



SYSTEM DIMENSIONS	CHEMICAL AND PHYSICAL	BIOLOGICAL COMPONENTS	HUMAN USES
Extent Pattern	Nutrients, Carbon, Oxygen Contaminants Physical	Plants and Animals Communities Ecological Productivity	Food, Fiber, and Water Recreation and Other Services

⊖ Non-native Plant Cover

What Is This Indicator, and Why Is It Important?

This indicator will report the percentage of plant cover in grasslands and shrublands that is made up of non-native species. The indicator will report on both invasive non-native species (those that spread aggressively) and all non-native species.

Plants that are not native to an area may be highly invasive, crowding out native plants, making areas more susceptible to catastrophic fire, and radically changing the way an ecosystem functions. However, some non-natives can help stabilize eroding soils, serve as part of a grazing system, and act as a barrier to fire. Non-native species such as crested wheatgrass are intentionally seeded for these purposes, although overuse may result in reducing natural ecosystem function.

Some of the most troublesome non-native plants—such as cheatgrass—are much more likely than native plants to increase fire frequency. Exacerbating the problem, cheatgrass easily colonizes recently burned land, further increasing an area's flammability. Some invasives are known as “noxious” plants (examples include leafy spurge, spotted knapweed, and Canada thistle)—they cause only problems and are of generally agreed to provide no benefit in grassland/shrubland management. See also the invasive bird indicator, p. 170.

Nearly all grassland and shrubland areas in the western United States have been adversely affected by invasive species like the yellow star thistle, European wild oats, tamarisk, African lovegrass, purple loosestrife, and Russian olive. As non-native plants cover more of the landscape, they make it increasingly difficult to manage native grassland/shrubland resources and to conserve natural ecosystems and associated ecosystem services.

Why Can't This Indicator Be Reported at This Time? Although many state and federal agencies, nongovernmental organizations, and universities collect data on non-native plants, these data have not yet been brought together to provide consistent information over large areas. Many states do collect data on “noxious” plants on grasslands and shrublands, but this is only a subset of the data needed for this indicator.

The technical note for this indicator is on page 261.

