

determined, and these were regressed on latitude of collection site. A simple linear model explained 74% of the variation in isotope ratios, but an added quadratic expression boosted variation explained to 84%. Thus, isotope ratios from HY RTHUs do vary in a curvilinear by latitude way. Isotope ratios do not discriminate clearly among all southerly sites, but there is a break in isotope between 39E and 40E latitude. Sample 2: R4 feathers from every 20th HY RTHU banded in 2002 were collected in southern Illinois (n = 34). Converting these 34 cases to t-scores based on the sample of the first 10 HY RTHUs for southern Illinois suggests that four migrated from more northern latitudes, one came north from southern latitudes, and 29 likely are from southern Illinois or nearby latitudes.

Hybrid Hummingbirds. STACY PETERSON, Eagle River, AK.

No abstract

Rocky Mountain National Park Hummingbird Survey. TENA ENGELMAN and FRED ENGELMAN, Rocky Mountain National Park, Colorado Springs, CO.

Five-year volunteer citizen-science initiative project begun in 2003 by two researchers. The purpose is to document Rocky Mountain National Park (RMNP) hummingbird populations and associated habitat. The survey supports the National Park Service (NPS) Science in the Parks initiative. No NPS funding is involved, although seasonal housing is provided. The survey requires approximately 2,000 hr of field research and report preparation time each year by the researchers. The survey objectives are to collect demographic information for breeding and transitory species; identify movement and dispersal patterns within the park; obtain information on philopatry and longevity; identify suitable habitat; document presence of rare or infrequently seen species; translate collected data into publicly available information for use by park interpretive personnel; prepare formal annual reports for the park; and, recommend additional areas for research. Researchers capture, band, measure, and release hummingbirds in designated locations on both the east and west sides of the Continental Divide. Field research is ongoing for 2005, and the following preliminary results apply to the first half of the study. Approximately 2,200 hummingbirds of four

species have been banded and demographic data collected. Two significant foreign encounters have occurred, both involving Broad-tailed Hummingbirds. In the more important instance, a hatch-year female banded in the Chiricahua Mountains of southeastern Arizona in Sep 2003 was encountered in RMNP in Jun 2004. The distance between the two sites is 630 mi, the current record for Broad-tailed Hummingbirds. Researchers obtained extensive digital images and video for use by park interpretive personnel. A substantial decline in numbers of Rufous Hummingbirds transiting the park in 2004 was documented. The first Ruby-throated Hummingbird to be observed in the park was documented and supporting information submitted to the park and Colorado Bird Records Committee.

Ruby-throated Hummingbird spring arrival at Fort Morgan, AL, banding station. BOB SARGENT, Trussville, AL.

Arrival under "fallout conditions," apparent accompanying species in fallouts, nighttime arrival of hummingbirds, body mass variations of arriving hummingbirds and related weather conditions, lack of floral nectar available to inbound Ruby-throated, molt conditions noted upon arrival, ageing some SY hummers on arrival as late as mid-April, absence of diseased and injured birds in arriving populations, and dispersal of inbound Ruby-throated from Fort Morgan to other locations northeastward will be discussed.

Regional and temporal distribution of *Selasphorus rufus* in Texas. MARK KLYM, Texas Parks & Wildl. Dept., Austin, TX.

We have all heard the question: "Aren't the Rufous Hummingbirds early this year?" Casual observation in a limited setting would seem to indicate these migrants arrive and depart at similar times each year, but data acquired through 11 yr of observations at various sites across the state indicate that these birds arrive at diverse times across the state and that there is little or no standard time in any one region. Arrival dates averaged week 32 (wk 2 in Aug, SD = 6.8, SE = 3.6) statewide. Regional arrivals varied from an average week 29 (wk 4 Jul, SD = 7.6, SE = 1.2) in the Trans Pecos to week 36 (wk 2 in Sep, SD = 5.2, SE = 0.99) in south Texas. Departure dates showed even less consistency with the average