

## Louisiana Hummingbird Banding - Winter 2007-2008

The following is a summary of the hummingbird banding activities of Dave Patton, Linda Beall, Paul Dickson, Stephen Locke, and Nancy Newfield over the course of the 2007-2008 winter season in Louisiana. Patton, Beall, and Newfield are self-employed, permitting some flexibility in scheduling. Dickson manages a large business. Locke is a biologist who worked in tandem with Newfield part of the time.

### The Project

The majority of the hummingbirds banded were in the southern third of the state, roughly the area south of Interstate 10/12. Patton covered the area from Baton Rouge westward, mostly around Lafayette. Beall banded mostly east of Baton Rouge and north of Lake Pontchartrain. Newfield and Locke banded mostly southeast of Baton Rouge, south of Lake Pontchartrain, and in the Houma/Thibodaux area. Beall, Patton, and Newfield/Locke all banded in Baton Rouge. Dickson studied a small pocket of wintering hummers in Shreveport and other parts of northern Louisiana. This region of the state typically hosts fewer wintering hummers, but the area has been little studied, so generalities may not be valid.

The Louisiana Winter Hummingbird Project differs substantially from passerine migration banding studies. Most sites host only a few hummers, so efforts must be made to catch individuals rather than mist-netting whichever birds might pass through during a specific time period. Most captures are made using cage wire traps placed around feeders. Electronic remote-control releasers permit the operation of several traps at one time and they allow the bander to observe from an indoor location, making inclement weather less of a factor. Mist nets and other types of traps are occasionally employed. Because of the dispersed distribution of the birds, operations must be completely portable.

Almost all banded birds were also color-marked using specially-colored, water-soluble Liquid Paper on their crowns. Color-marking allowed us to avoid repeatedly capturing the same birds and it permitted hummerhosts to specifically identify each individual. Color-marking enabled the hosts to distinguish look-alikes and to notice new, unbanded birds as they arrived. Color-marked birds are more noticeable as they moved from one site to another as well. In several locations, we found more individuals present than had been originally tallied by the hosts. In most locations, the roster of individual hummers did not remain constant. Instead, while many individuals defend territories throughout the winter, others seem to trap-line over a fairly large area. This required the banders to make two or more visits to a number of sites as unbanded birds replaced individuals that had already been banded.

### History

This project was initiated in 1979 as a means of documenting the numbers and species assortment of hummingbirds that spend the winter months in Louisiana. Traditional wisdom of the 1970s was that any hummers occurring in Louisiana during the winter months were vagrants or they were Ruby-throated Hummingbirds that forgot to migrate after the nesting season. Our banding studies have shown that the breeding population is almost completely gone by mid-August, so those that crowd feeders in late August and September are most certainly migrants. The 1974 edition of *Louisiana Birds* by George H. Lowery, Jr., lists 5 species of hummers. The state list currently stands at 12 species!

In the 1970s, most guides to hummingbird feeding dictated that feeders be removed by early September so that the ready availability of nectar would not cause hummingbirds to linger too long into the fall. At that time, it was thought that nearly all hummers that attempted to spend the winter in the area perished in cold weather and therefore spending the winter months in Louisiana was not a good strategy for survival. However, we have not found any Ruby-throateds banded during the usual period of breeding or of southward migration to remain for the winter. Therefore, members of

Louisiana's only nesting species that arrive in late autumn belong to other, as yet unknown populations.

### **Seasonal Notes**

The season, as we define it, begins with the arrival of the first non-Ruby-throated Hummingbird in mid summer. Typically, the first arrivals are adult Rufous Hummingbirds in August and most of those are returnees from previous seasons. During the early part of the season, we primarily attempt to verify returning hummers or to document rarities. Later, as several birds stake out territories at a site, we endeavor to capture and band as many as possible. We also attempt to recapture marked birds that have moved from other sites.

Because the last stage of Ruby-throated southward migration may extend well into December, it is very difficult to categorize individuals of that species as winterers or migrants early in the season. Therefore, we arbitrarily define wintering for Ruby-throateds as those we encounter on or after 15 November, though some of those birds may actually be tardy migrants. Some that occur earlier may well be winterers as was the case in the winter of 2006-2007.

The winter banding season peaks in January and February, when maximum numbers are present at the various sites. The season usually ends in late February or early March as wintering birds begin leaving and summer resident Ruby-throateds begin arriving. At that time, wintering birds become more difficult to catch and banding trips become less productive. However some wintering birds stay well into April or even early May.

### **Totals for the 2007-2008 Season:**

Broad-billed Hummingbird	1
Buff-bellied Hummingbird	56 [+ 4 returnees]
Ruby-throated Hummingbird	61 [+ 10 returnees]
Black-chinned Hummingbird	47 [+ 9 returnees + 1 foreign re-encounter]
Anna's Hummingbird	1
Calliope Hummingbird	15 [+ 8 returnees]
Broad-tailed Hummingbird	5
Rufous Hummingbird	122 [+ 46 returnees + 6 foreign re-encounters]
Allen's Hummingbird	10
Hybrid Hummingbird	1

**Total = 319 new bands of 9 species and 1 apparent hybrid [+ 77 returnees + 7 foreign re-encounters] = 403 individuals handled.**

Explanation of terminology: Bird banders often use specialized terminology when discussing their favorite subject. Returnee – a bird that has returned to the specific wintering site where it was banded after having been away for its putative breeding season. Foreign Re-encounter – any subsequent capturing of a banded bird after it leaves the 10-minute block in which it was banded. A foreign re-encounter can be the capturing of one of our own birds at a distant site within Louisiana or one banded outside the state. The total of foreign re-encounters does not include birds banded during the season that were re-encountered elsewhere within our area as the season progressed.

### **Comparisons and Discussions**

The number of wintering hummingbirds banded [319] falls short of the totals of all recent seasons except for the paltry season of 2005-2006. A brief summary of other recent seasons follows:

2000-2001 – 416 new bands + 32 returnees + 3 foreign re-encounters = 451 individuals handled.  
2001-2002 – 482 new bands + 55 returnees + 2 foreign re-encounters = 539 individuals handled.  
2002-2003 – 481 new bands + 53 returnees + 9 foreign re-encounters = 543 individuals handled.

2003-2004 – 510 new bands + 85 returnees + 7 foreign re-encounters = 602 individuals handled.  
2004-2005 – 355 new bands + 111 returnees + 11 foreign re-encounters = 477 individuals handled.  
2005-2006 – 301 new bands + 77 returnees + 7 foreign re-encounters = 385 individuals handled.  
2006-2007 – 456 new bands + 57 returnees + 11 foreign re-encounters = 524 individuals handled.

The total of returnees and foreign re-encounters raises the tally of birds handled to 403 individuals, 121 fewer than the previous season. Returnees were a prominent part of the winter landscape. The number of returnees [77] tied the third highest on record and certainly reflected the stellar season of 2006-2007.

The amount of effort of the banders was somewhat less than that of recent seasons. In spite of an extra day in February, one bander, who shall remain nameless, put in fewer days than usual. However, this glitch doesn't completely explain the decrease in numbers. In general, sites that normally host substantial numbers counted fewer than their long-term average.

As usual, Rufous accounted for the largest number of individuals – both new bands, returnees, and foreigners. In our best seasons, Rufous have accounted for approximately 65% of the total number of hummers handled. However, the two poor seasons of 2004-2005 and 2005-2006 saw the percentage of Rufous among newly banded hummers drop to about 50%. Last season, the percentage of Rufous rose to 58% for newly banded birds and it was 66% for returnees. This season though, the percentage of newly banded Rufous dropped precipitously to slightly over 38%. Almost 60% of the returnees were Rufous.

Numbers of Ruby-throated and Black-chinned typically exhibit great fluctuation. This season, Ruby-throated ranked second in abundance with 19%, while Black-chinned at almost 15% fell to fourth place behind Buff-bellied at 17.5% among newly banded birds. For a change of pace among returnees, there were more Ruby-throated than Black-chinned.

The 8-year average of Buff-bellied numbers is 22.5, but this season that number was more than doubled – 56! In most areas of the state, the numbers seemed below average. However, record numbers crowded a couple of favored locales in the New Orleans area. Many were youngsters. On the other hand, the number of returnees seemed to be relatively low.

Numbers of Calliope rose significantly last season, but they fell to a fairly average number this season. Nevertheless, we saw a healthy number of returnees, a legacy of the previous season's bounty. Broad-tailed numbers dropped slightly from last year. The number of Allen's is usually small though they showed a slight increase this season.

Except for the 2002-2003 season, Broad-billeds have been banded in Louisiana each winter of the last decade. As last year, three were reported, but only one was banded. Anna's is never guaranteed, so the single banded female was very welcome. A stunning adult male took off just before the bander arrived.

After last season's jump in numbers, this season's reduced catch was disappointing. However, we know that each season will yield new and interesting information. Even in a slow season, there is much to be learned. Of course, busy seasons are a lot more fun as we seek more data points to fill in the huge puzzle of Louisiana's wintering hummingbirds.

Hybridization in hummingbirds is well-known but not as well-studied as we would like. Nearly all known examples are of adult males because females of several genera are very similar to each other. It is entirely possible that female *Archilochus* hybrids and female *Selasphorus* hybrids exist, but picking them out would be extremely difficult. Hybridity is suggested when characteristics of two different species are exhibited by a single individual. A very few hybrids have been discovered among winterers in Louisiana. Our breeding Ruby-throateds have little chance to cross their genes with other species, but some of the western species breed almost side-by-side.

A handsome adult male hummer banded in late January in River Ridge exhibited several characteristics of male Black-chinneds, but it lacked the complete black chin and it had extended tails to the sides of the gorget, hinting that another species might be involved. Based on the images and collected rectrices, speculation regarding the other parent ranges from Lucifer to Costa's to Anna's. Future DNA studies of the rectrices might shed some light on the mystery.

### **Out-of-State Re-encounters**

One of our goals in banding is to find out where the birds originate, that is, to establish the breeding grounds of our winterers. That information has been slow in coming with a single Rufous found dead during the nesting season in British Columbia, Canada. Still, other re-encounters and recoveries give us glimpses into the vagabond lifestyles of our hummingbirds.

In past seasons, several birds banded in Louisiana were re-encountered outside of the state. However, in the 2007-2008 season, most foreign re-encounters of our birds occurred within the state. Only 2 hummers banded in Louisiana in previous seasons were caught in other states this season.

An adult male Calliope that had been a youngster at the time of banding in February 2007 at a site in St Rose was captured in January 2008 in Mobile, Alabama. This is the first Louisiana Calliope to be caught away from the state. A female Rufous that had been immature at the time of banding in February 2005 in Mandeville turned up at Spanish Fort, Alabama, in January 2008.

### **In-State Re-encounters**

On the other hand, 6 Rufous that were banded at Louisiana sites chose other in-state sites this season. A female that was young when originally handled in February 2007 in Napoleonville appeared in Lafayette in September 2007. She remained at the second site most of the winter. A male that was young when caught in Donaldsonville in January 2007 spent the winter of 2007-2008 in Greenwell Springs. He molted late and stayed well into April.

A female that was first banded in Covington in March 2005, when she was not yet in adult plumage, was caught in Slidell in December 2007. She may have been in transit to her nesting grounds when she was banded. She has wintered at the same Slidell home every year since.

Several banders cover Baton Rouge because that area hosts many birds and because they are rather spread out. It is not unusual for an individual from one site to move to another instead of returning to its original home. One particular neighborhood seems to catch more of the wanderers than any other. This season, 3 Rufous moved in from other Baton Rouge sites of previous years. 2 of them have actually become long-term returnees to a particularly well-endowed site.

### **Returnees**

Returnees are resourceful birds that prove winter survival and exhibit an uncanny navigational ability when they are able to relocate their previous winter homes after flying hundreds, if not thousands, of miles. Long-term returnees provide longevity data and attest to the value of created or enhanced habitats.

There were no new longevity records this season. The oldest bird was a male Rufous in Baton Rouge that was immature when he was banded in January 2001. He was hatched in the 2000 breeding season and using the formula of the Bird Banding Laboratory for establishing age, he was 8 years 9 months old when last observed.

The same Baton Rouge site held another 'senior' Rufous, a female that originally wintered at another site. Because she was still immature when banded in February 2002, we know she was hatched in 2001, setting her age at 7 years, 8 months.

In years past, the return rate for Ruby-throateds has been less than the rate for Rufous and Buff-bellied. However, this season, the numbers bumped up and we recorded 4 fifth year and 1 fourth year returnee Ruby-throateds.

### **Foreigners**

Although only 1 of our birds was caught out of state, we caught our share of other banders' birds. Early in the season, an adult male Rufous in Covington proved to be one banded as a youngster the previous December in Carriere, Mississippi. That bird did not stay on site but also did not return to the original site.

An adult female Rufous that was caught in Mandeville in February had been already adult when she was originally captured in Gauthier, Mississippi, in December 2006. Another adult female Rufous was caught in Covington in the third week of February after being banded in Mobile, Alabama, in late January 2008, a few weeks earlier. Although she was still replacing her outermost two primaries, this gal might have been on her way back to breeding grounds.

A female Rufous that was already in adult plumage when she was banded in Foley, Alabama, in February 2007, turned up in Covington in late December 2007. She spent the rest of the season at her new home.

In early March, a female Black-chinned was caught in Thibodaux for the second consecutive year. She had been a youngster when she was banded in January 2006 in Fairhope, Alabama. This bird did not return to her Alabama home, but it is not known if she stayed in Louisiana this year.

### **Weather Notes**

Winter weather is seldom extreme in Louisiana, but weather can play a significant role in this project. We do not band during subfreezing temperatures or during heavy rain, but neither was a major factor this winter. Dense fog can impede travel and scheduled trips may be postponed because driving conditions are too hazardous. However, weather in the winter of 2007-2008 did not cause any curtailments of our activities. Floral nectar was abundantly available throughout the area until a moderate frost knocked out a number of flowers in late December. Nevertheless, hummers were not completely dependent on handouts from humans. A stunning male Broad-billed in Luling avoided capture because he never used a feeder. In fact, in some gardens, flowers are much preferred over feeders. A few hard frosts north of Lake Pontchartrain and in Baton Rouge scorched the landscape causing more extensive feeder usage in those areas, but still the availability of insect food ensured that hummers could make their livings very well.

### **Thanks to Our Friends**

The Louisiana Winter Hummingbird Project has benefited from the enthusiastic assistance and generous financial support of numerous people. Many hummerhosts welcomed us with strong coffee, juice, and breakfast at unbelievably early hours. Several maintained a running tally of birds in their cities or towns and they set up banding schedules for us. Others wrangled equipment, trapped birds, recorded data or assisted us in locating additional winterers. Kevin Morgan gave 2 days each week to organize Baton Rouge banding trips during which he set up equipment, recorded data, and located new sites. His participation gave the Baton Rouge area much more effective coverage than it has had in the past few years. Frank Arthur, Lynn Becnel, Laurie Binford, Olga Clifton, Paul Conover, Covington Wild Bird Center, Miriam Davey, Dennis Demcheck, Bill Fontenot, Dennis Forshee, Joan Garvey, Erik Johnson, Bob Jumonville, Beth and Sammy Maniscalco, Sybil McDonald, Craig, Sandra, and Megan Mineo, Rose and Jack Must [Wild Birds Unlimited, Lafayette], John and Margaret Owens, Mike Roberts, Jacob Saucier, Ron Stein, Melanie and Pat Stephens, Gene and Edna Street, Tom Sylvest, Beth Wiggins, and Lizette Wroten all invested many hours in this project with us. We appreciate their special help very much.

To read previous Louisiana Hummingbird Banding Winter Reports, log on to <http://losbird.org/> and scroll down to "Hummingbirds". Already, Louisiana's hummingbird banders are looking forward to the next season, wondering what hummer delights might await. At this late date in August, the season has already begun! We are always searching for new sites where hummers reside during the winter months. Please contact us if you host wintering hummers or know someone who does. Dave Patton: [wpatton@cox.net](mailto:wpatton@cox.net) phone 337-232-8410 [home], 337-298-8447 [cell]. Linda Beall: [hummbander@yahoo.com](mailto:hummbander@yahoo.com) phone 985-893-5150 [home], 504-231-5150 [cell]. Nancy Newfield: [nancy@casacolibri.net](mailto:nancy@casacolibri.net) phone 504-835-3882 [home], 504-338-3882 [cell].

Nancy L. Newfield  
Casa Colibrí  
Metairie, LA USA