



THE INSTITUTE FOR  
BIRD POPULATIONS

## AN INVITATION TO HELP ASSESS BURROWING OWL STATUS AND POPULATION TRENDS THROUGHOUT CALIFORNIA



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The Burrowing Owl, a California Species of Special Concern, is declining across much of the state, presumably in response to loss of habitat to urban development, ground squirrel control efforts, and intensive agriculture practices. In the early 1990's, The Institute for Bird Populations (IBP) coordinated a state-wide, volunteer-based survey to assess Burrowing Owl distribution and abundance throughout the entire breeding range of the species in California west of the Great Basin and desert areas. With the help of numerous dedicated volunteers and volunteer coordinators working primarily through Audubon Society chapters and other birding groups, we were able to census over 700 5km by 5km survey blocks throughout the state, and to provide regional and statewide population estimates. The information we gathered has been an important resource for Burrowing Owl conservation efforts in California, and has been widely used and cited by government agencies and conservation-oriented non-governmental organizations.

We are currently gearing up to coordinate another statewide Burrowing Owl survey, beginning in spring 2006. Thirteen years after the completion of our first statewide survey, this two-year effort comes at a critical juncture, when the State and other stakeholders badly need updated information for use in formulating a comprehensive statewide conservation strategy to safeguard the species across its range in California. Conducting another statewide survey will enable us to address the following questions:

- a) Where specifically are the state's Burrowing Owls today?** Up-to-date information on the locations of breeding pairs is critical for identifying important stakeholders, and carefully targeting future conservation efforts toward the places where they will do the most good.
- b) What is the status of Burrowing Owl populations in the Great Basin and desert regions of the state, areas that were not included in our early 1990s census?** What fraction of the current statewide population resides in these areas? This information will provide a more complete assessment of the current status of the species in the state, and also provide a baseline for assessing future change in the Great Basin and desert regions.
- c) How has the statewide population changed since 1993?** How has the statewide distribution of the species changed, and what have been the trajectories of the various sub-populations in the state's constituent regions?

### HOW THE SURVEY WORKS

We have previously delineated the Burrowing Owl's California range into 11 distinct geographic regions, and then subdivided each region into 5-km by 5-km census blocks. We will select a random sampling of census blocks within each region, and then augment the sample with

any additional blocks in the region that are known by local experts to host breeding Burrowing Owls, but were not selected as part of the random sample. We will then provide local volunteer coordinators with maps of selected blocks, data forms, detailed instructions, and other survey materials. The coordinators will assign census blocks to local volunteers, who will conduct the surveys.

Surveying a block will involve identifying all patches of suitable habitat within the block, and then thoroughly searching those patches for Burrowing Owls. The entire area of all the patches needs to be searched between dawn and 10am or between 4pm and dusk, when the owls are most active. Some blocks will need to be visited multiple times to achieve this goal. Surveyors will scan the area for owls, and plot the locations of any detections on their maps. For each detection location, observers will also provide a count of all owls seen (identified to age and sex, if possible), an estimate of the number of breeding pairs, and standardized habitat information. Prior to the field season, surveyors will be provided with detailed instructions, as well as the opportunity to attend a training session with IBP personnel.



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Researchers at IBP will then consolidate and analyze the data, and disseminate results as widely as we can. By providing our survey results to state policymakers, IBP and all the volunteers who make this survey possible can contribute greatly to the development of an informed, up-to-date statewide conservation plan that we hope will safeguard breeding populations of Burrowing Owls throughout California.

## HOW YOU CAN PARTICIPATE

The statewide Burrowing Owl survey provides a rare opportunity for individuals or organizations to make an important contribution to science and conservation. Whether you are a professional biologist, a seasoned birder, or simply a Burrowing Owl admirer, we urgently need your participation in one or more of the following ways:

**-volunteer to coordinate other surveyors in your county or area of interest.** We are looking for at least one person in each county within the species' breeding range to help us recruit and organize other volunteers.

**-volunteer to census one or more 5-km by 5-km blocks in spring 2006.** We need dozens of surveyors, up and down the state, to census one or more blocks near their homes, or perhaps farther afield.

**-provide us with information on the locations of Burrowing Owl breeding sites in your county or area of interest.** We need local experts to consolidate and summarize local knowledge of Burrowing Owl breeding locations in each county or area of interest.

**\*\*\*If you are interested in any of these volunteer opportunities, please contact Bob Wilkerson or Rodney Siegel as soon as possible at 415-663-2051 or [owl@birdpop.org](mailto:owl@birdpop.org).\*\*\***

More information about the survey will soon be posted at our website,  
<http://www.birdpop.org/burrowing.htm>