

The Rare Humboldt Milk-vetch and Invasive Weeds; Managing Habitat and Harvests

Lynn Webb, Jackson Demonstration State Forest, California Department of Forestry and Fire Protection, 802 North Main Street, Fort Bragg, CA 95437; (707)964-5674 ex 116;
lynn.webb@fire.ca.gov

This poster will explore how forest operations and management can work in concert with a rare plant protection and invasive weed management goals. The management of habitat for Humboldt milk-vetch, *Astragalus agnicidus*, (Barneby) at Jackson Demonstration State Forest provides a case study demonstrating habitat and management knowledge to successfully maintain a rare plant species for the short and long term.

Seventeen years ago two populations of Humboldt milk-vetch, *Astragalus agnicidus* (ASAG) were found on Jackson Demonstration State Forest (JDSF). This species was thought to have been extirpated from a single remaining site in Humboldt County but was found again 30 years later. ASAG is likely an early seral species that initially reproduces well. Like some other Fabacea, (pea family), ASAG appears to be sustained through long-lived seed banks with plants appearing episodically in response to disturbances within forests. Populations then decline and disappear within a few years, as the open habitat begins to fill in with other species. This long term ASAG strategy has the potential to be disrupted by invasive species that also have long-lived seed and have similar habitat needs. Another Fabaceae, French broom, *Genista monspessulana* is one such species. In contrast *jubata* grass, *Cortaderia jubata* has more mobile short lived seed but can use the same habitat as ASAG.

The largest ASAG occurrence on JDSF was found in an area that had high percentage of the forest harvested. Within the unit, the ASAG occurrence is no longer visible. In contrast, ASAG is still present along the adjacent ridgeline roadsides. Invasive weed and roadside management have contributed to the persistence of ASAG at this site. Both French broom and *jubata* grass are present in this portion of the forest. New techniques have been developed to manage invasive weeds at this location. The poster will provide information on how JDSF has adapted management practices to conserve the ASAG areas. It will also provide information on how timber sale protection measures have been developed and implemented for this species.