

Appendix C. Glossary

Alluvial: Composed of soil and sand deposited by flowing water.

Biocontrol agents: Organisms that are released into an ecosystem for the purpose of reducing the abundance of, or eliminating, a pest species. They often are imported from the pest organism's geographic region of origin. Often, biocontrol agents are insects.

Bioproductivity: In ecosystems, the rate of production of new biomass.

Biotic: Living; usually applied to the biological aspects of an organism's environment.

Browse: **n.** Leaves, twigs, and young shoots of trees or shrubs that animals feed on; **v.** feeding on the leaves, twigs, and young shoots of trees or shrubs. That is, woody plants as forage. This use is as opposed to graze, used in this report to refer to leaves and stems of non-woody plants (grasses & forbs) that animals feed on, or feeding on non-woody plants.

Carrying capacity: The maximum number of a given species of animal that a habitat can support without damage to soil and vegetation resources.

Colonization potential: Likelihood that birds will emigrate to other sites.

Controlled burns or prescribed burns: Fires set by humans within a delimited area under a discrete set of environmental and staffing conditions to achieve certain management goals such as ecosystem restoration, forage production, or wildfire prevention.

Demographic analysis: Identifies the life history aspect or parameter (fecundity, juvenile survival, adult survival) that has the greatest effect on population growth.

Demography: The science of the interrelated life history factors that determine how populations grow, shrink, or change in other ways.

Deterministic model: Model in which the life history aspects or parameters (fecundity, juvenile survival, adult survival) remain constant over time.

Dewater: Reduce the rate or volume of stream flow, and/or lower the water table in the flood plain aquifer.

Disturbance: Any discrete event, usually of short duration and great intensity, that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment

Diversity or biodiversity: The total variety of life and its processes. Includes the variety represented by all species, the different genes within each species, and the variety of different habitats and ecosystems in which these species exist.

Ecosystem functions: Processes that control the products and rates of change of the ecosystem (e.g. soil erosion, water discharge, succession) or that are intrinsic to the perpetuation of the ecosystem (such as cycling of nutrients or balanced rates of soil production and erosion).

Exotic species: A non-native species introduced into a new ecosystem as a result of human intervention. If that species establishes self-sustaining populations, it is then considered a naturalized exotic.

Extirpated: Locally extinct.

Fecundity: Number of young fledged per female.

Fire regime: The spatial and temporal patterns of a fire within a given biotic community type, including intensity (temperature or amount of combustible fuels consumed), duration (burn time), size (amount of land area burned) and distribution (patchiness), timing (season of occurrence), and frequency (number of years elapsed between fires).

Flood regime: The magnitude, timing, duration, and frequency of flooding that are characteristic of streams in a particular ecoregion.

Flow regime: The magnitude, timing, duration, and frequency of surface flows (including low flows and flood flows) that are characteristic of a particular stream type in a particular ecoregion.

Fluvial: Pertaining to or formed by a river.

Fluvial geomorphology: River processes and forms related to earth materials and surfaces, particularly the sediment that is eroded, transported, and deposited by channel flow in streams and rivers.

Fuel load: Amount of flammable plant biomass in an area

Geomorphology: The study of the physical features of the Earth's surface and their relationship to its geological structures.

Habitat: A place where a species normally lives, often described in terms of physical features (such as topography) and in biological features (such as plant species composition).

Habitat complexity: The extent to which an area provides habitat for multiple species, by providing a variety of physical features and biological associations.

Herbaceous: A seed plant whose stem withers away to the ground after each season's growth, as distinguished from woody plants - i.e., grasses and forbs.

Herbivores: Animals that feed on plants .

Hydrograph: The stage, flow, velocity, and other properties of water with respect to time.

Hydrography: The science of measuring, describing, mapping, and explaining the distribution of surface water.

Hydrologic: Pertaining to the distribution, circulation, and properties of the Earth's waters.

Hydrology: The study of physical and chemical processes related to water in the environment, including precipitation, surface runoff, channel flow, and groundwater.

Hydrophytic vegetation: Plants living in water or wet ground.

Incidence function: Estimates metapopulation persistence within an existing network of occupied habitat patches.

Invasive species: A species that has become particularly abundant in an ecosystem as a result of human activities in the ecosystem. Invasive species can be native or exotic to the area.

Keystone species: A species that through its activities or interactions with other species plays a critical role in determining community structure.

Late Quaternary: Generally, the more recent times of the geologic period following the Tertiary in the Cenozoic Era and comprising all of the Holocene and some of the Pleistocene epochs. Generally, the last 1,000,000 years.

Lentic: Quiet, slow-moving, swampy, or still water.

Meanderbelt: That portion of the active flood plain which is subject to occupation occasionally by the migrating, meandering channel of the main stream.

Mesic: Moderately moist.

Metapopulation: Group of spatially disjunct local willow flycatcher populations connected to each other by immigration and emigration.

Mitigation: Measures to prevent, reduce, or correct the net adverse consequences of particular activities.

Monitoring: (Grazing Activities) The practice of tracking the utilization rates and overall effects of grazing over time, through repeated collection of data. Food plants are examined and measured to determine what percentage has been eaten, trampled, or lost to other causes. Other plants in the area (e.g., willows and other woody species) are examined, and observations are recorded regarding trampling or other damage. Records are maintained of livestock stocking rates (number of cattle per unit of area per unit of time), and all changes are recorded. Significant climatological events are noted (e.g., hard freezes, heavy rains, floods, droughts, high temperatures).

Monotypic: In reference to flycatcher habitat, a condition in which the woody vegetation is strongly dominated by one species, or several very similar species, mostly in similar growth forms and size/ages.

Mycorrhizae: A mutualistic and close association between fungi and plant roots which facilitates the uptake of minerals by plants.

Natal areas: Birth areas.

Parameter: Population statistics such as fecundity, juvenile survival rate, or adult survival rate.

Passerines: Technically, members of the Order Passerines. Commonly referred to as “perching birds”, and accounting for approximately 60% of all bird species.

Phreatophyte: A deep-rooted perennial plant that derives its water from a more or less permanent subsurface water supply, and is thus not dependent on annual rainfall for survival.

Pleistocene: The first epoch of the Quaternary Period in the Cenozoic Era, ranging from 1,800,000 to 10,000 years before present.

Population sink: A population in which the birth rate is below that required to maintain a stable population size.

Population viability analysis: A process of estimating the probability that a population of a specified size will persist over time.

Productivity or bioproductivity: In ecosystems, the rate of production of new biomass.

Rhizomes: Underground, lateral stems that allow a plant species to spread vegetatively.

River regulation: Modification of the flow regime of a river by humans, through the use of engineered structures including dams, diversion structures, and levees.

Salinity: The amount of salts dissolved in a given volume or weight of water.

Selective pressure: A force acting on populations that results in differential reproduction and contribution of genes to future generations.

Site: A variably delimited geographic location, the limits of which may include elements of habitat, land ownership, and practicality. A site may be delimited by habitat, that is, an entire patch of riparian vegetation, or it may be a subdivision of a riparian patch delimited by land ownership and/or the ability to survey effectively. A "site" may encompass a discrete breeding location, or several.

Stochastic events: Random events such as fire, disease, flood, and drought.

Stressor: From an ecosystem perspective, any factor that causes an ecosystem to decline in biodiversity, bioproductivity, or resilience.

Stubble height: Residual vegetation, or the amount of vegetation that remains after grazing animals have used an area. A 3-inch stubble height is a direct measurement indicating that a forage plant is clipped off or broken at 3 inches above the ground.

Suitable habitat: Riparian stands that appear to have all the components necessary for flycatchers to establish territories and/or nest. Occupied habitat is, by definition, suitable. Some suitable habitat may be unoccupied for any of a multitude of reasons.

Transpiration: The movement of water through plants from the roots to the atmosphere via the vascular system.

Utilization: The proportion of current year's forage that is consumed or destroyed by grazing animals. Overall utilization is comprised of both the portion eaten by livestock (harvest efficiency) and the portion lost to trampling, insects, or other causes. In general, these two categories are of equivalent value. Therefore, a 40% utilization rate means that of the current year's growth, 20% was eaten by livestock, 20% was lost to trampling or other causes, and 60% remains.

Vegetation composition: The make-up of a plant community, in terms of the different types of plant species present.

Watershed: A region drained by a river or river system.

Xeric: Dry or desert-like.