# Western US Invasive Plant EDRR Weed ID Guide

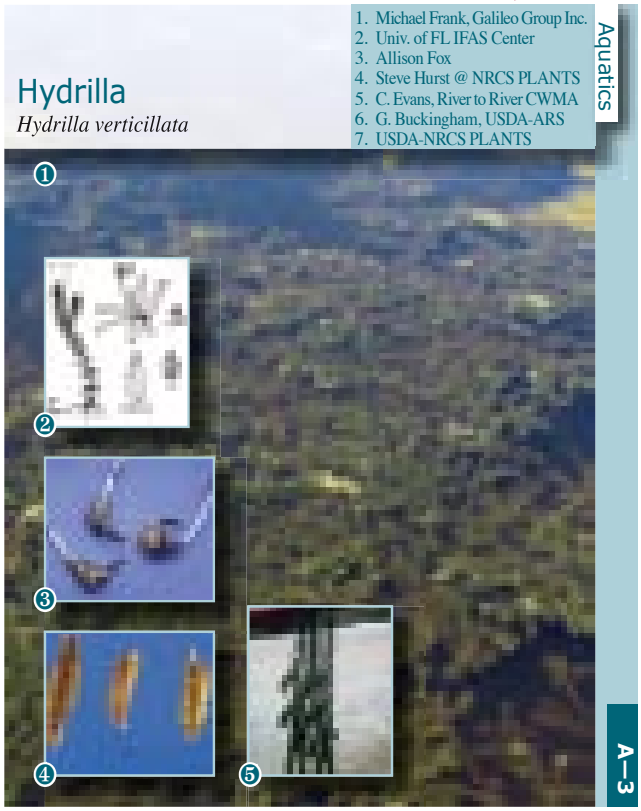
# Card key

Common and scientific names

Photo credits

Plant category

Page number




Western states where plant is listed as a noxious weed

Biocontrol agent information, when applicable

Oregon alert

Oregon or US distribution map

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| Syrian bean-caper | S—5 |
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|---|---|
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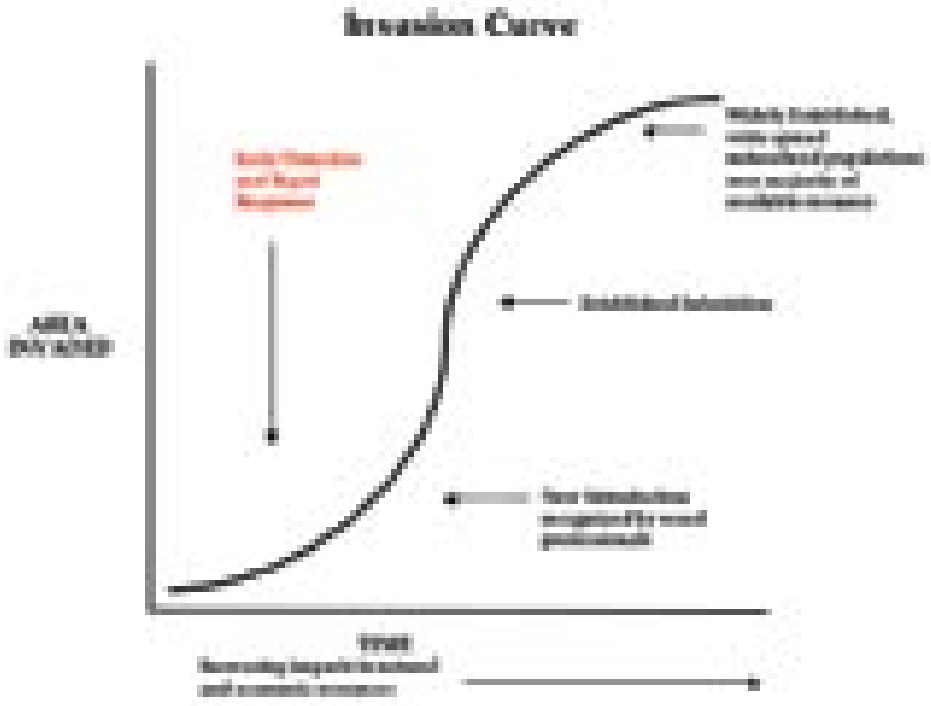
# Introduction to EDRR

Early Detection and Rapid Response (EDRR) is an approach to invasive species management that focuses on surveying and monitoring at-risk areas to find infestations at their earliest stages of invasion. Along with prevention, this method is the most successful, cost effective, and least environmentally damaging means of control.

If new invasive noxious weeds are allowed to go unchecked, economic losses will exceed the present control costs of eradication or containment by several orders of magnitude. After initial introduction of a new invasive plant, there is a short period of opportunity for eradication or containment. Once permanently established, a new invader becomes a long-term management problem.



# EDRR survey methods

To effectively survey for new infestations of noxious weeds it is important to approach the task in a systematic, organized manner. For example, small areas can be divided into grids and walked, road systems can be driven, or large areas can be flown over by plane or helicopter when plants are at a noticeable growth stage (e.g., when flowers or foliage are a distinctive color). Computer modeling may also be utilized to predict where infestations may occur.

Having the appropriate tools is also important. Carry a weed identification guide that emphasizes characteristics that can be observed in the field. Stock your pack with plant collecting supplies, a detailed map of the area, a notebook or data collecting device, a camera, and a GPS unit.

Keep detailed notes of your findings. An accurate GPS reading is the most valuable piece of information for mapping and returning to the site. In the absence of a GPS unit or signal, mark the approximate location and dimensions on the map; also record the township, range, section and quarter-section and directions to the site in your notes. Provide as much associated detail as possible such as number of plants or acres, plant stage, associated plant community, and habitat type. Providing these details ensures that the infestation can be responded to quickly and eradicated or contained.

# Introduction to biological control

As part of an Integrated Pest Management approach to managing noxious weeds, biological control can be a valuable tool for controlling large infestations on wildlands. Biocontrol agents destroy plant tissues and cause stress to the weeds, making them less competitive against desirable flora.

Many of our worst weeds originated from Eurasia. USDA researchers and other scientists go to the homeland of the weed to seek host specific natural enemies to be tested as candidates for introduction to the US as biocontrol agents. The agents are rigorously tested to make sure that they are safe and will not become pests of crops and native plants before they are introduced.

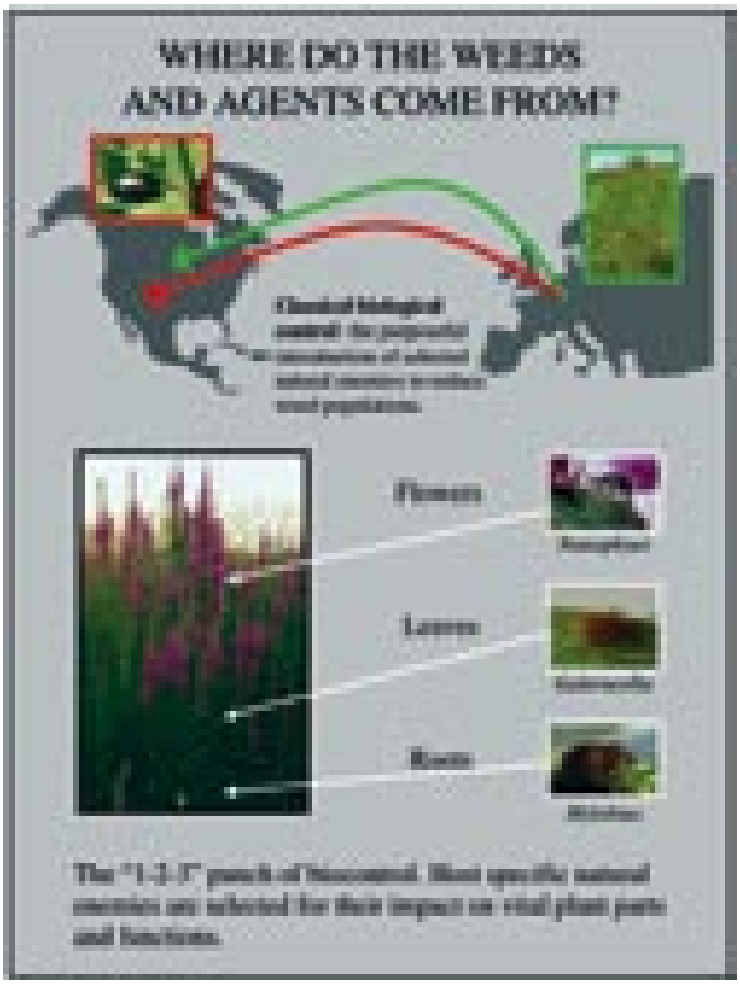



*Photo credit, E.M. Coombs*

# Introduction to biocontrol (cont.)

Once determined to be safe, USDA scientists make sure that biocontrol agents are free from disease and parasites before they are released. Once released and established, local agencies and cooperators collect and redistribute biocontrol agents to other infested areas throughout the west.

Many agencies have adopted the International Code of Best Practices for biological control of weeds, which states that only safe, effective, and approved natural enemies will be used for biocontrol. It may take 10-20 years for a biocontrol project to successfully control a weed at a regional scale.

*Diorhabda elongata* on saltcedar
*Photo, E.M. Coombs*