



Western Regional News

Western Bird Banding Association

Founded 1925

67th ANNUAL MEETING WESTERN BIRD BANDING ASSOCIATION

The meeting at the Motte Rimrock Reserve of the University of California - Riverside opened on Friday, October 23, 1992 with walks to pictographs, leader: Jim Fuller, and field trips to San Jacinto Wildlife Refuge - Leaders: Doug Williams and Ardelle Loge. In the evening a barbecue and social were held at the Reserve headquarters.

On Saturday morning these demonstrations and poster presentation attracted attentive audiences:

Hummingbird banding - Russell style.

Barbara A. Carlson and **Ruth C. Yoder**, Motte Rimrock Reserve.

The hummingbird trapping method used by Ruth and Steve Russell of Arizona was demonstrated. The method involves creating a three-sided mist-net "box" with a mistnet top. Hummingbird feeders inside the "box" are used to attract hummingbirds. The Russells successfully use this method to trap up to 100 hummingbirds a day in Arizona.

Landbird Banding Demonstration.

David DeSante, The Institute for Bird Populations, **Cin Greyraven**, **Christine Harker**, and **Ardelle Loge**, Motte Rimrock Reserve.

Demonstrations in banding techniques, ageing, sexing, and color banding was demonstrated.

Poster - Upper Santa Ynez River Study Area.

Jim Greaves, 327 W. Islay St., Santa Barbara, CA 93101.

Four species of vireos (Bell's, Hutton's,

Solitary, and Warbling) co-occupying the same wooded area.

Getting banding data from the banding sheets to the computer to the banding lab.

Geoffrey R. Geupel, Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, CA 94970.

The method used at Point Reyes Bird Observatory to process the banding data from field sheets to a data base on computer floppy disks and then from data base to output to send to the Bird Banding Laboratory was demonstrated.

Traps and trapping techniques for banding Clapper Rails in coastal salt-marshes.

Richard E. Kust, 55 Seton Road, Irvine, CA 92715.

The Clapper Rail Study Team, working with Dick Zembal of the U.S. Fish and Wildlife Service, is a group of volunteers who are continuing a ten-year-long program to monitor and aid the recovery of the endangered Light-footed Clapper Rail (*Rallus longirostris levipes*). The team constructed 11 new traps to add to the remaining 8 old traps and trapped approximately ten times each in 1991 and 1992. Trapping is done during those periods of low tide which coincide with the highest activity periods of the rails, in early morning or at dusk. Over forty birds have been color banded in these two years, whose behavior is then observed during the year by the study team. Mr. Kust demonstrated the several types of traps and trigger mechanisms used, discussing construction techniques, methods for placement in the marsh, and color bands used.

Mistnet mending using a tatting shuttle.

Ruth C. Yoder, Motte Rimrock Reserve.

Now that mistnets are getting harder to buy and more expensive because of the Japanese embargo, repairing mistnets becomes more of a

necessity. Using a tatting shuttle to hold the thread while mending nets in place on poles appears to be an easier method. This method can be used easily in the field in emergencies. The shuttles hold more thread than needles and are not lost as easily if dropped. Plastic shuttles are preferred over metal ones.

At the WBBA membership meeting the following officers were elected.

President: **Geoffrey R. Geupel**
1st Vice President: **Barbara A. Carlson**
2nd Vice President: **Thomas H. Pogson**
Secretary: **Dennis P. Vroman**
Treasurer: **Kenneth M. Burton**
Director: **Kay Loughman**

Michael Rigney continues as a director and **Carl D. Barrentine** becomes Immediate Past President. Many thanks to Carl and **Hal Wasserman**, retiring treasurer, for all their hard work for WBBA.

In the afternoon, the following papers were presented:

The Monitoring Avian Productivity and Survivorship (MAPS) Program—a 1992 Update. **Kenneth M. Burton** and **David F. DeSante**, The Institute for Bird Populations, P. O. Box 1346, Point Reyes Station CA 94956.

The Monitoring Avian Productivity and Survivorship (MAPS) Program is a cooperative effort among agencies, private organizations, and banders for the long-term monitoring of adult population levels, post-fledging productivity, adult survivorship, and recruitment for selected North American landbird species. The program is based on standardized mist netting, banding, and point counting during the breeding season at a continent-wide network of stations and will provide data critical for determining the causes of current landbird population declines.

Program results from 1991 showed that adult population sizes for all species decreased significantly from 1990 by 19.3% in the Northeast following decreased productivity there in 1990 but did not change significantly in the Northwest. Productivity did not change significantly in either

region. Analyses of capture-recapture data suggest that survival and capture probability estimates may be expected to average about 0.5 and 0.3, respectively. Approximately 150 stations were in operation in 1992 (the fourth year of the program), with roughly half of these in the West. Many new stations were established in western national parks and forests this year in cooperative agreements whereby the parks and forests provided funding, equipment, and lodging, and the Institute hired interns to operate the stations. Results from 1992 have not been analyzed yet, but will allow for the first estimates of recruitment into breeding populations.

Potential positive correlation between rainfall and increase in HY/AHY ratio. HY and AHY per 100 net hours at a Riversidian sage scrub MAPS Station in Southern California. **Barbara A. Carlson**, Motte Rimrock Reserve, Biology Dept., University of California, Riverside, CA 92521.

Data from the first three years (1990 - 1992) at a MAPS station located on the Motte Rimrock Reserve, northwest of Perris, California, were presented showing a potential positive correlation pattern between rainfall and HY/AHY ratio, HY and AHY birds banded per 100 net hours. In addition, a potential pattern of timing of rainfall and timing of HY captured is also presented. Although this (MAPS) station is atypical in that it is located in a non-forested area and the majority of the species captured are residents, the need for this type of empirical data is high in an area where many habitat conservation plans, which will be used as models for the entire country, are being developed without good baseline data.

Studies of Black Skimmers in Southern California. **Charles T. Collins** and **Kathleen Gazaniga**, Department of Biology, California State University, Long Beach, CA 90840.

Black Skimmers (*Rynchops niger*) were first recorded in California at the Salton Sea in the early 1970's and bred shortly thereafter. They colonized the coast in San Diego by 1975 and moved north to Bolsa Chica Ecological Reserve (Orange Co.) in 1985. Their numbers have increased steadily since then. Studies of banded and color marked birds have indicated a high site fidelity. Over-wintering areas are from Santa

Barbara to San Quintin, Baja California, Mexico. A new individualized color band is being utilized to facilitate more detailed observations beginning in 1992. Initial results are highly encouraging!

Demography of the Santa Cruz Island Scrub Jay. *Kennon Corey* and *Charles T. Collins*, Department of Biology, California State University, Long Beach, CA 90840.

The Santa Cruz Island Scrub Jay (*Aphelocoma caerulescens insularis*) is the most distinctive endemic component of the California Channel Islands avifauna. Long-term banding studies of about 55 pairs have shown some interesting facts: annual survival of breeders is between 89-92% (somewhat lower in older aged cohorts); survival to 18-19 years has been documented; age at first breeding is 3-5 years; juvenile (pre-breeding) survival is lower than for adults. Even for a sedentary permanently monogamous and non-cooperative breeding species these values are exceptional!

Preliminary results of a dispersal and movement study of Spotted Owls in Southeastern Arizona. *Russell B. Duncan*, Southwestern Field Biologists, Tucson, AZ and *Steven M. Speich*, Dames & Moore, Tucson, AZ.

In the Pacific Northwest, there is concern for the viability of Northern Spotted Owl (*Strix occidentalis caurina*) populations in an increasingly fragmented habitat. The ability of Spotted Owls to disperse across stretches of unsuitable habitat is poorly understood. A study of Mexican Spotted Owls (*S. o. lucida*) in the sky island mountains of southeastern Arizona, where they exist in naturally dispersed isolated habitats provides an ideal opportunity to investigate these and other basic questions of Spotted Owls. In addition to banding and monitoring, we are examining the degree of genetic isolation between Spotted Owl populations occurring on 14 sky island mountain ranges using RAPD (Random Amplification of Polymorphic DNA) markers, the results of which are forthcoming. To date we have captured and color-banded 90 Mexican Spotted Owls (47 adults and 43 juveniles). Monitoring of birds banded in 1991 during 1992 showed adult turnover in four of 14 territories and successful dispersal and pair bonding in two of 12 fledglings, one a male and the other a female. The

female successfully bred in 1992. From this study and related inventory surveys we have identified roosting and nesting habitats preferred by Mexican Spotted Owls in southeastern Arizona, including Madrean evergreen woodland and Rocky Mountain montane conifer forest, and less commonly, relict conifer forest. These cold- and warm-temperate forest and woodland habitats are often associated with montane and interior riparian deciduous forest and woodland.

Banding studies reveal data on structure and size of Least Bell's Vireo, *Vireo bellii pusillus*, and Kentucky Warbler, *Oporonis formosus*, populations in Santa Barbara, California.

Jim Greaves, 327 W. Islay St., Santa Barbara, CA 93101.

In 1979-83 and 1987-92, I conducted two banding studies of Least Bell's Vireos; nine years of return data indicate that they are highly site tenacious. The population declined from 1982 to 1987, coincident with unusually wet, followed by extremely dry conditions: there were about 45 females in 1982, but about 16 per year from 1988-92. Fledgling return rates were 18% (11-35) and 22% (18-31), respectively; however, rates of return for a second breeding year were only 27% and 37%, respectively, roughly half the overall adult return rates. Among known-aged birds, return rate for females was higher than for males in both studies. Of returning birds, in the first study 27 males and 24 females used their previous year's territories 30 of 48 times (63%) and 9 of 34 times (26%), respectively; in the second study 25 males and 17 females used their previous year's territories 40 of 51 times (78%) and 17 of 36 times (47%) respectively. Few, if any, immigrants were found in the study population after 1989, indicating probable reproductive isolation. From 1990-92, recruits appeared to be only birds from study area nests. While no evidence of incest was found in the first study, in 1991 two parent-offspring pairs were found. In 1992, one of the two pairs was again present. Young were raised by both pairs, but egg viability of the 1992 pair was low both years. In 1992, 46% of banded adults were first-adult-year birds, and two males (10% of all males) banded AHY in 1987, were at least six years old. In 1992, banding helped determine the minimum size of a Kentucky Warbler population in the study area.

Light-Footed Clapper Rail Movement in a Southern California Salt Marsh, 1981-1991.

Peter Gierow, Richard Zembal, John Bradley, Sue Hoffman, and Joe Woods, Clapper Rail Study Team.*

From 1981 through 1991, 129 Light-footed Clapper Rails (*Rallus longirostris levipes*) were captured in drop-door box traps in the Upper Newport Bay Ecological Reserve in Orange County, California. They were individually color-banded to gather data on their movement and activity and activity patterns, territoriality, dispersal, and longevity. Because of the loss of habitat, this bird was placed on the endangered species list in 1973. It is rarely seen because it inhabits the dense cordgrass (*Spartina foliosa*) and pickleweed (*Salicornia virginica*) of the coastal salt marshes of Southern California.

Traps are placed in small creeks within the cordgrass or along the edges of mudflats at low tide. The rails are banded immediately upon capture and released near the site of trapping. Trapping is done in August through October when most fledging has occurred. Over the 11-year period, 8 to 16 box traps were used during 116 sessions for a total of 4208 trap hours. One hundred twenty-nine rails were captured and banded. Sixty percent of the sessions resulted in the capture of at least one rail. Maximum distances between locations for a given rail were generally < 400 meters ($x = 12-298$ m). One rail was observed 21.7 km north of Upper Newport Bay at the National Wildlife Refuge at the Seal Beach Naval Weapons Station. Banded Clapper Rails were resighted 307 times, including 21 recaptures of 20 birds, and discovery of 8 dead birds. Individual rails were resighted over a range of 0 to 5 years. A strong site tenacity is indicated. Immature birds moved more than adults. Larger movements were associated often with chases, predator alarms, and high tides.

*The Clapper Rail Study Team is a joint venture between the U.S. Fish and Wildlife Service, under the direction of Richard Zembal, and the Sea and Sage Audubon Society of Orange County. Other members of the team include Rebecca Bradley, Dick Kust, Sharon Marshall, and Jim and Jennifer Robbins.

Demography of Lincoln's Sparrows (*Melospiza lincolnii*) in the Transverse Range in Southern California. **Cin Greyraven**, San Bernardino Valley College, San Bernardino, CA.

From 1987 to 1992, breeding adult, juvenile, and nestling Lincoln's Sparrows (*Melospiza lincolnii*) were captured, color banded, measured, and released for observation within their breeding territories in subalpine meadows of the San Bernardino and San Jacinto mountain ranges of Southern California.

Migrational return of adults averaged 50% annually. Over 85% of these birds settled on previously held or nearby territories. Maximum observed dispersal was 2 kilometers until the summer of 1991. Then, the maximum observed dispersal jumped to 58 kilometers when a Lincoln's Sparrow banded as an AHY-F in 1989 in the San Jacinto mountain range was confirmed to be breeding in the San Bernardino mountain range. Most dispersers moved from smaller to larger habitat patches. Slight gender biases in site fidelity were seen. Both serial monogamy and mate switching were observed in cases where both members of a pair returned following winter migration.

Nesting success appeared high, and double-brooding was confirmed. Larval fly parasitism of nestlings was seen, primarily in second clutches. Cowbird parasitism was observed in 1992. The rate of migrational return for Lincoln's Sparrows banded as immature birds varied annually from a low of zero to a high of 10 percent. All returnees were male and established territories near their natal sites.

Does nest-location influence the probability of capture in a constant-effort mist-netting regime?

B. Denise Hardesty, Geoffrey R. Geupel, Nadav Nur, and Grant Ballard, Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, CA 94970.

The Point Reyes Bird Observatory has carried out an intensive program of standardized mist-netting in tandem with the detailed study of individually color-banded Wrentits, *Chamaea fasciata*, at its Palomarin Field Station. We determined the capture probability of individuals banded as nestlings (locals) and caught during

standardized, year-round mist-netting. Between the years 1981 and 1991, 791 locals fledged from the 36 ha study plot. Of these, 203 (25.7%) were captured at least once in mist nets, and 170 (21.5%) were captured during their first (hatching year) summer, i.e. by 17 August. The average distance between site of fledging and net of first capture is 299 meters (range = 8 m - 916 m). We investigate how capture probability of locals varies with distance to nearest net and attempt to establish the limits of the range of coverage of mist nets.

Differential Timing in the Spring Migration of Wilson's Warblers.

Christopher D. Otahal and **Michael Rigney**, Coyote Creek Riparian Station, Alviso, CA.

This talk presented an analysis of temporal differences in migratory patterns of male and female Wilson's Warblers banded at Coyote Creek Riparian Station in central California. Analysis of data collected during five years of mist-netting (1987-1991) indicate that males appear on our study area earlier during spring migration than females and that the peak migration for females occurs a few days later than for males. This pattern is not seen in fall captures. This spring pattern is consistent

with studies of a variety of eastern warblers. Possible evolutionary explanations for this differential migratory pattern are presented. Also, length of stay data collected at our year-round banding site are used to examine whether this different temporal pattern could be the result of differences in the onset or rate of migration.

Kathleen Kleimkiewicz reported on the latest developments at the Banding Lab.

Michael Rigney, **Geoffrey Guepel** and **David DeSante** discussed the place of banding in the Partners in Flight program.

Saturday ended with an excellent Chinese banquet and a fascinating presentation by **Dr. Mark Chappell** on Adelle Penguins and their breeding cycle in the Antarctic.

The meeting ended Sunday morning with a field trip to the Nature Conservancy's Santa Rosa Plateau Sanctuary. The fifty participants and the WBBA Board thank **Barbara Carlson**, **Ruth Yoder** and their committee for organizing an excellent meeting.

**1993 WBBA ANNUAL MEETING
20 - 22 August**

San Francisco State University Sierra Nevada Field Campus
near Sierra City, California
(an hour's drive west of Reno, Nevada)