

WORDS AND TERMS AS USED IN THIS GUIDE

Invasive Plant Glossary

Allelopathy – The ability of some plants to produce chemicals that inhibit the growth or germination of other plants nearby.

Annual – A plant that completes its life cycle in less than one year.

Biennial – A plant that requires two years to complete its life cycle. During the first year, it usually is a rosette of basal leaves, and during the second year it develops one or more flowering stalks.

Biological control / Biocontrol – The control of unwanted plants or animals by upsetting their ecological status through the use of organisms that are natural predators, parasites, or pathogens.

Biodiversity – The variety of different species or types of organisms in an area or, in global terms, on earth. For example, an area with 10 species would generally be considered to have more biodiversity than an area with 5 species.

Bulb – A short underground stem enlarged by modified leaves which contain no chlorophyll and are pressed together. Bulbs store nutrients and water for rapid spring growth. They are spheroid in shape, with short coarse roots below.

Chlorophyll – The pigment in green plants that absorbs solar energy.

Competition – A contest for resources in *limited supply*. Intraspecific competition occurs among members of the same species. Interspecific competition occurs among members of different species. Plants may compete for light, nutrients, water, or space.

Dichotomous key – A tool used to correctly identify species.

Dichotomous means “divided into two parts”. In a dichotomous key, the user is given a series of choices between 2 statements about characteristics of the organism. Each choice leads to another pair of statements until the name of the organism is reached.

Ethnobotany – The study of people’s relationships to plants. Ethnobotany attempts to learn about how cultures perceive and use plants (e.g. for food, medicine, cosmetics, dyes, textiles, building materials, and in literature, rituals, and social life.)

Endemic – Populations of native animals, plants or other organisms, that are have relatively restricted distributions and are confined to certain environments.

Herbivory – The consumption of plants by animals.

Invasive Species – A non-native species that does or is likely to cause harm to the environment, economy, or human health where it was introduced. Invasive species display rapid growth and spread, allowing them to establish over large areas. Invasive plants reproduce rapidly, either vegetatively or by seed. Their rapid growth and freedom from natural enemies allows them to displace existing vegetation and often form dense one-species stands.

Inventory – A census which records all species or a subset of species, such as invasive plants, within an entire area.

Monitor – To sample repeatedly from plots within populations to detect changes in a resource (e.g., vegetation).

Native (indigenous) species – One that occurs in a particular region, ecosystem, and habitat without direct or indirect human actions. Species native to North America are generally recognized as those occurring on the continent prior to European settlement.

Noxious weed – A legal term used by the government to designate non-native plant species of particular concern and mandate their control. The Montana Noxious Weed Law states: "Noxious weeds" or "weeds" means any exotic plant species established or that may be introduced in the state that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities and that is designated:

- (i) as a statewide noxious weed by rule of the department; or
- (ii) as a district noxious weed by a board, following public notice of intent and a public hearing.

Perennial – A plant that lives for several years, often producing flowers each year.

Photosynthesis – The process by which plant cells use solar energy to produce oxygen and chemical energy. In photosynthesis, the sun's energy combines hydrogen from water (H₂O) with carbon dioxide (CO₂) turning them into carbohydrates. Oxygen (O₂) is given off as a by-product of photosynthesis. The chemical equation for the process of photosynthesis is:

$$6\text{CO}_2 + 6\text{H}_2\text{O} + \text{light} = \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$$

Population – The number of a species living in an area.

Pubescent – Being covered with short soft hairs

Respiration – Plants (and animals) convert the sugars back into energy for growth and to energize life processes (metabolic processes). The chemical equation for respiration shows that the sugars from photosynthesis are combined with oxygen. The equation for respiration is the opposite of photosynthesis: $\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 = 6\text{CO}_2 + 6\text{H}_2\text{O} + \text{energy}$

Stoma (plural: stomata) – A tiny pore in a plant leaf surrounded by a pair of guard cells that control its opening and closing, and serves as the site for gas and water exchange.

Survey – A sample of a representative portion of an area, usually at points or along transects, to determine the presence, abundance, and/or distribution of plant species.

Taproot – The root system consists of a central taproot that originates from the base of the plant. This taproot can be slender or rather stout, and usually has fine rootlets towards the growing point.

Tuber – A starchy storage organ (such as a potato) formed by swelling of an underground stem or the end of a root.

Vegetative reproduction – A process by which new individual plants start not by seeds or spores, but instead grow from the non-reproductive parts of plants such as roots or stems.

Weed – A subjective word used to describe any plant considered to be "out of place", or growing where someone wishes it wasn't growing.