Western Regional News

Western Bird Banding Association **Founded 1925**

WBBA MEETING 1994 16-18 SEPT. IN ASHLAND, OR.

Full details will be mailed shortly to WBBA members. If you wish to present a paper or demonstration or need more information, contact: Dennis P. Vroman, 269 Shetland Dr., Grants Pass, OR 97526 Phone (work) 503-476-3830, (home) 503-479-4619

68th Annual Meeting of the Western Bird Banding Association 20-22 August 1993

San Francisco State University's Sierra Nevada Field Campus near Sierra City, California.

The meeting opened on Friday with an afternoon field trip to Lake Basin, led by Jim Steele, and a concurrent Board of Directors meeting. After dinner, the 40 registrants enjoyed an evening social.

On Saturday morning the following demonstrations/workshops were held:

0730 to 1100 Constant-effort mistnetting and banding. **Jim Steele and staff SFSU.**

0730 to 1100 MAPS protocol. **Brett Walker**, Institute for Bird Populations

1000 to 1100 Computerization of Banding Data. **Grant Ballard**, PRBO.

The following papers were presented at the afternoon session:

1410-1430 The effectiveness of mist net monitoring of landbirds at Constant Effort Stations located in differing habitats. **Dennis P. Vroman and Colin P. Dillingham**, U.S. Forest Service, Siskiyou National Forest, OR.

Four constant-effort monitoring stations operated during the 1992 breeding season were evaluated for the effectiveness of mist netting. Observed and captured species data were compared from each station. An average of 53±11 (range 43 to 67) species were observed compared to an average of 19±7 (range 22 to 38) that were captured. The number of captured species appeared to reflect the species richness present for 3 of the 4 stations. The capture rates per 100 net hours were highly variable between stations (range 29 to 183). This variability appeared to reflect the bird abundance present at each station during the capture period. The ratio of adult to juveniles captured at the stations were 1:5.8, 1:2.1, 1:1.1, and 1:0.7. These ratios appear to provide a measure of the age class differences between stations during the capture period. It appeared that fledged juveniles dispersed rapidly from one station while inundating at least one other. Mist netting was effective in providing valuable data on landbird use in different habitats during the breeding season and provided a measure of these differences.

1430- 1450 Two years of preliminary data at mist net monitoring sites along an altitudinal gradient suggest dispersal corridors and differential adult/juvenile dispersal. **Jim Steele**, Sierra Nevada FC, SFSU.

The summer of 1992, a severe drought year with a mild, warm spring, we captured tremendous numbers of dispersing Orange-crowned (OCWAs), Nashville and Audubon's warblers. Four sites above 5000 ft. recorded adult/juvenile ratios of 1/5 up to 1/9. These birds were found to be dispersing because virtually all were molting. Since OCWAs do not breed above 5000 ft in the Sierra, much of the dispersal was upslope. In 1993, a cold and rainy spring, only 20 to 25% of the 1992 numbers were captured but the ratios of adults to juveniles remained skewed at 1/3 up to 1/5.

At one site at 5000 ft. the ratio of adults to juveniles remained at 1/1 for both years. At this site numbers in 1993 were 190% of 1992. Analysis of multiple recaptures at this lower elevation site during each season revealed that in 1992 no OCWA juveniles were recaptured and only 10% of the adults were recaptured over a 10 to 40 day span. In 1993 over 50% of the adults were recaptured at least 10 days later and most remained 40 days or more whereas only 6% of the juveniles remained 20 days and 11% only 10 days later. OCWAs were not present in May but were heard and captured in early June with both adults and juveniles arriving simultaneously.

These results suggest that adults remain at lower elevations to complete molt while juveniles continue to disperse. This would account for the high ratio of juveniles at higher elevations. The difference in absolute numbers and multiple recaptures suggests that1992's drought conditions forced more birds to move upslope in search of better forage. Despite the proclivity of adults to remain at lower elevations, there were five recaptures of OCWAs at two sites at higher elevations where they do not breed. We postulate that foraging behavior maintains dispersing birds with riparian corridors as they disperse and that high elevation meadows and streams become critical in drier years to juveniles from lower slope as sources of food to complete their molt. If this is true then conditions in high elevation meadows would effect the final measure of productivity.

1450 - 1510 Using constant effort mist netting to assess the demographics of a coastal population of Orange-crowned Warblers. **Geoffrey R. Geupel, Thomas Leeman, and Nadav Nur**, PRBO, Stinson Beach, CA.

Banding data on Orange-crowned Warblers from twelve years of constant-effort mistnetting at the Palomarin Field Station in Point Reyes National Seashore, CA. revealed that the number of adults decreased from 1981 to 1989 and recovered, slightly, in the early 1990s. The numbers of hatching-year birds captured also declined throughout the 1980s and leveled off in the early 1990's (R^2 = 0.78, $p < .002$; linear trend = $p < .02$). The number of hatching year birds captured was significantly positively correlated with the number of adults captured the following year (R^2 = 0.42, $p = 0.032$). Rainfall does not appear to be correlated with the number of young Orange-crowned Warblers captured and thus decreases in captures of young and adults were not attributed to recent drought conditions. Using SURGE to calculate recapture and survival probabilities of adults, we found estimates varied significantly depending on whether adults were classified as transients (captured only once or recaptured within 7 days) or summer residents (recaptured after 7 days). The annual survival rates of all adults significantly increased ($p = .049$) over the 12 years while residents showed no trend. These results suggest that declines in Orange-crowned Warbler populations at Palomarin were related to events occurring on their breeding grounds.

1530 - 1550 The Monitoring Avian productivity and Survivorship (MAPS) Program: 1993 Update. **David F. DeSante and Brett L. Walker**, The Institute for Bird Populations, Point Reyes Station, CA 94956

The Monitoring Avian Productivity and Survivorship (MAPS) Program is a cooperative effort among public agencies, private organizations, and individual bird banders for the long-term monitoring of

adult population levels, post-fledging productivity, adult survivorship, and recruitment into the adult population 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 aims to provide critical data for determining the causes of current landbird population declines. The MAPS program has grown from 65 stations in 1991 to 170 stations in 1992 to as many as 248 stations in 1993, of which about 111 stations were in western North America, primarily in the northwest. Many additional stations are needed in the southwest to provide complete coverage of the continent.

Results of the 1992 MAPS program for the northwestern region for all species combined showed a non-significant 1.3% increase in the capture rate of adult birds, a highly significant ($P < 0.01$) 142.3% increase in the capture rate of young birds, and a highly significant ($P < 0.01$) 50.5% increase in the proportion of young in the catch (productivity) from 0.424 young in 1991 to 0.638 young in l992. While only 4 of 12 target species showed increases in the number of adults captured, all 12 target species showed increases in both the number of young captured and in the proportion of young in the catch. We speculate that the early, mild spring and warm summer with ample but not excessive rainfall combined to make 1992 one of the very best years for landbird productivity in the northwest in the past two decades

1550-1610 Problems in paradise: band wear and band loss in Sanata Cruz Island Scrub Jays. **Charles T. Collins and Margot Lowe,** Department of Biology, California State University, Long Beach, CA.

Physical abrasion of aluminum bands can result in thinning, weakening and eventual band loss. This phenomenon is not new and has been documented for a number of seabirds, particularly gulls and terns. It has been given much less consideration as a problem for terrestrial species, particularly passerines. In our long-term study of a color banded population of Santa Cruz Island Scrub Jays we have documented significant band wear such that, if not replaced, bands could well be worn to the point of band loss long before the maximum longevity is reached. This is likely to be true for a number of other ground foraging species and seriously impact long-term demographic studies.

1610 -1630 Birds of the Sierra: Tips and cues for identification. **Mack McCormick and Jim Steele**, San Francisco State University, San Francisco, CA.

After dinner, **Dan Evans,** Executive Director of PRBO and former Director of The Charles Darwin Research Station in the Galapagos Island, spoke on "Islands: Their Biology and Conservation."

The meeting ended Sunday with a field trip and constant effort mist netting at a MAPS station in a different habitat. Leaders: **Jim Steele and SFSU staff.**

WBBA thanks the meeting organizers, **Geoffrey R. Geupel and Jim Steele**, and their local committee, **Mark McCormick, Denise Hardesty, Grant Ballard and Katie Merriman**, for arranging an excellent meeting.

An Invitation to WBBA Members to Contribute to the Monitoring Avian Productivity and Survivorship (MAPS) Program

Now in its sixth year, the Monitoring Avian Productivity and Survivorship (MAPS) program is a cooperative, constant-effort mist-netting program established by The Institute for Bird Populations (see News, Notes, Comments this issue). The Institute is attempting to enlist additional MAPS stations, particularly in the Southwest and Alaska Regions, to begin operation in 1994.

The methodology used by the MAPS program is simple and straightforward, and the program provides an excellent opportunity for Western banders to make an important and crucial contribution to avian biomonitoring. We strongly urge banders from the WBBA region to become part of this exciting project. For more information, please write to ***Kenneth Burton, The Institute for Bird Populations, P.O. Box 1346, Point Reyes Station, CA 94956, or call (415) 663-1436.***