

# Scientific research in the Mono Basin

*News from the Mono Basin Field Station and beyond*

## Discovery of an interesting behavior for Song Sparrows in the Mono Basin

Quresh Latif, Ph.D. student, Biology Department, UC Riverside

The article, “First evidence of conspecific brood parasitism in Song Sparrows with comments on methods sufficient to document this behavior”<sup>1</sup> was published in the May issue of the ornithological journal *The Condor*. It describes the discovery of an interesting behavior in Song Sparrows (*Melospiza melodia*) in the Mono Basin.

Song Sparrow females build nests in which they lay their own eggs and feed their own young until the young are old enough to fly and collect food on their own. In the process of video-monitoring songbird nests to document nest predation, PRBO Conservation Science collaborators and the article’s co-authors Sacha Heath, Grant Ballard, and I recorded a Song Sparrow laying an egg in the nest of another Song Sparrow on Lee Vining Creek. The nesting female struggled to fight off the invader, but the invader succeeded, leaving her egg for the other nesting female to care for. This behavior, known as *conspecific brood parasitism*, has been documented in a variety of other bird species, but never before for Song Sparrows.

In addition to video observation, we also observed more than one egg laid in a single day in each of two other nests monitored at other Eastern Sierra study sites. Since Song Sparrows are only capable of laying one egg per day, these observations are also likely cases of conspecific brood parasitism.

The PRBO team co-authored the article with Dr. Mark Hauber and Dr. Letitia Grenier. Included in the article are Dr. Hauber’s observations of conspecific brood parasitism in Song Sparrows at his study site near Ithaca, NY, and Dr. Grenier’s genetic findings showing that a population of Song Sparrows at her study site in Marin County did not engage in brood parasitism.

The article also discusses different methods for documenting this behavior—including egg-marking, video-monitoring, and genetics testing, as well as the value and limitations of each. Identifying ecological factors that encourage some populations to engage in conspecific brood parasitism while others do not would be an interesting avenue for further research. ❖

<sup>1</sup>Latif, Q., Grenier, J.L., Heath, S.K., Ballard, G., and Hauber, M.D. 2006. First evidence of conspecific brood parasitism and egg ejection in Song Sparrows, with comments on methods sufficient to document these behaviors. *Condor*.108(2).

*Science in the Mono Basin is a regular feature in the Mono Lake Newsletter, and is produced in collaboration with PRBO Conservation Science Eastern Sierra Project Director Sacha Heath.*

### Field Station from page 5

2. Virginia Creek Aspen Restoration Project: Sacha’s crew is mapping bird territories and gathering breeding data where the BLM is experimenting with restoring quaking aspen habitat by removing lodgepole pines.
3. Adobe Valley Monitoring: PRBO is collecting data on bird responses to riparian and upland restoration in the Adobe Valley for the third year in a row.
4. Sage-Grouse Site Monitoring: The PRBO team is investigating the use of sagebrush nesting songbirds in areas designated as Greater Sage Grouse habitat in the Bodie Hills and Long Valley. PRBO hopes to inform land managers of the area’s importance to the entire breeding bird community.
5. Devils Postpile Monitoring and Visitor Education: Since 2002, PRBO researchers have collected data on birds at Devils Postpile National Monument, sharing their

methods and results with over 1,200 visitors! Their studies and public education will continue again this year.

6. Furnace Creek: Friends of the Inyo is funding PRBO’s assessment of the breeding bird community of this unique and threatened desert stream on the east slope of the White Mountains.
7. Stable Isotope Study: PRBO is collecting blood and feather samples from sagebrush breeding birds for a US Geological Survey study which links breeding and wintering ranges of sagebrush birds based on analysis of stable isotopes contained in feathers.

For more information about the Field Station, visit the Mono Basin Clearinghouse Website at [www.monobasinresearch.org](http://www.monobasinresearch.org). ❖

*Elin Ljung is the Committee’s Communications Coordinator. She has been experimenting with making her commute to work by bike—30 miles round trip!*