



Newsletter of the

LANDBIRD MONITORING NETWORK OF THE AMERICAS

<http://www.klamathbird.org/lamna/>

July 2010

Calling All Banders: Participate in UCLA's Feather Sampling Research

With the completion of UCLA's NIH-funded efforts to sample for influenza in neotropical migratory passerines (which collected cloacal swabs and corresponding feather samples), we are reverting back to our annual request for the banding community to collect feathers to support neotropical migrant conservation research. These collection efforts have proved an enormous benefit to the research community, allowing for both genetic and isotopic testing to be performed from feather samples to provide insight into migration connectivity, population demography, disease detection, genetic health, etc.

The neotropical passerine feather collection at [UCLA's Conservation Genetics Resource Center](#) now contains over 100,000 feathers and last year nine different research groups from the Americas and Europe were able to utilize the collection for their studies (the LaMNA network is acknowledged in all publications emanating from feathers your organization has provided). We expect that the collection will become even more valuable as its temporal, spatial and species coverage is expanded and other analyses are developed for feathers including disease studies such as the West Nile Virus project being conducted by UCLA (for more information, see http://www.klamathbird.org/lamna/wnv_monitoring.htm).

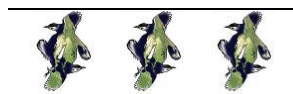
One very exciting project now underway that has been made possible by the collection is a study by

Keith Hobson of Environment Canada and Keith Larsen of Lund University to validate the North American isotope gradient maps used by a number of researchers to investigate migratory connectivity. They are performing isotope testing on over 2,000 feather samples of breeding bird recaptures from the collection.



The feather collection would not have been possible without the volunteer efforts of the LaMNA network community and coordination efforts at RSL. For information on how to participate in the feather collection efforts and recommended protocols, please see the flyer posted on the LaMNA site at http://www.klamathbird.org/lamna/2010-2011_Feather_Collection_Flyer.pdf.

- John Pollinger, UCLA Center for Tropical Research, jpollinger@ucla.edu



The Avian Knowledge Alliance, PRBO Conservation Science, and LaMNA: NGO Synergy Adds Value for Data Exploration

The Avian Knowledge Alliance (<http://www.klamathbird.org/partnerships/networkandcollaborations/60.html>) is an international group of organizations dedicated to amassing, caretaking, and communicating knowledge gained from the study of birds. The Alliance set a goal of developing a set of complementary Avian Knowledge Network (AKN) data nodes to

provide stewardship for critical bird monitoring databases.

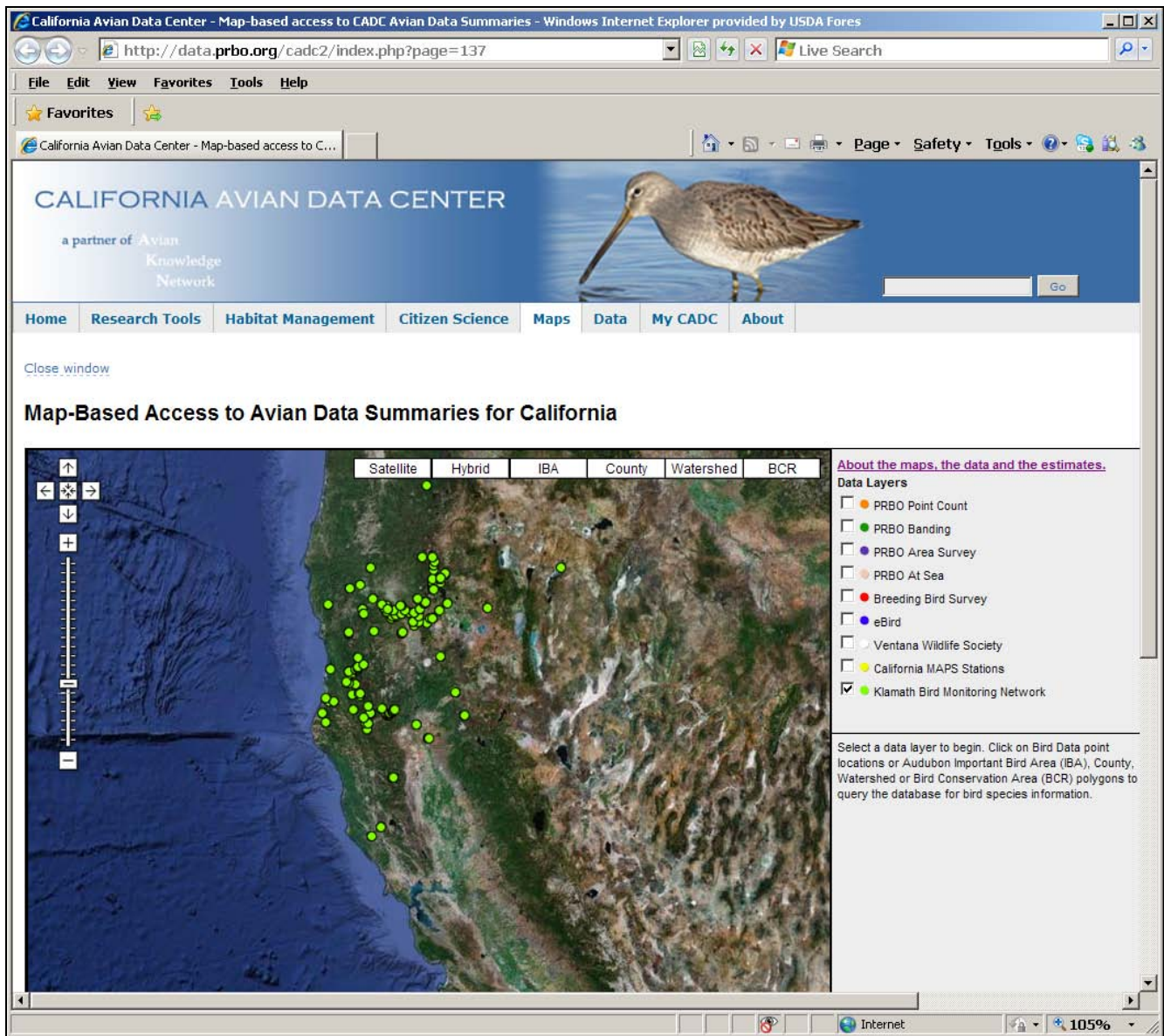
In October 2009, the Alliance held a workshop to make progress towards enabling organizations, such as LaMNA, to quickly and efficiently manage and interpret large datasets to generate metrics, analyses, summaries and visualizations of data. The key

outcome of the workshop was a resolution to build on investments and progress made by PRBO Conservation Science in developing the California Avian Data Center (CADC) (<http://data.prbo.org/cadc2/>). As a result, LaMNA and the Klamath Bird Observatory-Redwood Sciences Laboratory Avian Data Center are working closely with PRBO Conservation Science to use CADC's AKN Node data management and analysis framework. LaMNA has already begun migrating banding data into a CADC framework with test data from the Klamath Bird Monitoring Network. You can explore these data with CADC's interactive map-based access to avian data summaries at <http://>

data.prbo.org/cadc2/index.php?page=california-avian-data-summarized-by-county. Select "Klamath Bird Monitoring Network" (or one of the other listed data layers, see figure below) to display data points in the database and start exploring!

This type of collaboration provides an excellent example of how the Avian Knowledge Alliance brings together the unique capacities and roles of non-government organizations, adding value to the bird conservation arena.

- John Alexander, Klamath Bird Observatory
jda@klamathbird.org



California Avian Data Center map-based interactive data tool, with the Klamath Bird Monitoring Network data layer selected.



Precious Historical Data Recovered from Costa Rica: Gary Stiles' Banding Study

Over the past 15 years of our work in Costa Rica, I have often heard about the banding work that the near mythological F. Gary Stiles who did (and continues to do) much important work in Latin America. I had thought that these data would provide important information for comparisons with today's San Jose.

Upon investigation, it turned out that Gary, "way" back in 1976-1988, mounted a long-term study at an abandoned coffee finca, then about a half kilometer from the main campus of the Universidad de Costa Rica. Over the years, much of this land has been developed as the campus has expanded, although a portion of it still remains. He published his results in 1994 as "A study of fall migration of Nearctic breeding landbirds in central Costa Rica" in the journal *Bird Conservation International* (volume 4, pages 71-85).

In his paper he told of the 5,549 migrant birds of 63 species and 782 birds of 28 resident species that he banded and recorded information. Gary graciously arranged for copies of the raw data of the migrants to come to California courtesy of one of his students, Andrés Felipe Carvajal, at Universidad Nacional de Colombia.

We have gone through the first stages of these data, of determining the number of net hours. Now, the migrant banding data are being entered into the LaMNA database and we are awaiting Gary's efforts

in going through his journals to extract the data for the resident species.

If you know of historical data such as this, please contact us, and we'll do our best to make it an integral part of LaMNA.

- C. J. Ralph, U. S. Forest Service,
Redwood Sciences Laboratory, cjr2@humboldt.edu



Gary Stiles captured 111 Ovenbirds during his study from 1976 to 1988. Photo by Hanna Mounce.



Update on UCLA Avian Influenza Studies in Passerines

Prevalence of Avian Influenza in Passerines

UCLA's NIH-funded project to survey migratory passerines in the Americas for the presence of avian influenza is entering its 4th and final year. Cloacal swab sampling efforts by banders were completed in 2009 and we have received over 35,000 swabs and corresponding feather samples from North, Central and South America since sampling was initiated in mid-2006. The samples represent over 360 species of birds. This was a huge undertaking that could not have been accomplished without the contributions of LaMNA-affiliated banders and coordination by Linda Long and others at Redwood Sciences Lab. UCLA has tested almost 10,000 samples to-date and is now focusing on testing the remaining 25,000 samples.

It has been recognized since the 1970s that flu is present in ducks and wading birds, but almost nothing is known about flu in passerines. The samples gathered in part by the LaMNA network of banders have recently begun to shed light on the prevalence of flu in passerine birds. Thus far, flu has been detected in 18 species of passerine birds and we observe an overall prevalence rate of about 0.5%, a low prevalence rate compared to rates reported for some waterfowl and shorebird species (up to 20-25%), but proof that passerines do get influenza. See the full report on the LaMNA site for a list of these species (http://www.klamathbird.org/lamna/avian_flu_UCLA_2010.htm).

A key goal of the project is to examine the temporal (season and year-to-year) and spatial (breeding grounds, wintering grounds, the major migratory flyways, etc.) variation in flu prevalence rates. Our preliminary results have allowed us to model and predict regions of the contiguous U.S. where the risk of flu in wild birds is likely to be particularly high based on environmental conditions, which can help federal agencies decide where to test for flu in wild birds in the future and may ultimately contribute to the prevention of flu in human populations.

As can be seen in the preliminary analyses, the Pacific Northwest and the Upper Mississippi flyway

are predicted to be regions of high risk of flu in wild birds in North America (Figure 1, right panel). The dataset used in the analysis included both our passerine data and data on waterfowl and shorebirds from USDA and the Biohealthbase. Also, see the publication listed in “New Publications” on last page of this newsletter.

We will provide LaMNA participants with summaries of the test results for samples they have sent to UCLA later this summer as our testing results are completed.

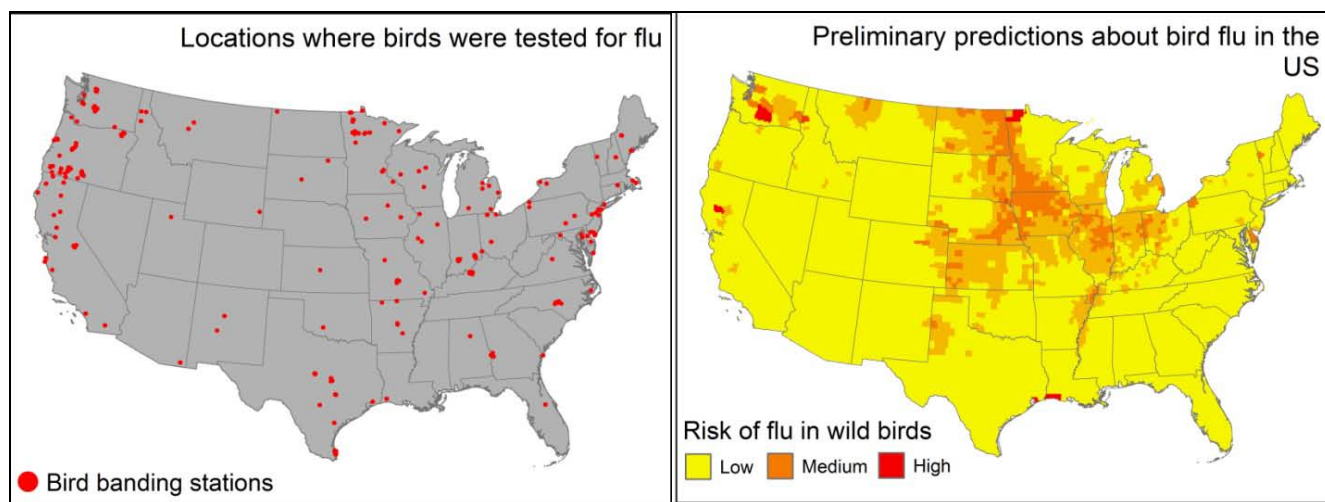


Figure 1: Bird samples collected by LaMNA and MAPS banders (left panel) facilitate scientific analysis of the flu risk (right panel).

Transmission of Avian Influenza to Bird Banders

We also want to update participants on another component of our study – investigation of transmission of avian flu to humans. Many of you have been participants in our blood sampling of banders at past meetings of ornithological societies in Portland in 2008, Philadelphia in 2009 and San Diego this past February 2010. We collected blood samples from 187 banders in Portland, 123 in Philadelphia, and 97 from San Diego. The tests consist of a test of the blood sera for evidence of past exposure to North American avian influenza strains (as opposed to human strains such as the current H3N2 and H1N1 strains circulating in human populations). Two people were positive for past exposure to avian influenza from the Portland meeting samples and one person tested positive from the Philadelphia meeting samples (San Diego meeting samples have not been tested yet). People testing positive were notified of their results by the UCLA School of Public Health professor leading this component of our study.

The 1% positive rate for the avian influenza strains we tested for reinforces the point that catching

avian influenza strains from handling birds during banding is somewhat rare, but possible. We are currently quantifying the level of bird handling reported by the volunteer blood donors with the test results to see if there is any correlation between amount of handling and potential of catching an avian influenza strain and will report those analyses in a future update.

The H5N1 HPAI avian flu strain (HPAI – “highly pathogenic avian influenza”) that has been of major health concern for humans in Asia and Africa has not made it to the Americas. But the reality that humans can catch the mild strains of avian influenza present in birds in the Americas serves as a reminder that banders should follow the USGS/USDA recommended precautions in handling wild birds. Many birds are asymptomatic for influenza (and other diseases that could affect humans), so you cannot tell observationally whether they are currently infected and possibly contagious.

- John Pollinger, UCLA Center for Tropical Research, jpollinger@ucla.edu



Upcoming Meeting

25th International Ornithological Congress, 22-28 August 2010, Campos do Jordão, SP, Brazil:
<http://www.acquaviva.com.br/ioc2010/>

New Publications

Fuller, Trevon L., Sassan S. Saatchi, Emily E. Curd, Erin Toffelmier, Henri A. Thomassen, Wolfgang Buermann, David F. DeSante, Mark P. Nott, James F. Saracco, C. J. Ralph, John D. Alexander, John P. Pollinger, and Thomas B. Smith. 2010. Mapping the risk of avian influenza in wild birds in the US. *BMC Infectious Diseases* 10:187doi:10.1186/1471-2334-10-187. Available at: <http://www.biomedcentral.com/1471-2334/10/187>

North American Bird Conservation Initiative, U.S. Committee, 2010. *The State of the Birds 2010 Report on Climate Change*, United States of America. U.S. Department of the Interior: Washington, DC.
<http://www.stateofthebirds.org/>

Rich, T.D., C. Arizmendi, D. Demaraest, and C. Thompson (eds.). 2009. *Tundra to Tropics: Connecting Birds, Habitats and People*. Proceedings of the 4th International Partners in Flight Conference, 13-16 February 2008. McAllen, TX. Partners in Flight.
<http://www.partnersinflight.org/pubs/McAllenProc/index.cfm>

Wolfe, Jared D. and C. John Ralph. 2009. Correlations between El Niño-Southern Oscillation and Changes in Nearctic-Neotropical Migrant Condition in Central America. *The Auk* 126(4):809 .
[http://www.fs.fed.us/psw/publications/ralph/psw_2009_ralph\(wolfe\)003.pdf](http://www.fs.fed.us/psw/publications/ralph/psw_2009_ralph(wolfe)003.pdf)



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We Need Your Help! Send Us Your Contributions

We would like you as members to consider this your newsletter. To that end, we would like to ask you to send information on subjects related to bird monitoring and research. These can be abstracts of publications, articles (non-copyrighted reprinted short articles or self-written articles), web links, or other information that you would like to share. Please e-mail information to Linda Long (llong@fs.fed.us), or send by surface mail to her at USFS Redwood Sciences Laboratory, 4886 Cottage Grove Drive, McKinleyville, CA 95519.

Interested in membership or learning more about LaMNA? See our web page at <http://www.klamathbird.org/lamna/> for details and a membership application form.