

## Scotch broom



## Scotch broom *Cytisus scoparius*

- Perennial, evergreen shrub
- Stiff, dark green branches
- Small lower leaves three lobes, upper small leaves simple
- Bright yellow flowers similar to pea flowers in shape

## Scotch broom Impacts

- Habitat
  - Poor, rocky soils
  - Recently cleared areas
  - Roadsides
  - Fields
- Impacts
  - Capable of crowding out desirable native plants
  - Potential fire hazard
    - Can increase fire frequency and intensity
  - All parts of the plant are poisonous if eaten

## Prioritization of scotch broom control sites

- 1) Isolated Infestations
- 2) Natural Area Encroachment
- 3) Continuous Infestations
- 4) Steep slopes

### Special location considerations:

- Shoreline/ Stream side Invasions
- Roadside
- Trails
- Parks

## Isolated Infestations



- 1 plant up to 20 Sq Feet
- Manually pull out plants
  - If plants are small (less than 1 inch in diameter) dig or pull out by hand
  - For plant's that are larger (diameter 2.5 inches or more)
    - Use a weed wrench
    - Use a weed-whacker with a brush blade
- Herbicides may be effectively used

## Isolated Infestations

- Timing
  - In Summer it is best to do after a rain
  - During Spring pulling works better than cutting
  - During Fall & Winter cutting and pulling are successful
- Revisit the site 2-3 times throughout the year to pull up any new sprouts

## Isolated Infestations

- Disposal

- If plants are in bloom

- Make sure there are no seeds
    - Place plants in a tarp and take County yard waste facility for composting
    - You may even cut the plants and leave them on site
      - You may even pile them to dry and then chip them
      - Do not chip when wet, it will gum up the chipper



- If plants have gone to seed

- Do not move plants from site.
    - Cut/ pull and leave them in the area that they were removed from.

## Natural Area Encroachment

- Fully search the area to make sure there are no outlier plants.
- Work your way from the edge of the area you want to protect towards the “boundary” line.
  - Your boundary line may not be the full infestation
  - It may be a physical barrier or a “line drawn in the sand”.
  - Remember that Scotch broom seeds with “shoot” about 3-5 feet from the parent plant

## Natural Area Encroachment

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- Work your way from the edge of the area you want to protect towards the “boundary” line.
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## Natural Area Encroachment

- Work your way from the edge
- Utilize cutting
  - Cutting may be best in this situation to minimize soil disturbance
    - Either use loppers or a weed-whacker and get as close to the ground as possible
  - Pile up cut plants in the “infested” area
  - Best timing is when plants are in full bloom
- Revisit the area once a month to remove new seedlings and regrowth
  - Continue for 3-5 years and re-vegetate

## Continuous Infestations

- Infestations 100sq feet or more:
- Normally these sites have been “cleared” and never revalidated.
- Think about what you want done with the site in the long run
- How much time and effort do you have to put into the site
- Long term management may take 5-20 years for total control.

## Continuous Infestations

- If you want to turn the site into a grazing field
  - Mow the infested area
    - Mow in early spring or mid summer
    - You may want to do two or more mowings through the summer
  - Lightly till the soil (not a necessary step)
    - This will stimulate the growth of millions of seedlings
    - You may want to mow a month after the tilling
  - Treat the new growth with a selective herbicide approved for your area
    - After your last mowing treat the area with an ATV mounted sprayer
    - Best timing is in Early Fall

## Continuous Infestations

- If you want to turn the site into a grazing field
  - Replant the area with desirable forage veg mix in mid November
  - Survey the area monthly starting in early spring the following year
    - Pull as many small sprouts as possible
    - Spot treat areas with heavy regrowth with a backpack sprayer
  - Over seed the area again with desirable forage veg mix in mid November
  - Continue to survey and manage the area for 3-5 years

## Continuous Infestations

- If you want to turn the site into a “playing field” or lawn
  - Mow the infested area
    - Mow in early spring or mid summer
    - You may want to do two or more mowings through the summer
  - Lightly till the soil (not a necessary step)
    - This will stimulate the growth of millions of seedlings
    - You may want to mow a month after the tilling
  - Treat the new growth with a selective herbicide approved for your area
    - After your last mowing treat the area with an ATV mounted sprayer
    - Best timing is in Early Fall

## Continuous Infestations

- If you want to turn the site into a “playing field” or lawn
  - Replant the area with a grass mix or put down sod
  - Survey the area monthly starting in early spring the following year
    - Pull as many small sprouts as possible
    - Spot treat areas with heavy regrowth with a backpack sprayer
  - Over seed the area again with desirable grass mix in mid November
  - Continue to survey and manage the area for 3-5 years

## Continuous Infestations

- If you just want to reduce its spread
  - You may mow the area, hand cut, or weed-whack the area before it goes to seed
  - Start from the edge of the population and move around the site (treat the area like a wild fire) or pick a reasonable area to start controlling
  - The use of biological controls may be appropriate.

## Continuous Infestations

- If you just want to reduce its spread
  - You may mow, hand cut, or weed-whack the area.
  - Start from the edge of the population and move around the site or pick a reasonable area to start controlling
  - The use of biological controls are appropriate to reduce seed set and slow the spread of broom!

## Special locations

### Shoreline/ Stream side

- These areas are very sensitive and you will want to check with your local Department of Community Development for a clearing permit
- For stems 1-3 inches in diameter plants may be pulled
  - If you notice that the bank is becoming unstable, stop pulling.
- For stems 1-3 inches in diameter plants can be cut

## Special locations Roadside

- Make sure to wear bright clothing
- Stay out of the road
- Keep all plant debris off of the road and out of the ditches
  - For stems 1-3 inches in diameter plants may be pulled
    - A weed wrench may be helpful for many of these sites
  - For stems 1-3 inches in diameter plants can be cut
    - An herbicide may be painted on the stump

## Special locations Trails

- Most plants you find along trails you can either cut or use a weed wrench
- Plants do not need to be removed from the site
- Pulling the plants and placing them on the ground is acceptable
- If there is a large amount along a trail you may want to pile the plants in a central location
- Do not pile in drainage ditches or non-infested areas



## Special locations Parks

- Check with the Park steward to determine where to focus your efforts
- Cut and or use the weed wrench to remove plants
- Choose an area to start from and concentrate your efforts as a group in that location
  - Determine your area by working with the Parks staff to prioritize infestations for removal in the Park.

## Special locations Parks

- Pick a central location for piling plants
  - If the parks crew will be disposing of the broom than place piles at a convenient “pick up” location
  - If plants will be left on site designate an area out of sight for the piling



## Special locations Parks

- Work to remove new sprouts throughout the summer and for the next 3-6 years.
- Work with Park staff to revegetate the area with either grasses or native plants



## Steep slopes

- Scotch broom often inhabits slopes
- It has a deep tap root that may be “holding” the slope
- Think about why you want to remove it from this location
- Is there going to be a seed source nearby to re-infest the area?



Sally Long, USFS

## Steep slopes

- Special precautions include:
  - Accessibility
    - Make sure that you can get to the area
    - Make sure to have more than one person on site with you when working
  - Personal safety
    - Make sure to secure yourself to something
    - Make sure to have a second person on hand to assist
  - Slope stability
    - Determine if the roots are holding the slope
    - Never remove all of the vegetation at once
    - Make sure to put down Jute netting with seeds in it to help secure the area

## Steep slopes

- Control a small section (5-10 ft) from the top of the slope
  - Foliar apply an herbicide to the designated area
  - Cut plants
    - Paint herbicide on the cut stump
- Replant the area quickly
  - Spread seeds out over the area or jute netting to protect the slope



## Scotch Broom Control With Goats

- Goats may be used on a variety of invasive plants
- They are well suited for broom in our County
- Identify a location for the goats to graze
  - Goats pros: **Reduce the above ground vegetation and add in nutrients to the site. The “recycling” of materials on site may assist in the vigor of the transplanted natives. They are able to get to difficult locations.**
  - Goats cons: **Often roots are not removed. Infrequent use of goats may stimulate weed growth. Goats are nondiscriminatory and may eat desirable plants.**



## Scotch Broom Control With Goats

- Goats should be used as a part of an IVM plan
- Place goats on the site in spring or early summer
- Remove goats from site to allow invasive plants to grow during the summer
- Early in the fall, treat the site with an herbicide to control the new growth and to address the roots of the older plants.

## Scotch Broom Control Mulching

- Use mulch as a part of the IVM
  - Steps:
    - Remove large plants:
      - Goats or mowing
    - Remove seedlings:
      - Herbicide treatment
    - If possible place cardboard on site
    - Add 3-6 inches of bark or mulch to the site
    - Replant with natives or desirable plants



## Scotch Broom Control Mulching

- For some sites, mulch may not be appropriate
  - Do not put mulch next to streams
  - Do not heavily mulch near the base of trees
  - Do not mulch in areas that you desire to grow grass
- Even with mulch you will have to keep new weeds out!!



## **Scotch Broom control Notes**

- There is no one way to control Scotch broom
- For total control you will have to use an Integrated approach for control
  - Remove above ground growth
  - Get to the root of the problem
  - Reduce germination of seedlings
  - Replant the area!
- Monitor all “cleared” areas and be persistent on follow up treatments