

ATLASING CALIFORNIA'S BREEDING BIRDS— COUNTY BY COUNTY

TIM MANOLIS, 808 El Encino Way, Sacramento, California 95864

Projects to map the distributions of breeding bird species in a given area by means of a grid-based system have grown in popularity worldwide since the first of these breeding bird atlases (as they have come to be known) began in Great Britain in the 1960s (e. g., see Laughlin et al., *Am. Birds* 36:6, 1982).

In Europe and elsewhere atlas projects have often been national in scope. When atlasing hit North American shores, however, it fragmented into a state-by-state effort, and, as it made its way westward, into a county-by-county proposition.

The first California atlas project began in Marin County as early as 1976. Western Field Ornithologists' annual meeting has emerged since as a major forum for the discussion of atlasing efforts on the West Coast. At the 1985 meeting in San Rafael, David Shuford spoke about the Marin County atlas, one of only two (the other was Orange County's) then in progress within the state.

The first of what was to become a series of workshops on atlasing was held at the 1986 meeting in Sacramento. A conference room filled to overflowing with interested WFO members bore witness to a big upswing in atlas enthusiasm and activity. There were now three active California county atlas projects—Sonoma joined the list—and San Bernardino and Sacramento counties were preparing to start atlas work in 1987. Compilers of an atlas for Lane County, Oregon, presented a report on the status of their project.

By 1988, when a second atlas workshop was held at the WFO meeting in Monterey, eight California atlas projects were underway (Monterey, Santa Clara, and Santa Cruz were new additions).

At the most recent WFO meeting, in San Diego in September 1990, representatives of most of California's ongoing county atlas projects gathered for a third biennial workshop. Including Orange and Marin counties, which had completed field work, there were now 11 active county atlas projects (Napa, San Luis Obispo, and Riverside having been added to the list).

Six individuals representing seven atlas projects spoke at the San Diego meeting. Barbara Carlson (San Bernardino and Riverside counties) discussed some of the problems encountered in beginning an atlas project (e. g., raising funds, producing a project newsletter on a regular basis, developing database and mapping programs) but focused on encouraging atlasers to expand into neighboring counties, as her team of San Bernardino atlasers did in 1990 with the addition of Riverside County to the project. She pointed out that taking on a new county in this fashion, as an offshoot of an established project, was considerably easier than starting from the ground up.

Sylvia Ranney Gallagher (Orange County) shared experiences from her group's six years of field work. Among key points she mentioned were (1) the need to encourage community involvement in the project, using media coverage, (2) establishing a database management system before beginning the project, (3) collecting data on habitat distribution and changes during the course of the project, and (4) anticipating the final product (the published atlas) when formatting data collection.

Speaking next, I noted the current status of the Sacramento County project and described a graphical method for presenting information on breeding phenology collected during atlas work.

Paul Noble (Santa Clara County) presented maps of the preliminary distributions of certain species documented by Santa Clara County atlasers. He discussed aspects of atlasing in a county that contains rugged and isolated as well as heavily urbanized blocks.

Speaking for Santa Cruz County, David Suddjian discussed the status of the county's project, presenting data on patterns of distribution of some breeding species and describing the involvement of local organizations and some methods of fund-raising in support of atlas work. Suddjian also discussed the collection and graphical representation of data on breeding phenology.

Mildred Comar (San Luis Obispo County) concluded the county reports with a brief overview of progress on her county's project.

The workshop ended with an open discussion involving all participants. By consensus, those present encouraged WFO to establish a committee to evaluate the potential for further statewide cooperation and coordination of atlas work in California.

The day following, I presented a summary of the workshop to the WFO general membership, describing the current status of each project, discussing the value of these activities to the understanding and conservation of California's birdlife, and encouraging others to expand the work throughout the state. Some interest was expressed at the WFO meeting on establishing atlas projects in other counties, and I hope such interest will bear fruit and continue to spread.

With the exception of Marin, which was atlased by means of a grid of blocks approximately 2.5 km on a side (derived from directly subdividing USGS 7.5-minute topo maps), California county atlas projects have all used blocks 5 km on a side derived from the Universal Transverse Mercator Grid. All grid blocks are being covered in most counties (Marin, Napa, Orange, Sacramento, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma). Larger counties, however, have not found such a course feasible. The Monterey and San Luis Obispo projects are covering all blocks in accessible areas (priority blocks) and quads (each with one priority and three non-priority blocks) in more remote areas. The San Bernardino and Riverside projects are conducting stratified random sampling, selecting one block out of six in areas with diverse habitats and one block out of twelve in areas with essentially monotypic vegetation, as well as covering specialty blocks with unique biological features.

The present status of all California county atlas projects is described below, including names and addresses of individuals who can be contacted for further information. All involved are eager to help other atlas projects get started (and deserve thanks for providing information for this summary). In addition, I urge anyone interested in working with or providing advice or assistance to the WFO committee to evaluate possibilities for statewide coordination of atlas work to contact me at the address shown.

CALIFORNIA COUNTY ATLAS PROJECTS

MARIN—Field work was conducted from 1976 to 1982. Results are in the final phases of preparation for publication. Contact: David Shuford, Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach, CA 94970.

MONTEREY—Completion of field work, begun in 1988, is anticipated in 1992. Contact: Becca Serdehely, 280 Hidden Valley Road, Watsonville, CA 95076.

NAPA—Field work began in 1988 (pilot year). Completion of field work is anticipated in 1993. Contact: Bill Grummer, 3801 N. St Helena Highway, Calistoga, CA 94515, or Mike Rippey, Rural Route 1, Box 694, Vallejo, CA 94589.

ORANGE—Field work was conducted from 1985 to 1990. Results are being prepared for eventual publication. Contact: Sylvia Ranney Gallagher, 21562 Kaneohe Lane, Huntington Beach, CA 92646.

RIVERSIDE—Field work began in 1990. Contact: Barbara Carlson, P. O. Box 55419, Riverside, CA 92517.

SACRAMENTO—Field work began in 1987 (pilot year); completion is expected by 1992. Contact: Tim Manolis, 808 El Encino Way, Sacramento, CA 95864.

SAN BERNARDINO—Completion of field work, begun in 1987, is anticipated in 1992. Contact: Barbara Carlson (see above).

SAN FRANCISCO—Scheduled to begin in 1991. Contact: Stephen F. Bailey, Dept. of Ornithology and Mammalogy, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118.

SAN LUIS OBISPO—Field work began in 1989; completion is anticipated in 1993. Contact: Mildred Comar, 5525 Cascabel, Atascadero, CA 93422.

SAN MATEO—Scheduled to begin in 1991, but incorporating information gathered for the Santa Cruz and Santa Clara projects dating back to 1987; the project will be completed in 1994. Contact: David Suddjian, 1136 Callas Lane #1, Capitola, CA 95010.

SANTA CLARA—Scheduled for completion in 1992, field work began with a pilot year in 1987. Contact: William Bousman, 321 Arlington Way, Menlo Park, CA 94025.

SANTA CRUZ—Begun in 1988 (but incorporating some data collected in 1987), the project is scheduled for completion in 1991. Contact: David Suddjian (see under San Mateo County).

SOLANO—Began in 1988 (pilot year), but put on hold until completion of field work in Napa County. Completion anticipated in 1998. Contact: Robin Leong, 336 Benson Avenue, Vallejo, CA 94590.

SONOMA—Field work was conducted from 1986 to 1990. Results are being prepared for publication. Contact: Betty Burrige, 1653 Arroyo Sierra, Santa Rosa, CA 95404, or Ruth Rudesill, P.O. Box 371, Kenwood, CA 95452.