

Mary Laspina?

Spotted Knapweed

Although spotted knapweed (Centaurea maculosa) has spread very rapidly in the West, its invasion has not been overnight. Much of knapweed's success can be attributed to the human movement of its seed and no natural enemies. When the plants were introduced to North America, they arrived as seed (Maddox 1982) that was free of diseases and insect herbivores. The environmental conditions in Southeastern and Central Idaho were ideal, being nearly the same as their native habitats (Harris and Cranston 1979). Domestic honey bees, knapweed's natural pollinators, assisted their reproduction.

These plants are competitive, aggressive, and extremely successful in seed production and survival (Watson and Renney 1974). Once a few scattered plants established a population, dense stands were produced by filling in the interspaces. The economic consequences of the knapweed invasion were not appreciated until the density and distribution was so extensive that costs of eradication and control were prohibitive (Kelsey 1984). The most drastic biological effect knapweed could probably have would be the elimination of a rare and endangered plant species.

The best knapweed control is prevention. Learning to identify the species can help prevent knapweed from being established. Although other methods are effective, such as the herbicide Tordon 22K picloran (French and Lacey 1983), this does not seem reasonable here at Craters of the Moon. Especially considering the fact that we do not know how extended our knapweed problem is here. Cultural practices such as mowing, burning, or planting (Berube and Myer 1982) can help retard knapweeds spread, but will not eliminate those stands already well established. Hand-pulling is also a widely used method of eradication where there are isolated plants. This seems to be the most feasible method here at the park, with our current problem.

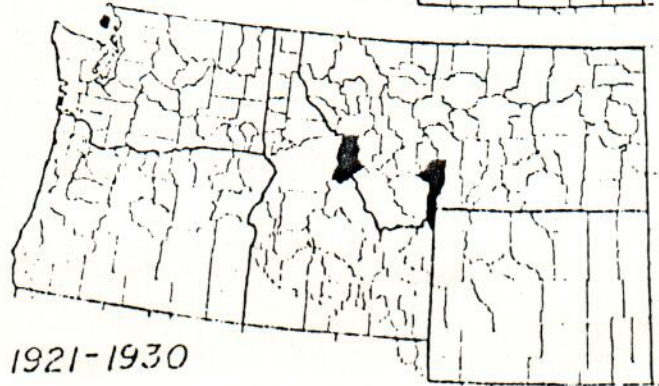
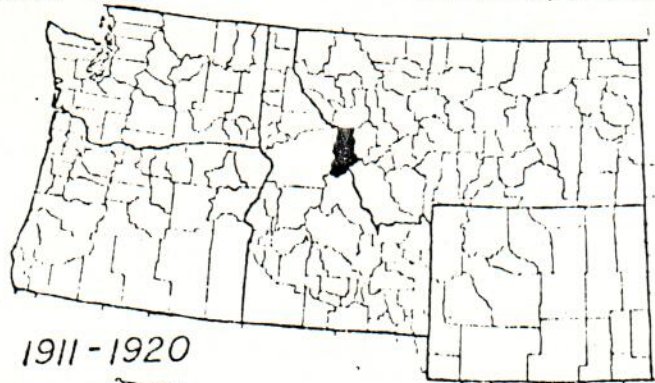
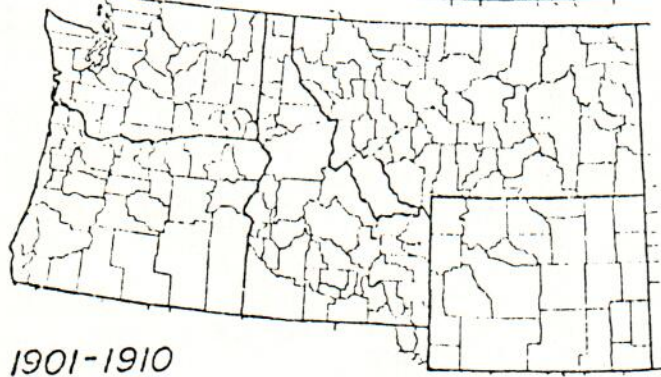
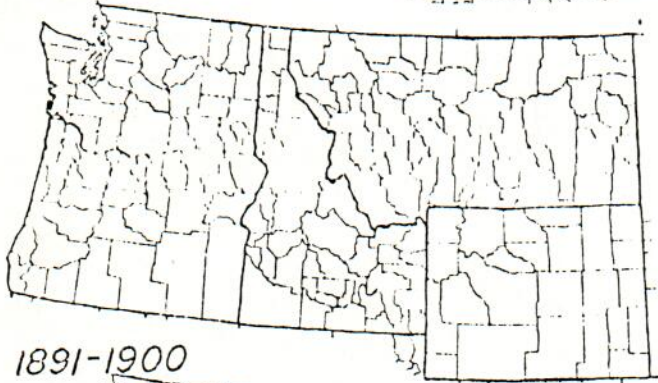
Successful control of knapweed is impossible for a single person, group or agency. Cooperation between private landowners, public land users and governmental agencies is necessary. If the plants are removed from a site and large populations are allowed to remain on adjacent properties, the effective life of the control will decrease. An effective knapweed control program requires everyone's support.

I suggest that we collect a sample for our herbarium for identification purposes, and then educate our employees on our concerns

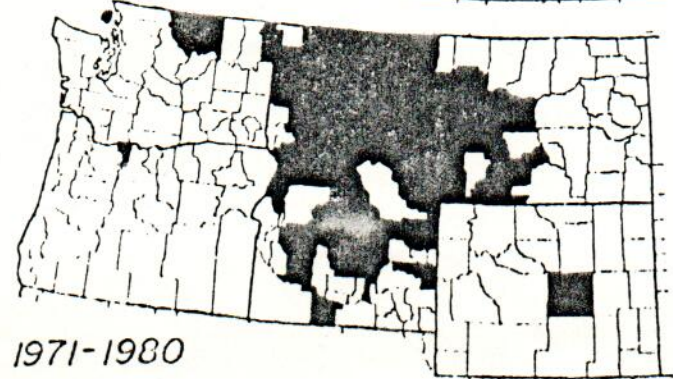
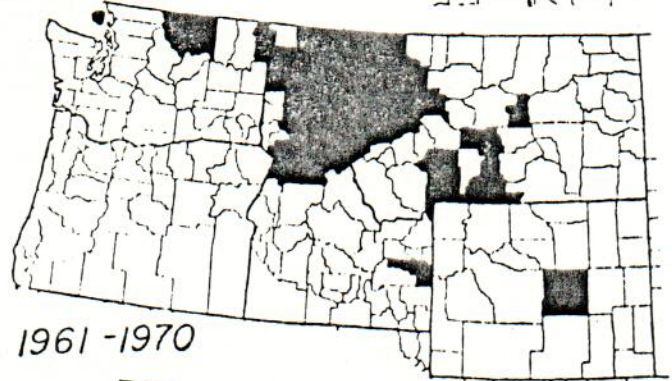
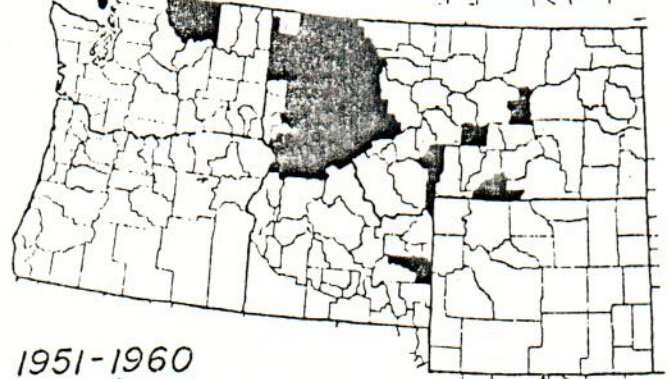
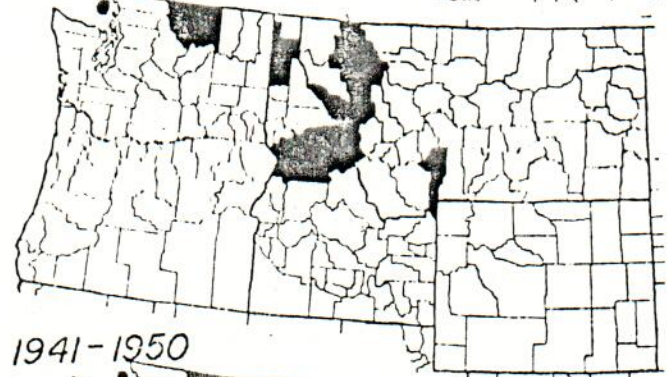
here. This way we can insure a park effort in this matter.

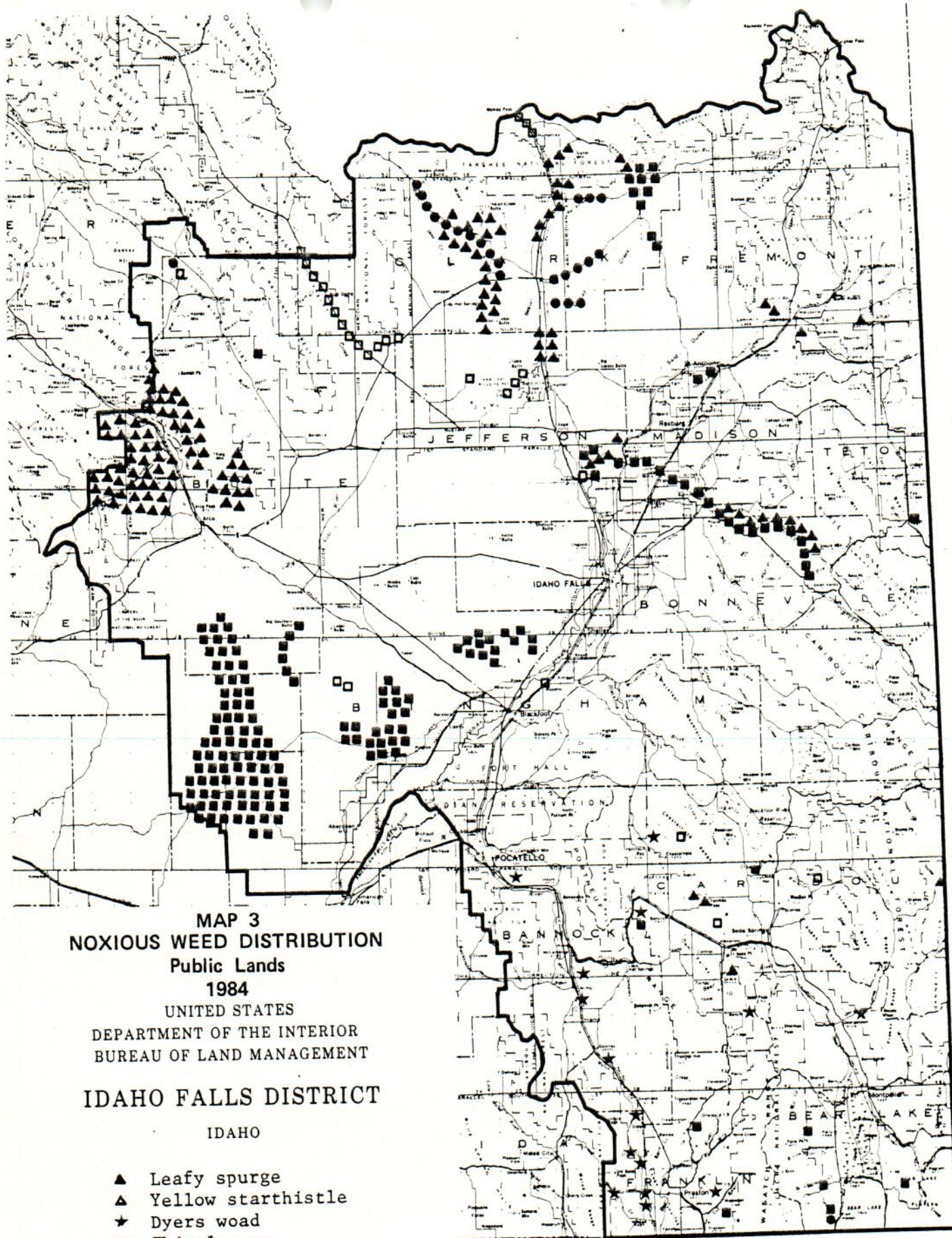
Literature Cited

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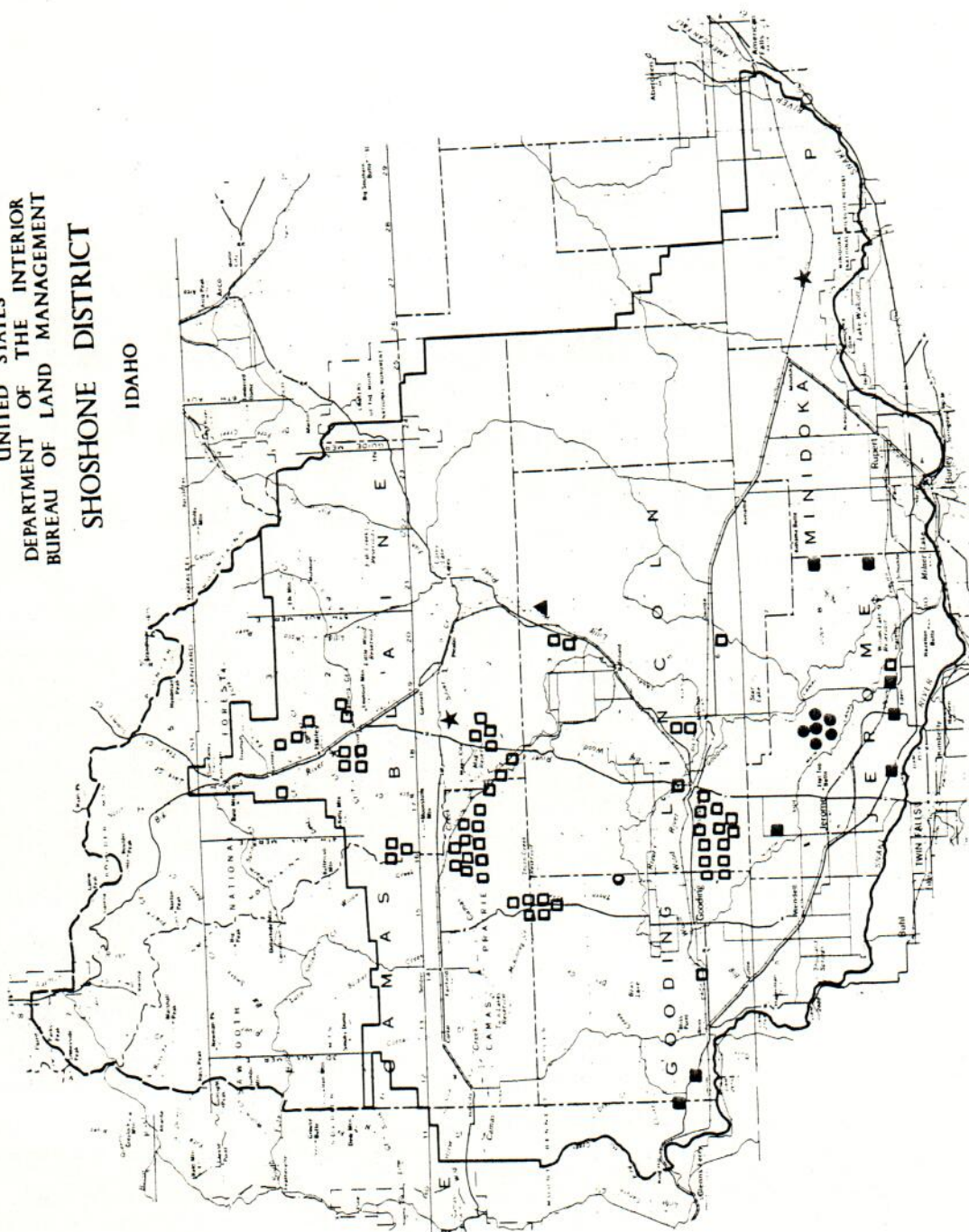
Centaurea maculosa

Spotted knapweed



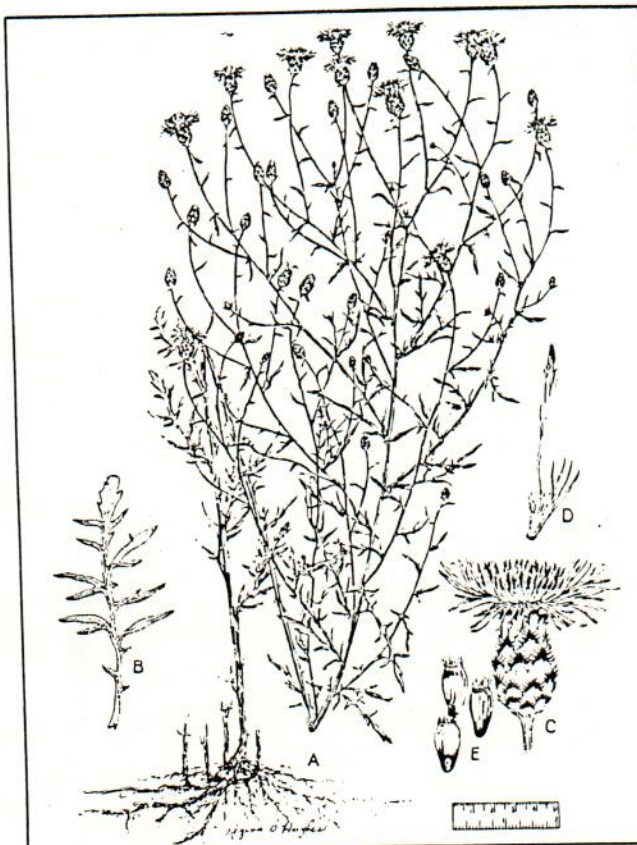


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SHOSHONE DISTRICT
IDAHO



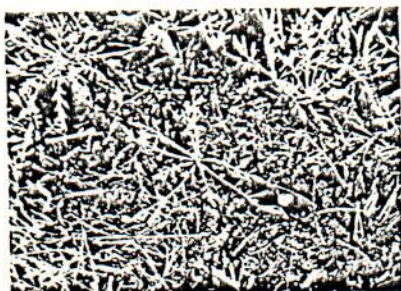
NOXIOUS WEED DISTRIBUTION
Public Lands
1984

- Thistle spp.
- ★ Dyers woad
- Knapweed spp.
- ▲ Leafy spurge
- Death camas
- Water hemlock



Regina Hughes, from Selected Weeds of the United States, USDA, Ag Handbook 366.

Centaurea maculosa Lam. Spotted knapweed. A) habit — X 0.5; B) enlarged leaf — X 1; C) flower head — X 2; D) disk flower — X 3.5; E) achenes — X 4.



Spotted knapweed overwinters as a rosette. Early spring green-up (shown here) gives the plant a competitive edge over native plants. The stems elongate in June.



The pink or purple flower of spotted knapweed is similar to Russian knapweed or Canada thistle. However, the black-tipped bracts of the flower head distinguish spotted knapweed from other plants.