

BEHREN'S SILVERSPOT BUTTERFLY

Minimum Qualifications Guidelines to be permitted for Presence/Absence Surveys for Adult Butterflies and Specialized Activities for All Life Stages

Arcata Fish and Wildlife Office
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A. Background

Certain actions otherwise prohibited under section 9 of the Endangered Species Act (Act) (16 U.S.C. 1531 et seq.) may be permitted for scientific purposes under section 10(a)(1)(A). Section 9 prohibits “take” of listed species. Take is defined by section 3(18) of the Act as: harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or attempt to engage in any such conduct. Conducting presence/absence surveys for the federally endangered Behren’s silverspot butterfly (*Speyeria zerene behrensii*; Behren’s silverspot) could result in take via pursuit. Therefore, all Behren’s silverspot surveys and other specialized activities such as capture, handling and releasing require take coverage through either a 10(a)(1)(A) recovery permit or through interagency consultation (i.e., Section 7 consultation).

The U.S. Fish and Wildlife Service (Service) must determine whether the expertise of the permit applicant is adequate (50 CFR 17.22(a)(2)(vi)). To obtain a permit for Behren’s silverspot we recommend that applicants provide all information that will help us determine the adequacy of their expertise with this species. To be consistent in our evaluations, we have established guidelines intended to ensure that applicants have adequate expertise.

B. Surveyor Classifications

An individual may be authorized to conduct activities under a 10(a)(1)(A) recovery permit in two ways: (1) permitted individual — individual authorized to independently conduct activities pursuant to a permit for the specified species; or (2) supervised individual — individual authorized to conduct activities pursuant to a permit only under the direct, on-site supervision of an individual listed as independent for that species and activity. “On-site supervision” is defined as a person listed as supervised conducting activities within approximately 3 meters (9.8 feet) of an individual authorized to conduct the activity independently. Each individual listed on a permit is responsible for understanding and complying with the Special Terms and Conditions of the permit. Permitted individuals are responsible for their actions and the actions of any supervised individuals while on survey. Since supervised individuals are not independently conducting activities, they are not required to be added to the permit beforehand, although they should be noted in annual reporting.

C. Introduction

The minimum qualifications detailed below are separated by the type of requested activity. The guidelines to survey by pursuit only cover qualifications for conducting surveys for adult Behren's silverspot and do not apply to other life stages. The guidelines for specialized permitted activities can apply to multiple life stages of Behren's silverspot. Applications should specify for which life stages the applicant intends to conduct activities. These minimum qualifications are effective for applications for all new permits, renewals, and amendments processed for the 2026 Behren's silverspot flight season and beyond.

The guidelines to survey adult Behren's silverspots are intended to ensure that a permitted individual has a broad range of experience that includes:

- (1) conducting focused surveys for adult Behren's silverspot in accordance with the Service's current recommended protocol;
- (2) field identification of adult Behren's silverspot and experience with its behaviors;
- (3) field identification of similar sympatric species and experience with their behaviors; and
- (4) knowledge to minimize impacts to Behren's silverspot and its habitat while conducting focused surveys.

The guidelines to conduct any specialized activity with Behren's silverspot are intended to ensure an applicant is qualified to perform those activities for a specific project for scientific purposes or enhancing the propagation or survival of Behren's silverspot.

D. Minimum qualifications to be permitted for presence/absence surveys

1) Survey by pursuit

Applicants should attend a Service-approved Behren's silverspot training prior to becoming permitted, or prior to being added to a permittee's List of Authorized Individuals (List). Currently, there are two approved trainings: 1) a Service-sponsored training conducted by the Behren's silverspot recovery lead and 2) a California Department of Parks and Recreation-sponsored training conducted by staff who are permitted and have demonstrated multiple years of experience with Behren's silverspot surveys. Other trainings may be submitted to the Arcata Fish and Wildlife Office for Service-review and evaluation. If new trainings are approved, this document will be amended to reflect the additions.

Because Behren's silverspot is similar to several co-occurring species, it is essential for applicants to demonstrate their expertise during this training by correctly identifying Behren's silverspot in the field. To meet this requirement, applicants should demonstrate positive identification of Behren's silverspot in the field and the identification must be corroborated with the signature of a permitted individual (signature may be submitted via email from the permitted individual to the Service). Additional to this training, applicants should provide verifiable documentation that they have met the requirement of either 1(a) or 1(b). If specific measures of either 1(a) or 1(b) are unable to be fulfilled, then those measures can be

potentially substituted with the requirements found in 1(c):

- a) A minimum of 30 hours of field experience identifying adult Behren's silverspot (or other *Speyeria zerene*), co-occurring butterfly species in Behren's silverspot habitat, or similar listed butterfly species while conducting protocol surveys (during the adult flight season) under the direct supervision of a permitted individual. Documentation should include:
 - (1) The name, permit number, and telephone number of each supervising permitted individual;
 - (2) The locations, dates, and times of survey experience;
 - (3) A species list of all butterflies seen, including the number of Behren's silverspots; and
 - (4) Copies of the supervised individual's field notes (if available).

- b) Under the supervision of a permitted individual, applicants should compile documentation of their successful, independent identification of at least 5 Behren's silverspots and at least 5 of the following in the field: American lady (*Vanessa virginiensis*), west coast lady (*Vanessa annabella*), painted lady (*Vanessa cardui*), field crescent (*Phyciodes pulchella*), mylitta crescent (*Phyciodes mylitta*), or elegant sheep moth (*Hemileuca eglanterina*). These 5 can be any combination of species and multiple identification of the same species will count towards the 5 required. Identification of the similar-looking species must occur within the presence of *Speyeria zerene*, but not necessarily *Speyeria zerene behrensii*. Documentation should include:
 - (1) The name and permit number of the permitted individual.
 - (2) The permitted individual's signed and dated confirmation of the applicant's field identifications, including:
 - (a) The location and date of each observation; and
 - (b) The amount of time spent observing Behren's silverspot and the other similar co-occurring species listed above.

- c) A resume and letter of recommendation that detail qualifications for species, including identification experience in tabular form (evaluated on a case-by-case basis). These resumes and letters of recommendation should include:
 - (1) Verifiable field experience with similar butterfly species or other subspecies of the genus *Speyeria*.
 - (2) Other verifiable field experience or butterfly classes that provide

knowledge of Behren's silverspot biology and life history.

- (a) Verification may include field notes, photographs, letters of reference, and publications.

E. Minimum qualifications to be permitted for specialized activities

In addition to the minimum qualifications listed below, a specific and detailed project proposal is required to conduct the following activities and must be submitted with the permit application.

1) Capture

- a) All requirements for surveying.
- b) Capture five *Speyeria* sp. under a permitted individual with at least one capture in each of the following scenarios: on the wing, on the ground, and on vegetation. Applicants should demonstrate their ability to remove butterflies from a net and transfer them to a glassine envelope or prepared deli cup with perforated lid. Alternatively, the applicant can demonstrate this experience with comparable (Nymphalidae) butterfly species.
- c) Verifiable documentation (see 7(a) below) of capture experience.

2) Handling and Transport

- a) Instructed by a permitted individual in proper handling and transport techniques and use of required equipment.
- b) Demonstrated handling proficiency to a permitted individual (minimum of five).
- c) Verifiable documentation (see 7(a) below) of handling experience.

3) Mark

- a) Verifiable experience marking a minimum of five comparable individuals (butterflies in the family Nymphalidae) of each life stage requested by the applicant in the permit application.

4) Augmentation release

- a) All requirements for handling.
- b) Attend a Service-approved training in proper handling and release techniques, data collection methods, and use of required equipment.

5) Non-lethal genetic material collection

- a) All requirements for handling.

- b) Verifiable experience with each requested non-lethal genetic sampling technique (e.g., wing clips, foreleg clipping) from five comparable individuals (butterflies in the family Nymphalidae).

6) **Voucher specimens**

- a) All requirements for handling.
- b) Verifiable experience with relevant euthanasia techniques, specimen collection, processing, and preservation.
- c) Project proposal must explain the scientific benefit of collecting vouchers.
- d) Vouchers must be beneficial to recovery (e.g., collecting genetic, morphometric, and distribution data that meaningfully contribute to recovery). Vouchering of specimens should be conducted only when they are tied directly to funded projects that analyze data necessary for recovery of the species.

7) **Verifiable documentation**

- a) The applicant must document their field experience acquired under supervising permitted individual(s) or other qualified authority and submit the following information with their recovery permit application:
 - (1) The name(s) of the supervising permitted individual(s) and their associated permit number(s) or name(s) and qualifications of supervising individual when working with a similar non-listed species (family Nymphalidae).
 - (2) Dates and hours of field experience (protocol surveys) and the type of activity conducted (capture, handling, marking, etc.).
 - (3) Photographs of butterflies observed which count towards the identification requirements (when possible), photographs of applicants conducting capture/handling/marking activities on other species, and photographs of field notes from days when conducting related activities.
 - (4) The number and life stage of all butterflies detected, observed, and handled in the wild.
 - (5) The specific locations of the observations (including the County).
 - (6) Letters of recommendation from supervising permitted individuals (or other qualifying authority) verifying the applicant's ability for all requested activities, i.e., capture, handling, marking, and/or specialized activities. At least one letter is required.

8) **Example experience tracking format for verifiable experience**

Survey Experience with Behren's silverspot butterfly or similar species (Your name here)

Date	Location (include county)	Permitted Individual (supervising) and permit #	Hours of Survey	Type of Survey or activity	Species name, life stage, and # handled or observed	List of butterfly species observed	Other Notes