1 Winter hunting the Gulf

How backyard feeders and devoted volunteer banders along the Gulf coast are rewriting what we know about hummingbirds in winter

by Kathie Farnell I live in Foley, Alabama, 10 miles inland from the Gulf of Mexico. It's winter. And a hummingbird is at my feeder. Don't believe me?

Not so long ago, recalls bander Fred Bassett (right), founder of the nonprofit organization Hummingbird Research Inc., "if you had reported seeing a hummingbird in winter, you would have been told, 'I'm sure you *thought* you saw a hummingbird, but you didn't really." But not today.

Bassett, a former fighter pilot and a citizen-scientist, is one of several volunteer researchers whose efforts have challenged the conventional wisdom that all hummingbirds abandon the United States mainland each fall.

Thanks to him and other banders, scientists now recognize that substantial numbers of Western hummingbird species — Allen's, Black-chinned, Rufous, and others — are spending their winters along the Gulf coast.

Evidence exists that some hummingbirds have always headed east rather than south in the fall — Bassett notes a record of a Rufous found in Charleston, South Carolina, in 1909 — but such birds were



thought to be anomalies, stupid or luckless and in any case doomed.

This was the thinking in 1974, when south Louisiana birdwatcher Nancy Newfield (below) and other homeowners were still being told to take down their feeders by a certain date or risk luring birds into postponing their migration, with potentially fatal consequences. Newfield left her feeder up anyway and found a Rufous and seven

Black-chinned Hummingbirds in her yard.

One by one, birds that used to When she reported her sightings, she received what she be rare have politely describes as "a certain amount become of disbelief" from Louisiana's birding establishment. After all, at that time, only eight records of Black-chinned Hummingbird had been confirmed in the state. Newfield, who describes herself as stubborn, decided to document her findings.

Not all the experts scoffed. She received help with hummingbird anatomy from Van Remsen, adjunct professor of biological sciences at Louisiana State University and curator of birds at the university's Museum of Natural Science, and eventually obtained a banding permit. Aided by a student, she set up a banding station in 1979 and that winter banded a Broad-tailed and an Allen's. Louisiana now includes 13 species of hummingbird on its official list of birds that have been recorded in the state; Newfield has banded 10.

It's undisputed that hummingbirds are making a winter home for themselves along the Gulf coast, but just how significant is the shift?

Remsen notes that the vast majority of the birds cling to their traditional migratory routes, spending winters in Mexico and Central America: "These are still small populations compared with the main one, but hundreds are breaking away from the main mass."

Remsen thinks the winter influx is a recent development. "One by one, birds that used to be rare have become regulars

in winter," he says. "And this has all happened in the last three

or four decades. The
Baton Rouge Christmas
Bird Count now lists
about 100 individual
hummingbirds. In
the 1970s, count
organizers were
happy to list one."
Could human
behavior have
influenced the birds?
Remsen believes that
sometime during the 1970s,

the number of people along the coast who decided to feed hummingbirds reached critical mass. "The culture of leaving a feeder up through winter has caught on, and it's a resource the birds are capitalizing on."

The role of feeders

Bassett, who with fellow bander Doreen Cubie published a peer-reviewed research paper in 2009 describing 1,598 hummingbirds of 10 species banded in Alabama and Florida over a 10-winter period, believes the birds have been coming to the Southeast all along. He agrees that feeders provide critical nourishment and increase opportunities for people to spot visiting birds. "When I started banding hummers 14 years ago, everybody was being told to take feeders down by a certain date," he says. "If

nobody's expecting hummingbirds, nobody's looking for them."

Newfield, co-author of the 1996 book *Hummingbird Gardens*, thinks the overwintering birds may be getting a significant amount of food from a natural source. "My gut feeling is that they are eating insects," she says. "A freeze in January will kill most of our flowering plants except for coral honeysuckle and the exotic winter honeysuckle, but south Louisiana has bugs year-round."

Whatever the hummingbirds are eating, they appear to like the winter Gulf coast well enough to return. In the winter of 2009-10, Newfield had 50 recaptures (that is, hummingbirds that had been captured, banded, and released and then were captured again), including a couple that indicate hummingbirds are surprisingly long-lived. Two Ruby-throats, recaptured at different banding sites, wore bands establishing that the birds were seven years old.

Some birds get recaptured year after year. Bassett describes how a male Rufous, recaptured in its seventh year in Pensacola, Florida, had also been caught by Newfield in Louisiana in its fifth and sixth years. Remsen knows of a Buffbellied Hummingbird that returned to the Gulf nine years in a row.

Where are the birds coming from? Western species make their nests far from the Gulf, and their breeding ranges may cover a huge area. The Black-chinned breeds anywhere from British Columbia to Mexico and central Texas. Are the Gulf-wintering birds all coming from the same area of the breeding range? An important hint came in July 2009, when a Black-chinned that Newfield had banded outside New Orleans was recaptured by Bassett near Pocatello, Idaho. That the event represented the first-ever recapture of a Black-chinned individual on its

Louisiana's 13 hummingbirds

The official Louisiana checklist includes the 13 species below. Hummingbird expert Nancy Newfield has banded every one but Green Violetear, Green-breasted Mango, and Magnificent Hummingbird.

- 1. Green Violetear
- 2. Green-breasted Mango
- 3. Broad-billed Hummingbird
- 4. Buff-bellied Hummingbird
- 5. Blue-throated Hummingbird
- 6. Magnificent Hummingbird
- 7. Ruby-throated Hummingbird
- 8. Black-chinned Hummingbirg
- 9. Anna's Hummingbird
- 10. Calliope Hummingbird
- 11. Broad-tailed Hummingbird
- 12. Rufous Hummingbird
- 13. Allen's Hummingbird



Hummingbird bander Nancy Newfield

Joan Garvey

summer and winter grounds indicates the difficulty of establishing just where the birds breed.

Another startling report illustrates just how far some hummingbirds are ranging. On June 28, 2010, a female Rufous that had been banded in Tallahassee, Florida, on January 13, 2010, was recaptured at Chenega Bay, near Prince William Sound, Alaska — more than 3,500 miles away. (See "Birding Briefs," October 2010, page 12.)

The data trickling in from recaptures could also help scientists determine why some species of hummingbird are in decline. Newfield's meticulous records go back more than 30 years. "When I began banding," she says, "about 66 percent of new captures were Rufous. Now it's less than 50 percent.

We're in a farflung quarter of their winter range, though, so we can't really look at the end results."

Her data jibe with a report published in 2007 by the National Audubon Society: Common Birds in Decline (http:// stateofthebirds.audubon.org/cbid). It states that Rufous populations have dropped from 12 million to 5 million in the past 40 years. Development — in the bird's breeding range as well as its traditional Mexican winter quarters may be to blame, although Remsen thinks environmental pressure may also be involved. "Several species of overwintering hummingbird have declined over the last three or four years, particularly the Rufous and Black-chinned," he says. "Climate change can't be the whole story, but these are Western species, and the

West has seen drought after drought in recent years."

But how — and why — did hummingbirds start wintering on the Gulf in the first place? Nobody knows, but everybody has a theory. Remsen favors the following hypothesis: A small population of hummingbirds of various species developed a genetic glitch that led them to complete only a part of their fall migra-

tion. Having reached the mountains of northern Mexico, the birds turned northeast

toward the Gulf rather than south toward their main wintering grounds in south Mexico or Central America.

Although the journey to the coast may have been a one-way trip for the vast majority, sometime in the last few decades the area became a viable winter

destination. Warmer winters meant more natural food, while the increasing numbers of backyard feeders provided what Remsen calls an all-you-can-eat buffet. More and more birds survived the winter and returned to their breeding grounds to pass along their genetic hiccup to the next generation.

For Remsen, the theory that the birds are spending time in a remote locale before continuing to the Gulf may help solve one mystery: the time lag between when the birds disappear from their breeding ranges and when they show up at the beach. In the West, the birds are gone by September 15. Some seem to fly straight to the Gulf and arrive in August or September — a 1998 paper by Auburn University ornithologist Geoffrey Hill and the founders of the non-profit

Hummer/Bird Study Group, Robert Sargent and Martha Sargent, called them transients — but the vast majority, the overwintering birds, show up in November and December. The gap between when they leave the West and show up in the South is huge.

Remsen notes that a time lag exists in spring, too. "We have no records of Rufouses banded at the Gulf being recaptured anywhere in the Great Plains. Most of our winter birds leave in February, and almost all of them are gone by mid-March. We don't know where they go, but there's no evidence that they go straight to Colorado."

The problem, he says, lies in absence of data. "Nobody's banding birds in the mountains of north Mexico. These are critical areas, and we aren't getting data. We may have to wait until someone comes up with a transmitter small enough for hummingbirds."

Depend on volunteers

Lacking that, scientists depend on the information provided by volunteer hummingbird banders, many of whom trained under Bob Sargent. He says data on wintering hummingbirds indicate that some species have shifted their ranges. "There probably is a distinct change of range in species like the Rufous — we have more data on them than on other species. There definitely is a significant change in the enormous numbers of Ruby-throats wintering in the United States, mostly in the Southeast. The question is, is this because of global warming? We are seeing some warmer winters, but this is not a new cycle."

For a couple of species, the news is optimistic. Buff-bellied Hummingbirds, warm-weather birds that breed along the Texas and Mexico coasts, have apparently

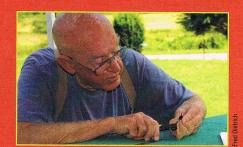
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Hummingbirds and the oil spill

While this summer's BP/Deepwater Horizon oil spill will certainly prove tragic for seabirds, some shorebirds, and lots of wading species, most passerines and hummingbirds should be spared.

According to Bob Sargent (right), founder of the Hummer/Bird Study Group, southbound migrants rarely use any of the habitat devastated by the spill. "Trans-Gulf migrant birds, including hummingbirds, usually depart for their overwater journey from well inland instead of coming to the coastal area to depart," he says.

Hummingbirds that winter on the coast favor wooded areas or backyard feeders rather than the beaches and marshlands that have been contaminated by oil.



Hummer/Bird Study Group founder Bob Sargent



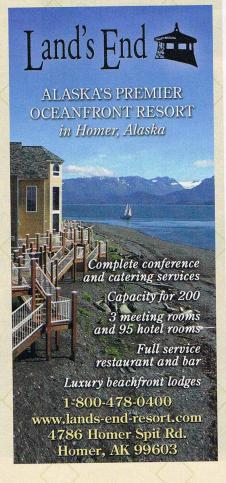




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(continued from page 23) extended their breeding range north in the last 50 or 60 years. According to Newfield, they formerly bred around Brownsville; now they are breeding north of Corpus Christi.

Evidence indicates that the species is also increasing its numbers, and Bassett thinks that the future may see a non-migratory population along the coast. "This is conjecture, but sometime in the future we may see Buff-bellies breeding along the Gulf coast," he says. "We are starting to see them in summer. Last summer, someone in Niceville, Florida, had one for a week."

Ruby-throats, too, are increasing their winter numbers, Remsen says. "Ten years ago, Ruby-throats were rare in winter. Now we're seeing three or four at the same feeder."

Studying winter populations could help solve another mystery. Sargent notes that there's no evidence that Ruby-throats that winter in the Gulf states stay year-round, and that no Ruby-throats banded in the South during the breeding season have been recaptured in the South during the winter. Yet there is this clue: A Ruby-throat that Newfield banded in winter in south Louisiana was recaptured one summer in Massachusetts.

Could the Gulf coast also be developing a year-round population of Rubythroats? Bassett hopes that a research project he's undertaking with Cubie and fellow bander Fred Dietrich will help answer the question. Using isotopic analysis of feathers and recapturing as many banded birds as possible, the researchers hope to discover where winter populations of Ruby-throats go to breed, and whether any of the birds are year-round residents.

Hummingbird mysteries are solved slowly, bird by bird, and clues can come from anywhere, including my winter feeder. In February 2007, Bassett banded a female Rufous in my Alabama yard. In December 2008, the bird was recaptured more than 200 miles west in Covington, Louisiana, by Newfield. •

Kathie Farnell is a writer and independent radio and television producer based in Foley, Alabama, whose writing has appeared in Southern Breeze and other publications. She became interested in winter hummingbirds 10 years ago after seeing a Rufous at Fred Bassett's house in Montgomery.