

Ethics and the Consulting Botanist

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Professional Botanist

Definitions:

A professional botanist is a person who is skilled in plants and is paid to work with plants in some capacity.

A botanist is a biologist specializing in the study of plants.

A consulting botanist provides their services to more than one client, either self-employed or as an employee of a consulting firm

Botany Professions

- Landscape architecture
- Gardener
- Arboriculture
- Landscape contracting
- Range management
- Silviculture
- Forestry
- Farming
- Lichenology
- Nursery management
- Floristics
- Taxonomy/Systematics
- Pharmacology/Ethnobotany
- Conservation biology
- Ecology
- Biogeography
- Vegetation restoration
- etc.

Who Employs Botanists?

- Government agencies
- Academic institutions
- Nonprofit organizations
- the private sector (businesses)

Types of Professional Botanists

- Research botanists
- Teaching botanists
- Regulator botanists
- Resource manager botanists
- Land use planner botanists
- Consulting botanists
- (and other types I have probably forgotten)

Botanists and Conservation

- The work of the professional botanist in all of these positions is vital to the work of conserving the California flora.
- Not many years ago CDFG and the USFS had no botanists on staff. Due to lobbying by CNPS, both agencies now have several botanists working in California.
- Consulting botanists were almost unheard of before our environmental laws were passed in the early 1970s.

Botanists and CNPS

- CNPS could not further its mission to conserve the California flora without botanists
- Almost all professional botanists working and living in California are members of CNPS
- Most professional botanists in California look to CNPS for direction and support

Issues of Concern

- Conflict of Interest

- Employer/client desires certain outcome/results
- Employer/client pays the botanist
- Botanists are scientists
- Botanists, for the most part, are conservationists

- Confidentiality Agreements

- Some clients require consultants to sign confidentiality agreements

Issues of Concern (continued)

- Lack of local floristic knowledge
 - Many botanists will consult in regions in which they are not familiar with the local flora
 - Many will not consult with local experts
- Lack of training
 - Formal education generally fails to provide botany students training in floristics or taxonomy
 - Few botany programs remain in California
 - Little formal training provided/available for the professional botanist

Issues of Concern (continued)

- Lack of experience
 - Most consulting botanists in the field lack experience
 - Promoted to management
 - Higher level botanists too expensive to put on the job
- Lack of accountability
 - Consulting botanists account to no one but their clients or employer
 - No professional botanist society or association

Issues (concluded)

- Lack of a *code of ethics* for botanists to consider or follow

What Does a Consulting Botanist Do?

- Consulting botanists perform many tasks that have either a direct or indirect affect on the flora, including:
 - ✓ Assessing impacts of projects on the flora, through CEQA and NEPA
 - ✓ Mapping and characterizing the natural vegetation
 - ✓ Conducting rare plant surveys
 - ✓ Determining direct and indirect impacts of a project on the botanical resources
 - ✓ Identifying mitigation measures to offset direct and indirect impacts to botanical resources
 - ✓ Developing mitigation monitoring plans/programs

Results of Problems

- Extent or degree of a project's impacts are not adequately identified
- Rare plants to be impacted not identified
- Information not disclosed (confidentiality agreements)
- Mitigation measures infeasible, inadequate, or inappropriate
- Loss of floristic/habitat resources

How Does CNPS Conserve the Flora?

- Commenting on environmental review documents (CEQA and NEPA documents, General Plans, etc.)
- Educating the public about the importance and values of native plants
- Convincing elected representatives of these values
- Filing legal appeals and lawsuits

How Effective is CNPS?

- CNPS is very effective in some circumstances
- CNPS is ineffective in other circumstances
- CEQA is a public-enforced law
- CNPS has been effective with CEQA lawsuits, partially
- CNPS needs additional tools to be truly effective in conserving the California flora

Conservation Tools Needed

- Local floras
- Lists of species of local concern
- Minimum professional standards for botanists
- Better trained botanists
- Code of ethics for botanists
- Conservationists/botanists as politicians

Potential Solutions

- Providing a guild for the professional botanist
- Closing loopholes in environmental laws
 - ✓ CEQA exemptions
 - ✓ CESA exemptions
- Certifying or Licensing of professional botanists
- Providing science-based survey and assessment guidelines and protocols

Professional Organizations

- Some botanist professions have organized support groups. A few examples include the:
 - ✓ *International Society of Arboriculture* for arborists,
 - ✓ *American Society of Landscape Architects* for landscape architects,
 - ✓ *Ecological Society of America* for ecologists,
 - ✓ *Northwest Lichenologists* for lichenologist working in the Pacific Northwest, and
 - ✓ *Society for Range Management* for range managers.

Professional Organizations

- Professional organizations provide support and resources to members, including:
 - ✓ Training
 - ✓ Certification
 - ✓ Tools
 - ✓ Education
 - ✓ A forum for the exchange of information (journals, newsletters, workshops)
 - ✓ Ethical standards
 - ✓ Discipline

What Can CNPS Do?

- Develop and adopt policies and guidelines for professional botanists
- Nag and complain incessantly about poor quality botanical work
- Adopt a Code of Ethics for professional botanists
- Develop a Botanist Certification Program under a new Professional Botanist Program

Proposed Code of Ethics

WHEREAS professional botanists are a vital component to the field of sciences regarding floristics; vegetation classification, mapping, and description; plant ecology; conservation; vegetation management; impact assessments; mitigation design, implementation, and monitoring; taxonomy; systematics; and rare plant studies;

WHEREAS professional botanists conduct analyses and make recommendations and decisions that can irrevocably alter the natural environment;

WHEREAS professional botanists are vital to understanding the role plants have in the ecology of the Earth and how humans can live compatibly with the natural environment, which the native flora is a basic foundation of the Earth's ecology.

BE IT RESOLVED that the California Native Plant Society, as recommended by the Professional Botanist's Committee, adopts this Code of Ethics and Standards for Professional Conduct by professional botanists.

Code of Ethics (continued)

Professional Botanists have an obligation to contribute to our understanding of mankind's proper relationship with natural botanical resources. Professional botanists will strive to meet the following goals:

Professional Botanists shall conduct their activities in accordance with the Code of Ethics and the Standards for Professional Conduct prescribed by the California Native Plant Society outlined below.

Code of Ethics (continued)

- They will subscribe to the highest standards of integrity and conduct.
- They will recognize research and scientific management of natural vegetation and their environments as being of primary importance.
- They will disseminate information to promote understanding of, and appreciation for, the value of native plants and their habitats.
- They will strive to increase knowledge and skills that advance the practice of botany.

Code of Ethics (continued)

- They will promote competence in the practice of field botany, and vegetation assessment and management by supporting high standards of education, employment, and performance.
- They will demand the use of sound biological information in management decisions.
- They will support fair and uniform standards of employment and treatment of those professionally engaged in the practice of botanical resource management.

Standards for Professional Conduct

The following tenets express the application of the Code of Ethics as prescribed by California Native Plant Society and by traditional norms for professional service. **Botanists shall at all times:**

- Inform prospective clients or employers of their prime responsibility to the public interest, conservation of the flora, and the environment. They shall act with the authority of professional judgment, and avoid actions or omissions that may compromise these broad responsibilities. They shall respect the competence, judgment, and authority of the professional community.

Standards (continued)

- Avoid performing professional services for any client or employer when such service is judged to be contrary to the Code of Ethics or Standards for Professional Conduct or detrimental to the well-being of the flora and its environment.
- Provide maximum possible effort in the best interest of each client/employer accepted, regardless of the degree of remuneration. They should avoid discrimination in any form, or the abuse of professional authority for personal satisfaction.

Standards (continued)

- Accept employment to perform services only in areas of their own competence, and consistent with the Code of Ethics and Standards for Professional Conduct. They shall seek to refer clients or employers to other natural resource professionals when the expertise of such professionals shall best serve the interests of the public, the flora, and the client/employer. They shall cooperate fully with other professionals in the best interest of conserving the flora.

Standards (continued)

- Maintain a confidential-client/employer relationship except when ... authorized ... or required by due process of law or this Code and Standards to disclose pertinent information. They shall not use confidence to their personal advantage or to the advantage of other parties, nor permit personal interests or other client/employer relationships to interfere with their professional judgment. They must report violations of any applicable law or regulation to the appropriate authority, regardless of any confidentiality agreement.
- Refrain from advertising in a self-laudatory manner, beyond statements intended to inform prospective clients/employers of qualifications, or in a manner detrimental to the botanical resource.

Standards (continued)

- Refuse compensation/rewards intended to influence professional judgment or advice. They shall not permit a person who recommends or employs them, directly or indirectly, to compromise their professional judgment.
- Uphold the dignity and integrity of the botany profession. They shall endeavor to avoid even the suspicion of dishonesty, fraud, deceit, misrepresentation, or unprofessional demeanor.

Standards (continued)

The professional field and consulting botanist should conduct all fieldwork and analysis according to a minimum standard of performance, which include the following:

- ✓ All field work shall be conducted according to accepted methods adopted by the scientific botanical community;
- ✓ No field survey for plants shall be considered complete unless conducted during appropriate seasons that maximally facilitate complete and correct identification of all taxa present in the study area;
- ✓ All lists and reports shall use currently accepted scientific nomenclature to ensure accurate communication between botanists;

Standards (continued)

- ✓ The results of all field surveys and analyses shall be reported truthfully, accurately, and according to sound logic;
- ✓ All statements in environmental documents and reports shall be supported by peer-reviewed scientific literature; otherwise, statements or claims should be appropriately qualified as conjectures, estimations, opinions, or assumptions of the botanist;
- ✓ All field work shall be conducted according to existing laws and regulations;

Standards (continued)

- ✓ Results of field surveys should be submitted to appropriate resource agencies, such as the California Department of Fish and Game's Natural Diversity Database;
- ✓ All vegetation mapping and classification shall be conducted according to currently accepted and adopted mapping and classification methods, and should be of sufficient detail to accurately characterize the natural vegetation. such as described in the California Native Plant Society's *A Manual of California Vegetation*;

Standards (concluded)

- ✓ All field surveys shall be conducted and documented according to methods and policies adopted by California Botanical Society and the California Native Plant Society (Ferren, W.R., Jr., D.L. Magney, and T.A. Sholars. 1995. The Future of California Floristics and Systematics: Collecting Guidelines and Documentation Techniques. *Madrono* 42(2):197-210.)
- ✓ Local botanical experts or knowledgeable persons should be consulted concerning the local flora, species of local concern, locally rare, or of scientific or ecological significance.
- ✓ The results of field surveys and analyses shall be presented in an unbiased manner, regardless of whether the results or analysis is contrary to the desires of any client or project proponent or opponent.

Botanist Certification

- Goals and Functions:
 - ✓ Foster the incorporation of botanical principles in the decision-making process of the California Native Plant Society (CNPS)
 - ✓ Establish widely accepted standards of proficiency and professionalism that guide the training, development, and performance of botanists
 - ✓ Develop and present relevant professional training; and
 - ✓ Catalyze the establishment of needed courses and training in the formal academic arena.

Botanist Certification

- Objectives:

- ✓ Serve the needs of botanists who wish to establish and validate their professional credentials.
- ✓ Guide biologists, government agencies, courts, and the public in defining minimum standards of education and experience for professional botanists, and to encourage all practicing botanists to meet such standards.
- ✓ Create and maintain public confidence in the advice and opinions of Certified Botanists as well as educated and experienced professionals who have pledged to uphold the Code of Ethics of the California Native Plant Society and to act in the best interest of the public.

Botanist Certification

- ✓ Assist the public in identifying botanists by establishing a procedure for critical peer evaluation based upon defined minimum education, experience, and ethical requirements.

Botanist Certification

- Benefits:

- ✓ Full regular membership in CNPS and all its benefits
- ✓ Quarterly professional botanist's journal – *The California Professional Botanist*
- ✓ Register of California certified botanists
- ✓ Discount (10%) on all CNPS publications
- ✓ Certificate as a Certified Botanist
- ✓ Certification number
- ✓ Discount (25%) on all CNPS botany training workshops, seminars, and conferences
- ✓ Borrowing privileges from CNPS library

Benefits to CNPS

- What would California be like if we had a professional botanist certification program?
 - ✓ We will have consulting botanists that are empowered to conduct assessments and report their findings accurately and truthfully, without being punished for doing so.
 - ✓ We will have better quality consulting botanists
 - ✓ We will have better reporting on botanical resources in environmental review reports
 - ✓ We will likely get better decisions by lead agencies
 - ✓ We will decrease the power of the developer