<table>
<thead>
<tr>
<th>Knapweeds</th>
<th>Growth Habit</th>
<th>Leaves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bighead</strong> <em>Centaurea macrocephala</em></td>
<td>Upright, stems unbranched; perennial</td>
<td>Light-green, broadly lance-shaped with toothed edges and pointed tips</td>
</tr>
<tr>
<td><strong>Black</strong> <em>Centaurea nigra</em></td>
<td>Upright, stems are few and branch near the middle; perennial from a woody root crown</td>
<td>Green-gray, broadly lance-shaped basal leaves on a stalk</td>
</tr>
<tr>
<td><strong>Diffuse</strong> <em>Centaurea diffusa</em></td>
<td>Upright, stems branch profusely; annual or short-lived perennial</td>
<td>Slivery-green; lower leaves are divided, upper leaves are narrow and elliptical</td>
</tr>
<tr>
<td><strong>Meadow</strong> <em>Centaurea jacea x nigra</em></td>
<td>Upright; perennial growing from a woody root crown</td>
<td>Deep-green leaves are lance-shaped &amp; stalkless; basal leaves taper at both ends, upper are leaves smaller and not lobed</td>
</tr>
<tr>
<td><strong>Russian</strong> <em>Acroptilon repens</em></td>
<td>Upright; hardy, long-lived, perennial spreading by creeping roots and seeds</td>
<td>Slivery-green; lower leaves long and lobed, upper leaves smaller &amp; toothed</td>
</tr>
<tr>
<td><strong>Spotted</strong> <em>Centaurea stoebe</em></td>
<td>Upright; biennial or short-lived perennial; rosette will form in the first year followed by stocks in the second</td>
<td>Medium-green with a silvery-gray cast; deeply lobed on young plants becoming elliptical with maturity</td>
</tr>
<tr>
<td><strong>Brown</strong> <em>Centaurea jacea</em></td>
<td>Upright, stems branch near the top; perennial</td>
<td>Lance-shaped, undivided; leaves grow progressively smaller near the top</td>
</tr>
<tr>
<td><strong>Yellow Starthistle</strong> <em>Centaurea solstitialis</em></td>
<td>Upright, stems branch and are ridged; winter annual forming a rosette early &amp; then growing upright.</td>
<td>Grayish-green; lower leaves are deeply lobed, upper leaves are smaller and pointed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Root System</th>
<th>Flower</th>
<th>Bracts</th>
<th>Taken from PNW432</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woody Taproot</td>
<td>Solitary, in a large globe-shaped head; yellow</td>
<td>Thin &amp; papery, with fringed margins</td>
<td></td>
</tr>
<tr>
<td>Woody Taproot</td>
<td>Rose to lavender</td>
<td>Covered with &quot;comb-like&quot;, dark brown or black fringed margins up to 3x as long as the bract</td>
<td></td>
</tr>
<tr>
<td>Taproot</td>
<td>White, rose, or purple</td>
<td>Covered with &quot;comb-like&quot; spines</td>
<td></td>
</tr>
<tr>
<td>Woody to fleshy Taproot</td>
<td>Solitary, globe-shaped heads; rose to purple</td>
<td>Fringes gold to dark brown, about the width of the bract and rounded at the tip</td>
<td></td>
</tr>
<tr>
<td>Horizontal, brown to black in color</td>
<td>Pink to purple</td>
<td>Pearly and papery, with no noticeable fringes or spines</td>
<td></td>
</tr>
<tr>
<td>Stout Taproot</td>
<td>Solitary; purple, pink or sometimes white</td>
<td>Fringed tips dark &amp; short</td>
<td></td>
</tr>
<tr>
<td>Woody Taproot</td>
<td>Rose to purple</td>
<td>Tips are wider than base and the thin, papery margins have a dark brown center</td>
<td></td>
</tr>
<tr>
<td>Taproot</td>
<td>Single, terminal; bright yellow</td>
<td>Modified into stiff spines up to ¾” long</td>
<td></td>
</tr>
</tbody>
</table>
Overview
Knapweeds are aggressive, invasive noxious weeds of pastures, cultivated fields, travel corridors, and any bare ground sites.

They increase soil erosion, consume soil nutrients and crowd out native vegetation. Weed specialists have attributed the success of some knapweeds to their ability to release a natural herbicide that eliminates competition by killing neighboring plants. This enables these weeds to quickly and effectively take over an area once introduced.

Knapweed infestations are noted to increase production costs for ranchers, impair the quality of wildlife habitat, decrease plant diversity, increase soil erosion rates, decrease the visual quality and appeal of recreational lands, and pose fire hazards. These species have little value as forage for cattle and game and some can cause chewing disease in horses.

Dispersal Mechanisms
Knapweed is easily moved by animals and birds that may pick up the weed seeds and disperse them. Wind and water can also move knapweed seeds, though the biggest contributors to the movement of weed seeds are humans. We transport them on our vehicles, on clothes, on recreational gear and equipment, and on farm and other heavy equipment.

Management
Timing is key for effective control of knapweeds, early detection and fast action can stop the weeds from becoming established in an area. Managing a knapweed problem should be done by using a combination of mechanical, chemical, cultural, biological controls. You should do a specific evaluation to determine what control tactics will work the best for your land. For more information on control consult your county weed control board, county extension office, or the Pacific Northwest Weed Control Handbook.

You Can Help Protect Washington’s Environment from Noxious Weeds!
Cover artwork by Laurel Baldwin
Knapweed artwork taken from PNW 432
Produced by WSNWCB & Sue Winterowd, Coordinator of the Stevens County Noxious Weed Control Board
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