispersal, plant pollination and insect control.

Critically endangered birds — including the California condor and about 12 Hawaiian species — are seen as most at risk of extinction.

The new study's extinction calculations include previously unknown bird species only discovered as fossilized remains as well as bird species missing for scores of years but never officially declared extinct. It also takes into account species wiped out by humans before modern scientific description



PENNY GLADSTONE / The Chronicle

Audubon on the case

Jinny Marshall helps lead a Golden Gate Audubon Society bird-watching walk in the San Francisco Botanical Garden at Strybing Arboretum in Golden Gate Park. The society offers bird-watching trips around the Bay Area almost every week.

began in the mid-1700s.

Local species may have disappeared without a trace, and the more fragile small bird species "may easily have gone extinct without leaving a record," the study says.

"The extinctions all have to do with people in one way or another," said Peter Raven, president of the Missouri Botanical Garden, one of the world's three major botanical gardens. Raven began studying plant and animal extinctions 40 years ago at Stanford University.

The predominant threat to species now is habitat destruction, the study said. Brazil, where habitat loss has been severe, has 89 species at risk of extinction, including 13 species identified since 1980, according to BirdLife International, a British nonprofit registry of bird species.

Many scientists, including Harvard University entomologist E.O. Wilson, believe that Earth is in the middle of a mass extinction comparable to the one 65 million years ago that wiped out two-thirds of land species, including the dinosaurs.

"That's about the magnitude of what we expect to see during the 21st century," Raven said.

Since 1975, there have been 20 extinctions of wild species, six of which involve species that now survive only in captivity.

Conservation efforts have spared an additional 25 species from extinction, the study said.

In a separate study scheduled for publication, Stuart Butchart, global species program coordinator for BirdLife International, and colleague Alison Stattersfield also credit modern conservation efforts for saving two dozen bird species.

The Butchart group released a paper last month that also increased former extinction numbers. It also added that many missing species, such as the hooded seedeater of central Brazil, haven't been seen since the 1800s but haven't been declared extinct by the IUCN, also called the World Conservation Union.

At the California Academy of Sciences, the curator of birds and mammals, Jack Dumbacher, said the new extinction estimates are disturbing.

"Birds are an important compo-

Gone since 1500

About 500 of the planet's bird species have become extinct since about 1500, according to a study published today. That includes many species of birds from what is now the United States. Here are some of the country's now-extinct birds and where they once lived:

- ▶ Passenger pigeon, east of the Great Plains; last captive bird died in 1914 in the Cincinnati Zoo
- ▶ Carolina parakeet, Eastern United States; last captive bird died in 1918 at the Cincinnati Zoo
- ▶ Santa Barbara song sparrow, Santa Barbara Island; last observed in 1967
- ▶ Labrador duck, Northeastern United States; last specimen collected in 1875
- ▶ Black mamo, Hawaii; last specimen collected 1907

Source: World Conservation Union

nent of our ecosystem. They keep mice and rats in control and eat insects that attack crops. They are food for other organisms and create habitat for other organisms. They disperse seeds and pollen. There are cases on islands when birds go extinct that the trees also go extinct," Dumbacher said.

He spoke of birds' tremendous economic value, not only as protectors of crops but also as sources of meat, eggs and fiber. Bird watching is a multimillion dollar industry of tours, magazines, books and nature-based travel.

"That's the way a lot of people learn about wildlife," he said.

In addition to Raven, authors of the new study include Stuart Pimm, Duke University professor of conservation ecology; and Paul Ehrlich, president of the Center for Conservation Biology and Bing Professor of Population Studies at Stanford University.

E-mail Jane Kay at jkay@sfchronicle.com.