



State of California – Department of Fish and Wildlife

SCIENTIFIC COLLECTING PERMIT, SPECIFIC USE – Permit

DFW 1379S (NEW 09/01/17)

Permit

Specific Use Permit ID: **S-212650004-21266-001**

Reference Title: **The conservation and food-safety impacts of birds**

Effective Date: **2/2/2022**

Expiration Date: **2/1/2025**

Permitholder

SC-212650004: Daniel S Karp

dkarp@ucdavis.edu

1071 Academic Surge, One Shields Avenue,

Davis, California 95616

Preferred Phone Number: 530-219-9868

Alternate Phone Number: 530-752-2108

Permitholder Affiliation: University of California, Davis

By signing this permit, the Permitholder agrees to the following:

"I certify that I have read, understand, and agree to abide by the applicable provisions of the Fish and Game Code, and Title 14, Section 650, CCR, and will abide by all the conditions and attachments of the issued permit. I understand I am legally responsible for ensuring all persons working under this permit will be adequately supervised, and comply with the requirements noted above. I further understand that if I fail to provide required reports, my permit may be suspended or revoked pursuant to Title 14, Section 650, CCR, and the Fish and Game Code."

Permitholder Signature: _____

Date: _____

California Department of Fish and Wildlife (CDFW) – Terrestrial Wildlife
Authorizations and Conditions for Scientific Collecting Permit (SCP)
Principal Investigator: Daniel S. Karp
University of California, Davis

Individual

This permit (Legacy ID: SC-013518) was previously issued on January 17, 2017. The terms and conditions (5 pages dated February 5, 2018) set forth in that permit are hereby superseded by this renewal.

Authorizations and conditions based on your online SCP application entitled "[The conservation and food-safety impacts of birds](#)" and SCP Executive Summary entitled "The conservation and food-safety impacts of birds in working landscapes" submitted to CDFW on October 1, 2021, on file with the [CDFW Wildlife Branch](#).

Authorized Terrestrial Wildlife and Activities:

The permittee is authorized to take (***capture, band, collect biological samples, and release***) passerines and near-passerines (***excluding Threatened, Endangered, CESA-Candidate, Fully Protected, Species of Special Concern, and other bird species/taxa identified in Condition #2***) in accordance with your current federal Bird Banding Permit #24033, and in accordance with the additional conditions below.

Authorized Locations:

Permitted activities are restricted to the following geographic areas in California:

- a. Yolo and Solano counties

Other Permits:

You shall obtain and maintain during the term of this SCP any federal, state and/or other permit(s) required to conduct the activities authorized herein. Although the provisions of the federal permit(s), other permit(s) and this SCP may vary, the more restrictive conditions prevail. Copies of your federal permit(s) or other research-related permits (e.g., State Parks, landowner access agreements), and any amendments, shall be provided to the Department contacts (see below), and the names of all authorized sub-permittees shall be provided for the permit(s). See also SCP [Standard Condition L](#).

You shall carry all required documents, permits and MOUs, along with your SCP, with you while conducting all authorized activities.

CDFW Contacts:

The CDFW Wildlife Branch SCP coordinator for this terrestrial wildlife permit is SCPPermits@Wildlife.ca.gov.

The CDFW contact for the birds is Esther Burkett (Senior Environmental Scientist (Specialist)), Esther.Burkett@wildlife.ca.gov.

For CDFW Regional contacts, see Condition #8 below.

**Conditions to Scientific Collecting Permit
S-212650004-21266-001**

1. When a Memorandum of Understanding is needed

Intentional take or possession of species listed as Threatened, Endangered, or Candidate under the California Endangered Species Act (CESA), or intentional take or possession of Fully Protected species, is not authorized without a [Memorandum of Understanding \(MOU\)](#) from CDFW on which you are specifically named.

To apply for a State MOU, contact the CDFW Terrestrial Wildlife Research MOU Coordinator, Justin Garcia (Justin.Garcia@wildlife.ca.gov), for study proposal requirements.

2. Prohibited Wildlife

Intentional take or possession of Federally-listed species is not authorized without a valid federal permit **and** additional written authorization from CDFW, on which you are specifically named or otherwise authorized.

Intentional take of non-target birds is not authorized without valid federal permit(s) **and** an amendment to your SCP. Additionally, take of bird nests and eggs, [Bird Species of Special Concern \(BSSC\)](#), ducks, geese and swans (Anatidae), gallinaceous birds (Galliformes, e.g., quail, grouse and Wild turkey), hummingbirds (Trochilidae), rails, cranes and allies (Gruiformes), auks, murres and puffins (Alcidae), gulls, terns and skimmers (Laridae), tube-nosed swimmers (Procellariiformes, e.g., albatrosses and petrels), cormorants (Phalacrocoracidae), pelicans (Pelecanidae), herons, bitterns and egrets (Ardeidae), ibises (Threskiornithidae), vultures, hawks and allies (Accipitriformes), owls (Strigiformes) and falcons (Falconiformes) all require an amendment to your SCP.

For the purpose of this permit, non-target wildlife includes Prohibited Wildlife (noted above) and animals other than the authorized birds.

Incidentally-captured individuals of non-target wildlife taxa shall be released at the capture site immediately, once identified, without further handling, unless otherwise authorized for activity(ies) on that species or subspecies in this permit or state MOU.

Activities with inland fisheries or marine species requires additional SCP approvals from the CDFW [Fisheries Branch](#) and/or [Marine Region](#) SCP review programs.

3. Location of Field Activities

Your field activities may be located in a special status natural community or in an area that provides habitat for a non-target special status plant or animal. It is your responsibility to determine whether or not implementation of your field activities could have potential adverse impacts to a listed or special status plant or animal or special status natural community. To minimize potential impacts, compile relevant biological information in the general study area prior to conducting field activities or research. Generally, identify vegetation and habitat types occurring in your study area based on biological and physical properties of the site and surrounding ecological subregion¹, unless a larger assessment area is appropriate. Conduct a [Rarefind or CNDDDB Quick Viewer](#) search and check with other reliable resources for known occurrences of special status plants, animals, or natural communities at the site before

¹ [U.S. Forest Service Ecological Subregions of California](#)

conducting your research. Contact the Wildlife Branch SCP Coordinator (SCPPermits@Wildlife.ca.gov) if non-target special status plant or animal species are likely to be encountered or are being handled or disturbed.

You shall check with the landowner to determine if any other researchers are permitted to conduct activity(ies) in the same site or area. Prior to entering CDFW lands to conduct the activity(ies) described herein, you shall first receive additional written authorization from the Reserve Manager. See also SCP [Standard Condition E & D](#).

4. Notification of Field Activities

Prior to conducting field activities pursuant to this permit, notification shall be submitted to the CDFW Wildlife Branch SCP Coordinator (SCPPermits@wildlife.ca.gov) and CDFW Regional contacts (see Condition #8, below), in an electronic format via e-mail, at least 14 days prior to conducting activities. See also [Standard Condition F](#).

In addition to sending the [Notification of Field Work or Activity form \(DFW 1379b\)](#), notifications for such research² activities shall include: (a) an explanation of the purpose of the study and a clear description of methods, including survey and marking techniques; (b) the number of surveys and dates of activities; (c) the extent of the area to be surveyed; (d) a map depicting the location of the research site(s); and (e) the names of personnel conducting the activities.

After 14 days of the CDFW's receipt of the notification, the permittee may commence activities authorized by this permit unless authorization is denied by CDFW. Any separate written authorizations that you receive from CDFW for activities shall become conditions of your SCP and shall remain attached to the SCP at all times while conducting the research (including hard copies of authorizations received via email).

Any requests to conduct activities that are not authorized herein will require an amendment to this SCP.

5. Birds

a. Capture and Handling

The authorized method of capture for adult and fledgling birds are: mist net, baited traps and by hand for nestlings.

Mist nets shall be set up and opened in the early morning and shall be taken down as deemed necessary by weather conditions (e.g., mist nets shall be closed in rain, strong wind, or extreme heat). You shall check the nets as often as necessary while in operation to help reduce risk of injury or mortality of any bird or bycatch (e.g., bats) due to the net, stress, or predation. Mist nets shall be closed if high numbers of birds are captured and cannot be processed in a timely manner.

Each individual shall be handled and processed expeditiously, and then released unharmed at or near the point of capture, unless deemed unsafe for release (e.g., slow to exhibit normal behavior, or injury sustained during processing requiring brief recovery).

² For SCPs, "research" means scientific investigation, and may include educational components such as training. Research also includes surveys or inventories to assess the potential for, or to monitor actual project impacts on wildlife resources, as required by environmental documents, permits, or other legal authorizations.

For more information on mist net operation procedures, consult the [Handbook of Field Methods for Monitoring Landbirds \(Ralph et al. 1993\)](#) and the [Monitoring Avian Productivity and Survivorship \(MAPS\) Manual - 2021 protocol \(DeSante et al. 2021\)](#).

Mist nets, traps, and trapping locations shall be clearly labeled with your permittee number (SC-212650004). See also SCP [Standard Condition M](#).

b. Handling, Marking, and Tissue Sample Collection

You may catch, band, collect blood, collect fecal samples, and release birds (**excluding Threatened, Endangered, CESA-Candidate, Fully Protected, Species of Special Concern, and other bird species/taxa identified in Condition #2**) for studies described in your SCP justification and in accordance with your Federal Bird Banding Permit.

Each individual shall be handled and processed expediently, and then released unharmed at the point of capture. All target species shall be released within one hour after capture, unless deemed unsafe for release (e.g., slow to exhibit normal behavior, or injury sustained during processing requiring brief recovery).

All authorized bird species shall be identified to species, aged, sexed, measured (e.g., wing chord, weight, tarsus, tail, and culmen length), and examined for external signs of parasites and disease.

Field assistants may not handle or band birds without the direct supervision of the Principal Investigator or Authorized Individual.

c. Prohibited Wildlife

Threatened, Endangered, CESA-candidate, or Fully Protected species incidentally captured shall be released immediately without banding or further handling (see *Condition #1 and #2*), and shall be given priority for release over other bird species, unless another species is showing signs of stress and needs immediate attention.

You may not intentionally capture, handle, band, or otherwise take California Bird Species of Special Concern (BSSC), other Prohibited Wildlife, or other non-target wildlife; however, if non-target birds incidentally fly into mist nets, they may be banded before release. You shall try to avoid incidental capture of bats (i.e., mist-netting during daylight hours).

d. Incidental Injury or Mortality

You shall report any incidental injury or mortality of a listed, candidate, or fully protected bird species, and BSSC to Esther Burkett (Esther.Burkett@wildlife.ca.gov) within three (3) days, and you shall provide a written report of the incident within ten (10) days via email.

6. Salvage, Disposition, and Labeling of Specimens

You may salvage birds incidentally killed during permitted activities, as specified below; but birds encountered dead in the field may not be salvaged.

Salvaged specimens of CESA-listed, CESA-Candidate, and Fully Protected species require disposition instructions from the Department (contact Esther.Burkett@wildlife.ca.gov). Federally-listed species require authorization and disposition instructions from the U.S. Fish and Wildlife Service (Service).

You shall securely label each salvaged specimen or collected tissue samples with the following information: (a) date of salvage; (b) location of the specimen (GPS coordinates and datum);

(c) species name; (d) unique identification number; (e) name and affiliation of the person who salvaged the specimen; and (f) the permit number(s) and expiration date(s) under which the specimen was salvaged.

You shall deposit all salvaged specimens in a public scientific or educational institution in California within one month of acquisition (e.g., Museum of Vertebrate Zoology, University of California, Berkeley, CA; California Academy of Sciences, San Francisco, CA).

To validate the specimens were collected pursuant to this permit, a copy of the [Transfer of Possession – Chain of Custody form \(DFW 13c79c\)](#) shall accompany any salvaged specimens or samples when transferred to another person or entity.

7. Reporting Requirements

Abstracts, reports, and other publications shall be submitted to the Wildlife Branch SCP Coordinator (SCPPermits@wildlife.ca.gov) and the CDFW contact(s) noted below, in an electronic format (such as a pdf file), which is the preferred format. **All required reporting information shall also be uploaded into the SCP Portal (see Section 1b of the online permit file).**

If no activities were conducted with any or all species authorized under the SCP during the previous year and/or term of your permit, you shall state this in writing in your annual report and/or MWR form.

a. Annual Report for Birds

You are required to submit an annual report, in an electronic format, describing the results and significant findings of your research to:

- Esther Burkett (Esther.Burkett@wildlife.ca.gov).

The annual reports shall be submitted on or before **January 31st** of the year following each year of research. The reports shall follow standard scientific format (Title, Date, Author(s) and Affiliation(s), Introduction, Study Area (with map), Methods, Results, Discussion, and Literature Cited). Photographs may be included as needed, or as an Appendix.

The annual reports for the authorized birds shall include, but not be limited to, the following information for all birds captured, handled, marked, and salvaged:

- a) date captured or observed;
- b) species or subspecies name;
- c) number and location of species captured and any nests detected (GPS coordinates and datum);
- d) information on individual health, condition, sex, maturity/estimated age, morphometric measurements, if feasible;
- e) detailed identification information for any birds marked and any re-capture of marked birds (e.g., band number, original banding location and date, color and alphanumeric code of any auxiliary-banded birds, notation on which leg(s) of the bird the bands were found);
- f) information regarding movements and habitat use, including information gleaned from re-sighting, and band-return data;
- g) a description of the number, causes, and location of any marking-related mortalities; and
- h) the date and location of repossession of each salvable specimen.

b. Mandatory Wildlife Report (MWR) Form:

You shall report all take (e.g., capture) of the authorized wildlife, including incidental take of non-target species, on the [Mandatory Wildlife Report \(MWR\) form](#) within 30 days of expiration of the permit.

When you submit your annual scientific reports for the research described above, please also include the MWR form and any CNDDDB data that have been submitted to CDFW. There is no need to repeat the more detailed information contained in your CNDDDB forms on the MWR form.

c. Other Reports:

For activities associated with this SCP, you shall also provide copies of abstracts you may prepare for any papers you present, or copies of any papers you prepare for popular articles or scientific journals or copies of any periodic, annual, or final report that you prepare or assist in preparing for a client or other third party.

d. California Natural Diversity Database (CNDDDB):

For any [Threatened, Endangered, Candidate, Fully Protected, Species of Special Concern](#) or other [CDFW Special Animals](#) encountered and correctly identified, you shall send occurrence data to the CNDDDB. You shall submit point data to the CNDDDB at least annually. You shall submit data using [CNDDDB's Online Field Survey Form](#). If you cannot access the Online Field Survey Form or receive permission from the primary CDFW contact, data may also be submitted on the [standard CNDDDB Field Survey Forms](#), or in an [electronic spreadsheet](#) with an attached map depicting locations of observations. Include known threats to the species in your submittal. A cross reference to your annual report(s) shall also be included.

e. Reporting Compliance and Data Exchange

It is mutually understood that there will be a free exchange of data and information during the course of study covered by this SCP. Draft documents, raw/field data, photographs, notes, and other information resulting from work conducted under the authority of this SCP shall be submitted to the CDFW contacts upon request. Failure to comply with reporting requirements may result in non-renewal or suspension/revocation of this SCP.

8. Regional Office Notification and Report Circulation

You shall send notification to the appropriate CDFW Regional biologist(s) and law enforcement contact(s) listed below for field activity(ies) in the county(ies) below (see Condition #4, above). You should have a specific survey or study before conducting any activities authorized by this SCP, and notify the regional contact(s) prior to the start of each new survey and/or study. Submit electronic copies of any reports produced or required by this permit, within two weeks of completion, to the Regional biologist contact(s) listed below, as appropriate for the counties of your activities.

North Central Region (2):

Yolo

Patrick Moeszinger, Patrick.Moeszinger@wildlife.ca.gov, (916) 767-3935
Dylan Wood, Dylan.Wood@wildlife.ca.gov

Bay Delta Region (3):

Solano

Brian Shelton, Brian.Shelton@wildlife.ca.gov, (707) 944-5538

Yolo – Map of Region 3 Boundaries

David (Ryan) Carrothers, David.Carrothers@wildlife.ca.gov, (530) 757-1813

For **Law Enforcement** contacts, send notifications to the appropriate [CDFW Regional office](#) email address:

North Central Region (2): R2info@wildlife.ca.gov
Bay Delta Region (3): AskBDR@wildlife.ca.gov

9. Standard Provisions

The attached provisions shall also be followed: [Standard Conditions for All Scientific Collecting Permits \(Attachment #1: 2 pages dated July 01, 2017\)](#).

10. List of Authorized Individuals

All personnel independently conducting activity(ies) for your study(ies) shall carry a copy of this SCP and be named on your SCP List of Authorized Individuals (LAI; Attachment #2).

The Principal Investigator may request to change or add Authorized Individuals to be named on the LAI by submitting a [Specific Use SCP Amendment application](#) with the following information: a) name of the individual; b) species the individual will be working with; c) activities the individual will conduct; d) whether or not these activities will be conducted independently or under direct supervision (within three meters); and e) resumes/CVs and statements of qualifications that describe the individual's experience with the species, and experience with the methods to be employed in the study(ies). Letters of recommendation may also be required as supplemental information.

11. Term

This Individual Specific Use SCP shall be in your possession while conducting the activities described above, and is valid for three (3) years from the date of issuance (see SCP Cover Letter).

You may use the [Specific Use SCP Amendment form](#) for any modifications to your research in the future.

Minor deviation from the stipulated terms and conditions may be authorized on a case-by-case basis when approved by the CDFW contact unless an amendment to this permit would be required.

Should you have any questions, please contact the Wildlife Branch SCP Coordinator (SCPPermits@wildlife.ca.gov).

SCP Reviewer
[CDFW Wildlife Branch](#)



State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Wildlife Branch
Wildlife Diversity Program
1010 Riverside Parkway
West Sacramento, CA 95605
<http://www.wildlife.ca.gov>

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Expiration Date: see SCP Cover Letter

Attachment 2
LIST OF AUTHORIZED INDIVIDUALS
Dr. Daniel S. Karp
Principal Investigator
University of California, Davis

February 2, 2022

1. Individuals authorized to conduct scientific research activities as specified below pursuant to this Wildlife Branch Entity Scientific Collecting Permit (SCP):

Principal Investigator:

Daniel S. Karp

Authorized Individuals:

Katherine S. Lauck, Austin R. Spence, Lucia P. Gonzalez

Field Assistants:

Katia R. Goldberg

2. The Principal Investigator is authorized to independently conduct all wildlife research activities pursuant to this permit, and shall have adequate supervision over all individuals named on this list. The Principal Investigator is responsible for all reporting requirements.
3. After receiving adequate training and experience with the authorized species and methods, as determined by the Principal Investigator, the Authorized Individual(s) listed above may conduct activities pursuant to this SCP without the direct supervision of the Principal Investigator.
 - This LAI does **not** cover species listed under the California Endangered Species Act (CESA) or the Endangered Species Act (ESA). Please refer to the Bird Banding Lab permit on which you are named to review individuals who have been authorized to independently conduct work on species listed under CESA and ESA
4. Field Assistants shall work under the direct, on-site supervision, *i.e.*, within 3 meters, of the Principal Investigator or an Authorized Individual and may assist on research efforts, until such time as the Principal Investigator can certify in writing to the Department, and the Department responds favorably, that the individual may work independently.
5. A SCP amendment form shall be submitted, approved, and returned to you by the Department before you can add or remove personnel from this list. A request to elevate a Field Assistant(s) to Authorized Individual(s) does not require a formal amendment form and fee.
6. This list, the Entity SCP and any amendments shall be in the possession of all individuals independently conducting work in the field.

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