
Appendix B. Glossary

accuracy assessment. The process by which the correctness of an image, map, or other spatial layer is evaluated (Winthers et al. 2005).

adaptive management. A system of practices based on clearly identified outcomes and monitoring to determine if management actions are meeting desired outcomes, and if not, to facilitate management changes that will best ensure that outcomes are met or reevaluated. Adaptive management stems from the recognition that knowledge about natural resource systems is sometimes uncertain (Forest Service Manual [FSM] 1940) (USDA Forest Service 2009).

alliance. A vegetation classification unit of low rank (7th level) containing one or more associations, and defined by a characteristic range of species composition, habitat conditions, physiognomy, and diagnostic species, typically at least one of which is found in the uppermost or dominant stratum of the vegetation (Jennings et al. 2006). Alliances reflect regional to subregional climate, substrates, hydrology, moisture or nutrient factors, and disturbance (FGDC 2008).

area-based recreation. Any form of recreation that is not restricted to a linear route, but is constrained only by varying combinations of technologies, environmental conditions, and management regulations, such as snowmobiling (chapter 7).

association (plant). The finest level of the (vegetation) classification standard; a physiognomically uniform group of vegetation stands that share one or more diagnostic (dominant, differential, indicator, or character) overstory and understory species and reflect topo-edaphic climate, substrates, hydrology, and disturbance regimes (FGDC 2008); a vegetation classification unit defined on the basis of a characteristic range of species composition, diagnostic species occurrence, habitat conditions, and physiognomy (Jennings et al. 2006).

auxiliary database. A repository for data that is created and maintained outside of a corporate database structure, such as outside the Forest Service Natural Resource Manager (NRM). In the Forest Service, tabular and spatial data that do not meet national published NRM protocols are considered auxiliary and are either maintained at a local unit or with a contributing partner.

basal cover. The area occupied by plant stems as they extend into the soil; calculated as the percent of the soil surface covered by plant stems, using a point-intercept method, such as line-point intercept (adapted from Herrick et al. 2005).

Bayesian belief network. A graphical model based on Bayesian inference that uses a combination of empirical data and knowledge from experts to graphically express complex relationships and address uncertainties in a structured way to evaluate alternative scenarios and their outcomes (McCann et al. 2006).

bias. A persistent statistical error associated with parameter estimates whose source is not random chance (Thompson et al. 1998).

Box-and-whisker plot. A convenient method of graphically displaying the distribution of data in which five numbers are typically shown, including the minimum, maximum, and median values. The upper and lower lines of the box represent the upper (75th percentile) and lower (25th percentile) quartiles of the data. The middle line within the box represents the median value.

business requirements. A need identified as necessary for successful achievement of business goals or objectives, (including strategic, tactical, legal, or operational objectives). May be represented in a variety of contexts and are most often defined in response to establishing requirements for processes, compliance to business direction, and to identification of information technology functionality requirements (FSM 1940) (USDA Forest Service 2009).

cause-and-effect monitoring. An approach for investigating the mechanisms that underlie habitat and species response to management and other forms of disturbance (Holthausen et al. 2005).

canopy cover. The percentage of the ground obscured by a vertical projection of the outermost perimeter of the natural spread of foliage of plants. Small openings in the canopy are included (SRM 1989, cited in Warbington 2011).

classification (vegetation). Grouping of similar vegetation types according to physiognomic and floristic criteria, using objective rules that are established before being applied so that the outcome is theoretically independent of individual perceptions. (adapted from FGDC 2008).

classification accuracy. The degree to which a derived image classification agrees with reality (Foody 2002).

climate change vulnerability assessment. A method to evaluate the potential responses of species, habitats, and ecosystems to changes in climate resulting from elevated greenhouse gasses in the atmosphere, to carry out adaptation planning and support decisionmaking (Glick et al. 2011).

clinometer. Handheld instrument used to measure slope, height, and vertical angles, especially of vegetation or structures.

coarse filter. One of two major conservation strategies developed by The Nature Conservancy to efficiently capture and conserve as much biological diversity as possible. Focuses on communities and is expected to capture approximately 85 to 90 percent of the species found in a State, whereas the fine filter focuses on individual species that are not adequately captured by the coarse filter (Noss 1987).

coefficient. In statistics, a constant as distinguished from a variable; also used to denote a dimensionless description of a distribution or a set of data (Lincoln et al. 1998).

Common Stand Exam (CSE). Nationally consistent protocols for acquiring terrestrial vegetation information, especially in forested sites, to meet site-specific analysis needs. The CSE provides procedures for describing vegetation composition, structure, and productivity in an ecological framework and is intended as a dynamic set of guidelines to be responsive to the changing needs of the various resources.

conceptual model. A method to outline the interconnections among ecosystem processes, structure, composition, and function, the strength and direction of those links, and the attributes that characterize the state of the ecosystem (Mulder et al. 1999).

confidence interval. Distance between upper and lower limits around a population parameter. Represents a range of potential values for the parameter given the model used and multiple repeated surveys or samples. For example, a 95-percent confidence interval shows the range of values that are expected to include the parameter in 95 percent of repeated surveys using the same model under the same survey or sampling conditions.

connectance. In landscape analysis, the number of functional joinings, in which each pair of patches is either joined together or not.

connectivity. Spatial continuity of habitat or a cover type across a landscape (Turner et al. 2001).

contagion. Tendency of patch types to be spatially aggregated; that is, to occur in large, aggregated distributions.

context monitoring. An approach to tracking a broad array of ecosystem components at multiple scales without specific reference to influences of ongoing management (Holthausen et al. 2005).

contrast-weighted edge density. Standardizes the number of instances within a raster-based map that two adjacent pixels are of different types. The standardization involves dividing the total number of instances by the total number of pixels on the map.

convenience sampling. Act of collecting data where they are easy to obtain, such as along roads, trails, utility corridors, and in areas of high abundance and hence, not representative of the population of interest (Anderson 2001).

core area. Area unaffected by the edges of the patch; represents the interior area of patches after a user-specified edge buffer is eliminated.

core variable. An element of forest structure such as tree diameter that is routinely measured at all sampling points in the Forest Inventory and Analysis (FIA) program. Each FIA region may choose additional data elements to measure, but may not change the core requirements.

corporate database. Enterprise-wide information management systems using a common information structure and processes to store, maintain and access shared automated inventory, monitoring, and assessment data (FSM 1940) (USDA Forest Service 2009).

correlation length. Average distance an organism can traverse a map from a random starting point and moving in a random direction, while remaining in a specific patch type.

cover type. A designation based upon the plant species forming a plurality of composition and abundance; typically based on the dominant species in the uppermost stratum of vegetation (e.g., oak-hickory) (adapted from Brewer et al. 2011b, FGDC 2008).

data dictionary. A compilation of information that describes how one or more databases are structured, including information on data element names, data type, list or range of values, sources, accessibility, and the systems or applications that use the data.

desired conditions. A description of specific social, economic, and ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates (U.S. Department of Agriculture, Forest Service 2012; 36 CFR Part 219, RIN0596-AD02; National Forest System Land Management Planning).

distance band. A method of characterizing effects of landscape elements, often disturbance related, such as roads or cellular towers. Concentric strips of equal width (e.g., 100 yards) are drawn around the element, such that the landscape of interest can be quantified in relation to what proportion of the area is located in each band. Often animal locations also are quantified in the bands to estimate selection (avoidance or preference) in relation to the feature.

dominance. Extent to which a given species influences a community because of its size, abundance, or coverage (Warbington 2011), typically estimated by calculating relative cover.

ecotone. The boundary or transitional zone between adjacent communities (Lincoln et al. 1998).

effect size. The expected difference among means of groups that are subjected to different treatments (Gotelli and Ellison 2004).

emphasis species. Any plant or animal that warrants specific attention in planning or analysis, regardless of its formal or legal designation (e.g., Federal or State listed species, species of public interest, focal species, or keystone species).

Enterprise Data Warehouse (EDW). A Forest Service corporate data storage structure providing read-only, historical, and aggregated data; formerly called the Corporate Data

Warehouse. Benefits include availability of outputs for general use, many formats for data delivery (such as reports, maps, raw and summarized data), data in national extents, the ability to alter published outputs without changing applications, and reduced impacts to the server system by updating data in off-peak hours. Accessed through various database connection methods including standard ArcMap and the Geospatial Interface (GI).

existing vegetation. The floristic composition and structure occurring at a given location at the current time (adapted from Tart et al. 2011).

exurban. Areas with very low-density development, including "ranchette" development in the Western United States, which occurs typically at 1 unit per 35 to 45 acres (Theobald 2001).

focal patch. In landscape ecology, the landscape element that is of interest in the analysis, such as a particular vegetation cover type. Landscape metrics are calculated for the focal patches (e.g., patch density or isolation).

focal species. A suite of plants or animals whose requirements for persistence define the attributes that must be present if a landscape is to meet the requirements for all species that occur there (Lambeck 1997). A small subset of taxa whose status permits inference to the integrity of the larger ecological system to which it belongs and provides meaningful information regarding the effectiveness of the plan in maintaining or restoring the ecological conditions to maintain the diversity of plant and animal communities in the plan area. Focal species would be commonly selected on the basis of their functional role in ecosystems (USDA Forest Service 2012).

foliage height diversity (FHD). An index of canopy complexity derived by measuring the proportion of total foliage that occurs in each of several pre-defined horizontal canopy layers (MacArthur and MacArthur 1961); more generally, a measure of how evenly foliage is vertically distributed among vegetation layers (Cooperrider et al. 1986).

foliar cover. The percentage of the ground obscured by the vertical projection of the aerial portion of plants. Small openings in the canopy and intraspecific overlap are excluded. (from SRM 1989, cited in Warbington 2011). Note: foliar cover never exceeds canopy cover.

frequentist statistics. An analysis framework that uses probability statements based entirely on the hypothetical distribution of the estimate of the fixed parameter generated under the model and repeated sampling.

Geospatial Interface (GI). An ArcMap extension that provides (1) tools to simplify loading data, accessing custom products for display, and analyzing and exporting data; and (2) the ability to export data and maps to Microsoft Excel, Access, and Word or a text format. Data located in several different locations can be preset for quick access; can be used to run spatial overlays like clip, intersect, and identity, enabling users to repeat standard analyses on data.

grain. The resolution at which spatial patterns are measured, or the plot size used to measure characteristics (Wiens 1989).

habitat. A physical location with the resources and conditions present that produce occupancy—including survival and reproduction, or both—by a given organism. Habitat is organism-specific; it relates the presence of a species, population, or individual (animal or plant) to an area's physical and biological characteristics. Habitat implies more than vegetation or vegetation structure; it is the sum of the specific resources that are needed by organisms (modified from Hall et al. 1997).

habitat abundance. The amount and distribution of resources in an area used by an animal (modified from Hall et al. 1997); not synonymous with habitat availability.

habitat attribute. Any living or nonliving feature of the environment that provides resources necessary for a species in a particular setting (chapter 2, section 2.1).

habitat effectiveness. A measure of the reduction in the potential for an environment to meet the needs of a species, often due to the influence of direct human disturbance, such as traffic on roads.

habitat quality. The ability of the environment to provide conditions appropriate for individual and population persistence; a continuous variable, ranging from low to high, and based on resources available for survival, reproduction, and population persistence. Ideally measured by examining demographic characteristics of individuals or populations and not numbers of organisms (Hall et al. 1997); used conceptually in this document to represent habitat conditions believed to influence population persistence, but for which demographic data relating to those conditions may be unavailable.

habitat requirements. Elements that must occur for the species to meet a life requisite (Peek 1986:83). This term should not be confused with preferred habitat attributes.

habitat selection. A hierarchical process involving a series of innate and learned behavioral decisions made by an animal about what habitat it would use at different scales of the environment (Morrison et al. 2006).

habitat type. The vegetation association in an area or the area that will be occupied by that association as plant succession advances (Daubenmire 1952).

human disturbance agent. Any anthropogenic factor that affects native habitats or species in either a positive or negative way.

imputation. In statistics, the substitution of an estimated value for missing data. In spatial data analysis, imputation is the estimation of a cell value using information from other, similar cells. Many imputation techniques are available. After all missing values have been imputed, the dataset can then be analyzed using standard techniques

for complete data. The analysis should ideally take into account that a greater degree of uncertainty is present than if the imputed values had actually been observed, which generally requires some modification of the standard complete-data analysis methods.

inventory. To survey an area or entity for determination of such data as contents, condition, or value, for specific purposes such as planning, evaluation, or management. An inventory activity may include an information needs assessment; planning and scheduling; data collection, classification, mapping, data entry, storage and maintenance; product development; evaluation; and reporting phases (FSM 1940) (USDA Forest Service 2009).

keystone species. A species whose impact on the community or ecosystem is disproportionately large relative to its abundance (Mills et al. 1993).

land unit. The finest planning analysis scale in the Forest Service's National Hierarchy Framework of Ecological Units (Cleland et al. 1997). It includes two ecological unit levels: landtype (from hundreds to thousands of acres) and landtype phase (less than 100 acres). Used for activities such as delineating ecosystems, assessing resources, conducting environmental analyses, and managing and monitoring natural resources.

least squares regression. A method for estimating the relationship between one dependent variable and one or more independent variables by reducing the error term associated with all dependent values used in the equation.

legacy. Refers to natural resource information that was generally collected before the establishment of the corporate database; must meet minimum standards and metadata requirements, including a description of data collection protocols, to be entered into the corporate database.

lek. An assembly area for communal courtship display (Lincoln et al. 1998).

lidar. Acronym for light detection and ranging. A technology that involves the use of pulses of laser light to calculate distances between the sensor and various surfaces detected by the pulses (Lillesand and Kiefer 2000).

life form. Characteristic structural features and processes of a plant species, both genetic and environmental, including growth structure, physiognomy, phenology, and methods of surviving unfavorable periods outside of the growing season. Typical life forms include trees, shrubs, grasses, and forbs (adapted from Warbington 2011).

limiting factors. Environmental features or conditions that exist at a suboptimal level and prevent a population from increasing (Lincoln et al. 1998) (Law of the Minimum; Taylor 1934). These conditions may not be continuously effective but only occur at some critical period during the year or perhaps only during some critical year in a climatic cycle.

linear-based recreation. Any form of leisure activity that follows a narrow landscape feature, such as roads, trails, rivers, riparian zones, and ridgetops that are conducive to human travel.

local management unit. The scale at which local Forest Service planning is done, e.g., national forest, grassland, prairie, or recreation area.

logistic regression. Form of statistical analysis, most commonly with a dependent variable that can take on only two possible categories (i.e., binary), such as presence or absence, or used or not used; assumes the residuals (or error terms) follow a binomial distribution.

macroplot. Relatively large areas with sampling units such as quadrats, lines, or points randomly located within them (Elzinga et al. 1998).

management indicator species (MIS). Plant and animal taxa, communities, or special habitats selected for emphasis in planning, and which are monitored during forest plan implementation to assess the effects of management activities on their populations and the populations of other species with similar habitat needs which they may represent (FSM 2620.5) (USDA Forest Service 1991).

metadata. Information that describes the content, quality, condition, and other characteristics of a given dataset (FGDC 2008).

metapopulation. Several groups of individuals of the same species within some larger area, where migration from one local group to at least some other patches typically is possible (adapted from Hanski and Simberloff 1997). These groups are sufficiently separated so that each group experiences different environmental events, resulting in each group having a unique potential for extinction, which may be followed by recolonization from a neighboring group.

minimum detectable change. The smallest size or percent change that a monitoring team hopes to detect, given a specific sampling design and sampling effort. The minimum detectable change should represent a biologically meaningful quantity, given the likely degree of natural variation in the attribute being measured. Values for minimum detectable change greatly influence statistical power (Elzinga et al. 1998).

minimum map unit. Smallest feature delineated; requirements vary for different map levels (Warbington 2011).

monitoring. The collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting a resource or management objective.

monotonic (function). A mathematical function that preserves the given order; as x (independent variable) increases or decreases, y (dependent variable) increases or decreases or stays the same.

moosehorn. Handheld tubular device for estimating forest canopy cover with a narrow (10°) angle of view and a 25-dot matrix etched in glass at one end; often used as an unbiased standard for comparing estimates of canopy cover from other methods (Cook et al. 1995).

moving window. In landscape pattern analysis, used to calculate landscape metrics for focal landscapes continuously across a landscape.

multiple logistic regression. An extension of logistic regression in which more than one predictor variable is used; similar to multiple linear regression in having multiple predictor variables, but with a binary response variable.

multispectral data. Information that is obtained through sensors that simultaneously capture multiple, narrow wave length ranges located at various points ranging from the visible through the thermal spectral region (adapted from Lillesand and Kiefer 2000).

neutral landscape. A landscape generated as a random map against which effects of the processes that structure actual landscapes can be tested (Turner et al. 2001).

patch (habitat). A recognizable geographic area that contrasts, in structure or occurrence of resources, with adjacent areas and has definable boundaries (Morrison et al. 2006).

patch mosaic model. A landscape model that recognizes three major landscape elements: patch, corridor, and matrix. Also known as the patch-corridor-matrix model (McGarigal et al. 2012).

pedon. A three-dimensional unit sometimes referred to as a soil profile. Consists of a succession of layers (horizons) in a more-or-less vertical section down into loose weathered rock; a describable unit composed of mineral and organic matter as well as air and water. Layers differ from one another by mineralogy, chemistry, physical or morphological characteristics.

physiognomic. Term referring to vegetation type as defined by the visible structure or outward appearance of a plant community expressed by the dominant growth forms, such as their leaf appearance or whether leaves or deciduous or not (adapted from FGDC 2008).

platform. In remote sensing, the physical object (e.g., balloon, rocket, or satellite) that carries the remote sensor (Rees 1999).

point frame. A rigid vegetation sampling structure that organizes pins in either a rectangular or square grid pattern. The pins are lowered and intercept recorded for each pin in the frame. Multiple frame designs are available (Bonham 1989, Elzinga et al. 1998).

potential natural vegetation (PNV). The plant community that would become established if all successional sequences were completed without human interference under the present environmental and floristic conditions, including those created by man (Tüxen 1956, as cited in Winthers et al. 2005).

power analysis. A method based on the number of observations for determining the likelihood of detecting a statistically significant effect (Dytham 2011).

process variation. General term for the inherent stochasticity of changes in the population level, which includes demographic, spatial, temporal, and individual variability; also referred to as environmental variation (White 2000).

protocol. A detailed study plan that explains how data are to be collected, managed, analyzed, and reported and a key component of quality assurance for natural resource monitoring programs (Oakley et al. 2003).

proximity index. An isolation metric that is calculated for individual patches as the size of and distance to all neighboring patches of the same class, within a specified search distance. The enumeration of size and distance provides the index. A patch with many large patches in close proximity will have a large index value (i.e., low isolation) (McGarigal et al. 2012).

raster. A spatial data structure that uses an array of values in which each cell in the array is a separate unit that can be located spatially by its row and column coordinates (Campbell 1996).

reference framework. In landscape pattern analysis, a landscape used in comparison with another landscape; provides a measure of landscape composition and configuration that is typically used to provide a goal for restoration.

relevé method. An approach developed in Europe to describe the vegetation of an area together with appropriate environmental data (adapted from Lincoln et al. 1998); based on subjectively placed representative standard plots whose size varies depending on the vegetation type and associated size and spacing of the species or plant life form of interest (Barbour et al. 1987).

remote sensing. The science and art of obtaining information about an object, area, or phenomenon through the analysis of data acquired by a device that is not in contact with the object, area, or phenomenon under investigation (Lillesand and Kiefer 2000).

remotely sensed data. Information that is obtained about an object without actually coming into contact with it (Rees 1999).

residual. In a regression model, the difference between an observed value and the value predicted from a model (Zar 2010).

resolution. The fineness with which an instrument can distinguish between different values of some measured property (Rees 1999); analogous to grain (defined above).

Root Mean Square Error (RMSE). A frequently used measure of differences between values predicted by a model or an estimator and the values actually observed from the attribute being modeled or estimated. It is a good measure of precision.

sampled population. The subset of the target population that is actually surveyed (Morrison et al. 2001).

sampling frame. A complete list or map of units that are surveyed (adapted from Thompson et al. 1998).

sampling unit. An individual object within a population about which inferences will be drawn; the basic component of study.

sampling variation. The range of values contributed by attempts, always inexact, to estimate population parameters, in contrast to variation inherent in populations (see process variation; can be estimated) (White 2000).

sensitive species. Plants and animals identified by a regional forester for which population viability is a concern, as evidenced by (1) significant current or predicted downward trends in population numbers or density, or (2) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution (FSM 2670) (USDA Forest Service 2005).

sensor. Instrument that remotely collects electromagnetic radiation and converts it to some other form, usually a digitized electronic signal (Rees 1999).

seral stage. A temporal and intermediate state in the process of plant succession (Helms 1998).

spatial extent. (1) The area over which observations are made (e.g., the boundaries of a study area, a species range); (2) the area of a geographic dataset specified by the minimum bounding rectangle (i.e., xmin and ymin, and xmax and ymax) (Vesely et al. 2006).

spatial resolution. A measure of the smallest distance between two objects that can be distinguished by a sensor (Rees 1999); the measure of sharpness or fineness in spatial detail (Helms 1998).

spatial scale. Characterized by extent and grain (see definitions for "spatial extent" and "grain"). From a cartographic perspective, the extent is the area of the landscape encompassed within the boundaries of a map, and grain is determined by the size of the minimum mapping unit (e.g., 1 acre) (Vesely et al. 2006).

spherical densiometer. A hand-held instrument used to measure canopy closure of vegetation from the ground.

standard error. The square root of the variance of a sample; the standard deviation of a sampling distribution of sample estimates (Thompson et al. 1998).

stratification. Process of grouping sampling units by some unifying characteristic to decrease the variance within the stratum and increase variance across the strata.

stressor. Any physical, chemical, or biological perturbations to a system that are either (1) foreign to that system or (2) natural to the system but applied at an excessive (or deficient) level (Barrett et al. 1976). Stressors cause significant changes in the ecological components, patterns, and processes in natural systems. Examples include water withdrawal, pesticide use, traffic emissions, stream acidification, trampling, poaching, land-use change, and air pollution.

structural stage. Stand classification based on the horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, snags, and down woody debris (Helms 1998).

subshrub. A perennial plant having woody stems, typically less than 20 inches (in) tall, except for the terminal part of the new growth which is killed back annually; distinguished by its ground-hugging stems and lower height. Does not include shrubs that are less than 20 in tall because of young age or disturbance.

surrogate (species). Species that are used to represent other species or aspects of the environment to attain a conservation objective (Caro 2010).

target population. The collection of all sampling or experimental units about which one would like to make an inference (Morrison et al. 2001).

targeted monitoring. An activity to track the condition and response to management of species and habitats that are identified as being of concern or interest (Holthausen et al. 2005).

temporal grain. The smallest unit selected for measuring time, i.e., day, month, year, decade, century, or geologic period.

thematic resolution. The level of categorical detail present within a given map unit; increased thematic resolution results in an increased number of classes in the map legend. Whereas thematic resolution is often implied by geographic or spatial resolution, a direct relationship is not inherent (adapted from Helms 1998).

threshold. A value selected before a monitoring program indicating the point at which management changes would be considered or go into effect; point at which a substantial or rapid change in a response variable occurs, given a marginal change in environmental conditions (Sonderegger et al. 2009). Also known as a trigger.

time series. A sequence of data points measured typically at uniform time intervals; analyses use methods that account for the fact that observations close in time will be more closely related than will observations taken farther apart.

transactional data. In the Forest Service, the storage structure for tabular and spatial information that is designed for short, online uses. Data are entered and edited by users who are closely involved with collection of the data and have the appropriate authorizations. Data entered into this secure repository are related to protocol-driven, day-to-day activities.

trigger. See definition for threshold.

Type I error. In statistical tests, the rejection of the null hypothesis when it is in fact true.

Type II error. In statistical tests, the failure to detect a false null hypothesis.

umbrella species. An organism, usually a mammal or bird, whose conservation confers protection to a large number of naturally co-occurring organisms; the umbrella species concept is used in conservation planning as a shortcut method for maintaining biodiversity (Roberge and Angelstam 2004).

User Views. Functionality that allows for direct querying of data tables and provide tabular reports that can be exported to Microsoft Excel; accessible through the I-Web interface main menu and focused on specific business area needs.

variance. A measure of precision; average of squared differences between a set of values and the mean of the distribution of those values (Thompson et al. 1998).

vegetation type. Named class of plant community or vegetation defined on the basis of selected shared floristic and physiognomic characteristics that distinguish it from other classes of plant communities or vegetation. Can refer to units in any level of the National Vegetation Classification hierarchy (FGDC 2008, Tart et al. 2011).

vernal pool. A seasonal water body, usually originating in autumn, filling from spring rains on snowpack and drying by early summer to mid-summer.

zenith angle. The number of degrees between a direction of interest and the local direction of reference.

z-statistic. A value whose distribution under the null hypothesis can be approximated by a normal distribution; has a single critical value for a given significance level (e.g., 5 percent).
