



**LEAFY SPURGE**  
*Euphorbia esula*

**BLACK LEAFY SPURGE FLEA BEETLE**  
*Aphthona lacertosa*  
Year: 1993  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 500  
Timing: Jun-Jul  
Method: Sweep net  
Stage: Adult  
Comment: Mixed with similar species *A. czwalinae*. Best at wetter sites.



**BLACK-DOT LEAFY SPURGE BEETLE**  
*Aphthona nigricutis*  
Year: 1989  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 500  
Timing: Jun-Jul  
Method: Sweep net  
Stage: Adult  
Comment: Best at dry sites. Often mixed with other species *A. cyparissiae* and *A. flava*.





Photo: UGA 5083047


**REDHEADED LEAFY SPURGE BORER**  
*Oberea erythrocephala*  
Year: 1982  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: Jun-Jul  
Method: Sweep net  
Stage: Adult  
Comment: Look for dying upper stems. Attacks larger plants.


**SCOTCH BROOM**  
*Cytisus scoparius*

**SCOTCH BROOM SEED BEETLE**  
*Bruchidius villosus*  
Year: 1998  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: May-Jun  
Method: Sweep net/racquet  
Stage: Adult  
Comment: Little need for redistribution. Also attacks French broom. Look for eggs on seed pods.




**SCOTCH BROOM SEED WEEVIL**  
*Exapion fuscirostre*  
Year: 1983  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: Apr-May  
Method: Beating sheet  
Stage: Adult  
Comment: Aspirate from beating sheet. May be displaced by seed beetle.


**MEDITERRANEAN SAGE**  
*Salvia aethiopsis*

**MEDITERRANEAN SAGE CROWN/ROOT WEEVIL**  
*Phrydiuchus tau*  
Year: 1971  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: Jul, Oct-Nov  
Method: Sweep net, aspirate  
Stage: Adult  
Comment: Sweep at 50% bloom or aspirate from fall rosettes.


**PUNCTUREVINE**  
*Tribulus terrestris*

**PUNCTUREVINE SEED WEEVIL**  
*Microlarinus lareynii*  
Year: 1963  
Distribution: Limited  
Attack rate: Medium  
Control: Fair  
Collectability: Mass  
Release No. 100  
Timing: Aug-Sep  
Method: Aspirate  
Stage: Adult  
Comment: Not cold winter hardy. Common in Rogue Valley. Look for oval feeding scars under stems and pitting on goatheads.


**PURPLE LOOSESTRIFE**  
*Lythrum salicaria*

**BLACK-MARGINED LOOSESTRIFE LEAF BEETLE**  
*Galerucella californensis*  
**GOLDEN LOOSESTRIFE LEAF BEETLE**  
*Galerucella pusilla*  
Year: 1992  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 500  
Timing: May and Jul  
Method: Sweep net/racquet  
Stage: Adult  
Comment: Collect during breeding. May be mixed species. Release at one spot.


**RUSH SKELETONWEED**  
*Chondrilla juncea*

**RUSH SKELETONWEED ROOT MOTH**  
*Bradyrrhoa gilveolella*  
Year: 2005  
Distribution: Limited  
Attack rate: Light  
Control: Unknown  
Collectability: Limited  
Release No. 50-100  
Timing: Jun-Aug  
Method: Aerial net  
Stage: Adult  
Comment: Import from Idaho. Flush adults and net.



**RUSH SKELETONWEED GALL MIDGE**  
*Cystiphora schmidti*  
Year: 1978  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 250  
Timing: Jun-Aug  
Method: Harvest  
Stage: Pupa  
Comment: Collect bouquets of galled plants. Heavily parasitized. Plants may appear purple.




**RUSH SKELETONWEED BUD GALL MITE**  
*Eriophyes chondrillae*  
Year: 1978  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 1000  
Timing: Jun-Aug  
Method: Harvest  
Stage: All  
Comment: Collect bouquets of galled plants. Inoculate with infested sprigs.



**RUSH SKELETONWEED RUST FUNGUS**  
*Puccinia chondrillina*  
Year: 1978  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 1 bouquet  
Timing: May-Jun  
Method: Harvest  
Stage: Spore  
Comment: Collect bouquets of infested plants.


**ST. JOHNSWORT**  
*Hypericum perforatum*

**ST. JOHNSWORT ROOT BORER**  
*Agrilus hyperici*  
Year: 1986  
Distribution: Limited  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 50-100  
Timing: Jun-Jul  
Method: Sweep net/racquet  
Stage: Adult  
Comment: Collect at >50% bloom. Best at drier sites. Spotty availability.



**ST. JOHNSWORT LOOPER**  
*Aplocera plagiata*  
Year: 1989  
Distribution: Widespread  
Attack rate: Medium  
Control: Poor  
Collectability: Mass  
Release No. 100-200  
Timing: Jun-Jul  
Method: Sweep net/racquet  
Stage: Larva  
Comment: Release 2-3 larvae per square yard.


**SALT CEDAR**  
*Tamarix ramosissima*


**SALT CEDAR BEETLE**  
*Diorhabda carinulata*  
Year: 2003  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 500  
Timing: Jul-Aug  
Method: Sweep net/racquet  
Stage: Adult  
Comment: Release in one spot. Adults congregate. Interstate shipment prohibited. Originally released as *D. elongata*. Two generations per year.





**ST. JOHNSWORT LEAF BEETLES**  
*Chrysolina hyperici*  
Year: 1947  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 100  
Timing: Jun-Jul  
Method: Sweep net  
Stage: Adult  
Comment: Most common in Western Oregon. May be mixed with *C. quadrigemina*.



**ST. JOHNSWORT LEAF BEETLES**  
*Chrysolina quadrigemina*  
Year: 1948  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 100  
Timing: Jun-Jul  
Method: Sweep net  
Stage: Adult  
Comment: Most common in Eastern Oregon. May be mixed with *C. hyperici*.



**PURPLE LOOSESTRIFE ROOT WEEVIL**  
*Hylobius transversovittatus*  
Year: 1992  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Limited  
Release No. 100  
Timing: Jul-Aug  
Method: Handpick  
Stage: Adult  
Comment: Difficult to collect. Adults are nocturnal. Best reared from infested roots.



**PURPLE LOOSESTRIFE SEED CAPSULE WEEVIL**  
*Nanophyes marmoratus*  
Year: 1994  
Distribution: Widespread  
Attack rate: Medium  
Control: Fair  
Collectability: Mass  
Release No. Mass  
Timing: Jul  
Method: Sweep net/beating sheet  
Stage: Adult  
Comment: Collect from flowering plants. May be limited by leaf beetle competition.


**TANSY RAGWORT**  
*Senecio jacobaea = Jacobaea vulgaris*


**TANSY RAGWORT SEED HEAD FLY**  
*Botanophila seneciella*  
Year: 1966  
Distribution: Widespread  
Attack rate: Light  
Control: Poor  
Collectability: Mass  
Release No. 100  
Timing: Aug  
Method: Harvest  
Stage: Pupa  
Comment: Little need for further redistribution. Look for spittle on seed heads. Use bouquets of infested seed heads.



**TANSY RAGWORT FLEA BEETLE**  
*Longitarsus jacobaeae*  
Year: 1971  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 100  
Timing: Oct-Nov  
Method: Vacuum  
Stage: Adult  
Comment: Most effective agent. Little need for redistribution. Look for shot holes in older leaves.



**CINNABAR MOTH**  
*Tyria jacobaeae*  
Year: 1960  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 250-500  
Timing: Jun-Jul  
Method: Handpick  
Stage: Larva  
Comment: Best at large infestations. Not recommended for Eastern Oregon.


**THISTLE, BULL**  
*Cirsium vulgare*

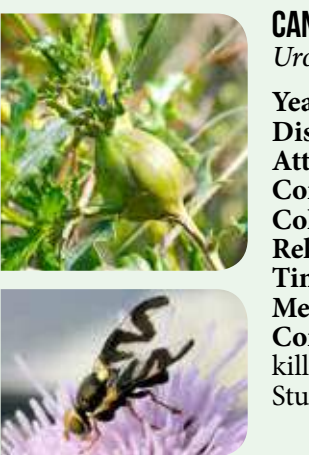
**BULL THISTLE SEED HEAD FLY**  
*Urophora stylata*  
Year: 1988  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 50  
Timing: Nov-Mar  
Method: Harvest  
Stage: Pupa  
Comment: Collect galls in fall. Spread out at new site.


**THISTLE, CANADA**  
*Cirsium arvense*

**CANADA THISTLE STEM WEEVIL**  
*Ceutorhynchus litura*  
Year: 1981  
Distribution: Limited  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: Apr-May  
Method: Aspirate  
Stage: Adult  
Comment: Collect when plants are 2-4 inches. Best in Eastern Oregon.



**CANADA THISTLE GALL FLY**  
*Urophora cardui*  
Year: 1980  
Distribution: Widespread  
Attack rate: Heavy  
Control: Fair  
Collectability: Mass  
Release No. 50  
Timing: Oct-Nov  
Method: Harvest  
Stage: Pupa  
Comment: Collect galls after killing frost, scatter widely at site. Stunts plants, reduces flowering.


**THISTLE, ITALIAN**  
*Carduus pycnocephalus*

**THISTLE, MUSK**  
*Carduus nutans*  
**THISTLE, SLENDERFLOWER**  
*Carduus tenuiflorus*  
**THISTLE SEED HEAD WEEVIL**  
*Rhinocyllus conicus*  
Year: 1979  
Distribution: Widespread  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: May-Jun  
Method: Sweep net/racquet  
Stage: Adult  
Comment: Not recommended, attacks many native thistles. Interstate shipment prohibited. Common on all weedy thistles.




**THISTLE CROWN/ROOT WEEVIL**  
*Trichosiromalus horridus*  
Year: 1994  
Distribution: Limited  
Attack rate: Heavy  
Control: Good  
Collectability: Mass  
Release No. 100  
Timing: Mar and Jul  
Method: Sweep net/racquet  
Stage: Adult  
Comment: Found on musk, Italian, and slenderflower thistles. May attack native thistles. Aspirate in spring on rosettes on musk thistle.


**YELLOW STAR THISTLE**  
*Centaurea solstitialis*

**YELLOW STAR THISTLE BUD WEEVIL**  
*Bangasternus orientalis*  
Year: 1985  
Distribution: Widespread  
Attack rate: Light  
Control: Poor  
Collectability: Limited  
Release No. 100  
Timing: May-Jun  
Method: Sweep net  
Stage: Adult  
Comment: Has been mostly displaced by other biocontrol agents. Best at bud stage.



**YELLOW STAR THISTLE SEED FLY**  
*Chaetorellia australis, C. succinea*  
Year: 1988  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 100  
Timing: May-Jun  
Method: Aerial net  
Stage: Adult  
Comment: Aspirate from net. Adventive sibling species *C. succinea* most common (pictured).



**YELLOW STAR THISTLE SEED HEAD WEEVIL**  
*Eustenopus villosus*  
Year: 1990  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 100  
Timing: Jun-Jul  
Method: Sweep net  
Stage: Adult  
Comment: Best at 5-10% bloom. Most effective agent.



**YELLOW STAR THISTLE FLOWER WEEVIL**  
*Larinus curtus*  
Year: 1992  
Distribution: Widespread  
Attack rate: Heavy  
Control: Excellent  
Collectability: Mass  
Release No. 100  
Timing: Jul-Aug  
Method: Sweep net  
Stage: Adult  
Comment: Limited in Western Oregon. May be diseased, interstate movement prohibited.



**YELLOW STAR THISTLE SEED HEAD GALL FLY**  
*Urophora sirunaseva*  
Year: 1985  
Distribution: Widespread  
Attack rate: Light  
Control: Poor  
Collectability: Limited  
Release No. 100  
Timing: May-Jun  
Method: Aerial net  
Stage: Adult  
Comment: Has been mostly displaced by other agents. Produces hard gall.



Photo: UGA 0022065

**YELLOW TOADFLAX**  
*Linaria vulgaris*

**YELLOW TOADFLAX STEM WEEVIL**  
*Mecinus janthinus*  
Year: 2011  
Distribution: Limited  
Attack rate: Heavy  
Control: Excellent  
Collectability: Limited  
Release No. 100  
Timing: May-Jun  
Method: Sweep net  
Stage: Adult  
Comment: Emerging success. Specific to yellow toadflax.

