

California Native Plant Society

North Coast Chapter
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Public Information and Records Integrity Branch
Office of Pesticide Programs
Environmental Protection Agency (7502C)
1200 Pennsylvania Ave. NW
Washington, D.C. 20460-0001

Attn: Docket ID No. OPP-2002-0311

Re: Endangered Species Protection Program Field Implementation

The California Native Plant Society (CNPS) is a nonprofit organization of nearly 10,000 amateurs and professionals dedicated to the preservation of California's diverse native flora. CNPS conducts a variety of conservation efforts focused on long-term protection and preservation of native flora in its natural habitat. The Society has been assessing the status of rare plant species for over 30 years, and is the foremost non-governmental organization working to protect rare, threatened, and endangered plants in California.

CNPS is concerned that rare plants are not adequately protected from direct or cumulative impacts related to herbicide use, particularly on managed forestlands. In the redwood region in the northwestern California, known rare plant occurrences have been sprayed with herbicides even though state law protects them from impacts during timber harvest. CNPS believes that the widespread use of forestry herbicides poses a significant threat to rare plant populations in the state's timber-producing regions. Protecting endangered species from direct and cumulative impacts of pesticides is necessary to protect the unique flora and fauna of California, including pollinators and seed dispersing animals essential to the survival of rare, threatened, and endangered plants.

The pesticide regulation system largely addresses issues related to agricultural uses of pesticides, particularly on food crops. However, in many regions of California, the largest pesticide applicators are industrial timber producers. Forestry herbicides are the most frequently used pesticides in many counties. These forested areas are home to many



Dedicated to the preservation of California native Flora

federally listed species as well as sensitive species that may be candidates for listing if current land management practices continue. Among these species are plants, fish, birds, amphibians, mammals, and insects that rely on forested landscapes for survival. These timberlands are not farms; their management must consider impacts to native species, water quality, and recreational value under California law.

The best available science indicates that many registered pesticides are likely to cause negative impacts to endangered species even when used lawfully. There is evidence that long-term impacts of forestry herbicides can have dire effects on rare plants. For example, sulfonyleurea herbicides such as sulfometuron methyl (Oust©) can cause significant reductions in fruit and seed production in a variety of plant species, even at 1000 times lower than the recommended application rate.¹ Current EPA registration requirements do not include testing for reproductive effects, yet more than 230 formulations containing these chemicals had been registered by 1987.² Reproductive damage to rare plant populations could severely threaten rare and endangered species' long-term survival. Although rare plant species have been directly impacted by this forestry herbicide, no monitoring has been done to determine whether surviving individuals have been reproductively affected, even though these impacts could lead to severe impacts to the species as a whole.

In addition to direct and cumulative impacts to rare plant species, pesticide use constitutes a significant threat to pollinators of rare plants.³ Research has shown that pesticide damage to native pollinators-either from direct exposure or from foraging on contaminated plants- can cause significant reductions in seed set.⁴ Pesticide use in rangelands and agricultural regions also threatens rare plant survival by reducing pollinator populations.⁵

The following comments on the proposed Endangered Species Protection Program Field Implementation are submitted on behalf of CNPS.

Issue 1. The County Bulletin system is inadequate to protect endangered species from direct and cumulative impacts of pesticide use.

In California, the Endangered Species Pesticides Protection Program is implemented by the California Department of Pesticide Regulation (DPR). According to the U.S. Fish & Wildlife Service's Threatened and Endangered Species System, there are 296 federally listed species in California, 180 of which are plants.⁶ However, the County Bulletin system only includes 61 species, 4 of which are plants.⁷ This disparity leaves 173 endangered plant species unprotected by the County Bulletin system.

In addition to the inadequacies of the list of species covered by this system, the County Bulletin system itself is inadequate as implemented even to protect the covered species. The system does not account for the following basic prerequisites for successful endangered species protection:

- Difficulties in identification of native flora and fauna without expertise;

- Lack of surveys in suitable habitat means that there is often no reliable information on the presence or absence of endangered species or their critical habitat. [Example: Several occurrences of a state listed endangered plant were discovered on private timberlands. This species (Humboldt milkvetch—*Astragalus agnicidus*) had been thought to occur at only one site for more than 10 years, illustrating the need for surveys.]
- Information related to phenology of endangered species at risk. [Example: when would Oregon silverspot butterflies be expected to be present in its larval stage vs. its adult stage, and what plants would it be likely to be associated with at these different times?]

Issue 2: The proposal appears to be more concerned with reducing the burden on pesticide applicators than protecting endangered species from pesticides.

In particular, the specific input requested on the County Bulletins in Section B of the notice deals mainly with concerns of pesticide applicators, rather than accuracy of information contained in the County Bulletins.

Issue 3: The existing review process for pesticide registration and reregistration does not address potential impacts of commonly used combinations of pesticides, inert ingredients, or breakdown products. Examples:

- **Combinations of chemicals:** In forestry applications, herbicides are often combined in a tank and applied as a mixture. Examples include sulfometuron methyl mixed with glyphosate, and 2,4-D mixed with triclopyr butoxyethyl ester.
- **Inert ingredients**, despite the deceptive name, can be highly toxic. An example is the Roundup© surfactant (MON0818), an “inert” ingredient that has been found to be far more toxic to fish than the product’s active ingredient.⁸
- **Breakdown products** are often far more persistent than their parent chemicals, and accounted for 8 of 10 detections in a recent U.S. Geological Survey.⁹ Yet the impacts of these breakdown products and their chemical combinations remain unknown with regard to endangered species.

Issue 4: Greenhouses should not be included as indoor environments that automatically receive a “no effects determination” as described in section (A)(1) of the notice, since irrigation waters from greenhouses can affect outdoor environments, including watercourses.

Issue 5: Proposed Alternative

CNPS advocates as an alternative to the proposed Field Implementation, the EPA should assign jurisdiction for protecting endangered species on a site-specific basis. For example, to protect endangered species from forestry herbicide impacts, the California Department of Forestry (CDF) should be responsible for implementing protective measures on private timberlands, while the U.S. Forest Service, Bureau of Land

Management, and other agencies would be responsible for protecting endangered species on their ownerships.

Currently, these agencies defer to the EPA's pesticide registration process as the primary means by which endangered species are protected from pesticide impacts. However, in cases where we have investigated the implementation of these practices, we have found that rare plants are often directly sprayed with forestry herbicides, because pesticide regulation is piecemealed from regulation of the related land management practices.

An example of the failure of the current regulatory system is the spraying of a sensitive plant population by spray crews targeting invasive non-native roadside species on private industrial timberlands in Humboldt County, California. The Pacific Lumber Company's Habitat Conservation Plan Monitors' activity report from Timber Harvest Plan #1-01-363 HUM indicates that an occurrence of Howells' montia (*Montia howellii*) was sprayed with herbicides meant to eliminate roadside pampas grass, an invasive exotic species. According to the monitor's report,

This incident indicates lack in communication between different departments of PALCO. The intent of the Conservation Plan for Sensitive Plants as part of the HCP can only be fulfilled when all operations that might affect survival of rare plants are logically coordinated. It does not make sense that efforts taken to protect rare plants under covered activities are impeded by operations outside the scope of the HCP.¹⁰

This annual plant is a sensitive species as defined by 14 Cal. Code Reg. §15380 (d), and although approximately 250 individuals were killed by application of Roundup© by spray crews, even though the site was marked as is customary for the landowner.

Conclusion

CNPS has been raising issues related to rare plants and forestry herbicide use for several years, with little success. The California Department of Forestry (CDF), the Humboldt County Agriculture Department, and the California Department of Pesticide Regulation have been unresponsive to most of CNPS's concerns with regard to forestry herbicide impacts to rare plants that are protected during timber harvest. Currently, the agencies that regulate private timber harvest defer to the EPA's pesticide registration process as the primary means by which sensitive species are protected from pesticide impacts. However, in cases where we have investigated the implementation of these practices, we have found that rare plants are often directly sprayed with forestry herbicides.

We hope that these comments have been helpful, and that the E.P.A. will take this opportunity to strengthen the protection of endangered species from the impacts of pesticides.

Sincerely,



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North Coast Chapter, California Native Plant Society

Cc: Steve Williams, Director, U.S. Fish & Wildlife Service
Paul Helliker, Director, California Department of Pesticide Regulation
Patty Clary, Californians for Alternatives to Toxics
Cynthia Elkins, Environmental Protection and Information Center
Ken Miller, Humboldt Watershed Council

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