

California Botanist Certification Program

Administered by California Native Plant Society

Guidelines and Requirements

20 October 2015

Why is Botanist Certification Needed?

For many years botanists have been actively involved in setting environmental policy and assisting in science-based decision-making in California. Private environmental companies and public natural resource agencies offer employment opportunities for botanists in field surveys and professional document preparation. Although the applied research and instruction of academic botanists¹ at the university level are an important part of the botanical community in California, this program is not intended to apply to them. Their work is evaluated and standardized by their institutions and peers.

This certification program is meant to apply to experienced professional field and consulting botanists who work in a discipline in California that has not had common standards, guidelines, or requirements before now. For the purposes of this program, professional Field Botanists are defined as biologists that provide field studies and professional services in plant identification, vegetation mapping and classification, and rare plant identification. Professional Consulting Botanists are defined as biologists that provide services inclusive of a professional Field Botanist but also are capable of report preparation including field survey results, impact analysis, mitigation measures and strategies, management plans, environmental impacts and resource management. At this time, this certification program is not intended for entry-level botanists; rather, it is instead intended for knowledgeable, experienced professionals.

The California Botanist Certification Program (CBCP), administered by the California Native Plant Society (CNPS), recognizes botanists who seek to incorporate botanical principles in decision-making, who meet a set of standards in knowledge and experience, and who adhere to high ethical standards. Over the years, it has become clearer that a formal identification of minimum standards for botanists is needed and that society needs, welcomes, and now recognizes the CBCP as a means of identifying well-trained, competent, responsible, and reliable professionals. Several major consulting firms strongly encourage their botanists to seek certification as a means of professional development and promotion. Formal certification is important for many botanists involved in expert witness testimony. The most important reason for supporting certification of botanists is simply that certification will define the standards and formally identify the profession.

GOALS, OBJECTIVES AND BENEFITS OF CERTIFICATION

The goals of the California Botanist Certification Program are to:

- Establish widely accepted standards of proficiency and professionalism that guide the training, development, and performance of botanists;
- Facilitate relevant professional training; and
- Maintain and elevate courses and training in academic, field oriented, and reporting arenas.

¹ In this context academic botanists include students enrolled in a university (or other research institution) studying in the discipline of botany at the undergraduate level or above as well as post-doctoral researchers and all levels of professorship.

To meet these goals, CBCP recognizes individuals whose knowledge and experience meet the established standards of the profession as developed by CBCP. The CBCP certification program provides professional botanists with ready access to advice and technical guidance on scientific standards, public policy, and regulatory issues facing professional botanists. Though certification does not guarantee the competence of individuals to address specific matters, CBCP attests that certified members have met the minimum level of knowledge and ability to satisfy the requirements for various certification levels. Each certified member also acknowledges adherence to the CBCP Botanist's Code of Ethics.

Objectives

The objectives of the CBCP are to:

1. Serve the needs of botanists who wish to validate their professional credentials.
2. Guide biologists, government agencies, courts, and the public in defining minimum standards of knowledge and ability for professional botanists, and to encourage all practicing botanists to meet such standards.
3. Create and maintain public confidence in the advice and opinions of California Certified Botanists as well as educated and experienced professionals who have pledged to uphold the Code of Ethics of the CBCP and to act in the best interest of the state's native flora.
4. Assist the public in identifying qualified botanists by establishing a procedure for critical peer evaluation of a botanist's knowledge and skills based upon defined education, experience, and ethical requirements.

Certification Benefits

- Recognized on the Register of California Certified Botanists
- Holds a certificate as a Certified Field Botanist or Consulting Botanist
- Receives a Certification number and relevant acronym for business cards and (email) signatures
- Receives Certification patch
- Annual California Professional Botanist newsletter

REQUIREMENTS FOR ELIGIBILITY

Education and Experience

Candidates must be able to demonstrate their knowledge and ability to the Board of Certification through rigorous examination. No formal education is required; however, those who have formal education and training will have a much higher likelihood of passing the exams. CBCP believes that those candidates that hold a bachelor's degree that includes the equivalent of at least 30 semester hours of ecosystem sciences with at least 9 semester hours of botany, and at least 12 semester hours of physical and mathematical science will greatly benefit from such coursework. Coursework or workshops in environmental laws and regulations will also be very important. Candidates will benefit from coursework in taxonomy, natural communities, and ecosystems. Experience in the field will also give the candidate a substantial advantage over those lacking it.

Abide by the Code of Ethics

Candidates must formally agree to abide by the CBCP Code of Ethics, which dictates the rules and guiding principles that the certified botanist is expected to follow. The code of ethics is contained in a separate document.

Take CBCP Certification Test in One Level of Certification

Field Botanist

The Field Botanist must demonstrate their competence in identifying native and naturalized plants found in California and appropriate methods and protocols for conducting field surveys to satisfy documentation and assessment requirements.

Competency is determined through testing on knowledge of field survey methods and protocols, regulations pertaining to field work, and ability to correctly identify plants. Extensive education (formal or informal) in the field of botany will benefit applicants. Multiple years of experience studying and surveying the flora of California will be invaluable to the applicant. Only years of experience in the field will likely properly prepare the applicant to successfully pass the tests.

Specialty/regional areas of expertise may be developed, with regional tests to determine expertise in the flora of those regions. Example regions include: Northwestern California, Great Basin Province, Central Valley, Central Western California, Sierra Nevada, Southwestern California, and Desert Province.

Consulting Botanist

The Consulting Botanist must demonstrate their competence in identifying native and naturalized plants found in California, utilizing appropriate methods and protocols for conducting field surveys to satisfy documentation requirements, and be able to describe baseline conditions of a study/project area, critically analyze project-related impacts to the botanical resources, develop feasible mitigation measures to avoid or compensate for the identified impacts, and demonstrate a clear understanding of all related environmental regulations.

Competency is determined through testing on knowledge required for the Field Botanist as well as knowledge of federal and state environmental laws related to plants and the preparation of findings reports or impact assessments. Extensive education (formal or informal) in the field of botany will benefit applicants. Multiple years of experience studying and surveying the flora of California and assessing environmental impacts will be invaluable to the applicant. Only years of experience in the field (fieldwork and office analysis) will likely properly prepare the applicant to successfully pass the tests.

CERTIFICATION EXAMINATION

Prior to a botanist becoming certified as either a Field Botanist or Consulting Botanist, the applicant is required to take and pass certification examinations. Examinations will be held two times per year in northern and southern California. Examinations will consist of three parts: written portion with multiple choice and true/false, plant identification of collected specimens, and a field component testing note taking and observation and identification skills. Examinations will be designed to be completed in one day. Examinations cover general areas of practice by the professional consulting botanist.

Field Botanist Examination Objectives:

- plant identification;
- field survey methods;
- site characterization methods;
- laws and regulations pertaining to field work, including those pertaining to vouchering listed plants and collecting permission requirements;
- sampling methods and protocols;
- reporting and record keeping of field work results; and
- ethics.

Consulting Botanist Examination Objectives:

- Field Botanist exam areas, plus
- Federal, state, and local laws and regulations pertaining to impact assessment, take of listed species, and rare plants;
- reporting and assessment of findings; and
- development and implementation of mitigation measures.

A passing score is 75% correct answers on each test. Applicants who fail to pass one or more of the tests will have the opportunity to retest at the next regularly scheduled test date at half the cost of the original test fee for one time only; additional testing will be required to pay the full examination fee.

Certification Renewal

Certification must be renewed once every 5 years, and the BOC will notify participants before their certification expires. Certification examinations will not be required for renewal, other than certification for a higher level. To maintain professional competence, continuing education is required. Fifty (50) Continuing Education Units (CEUs) must be completed before renewal. The CEUs must contain a minimum number of units in specific subject areas, including at least 3.0 CEUs in professional ethics. CEUs will only be accepted from authorized providers or for courses pre-approved by the Board of Certification. Subject areas will include: professional ethics, plant identification, survey methods, assessment methods, and mitigation methods. The process for CEU approval by the BOC is currently in development.

APPLICATION PROCEDURE

An Application for Certification may be obtained from the Board of Certification, linked through the CNPS website. Applications must be completed in their entirety and include a current résumé, and the application fee. All applications must be received by one month before a scheduled test for eligibility and prospective certification within that year. Eligible candidates will be notified of locations and dates of testing.

After five years, all certified botanists are asked to apply for recertification. An application for recertification can be obtained by contacting the Board of Certification and demonstrating successful completion of required continuing education prior to expiration. Recertification at a higher level than previously certified requires the submission of a new Application for Certification and testing for that level. The application fee includes first year membership dues.

Fees:	Application and Examination
Field Botanist:	\$300
Consulting Botanist:	\$400

Certification Maintenance Fee

An annual fee of \$85 for Field Botanist and \$95 for Consulting Botanist must be paid by February 1 of each year to maintain the California Botanist Certification. The annual fee includes the following benefits:

- Inclusion in the Register of California certified botanists
- Certificate as a Certified Field or Consulting Botanist
- Certification patch
- Certification number
- Annual California Professional Botanist newsletter

CBCP ADMINISTRATION

The CBCP is a collaboration of many groups and organizations, and is administered by CNPS. Collaborating groups and organizations participate in an Advisory Committee that is described below. CNPS is responsible for accepting fees, scheduling tests, scoring tests, notifying test takers of results, maintaining the register of certified botanists, administering the committees, tracking CEUs, and distributing the California Professional Botanist newsletter. All fees obtained through the certification testing process will be used to administer the CBCP. Board of Certification and committee members serve as volunteers; however, expenses will be reimbursed to the extent possible from fees.

The CBCP includes three standing committees to implement and administer the program: Board of Certification, Professional Ethics Committee, and Advisory Committee. Board of Certification members are Certified Botanists elected by their peers, and the Professional Ethics Committee is also composed of Certified Botanists and one attorney specializing in ethics. The Advisory Committee is composed of representatives of collaborating organizations and members are not required to be Certified Botanists.

Board of Certification

The Board of Certification (BOC) shall have at least five members but not more than nine members and each shall have two-year terms, with terms staggered so that at least two members serve on the next year's Board². All Board of Certification members are required to be Certified Botanists³. Initially, the Committee membership will be appointed by the CNPS Executive Director with approval by the CNPS Board of Directors. Subsequently, the BOC will have at least five members, who will be determined by election by their peers, i.e. Certified Botanists. The terms of BOC members will be two years, with half the committee members elected every other year such that at least half the committee members will have served the previous year⁴. The Secretary of CNPS shall

² The first Board of Certification will have at least two members serving at least three years in order to facilitate staggered term elections (i.e. CNPS desires continuity between boards by having some members' terms extending into the next term of the Board).

³ Initially, some members will take a test and be eligible to become Certified Botanists appointed by the CNPS Board of Directors. The Committee may solicit advice from legal counsel, who does not need to be a Certified Consulting Botanist.

⁴ Initially, some committee members will serve a term of 3 years until a full cycle has been completed.

count the election ballots each year and present the results to the Board of Certification. The Board of Certification has the following duties:

1. Maintain and administer certification tests
2. Approve/deny certification
4. Oversee/guide administration of the certification program
5. Report to the CNPS Executive Director at least annually
6. Censure, suspend, or revoke certification as approved by Professional Ethics Committee
7. Formally identify all training providers/courses/workshops that are accepted as satisfying CEUs and maintain a list of approved training providers.

Professional Ethics Committee

The Professional Ethics Committee members include Certified Botanists and at least one attorney. Initially, the Committee membership will be appointed by the CNPS Executive Director with approval by the CNPS Board of Directors. Subsequently, the Committee will have at least five members, four of which must be Certified Botanists in good standing⁵. The four Certified Botanists will be determined by election by their peers, i.e. Certified Botanists. The terms of committee members will be two years, with half the committee members elected every other year such that at least half the committee members will have served the previous year⁶. The Secretary of CNPS shall count the election ballots and present the results to the CNPS Board of Directors. The Professional Ethics Committee has the following duties:

1. Maintain, review, and update the Code of Ethics and Rules of Professional Conduct
2. Receive and review complaints about a Certified Botanist
3. Conduct hearings regarding violations of the Code of Ethics and/or Professional Conduct
4. Approve certifications for censure, suspension, or revocation
5. Report to the Board of Certification at least annually, and CNPS Executive Director and CNPS Board of Directors as necessary.

Advisory Committee

The Advisory Committee is composed of representatives from groups and organizations with an interest in supporting and maintaining high standards in the professional botanist community. The main function is to serve as a communication channel between cooperating organizations and the Board of Certification so that the cooperating organizations stay apprised of the program status. Members of the Advisory Committee do not need to be Certified Botanists, and the committee membership is approved by the Board of Certification. The Advisory Committee has the following duties:

1. Appoint an organization representative to attend and participate in a semi-annual committee meeting with the Board of Certification
2. Report back to the organization's membership on activities of the BOC and the status of the certification program
3. Assist in support of the CBCP through outreach, distribution of materials, and encouragement of members to become Certified Botanists.
4. Provide feedback to the BOC regarding the certification process.

⁵ Certified Botanist in good standing is defined as a person who has been designated as Certified by the Botanist Certification Program Committee and membership dues are current.

⁶ Initially, some committee members will serve a term of 3 years until a full cycle has been completed.

ETHICS AND PROFESSIONAL CONDUCT

California Certified Botanists (at all levels) shall conduct their activities in accordance with the Botanist's Code of Ethics and with the highest standards of professional conduct and personal honor. Those who follow to the Code of Ethics are eligible for certification, provided they successfully pass the certification examinations.

Appeals Procedure

A decision of the Board of Certification to deny certification may be appealed in writing to the CNPS Executive Director. Details of the procedure (to be developed) are available upon request.

Disciplinary Procedure

The Board of Certification, with approval of the Professional Ethics Committee, shall have the authority to censure a certificant, to suspend certification for a stated period, or to revoke certification on the finding that an individual has willfully or negligently violated the Code of Ethics or misrepresented the facts while certified. Such a finding may be reached by concluding that an allegation of improper deportment is true.

Such an allegation may be presented to the Board of Certification in writing, by any member of the public. Anonymous allegations will not be entertained. Anyone named a party to such proceeding shall be informed in a timely manner of the evidence brought forward and be given an opportunity to respond to the allegations. The Board of Certification will forward all material to the Professional Ethics Committee. After review of the case by the Committee and the Board, the Board of Certification will render a written decision informing the certified botanist, the individual who initiated the allegation, and the CNPS Board of Directors. Any such action of the Board of Certification may be appealed to the CNPS Board of Directors, whose decision will be final. Candidates agree to follow and abide by any and all disciplinary decisions made against the certificant by the Board of Certification.