

CALIFORNIA DEPARTMENT OF FISH AND GAME
August 1997
**GUIDELINES FOR CONDUCTING RESEARCH
ON RARE, THREATENED AND ENDANGERED PLANTS AND PLANT COMMUNITIES
and
PROPOSAL FORMAT
FOR RESEARCH PROJECTS INVOLVING STATE-LISTED PLANT SPECIES**

Guidelines

The Department of Fish and Game recognizes the importance of research in promoting the conservation, appreciation, and understanding of California's rare, threatened, and endangered plants and plant communities. Under Section 1907(a) and Section 2081(a) of the Fish and Game Code, the Department may authorize, through permits and Memoranda of Understanding, the take and possession of State-listed species for scientific, educational, and management purposes. The Department's Habitat Conservation Branch (HCB) handles this permitting process for State-listed plant species. The Research Permit is typically the vehicle by which HCB will authorize research on these species. To apply for a permit, use the **Proposal Format for Research Projects involving State-Listed Plants**.

The following information is intended to guide you in planning research on State-listed plant species.

- (1) The Department generally will not authorize collection of more than 5% of the seed or vegetative growth produced by any population of a listed species during any given year. In your proposal, please justify the amount you would like to collect.
- (2) Moving plants, seeds, or pollen from one location or population of the plant to another is generally discouraged, unless it is part of an overall recovery program, because of the possibility of genetic contamination of local natural populations. Proposals involving such movement must include justification of why this design is necessary and must address the possibility or likelihood of contamination. Methods to prevent any possible genetic contamination should be discussed.
- (3) If your research will include any reintroduction activities, the following criteria must be met: (a) you must provide a written statement from the landowner authorizing the reintroduction, (b) sites chosen for reintroduction must have permanent protection in the event the reintroduction succeeds, and (c) the Investigator(s) must agree to monitor for a period that is long enough to assess the success of the reintroduction (we generally recommend seven years). Before planning a reintroduction, you should consider and include in your proposal the following factors: habitat suitability, probability of success, potential genetic contamination, and long-term protection and management needs (including funding sources).
- (4) Research should be conducted in a manner that is consistent with conservation ethics. Collections of voucher specimens of rare or suspected rare species should be made only when such actions will not jeopardize the continued existence of the population and in accordance with applicable State and Federal permit regulations, and generally are not needed from sites which have already been vouchered. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens. The Investigators should take all precautions to minimize damage to rare species, the associated soil, and vegetation during field work.
- (5) Principal Investigators should possess the following qualifications:
 - a. Experience as a botanical field investigator with plant identification skills and experience in experimental design, field methods, plant ecology, and at least a rudimentary knowledge of population genetics;
 - b. Familiarity with the flora and fauna of the area, including rare species; and
 - c. Familiarity with the appropriate State and Federal statutes related to rare plants and plant collecting.
- (6) Any unused seed collected from a State-listed species should be deposited at Rancho Santa Ana Botanic Garden or another facility which has the expertise and equipment necessary for seed storage, under direct arrangement with that facility and with Department approval.
Research permits are issued only for scientific research projects. If your project is related to a mitigation effort, contact the Department regarding a 2081(b) incidental take permit.

Proposal Format

INSTRUCTIONS: Please use the following format to prepare a proposal for your research project involving one or more State-listed plant species. The Proposal you submit will be reviewed by the Department and, upon approval, will be used as an attachment to the Research Permit. If you have an existing proposal for your project, please provide a copy plus any information requested below that is not in the proposal.

RESEARCH PROPOSAL

Submitted to: Rare Plant Program
Habitat Conservation Branch
Department of Fish and Game
1416 Ninth Street
Sacramento, CA 95814

Submitted by: (Name, affiliation, address, phone number, email)

Date: (Date prepared)

Re: (Scientific names and common names of all species to be covered by Permit)

1. **Principal and Assistant Investigators.**

2. **Purpose of the Study.** Please include the direct or indirect applications of the study results to species management.

3. **Location of the Study Site.** Please include map(s), as well as written location information. At least one of the maps should show the study site on the USGS 7½' topographic quadrangle (or portion thereof).

4. **Methods.** Describe in detail:

(a) **Collection of Plant Material:** Include type of material to be collected (seed, leaf, cutting, etc.), amount of material to be collected per plant and per population (justify, if greater than 5%), collection techniques, and approximate date(s) of collection.

(b) **Manipulation of Plant Material.**

(c) **Disposition of Plant Material.** State where plant material (e.g., voucher collection) which remains following the completion of the study will be deposited.

(d) **Habitat Manipulation.** Describe any manipulation of habitat (e.g., clipping of competing species).

(e) **Data and Analysis.** Describe data to be collected and how they will be analyzed.

5. **Impact to State-listed Plants.**

6. **Schedule of Work.** Please describe the period for which you would like a research permit. Final reports are due within 30 days of the termination date of your permit. Permits can be extended with Department approval.

7. **Reports.** A minimum of one report is required for all Research permits. Yearly progress reports are generally requested if the project exceeds one year in length; these should be brief. Final reports should be in standard scientific format, including objectives, methods, results, analysis, discussion, and management/protection recommendations, if appropriate. Please list the date(s) when you would like to submit your report(s).