An assessment of landowner attitudes and behaviors towards oak woodland restoration in Humboldt County, CA

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INTRODUCTION

Oak woodlands: Oak woodland ecosystems are vital components to the cultural, ecological, and economic composition of California. In northern California the ecosystems are currently threatened by rapid conifer encroachment induced by fire suppression practices. The majority of oak woodland stands exist on private property and require landowner cooperation to implement conservation and restoration work. Recently an exemption, within Assembly Bill 1958, has been passed in the California legislature under the Forest Practice Rules to support private landowners and industry towards conserving oak woodlands. The exemption is designed to help to restore and conserve California’s black and white oak woodlands by allowing landowners to remove and sell conifers from oak stands without having to restock with conifers. It also creates an exemption to the Timber Harvest Plan (THP) process that allows for the harvesting of smaller diameter conifers. AB 1958 has a lifespan of six years and provides private landowners with the ability to pursue oak woodland restoration.

Landowners: The new oak exemption provides an ideal time for landowners, agencies, and environmental nonprofit groups to partner together to initiate oak conservation at a large scale. Within Humboldt County approximately 78% of oak woodland stands are found on private property (Table 3). This highlights the need for landowner involvement and support towards conserving oak woodland ecosystems. The Mattole and Tager Van Duyn (YVD) watersheds within the county are active research locations because there is current initiative from landowners for oak woodland restoration.

I predict these sites feature two distinct groups of landowners with diverse attitudes, behaviors, values, and economic motivations that will influence their use of the new exemption and participation in oak conservation and restoration efforts. Understanding the differences between landowners’ attitudes, behaviors, and values surrounding oak woodlands is crucial in successfully implementing oak conservation and restoration projects throughout Humboldt County.

Native oak species: Oregon white oak (Quercus garryana), California black oak (Quercus kellogii) and Canyon live oak (Quercus chrysolepis).

Humboldt County: Oak woodland stands in Humboldt County are a greater amount of timber harvesting activity in YVD, which may translate to a greater likelihood that landowners will evaluate attitudes, behaviors, and value, toward working with agencies and environmental non-profits to implement restoration projects.

I believe that landowners in the Mattole will be focused upon oak conservation for aesthetic reasons while YVD landowners will primarily be practicing restoration for economic purposes.

METHODS

This poster is based on preliminary results that I have gathered through participant observation by attending an oak woodland restoration based UC Cooperative Extension workshop and volunteering through the Natural Resource Conservation Science (NRCS). Future research methods will include semi-structured interviews, surveys, and further participant observation.

- Semi-structured interviews: I will conduct interviews with private landowners, agency members, and environmental nonprofit groups. Landowner interview questions will elaborate upon survey responses and examine how they value and prioritize oak woodland ecosystems. Interviews with agency and environmental nonprofit group members will examine typical attitudes of the landowners they work with.
- Survey: I will administer a Likert scale survey to private landowners during the interview process. The survey will evaluate attitudes, behaviors, and levels of trust towards agencies and nonprofits that are funding and supporting oak woodland restoration. It will also examine competing economic motivations (i.e. timber harvesting and cattle ranching), ownership objectives, and perceived barriers towards oak woodland restoration.

OAK LOCATIONS

Table 1: Location of oak woodland stand types in Humboldt County. The majority of black and white oak species are located on private property within the county. While the canyon live oak is included it stand type is not exempt under AB 1958.

<table>
<thead>
<tr>
<th>Oak Stand Type</th>
<th>Acres</th>
<th>% Privately Owned</th>
<th>% Tribally Owned</th>
<th>% Nationally Owned</th>
<th>% State Owned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon White Oak</td>
<td>100,526</td>
<td>73</td>
<td>90</td>
<td>073</td>
<td>8%</td>
</tr>
<tr>
<td>Black Oak</td>
<td>16,746</td>
<td>12</td>
<td>64</td>
<td>10,762</td>
<td>29%</td>
</tr>
<tr>
<td>Canyon Live Oak</td>
<td>20,880</td>
<td>15</td>
<td>34%</td>
<td>9 (368)</td>
<td>54%</td>
</tr>
<tr>
<td>Total</td>
<td>138,132</td>
<td>100</td>
<td>78</td>
<td>12</td>
<td>17</td>
</tr>
</tbody>
</table>

OBJECTIVES

I. Evaluate landowners’ attitudes and behaviors towards oak woodlands and oak woodland restoration, and their attitudes and behaviors towards working with agencies and environmental nonprofits to implement restoration projects.

H1: Landowners in the Mattole and the YVD will have differing attitudes and behaviors towards oak woodland restoration. I believe that landowners in the Mattole will be focused upon oak conservation for aesthetic reasons while YVD landowners will primarily be practicing restoration for economic purposes.

H2: Landowners in the YVD will be more likely to take advantage of AB 1958 due to their income based landowner type and economic motivations.

H3: Landowners’ attitudes and behavioral intentions are weakly linked towards oak woodland restoration due to the cost and maintenance of implementation.

H4: Evaluate the roles of agencies and conservation non-profits in implementing projects. Understand landowners’ perceptions of partnering conservation non-profits and agencies.

H5: Landowners prefer to work with agencies they trust and this differs according to landowner type.

Thesis Statement: I will categorize landowners based upon their survey responses into 1 of 3 types:

- Amenity: protecting aesthetic values, conservation, and recreational use.
- Incentive focused upon timber, cattle, hunting, or cannabis production.
- Legacy: ownership goal of passing property down to heirs.

LANDOWNERS & PARTNERS

Agencies: I will interview members from the following agencies.

- Natural Resources Conservation Science (NRCS)
- Cal Fire: Dept. of Forestry & Fire Protection
- U.S. Fish & Wildlife Service

Conservation nonprofits: I will interview members from the following groups.

- Mattole Restoration Council (MRC)
- Tager Van Duyn Environmental Stewards (TVES)

Figure 1: Humboldt County California

Figure 2: Study site locations within Humboldt County

Figure 3: The Mattole watershed includes the unincorporated communities of Petrolia, Hoeykaye, Eldersburg, Whitethorn, and Thiom rancion.

Figure 4: The Tager Van Duyn watershed contains the town of Hydesville, and the unincorporated communities of Bridgeville, Carletto, and Dorrance.

Figure 5: Conifer encroachment within the Mattole watershed.