

## **Bird Notes**

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### Hummingbird monitoring project

The hummingbird season on Galiano runs from late March through mid-July, at least as far as Rufous Hummingbirds are concerned. A few birds may arrive early in March, and a few birds usually linger into the early fall, but the breeding activity and raising of young by this highly migratory species is condensed into the April to June time period. (Very small numbers of the non-migratory Anna's Hummingbird can be found on Galiano year-round, but they are greatly outnumbered by migratory Rufous Hummingbirds in the spring and early summer months.)

As described in previous Bird Notes, for the past three years Galiano has been one of the locations taking part in the Hummingbird Monitoring Network, an international research project involving approximately 30 hummingbird monitoring and banding sites in Arizona, California and BC. The aim of this project is to increase our understanding of hummingbird population numbers and migration patterns throughout western North America. On Galiano this project operates "under the wing" of the Galiano Naturalists.

At each of the research sites, every two weeks volunteers count hummingbirds that visit two designated feeders over a five hour period beginning within 30 minutes of sunrise (which means starting at 5:30 am in late June!). Specialized traps are used to capture some of the birds, which are then weighed, measured, and banded with tiny aluminum bands before release. Some of the captured birds will already have bands, and these band numbers are recorded. All the data from the dozen BC sites are forwarded first to the provincial coordinator for the project, and then on to the project headquarters in Arizona.

Here on Galiano the monitoring site is located at Betty Kennedy's residence on Active Pass. We are fortunate that Betty is willing to have volunteers show up on her deck at dawn every two weeks throughout the spring and early summer. Moreover, she provides coffee and cookies, which really helps the morale of the volunteers! Betty has been feeding large numbers of hummingbirds at her home for many years, and her extensive and beautiful gardens also provide an irresistible attraction for hummingbirds (and lots of other kinds of birds too).

During our five hour sessions only two feeders are left up, but Betty regularly maintains about a dozen large capacity feeders at her home. Thanks to her careful record-keeping, we not only have data from our monitoring and banding sessions every two weeks, but a continuous record of the phenomenal amount of sugar the birds at this site consume over the season.

As a rule of thumb, it is generally assumed that it takes 65 hummingbirds to consume a cup (250 milliliters) of sugar water in one day. At the height of the migration, the hummingbirds were consuming up to eight liters per day. Even allowing for evaporation and spillage, these data suggest that a staggering total of up to 2000 birds per day were visiting Betty Kennedy's feeders! Many of these birds were migrating through and using the feeders and gardens as a fueling stop, but the daily consumption after the migration peak suggests that several hundred hummingbirds were nesting within the vicinity of the Kennedy home.

The total number of hummingbirds captured at this site this year was 294, all of which were Rufous Hummingbirds with the exception of one Anna's Hummingbird. Twenty-nine percent of the captured birds had been banded previously, and all of these had been banded at the Kennedy residence, either earlier this year or in a previous year. The oldest bird captured had been banded at this site in 2000, as part of an earlier project. This bird, a female,

had made six round trips to Mexico, and had been recaptured at the same site on Galiano in a couple of intervening years.

This year's total of captured hummingbirds is 39 more than were trapped at the Kennedy residence last year, but 43 fewer than were trapped in 2004. As would be expected, early in the season all the birds captured are adults, but by late June and early July virtually all the adult males and many of the adult females have already left, and most of the birds captured are juveniles.

The real differences between the years appear when one examines the distribution of bird numbers over the season. (Please see the line graph with hummingbird numbers for 2004 - 06.) We don't know the reasons for the different patterns of abundance in the different years, but there is speculation that last year's relatively low numbers in May (mirrored at other south coastal BC sites) could be due to the extraordinary and widespread bloom of Arbutus trees that provided a dispersed food source for the birds.

Why the total numbers of birds captured at the Galiano site dropped off so quickly in June this year is unknown, but this pattern was also seen at other south coastal BC sites. One possible explanation is that, for some reason, the hummingbirds are simply using different routes for their southern migration this year. On the other hand, Cam Finlay of Saanich, who is the provincial coordinator for the project, believes we are witnessing a steady decline in the Rufous Hummingbird population due to human-caused loss of critical habitat along their migration corridors and on their wintering grounds. The need to collect information to determine trends and find explanations for observed patterns is why this research project is so important.

A total of 21 people volunteered at one or more of the monitoring/banding sessions on Galiano this year, and several individuals participated at most or all of the sessions. My thanks to each of them for their keen interest and their willingness to help, which allowed Galiano to make a significant contribution of information to this international research project again this year.

