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GLOSSARY OF BIOMORPHOLOGICAL TERMS, (U)
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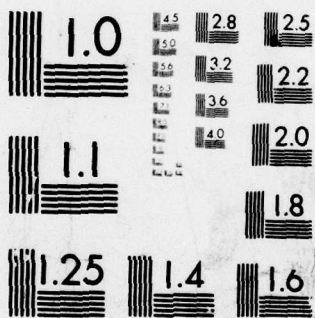
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GLOSSARY OF BIOMORPHOLOGICAL TERMS

AUTHOR(s)

E. O. GANGSTAD

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Aquatic Weed Control
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ABSTRACT (Continue on reverse side if necessary and identify by block number)

A Glossary of biological, morphological and geologic terms. Some of the terms may have several meanings; the meanings given here are the ones that relate to aquatic weed control.

Biomorphology is the study of the chemical, biological and physical aspects of an ecosystem; including the relationships of the physical and biochemical cycles, both hydrologic and nutrient, and their importance in the ecosystem.

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GLOSSARY OF BIOGEOMORPHIC TERMS

The definitions and explanations in this glossary apply to words as they are used in context. Most words have more comprehensive meanings.

Acid equivalent. The theoretical yield of parent acid from an active ingredient. It is used instead of or in addition to the active ingredient for certain herbicides.

Active ingredient. The chemical compound in a product that is responsible for the herbicidal effects.

Adsorbed. Held so tightly that the herbicide is rendered inactive or only slowly effective. The principle absorbing agents of the soil are its inorganic (clay) and organic (humus) colloids.

Ablation. All processes by which snow or ice is lost from a glacier, floating ice, or snow cover, including melting evaporation (sublimation), wind erosion, and calving.

Aeolian loess. Soils formed by accumulation of wind-blown particles.

Algal blooms. A readily visible concentrated growth or aggregation of algae in water; commonly accepted to be a concentration of cells greater than 500 per ml.

Aliphatic materials. Chemically, those that have an open-chain molecular structure. As herbicides, they are less toxic to plants than aromatic compounds.

Anionic surfactant. One that has a negative charge and performs best in cold water and soft water. Most wetting agents and detergents and some emulsifiers are anionic.

Alluvial fan. A fan-shaped accumulation of sediment deposited by a stream at the base of a hill or mountain.

Alluvium. A general term for clay, silt, sand, gravel, or similar unconsolidated detrital material deposited during comparatively recent geologic time by a stream.

Alpine zone. Belonging to the higher regions of a mountain system: applied in reference to the typical climate, relief (glacial features), flora, etc., of the regions (e.g., the Alpine climate).

Anticline. An archlike fold in layered or foliated rock.

Anticlinorium-a composite anticlinal structure of regional extent composed of lesser folds.

Annual. A plant that completes its life cycle from seed in 1 year.

Angiosperm. Taxonomic unit of plants which includes all of the potentially flowering plants in which the ovules and seeds, when formed, form inside a closed carpel system collectively known as fruits when mature.

Aquatic macrophytes. Aquatic plants which may be seen with the naked eye; e.g., aquatic mosses, ferns, and rooted plants.

Aquifer. A layer of rock which holds water and allows water to percolate through it.

Artesian spring. A spring from which the water flows under artesian pressure, usually through a fissure or other openings in the confining bed above the aquifer.

Badland. Extremely rough, narrowly and steeply gullied topography in arid of semiarid areas.

Ballast. A strip 12 to 16 feet wide made up of coarse material or gravel on railroad roadbeds.

Basal-bark applications. Herbicide treatments applied to the stems of woody plants just above the ground.

Barrier beach. A single, narrow, elongate sand ridge rising slightly above the high-tide level and extending generally parallel with the shore, but separated from it by a lagoon or marsh.

Base level. The theoretical limit or lowest level toward which erosion of the Earth's surface constantly progresses but seldom, if ever, reaches; especially the level below which a stream cannot erode its bed.

Basement. A complex of undifferentiated rocks that underlies the oldest identifiable rock in an area.

Batholith. A large mass of igneous rock formed by the intrusion of magma, usually granite, granodiorite, or diorite; generally consists of many individual intrusions.

Bedrock. A general term for the rock, usually solid, that underlies soil or other unconsolidated, superficial material.

Biennial. A plant that completes its life cycle in 2 years. This first year it produces leaves and stores food. The second year it produces fruits and seeds.

Biomass. The total amount (weight) of living material in a given habitat.

Block faulting. A type of normal faulting in which the crust is divided into structural fault blocks of different elevations and orientations.

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Bolson. A basin of interior drainage in an arid or semiarid region whose flood is tending to be filled by a number of alluvial fans around its flanks. The term is chiefly used in Mexico and the southwestern United States.

Botanical plant name. A scientific name made up of the genus and species. Sometimes the variety or subspecies is included. It is more reliable and more universal than common names.

Boreal. Pertaining to the north, or located in northern regions;
northern. Pertaining to the northern biotic area (or boreal region) characterized by tundra and taiga and by dominant coniferous forests.

Braided stream. A network of small shallow interlaced streams derived from a single stream.

Broadcast application. Uniform distribution of an herbicide over an entire area.

Broadleaf plants. Botanically, those classified as dicotyledons.
Morphologically, those that have broad, usually compound leaves.

Buffalo wallow. One of the small, subcircular, undrained very shallow depressions once common on the Great Plains of western United States, usually containing water after a rain (and often remaining as a stagnant water hole for most of the year), and generally believed to have been initially formed by the trampling and wallowing of buffalo herds in mud and dust.

Butter. A flat-topped hill formed when a stratum of hard rock overlies weaker layers and protects them from being worn down. The butte is similar to but smaller than a mesa.

Carrier. The liquid or solid material added to a chemical compound to facilitate its application in the field.

Cation exchange. The exchange of positive ions (H, Ca, Mg, Na, NH_4) from clay particles for other cations. Soils are able to filter out salts in much the same way a water softener removes them. Some soils have a larger capacity than others for doing this. Such soils can adsorb or filter out and hold large amounts of an herbicide so that it is not immediately effective.

Chemical name. One that indicates the chemical composition of the compound and also the structure of the molecule.

Common plant name. An English name is common use. A plant may be known by several different common names, and one common name may be used for different plants in different parts of the country. Many common names are local.

Compatible pesticides. Compounds or formulations that can be mixed and applied together without undesirably altering their separate effects.

Concentration. The amount of active ingredient or acid equivalent in a given volume of liquor or in a given weight of dry material.

Contact herbicide. One that kills primarily by contact with plant tissue rather than as a result of translocation.

Coulce. A term applied in the northwestern United States to a dry or intermittent stream valley, especially a long, steep-walled, trenchlike gorge or valley representing an abandoned overflow channel that temporarily carried melt water from an ice sheet, as the Grand Coulee (formerly occupied by the Columbia River) in Washington State.

Country rock. The rock enclosing or traversed by a mineral deposit or an igneous intrusion.

Crag-and-tail morphology. An elongate hill or ridge resulting from glaciation, having at the stoss end a steep, often precipitous, face or knob of ice-smoothed, resistant bedrock (the "craig") obstructing the movement of the glacier and at the ice end a tapering, streamlined, gentle slope (the "tail") of intact weaker rock and/or till protected by the "crag".

Crater lake. A lake, usually of freshwater, that has formed in a volcanic crater or caldera by the accumulation of rain and ground water.

Cuesta. A hill or ridge with a gentle slope on one side and a steep slope on the other.

Cumulus clouds. A cloud of considerable vertical development, though less so than in the cumulonimbus. The upper parts are dome shaped, and have cauliflower heads, while the base is practically horizontal. Two types are generally recognized: the fair-weather cumulus (small, white, detached puffs typical of fair weather) and the heavy cumulus (which has much greater depth and often develops later into cumulonimbus).

Cusp, cusate. A landform characterized by a projection with indentations of crescent shape on either side. Some examples include the cusate delta, cusate bar, cusate reef, and cusate spit.

Cut-surface applications. Treatments made to frills or girdles that have been made with an ax or other tool through the bark and well into the wood of woody plants.

Cymatogeny. Undulating movement of warping of the Earth's crust to produce regional linear arching or doming with minimal deformation.

Cypress swamp. A swamp in which cypress trees are a major constituent; found in the southeastern United States.

Deciduous. Said of a plant that loses its leaves annually. Said of plant parts that are lost within a year of their production.

Detergent. A chemical (not soap) having the ability to remove soil or grime. Household detergents can be used as surfactants in herbicide sprays.

Detritus. Fragment of dead organic matter in water.

Diluent. Any liquid or solid material that dilutes an active ingredient in the preparation of a formulation.

Diversity. Pertaining to the variety of species within a given association of organisms. Areas of high diversity are characterized by a great variety of species; areas of low diversity contain few species although large numbers of individuals may be present.

Downbuckle. A compressional downfolding of sialic crust, associated with oceanic trenches.

Downwarping. The downward warping or subsidence of a regional area of the Earth's crust, usually as the result of isostatic pressure; e.g., geosynclinal sedimentation.

Drag folds. A minor fold, usually one of a series, formed in a thinly laminated bed lying between harder or more rigid beds and produced by relative movement of the competent beds in opposite directions relative to one another.

Drift. A general term applied to all rock material (clay, sand, gravel, and boulders) transported by a glacier and deposited directly by the ice, or by running water emanating from a glacier.

Ecology. The study of living organisms and their relationship to their environments.

Electromagnetic spectrum. The ordered array of electromagnetic energy of radiation, extending from short wavelength cosmic rays; through gamma rays; X-rays; ultraviolet, visible, and infrared radiation; and including microwave and all other wavelengths of radio energy.

Euviation. The downward movement of soluble or suspended material in a soil from the A horizon to the B horizon, by groundwater percolation. The term refers especially but not exclusively to the movement of colloids, whereas the term "leaching" refers to the complete removal of soluble materials.

Emergent plants. Aquatic macrophytes that are rooted in the sediments of a water body, but with vegetative parts which project above the water surface.

Emulsifiable concentrates. Usually liquids in which the chemical is dissolved in one or more water-insoluble solvents such as oil or benzene to which an emulsifier is added.

Emulsifier. A surface active material that facilitates the suspension of one liquid in another.

Emulsion. The suspension of one liquid as minute globules in another liquid; for example, oil dispersed in water.

Eolian. Pertaining to the wind.

Ephemeris. A table giving the computed positions of bodies in space (stars, planets, and orbiting spacecraft) at some given period of time (day, minute) relative to reference point(s) on the Earth's surface.

Erosion scarp. A scarp produced by erosion; e.g., a fault-line scarp or a beach scarp.

Escape. A plant in a treated area that has missed treatment. For example, an annual or shallow-rooted perennial that reinfests an area after the chemical has been leached below the surface; a perennial, part of whose root system is below the treated layers of soil; or a plant that was missed at the time of application.

Escarpment. A line of cliffs produced by erosion or faulting; essentially equivalent to scarp.

Esker. A sinuous ridge of sand and gravel deposited by a stream formerly flowing under or on a glacier.

Estuary. A river mouth formed by the subsidence of land near the coast or by the drowning of the lower portion of a nonglaciaded valley due to the rise of sea level.

Eutrophic. Water high in plant nutrients.

Eutrophication. The process of enrichment with nutrients, leading to increased organic production and possible algal blooms.

Fault. A rock fracture along which there has been movement from a few centimeters (inches) to perhaps hundreds of kilometers (miles).

Fault scarp. A steep slope or cliff formed directly by movement along one side of a fault.

Fiducial marks. Index marks inscribed on an imaging lens or plate that are transferred to image products (e.g., film) to form reference points.

Flexure. A fold in rock.

Flood plain. The level land along a river, produced by deposition of alluvium from the river during times of flood, when the plain is covered by water.

Fold axis. A fold, a line that connects the central points of each constituent stratum, from which its limbs bend; in a syncline, the trough; in an anticline, the crest.

Foliation. A general term for a planar arrangement of textural or structural features in any type of rock; e.g.,; cleavage in slate or schistosity in metamorphic rock.

Family. Collection of species and genera of assumed close relationship; usually plant families end with the letters -aceae or -ae; see TAXON.

Formulation. A term used synonymously with product. It contains the herbicide in a form that can be (1) dissolved or suspended in a carrier and distributed in solution or suspension by sprayers, (2) distributed dry by dusters or spreaders, or (3) easily vaporized for fumigation.

Geomorphic. Pertaining to the form of the Earth or of its surface features; e.g., a geomorphic province. Pertaining to geomorphology; geomorphologic.

Geomorphology. The science of landforms and their development.

Geosyncline. A depositional basin of regional extent receiving sediments as it subsides; sometimes transformed into a folded mountain range, such as the Appalachians.

Geyser. A type of hot spring that intermittently erupts jets of hot water and steam.

Glacial confluence. A junction of two or more glaciers.

Glacial stagnation. A condition in which a glacier has stopped receiving nourishment in its accumulation area and has essentially stopped flowing.

Gneiss. A banded rock, formed by regional metamorphism, with interspersed layers of platy and granular minerals.

Graben. A down-faulted crustal block; sometimes expressed as a rift valley.

Ground truth. Information concerning the actual state of the ground (particularly in reference to data being acquired) at the time of a remote sensing overflight.

Hachures. A series of shorelines used on a topographic map for shading and indicating relief (such as steepness of slopes) drawn perpendicular to the contour lines.

Hammock. A term applied in the southeastern United States to a fertile area of deep, humus-rich soil generally covered by hardwood vegetation and often rising slightly above a plain or swamp; especially an island of dense tropical undergrowth in the Florida Everglades.

Hard water. Water that contains certain mainerals, usually calcium and magnesium sulfates, chlorides, or carbonates, in solution in amounts that cause a curd or precipitate instead of a lather when soap is added. Generally defined as containing 322 p.p.m. in terms of calcium carbonate. Very hard water may cause precipitates in some herbicidal sprays.

Herbaceous plant. A vascular plant that does not develop woody tissue. It dies down each year.

Herbicide. A chemical used for killing or interrupting the normal growth of plants.

Herbarium (plural: Herbaria). A permanent collection of identified, dried, preserved and mounted plants for research and plant identification reference purposes; ideally, specimens each have identification data including collector, date of collection, name and taxonomic authority, site of collection, together with names of associated species and ecological data.

Interfluve. The area between rivers; especially the relatively undissected upland or fidge between two adjacent valleys containing streams flowing in the same general direction.

Intermontane. Situated between or surrounded by mountains, mountain ranges, or mountainous regions; e.g., the Great Basin of western United States.

Intrusive. Preferring to material, such as molten rock, injected into other rock; may also refer to material such as salt injected by plastic flow.

Invert emulsion. One in which oil is the continuous phase and water is dispersed in it.

Ionic surfactant. One that ionizes or dissociates in water.

Isomers. Two or more substances having the same chemical composition but different properties.

Isostatic rebound. Crustal uplift after an imposed load, such as a glacier, is removed.

Joint. A fracture in rock with no displacement along it.

Karoo. A tableland found especially in South Africa that often rises to a considerable height in terraces and does not support vegetation in the dry season but that becomes a grassy plain or pastureland during the wet season. (Also spelled "Karoo")

Karst. A type of topograph formed by solution of limestone, _____, or gypsum, characterized by closed depressions or sinkholes, caves, and underground drainage.

Kavir. (1) A term used in Iran for a salt desert; specifically, The Great Kavir of inner Iran, a series of closed basins noted for marshy conditions and high salinities. (2) A playa on a kavir. Synonyms: Kewir; kevir. (3) A term used in Iran for a salt marsh.

Kettle. A depression in a glacial outwash plain formed by melting of ice.

Laccolith. A lens-shaped igneous intrusion.

Lacustrine. Pertaining to, produced by, or formed in a lake or lakes.

Lag sand. Coarse-grained sand left behind by wind on flowing water.

Laterite. A highly weathered, residual red subsoil or material rich in oxides of iron, aluminum, or both, found in moist, warm to temperate climates.

Lava. Molten rock erupted onto the Earth's surface.

Leaching-the separation, selective removal, or dissolving out of soluble constituent, from a rock or ore body by the natural action of percolating water.

Lee (wind)-pertaining to or located on the side sheltered from the wind; leeward.

Lichens. A thallophytic plant of the order Lichense that is composed of a fungus and an alga living in a symbiotic relationship. The alga is protected by the fungus, which in turn relies upon the alga for the production of food.

L.D.₅₀. Lethal dose for 50 percent of the animals tested often stated in milligrams per kilogram of bodyweight.

Littoral. The shallow zone of a water body where light penetrates to the bottom; the zone of rooted aquatic vegetation.

Low-volatile ester. Chemically, an ester with a heavy molecular weight such as the butoxy-ethanol, iso-cetyl, or propylene glycol butyl ether esters. Low-volatile esters do not include the methyl, ethyl, propyl, iso-propyl, butyl, amyl, and pentyl esters. Biologically, an ester that is less liable than the high-volatile esters to injure plants by vapor activity.

Montane. Pertaining to, or inhabiting cool upland slopes below the timberline, characterized by the dominance of evergreen trees.

Moor. A wild stretch of land, usually elevated, covered with heather, coarse grass, bracken, or similar vegetation; it sometimes includes patches of pasture grasses, and sometimes marshy hollows.

Moraine. A mound, ridge, or other distinct accumulation of unsorted, unstratified glacial drift, predominatly till, deposited chiefly by direct action of glacier ice.

Mosaic (photo). An assembly of aerial photographs whose edges have been feathered (torn) or cut and matched to form a continuous photographic representation of a part of the Earth's surface; e.g., a composite photograph formed by joining together part of several overlapping vertical photographs of adjoining areas of the Earth's surface.

Mudflat. A relatively level area of fine slit along a shore (as in a sheltered esturay) or around an island, alternately covered and uncovered by the tide, or covered by shallow water; a muddy tidal flat barren of vegetation.

Multiband or multispectral. The simultaneous use of two or more sensors to obtain imagery from different portions of the electromagnetic spectrum.

Muskeg. A bog, usually a sphagnum bog, frequently with tussocks of deep accumulations of organic material growing in wet, poorly drained, boreal regions, often areas of permafrost. Tamarack and black spruce are commonly associated with muskeg areas.

Natural levee. A long, broad, low ridge or embankment of sand and coarse slit built by stream on its flood plain and along banks of its channel especially in time of flood.

Nonionic surfactant. Chemically inert.

Nonselective herbicide. A chemical that is toxic to plants generally without regard to species.

Organic matter. Plant or animal remains which are partially decomposed.

Oligotropic. Water low in plant nutrients.

Outcrop. That part of a geologic formation or structure that appears at the surface of the Earth' also, bedrock that is covered only by surficial deposits such as alluvium.

Outlier. An area or group of rocks surrounded by outcrops of older age; e.g., an eroded geosynclinal trough, or a remnant of the downthrown side of a fault.

Outwash plain. A broad, outspread, flat or gently sloping, alluvial sheet of outwash deposited by melt water streams flowing in front of or beyond the terminal moraine of a glacier and formed by coalescing outwash fans; the surface of a broad body of outwash.

Overthrust fault. A low-angle thrust fault of large scale, generally measured in kilometers (miles)

Oxbow lake. A crescent-shaped lake occupying an abandoned stream meander.

Pediment. The gently sloping erosion surfaces with a thin layer of sediment at the base of a mountain.

Pediplanation. The action or process of forming and development of a pediplain or pediplains; pedimentation of regional magnitude, assisted by slope retreat.

Peneplane. A term introduced by David for a low, nearly featureless, and gently undulating or almost-planal land surface onf considerable area that persumable has been reduce by the processes of long-contained subaerial erosion.

Perennial. A plant that lives more than 2 years.

Perennial stream. A stream or of a stream that flows continuously throughout the year and whose upper surface generally stands ower than the water table in the region adjoining the stream.

Petrology. That branch of geology dealing with the origin, occurrence, structure, and history of rocks, especially igneous and metamorphic rocks. Petrology is broader in scope than petrography, which is concerned with the description and classification of rocks.

Plankton. Microscopic plants and animals found at or near the surface of water bodies.

Plate tectonic theory. Global tectonics based on an Earth model characterized by a small number (10 to 25) of large, broad, thick plates (blocks composed of areas of both continental and oceanic crust and mantle) each of which "floats" on some viscous under-layer in the mantle and moves more or less independently of the others. The continents form a part of the plates and move with them, like logs frozen in the ice floes.

Playa, playa lake. A shallow, intermittent lake in an arid or semiarid region, covering or occupying a playa in the wet season but drying up in summer; and ephemeral lake that upon evaporation leaves or forms a playa.

Plug. (1) A vertical, pipelike body of magma that represents the conduit to a former volcanic vent. (2) A crater filling of lava, the surrounding material of which has been removed by erosion.

Plunging fold. A fold whose axis is inclined.

Pluton. (1) An igneous intrusion. (2) A body of rock formed by metasomatic replacement. (The term originally signified only deep-seated or plutonic bodies of granitoid texture.)

Polder. A generally fertile tract of flat, low-lying land (as in The Netherlands and Belgium) reclaimed and protected from the sea.

Product. The herbicide as it is sold commercially. It contains not only the active ingredients but also various solvents, cosolvents, surfactants, carriers, and other adjuvants that are designated as inert ingredients.

Progapgule(s). Viable seeds and/or living, vegetatively (non-sexual) formed plant parts which can originate new plants under the proper conditions, and which are often disseminated by various environmental and/or biological buds, free of the source plants, which can originate one complete, new plant during the following growing season.

Prime meridian. An arbitrary meridian selected as a reference ___ having a longitude of 0° and used as the origin from which other longitudes are reckoned east and west to 180° ; specifically the Greenwich meridian. Local or national prime meridians are occasionally used.

Proprietary mixture. One that is commercially available.

Radial sand dune. A dune formed by winds blowing from different directions at different times producing a star- or pyramid-shaped dune.

Radiance. Optical energy incident on or reflected from a unit surface area.

Radiation. The process by which electromagnetic energy is propagated through free space. Also called radiant energy.

Rate. The amount of an herbicide applied to a unit area, usually in terms of active ingredients or acid equivalent.

Reflectance. The fraction of the total incident light reflected from a surface; varies with wavelength of light, angle of illumination, etc.

Reg. A stony desert from which fine sand has been removed by the wind, leaving a sheet of gravel and small stones, as in the Algerian Sahara.

Registration. Point by point fitting or matching of allequivalent points or features in two or more identical images, usually of different bands.

Relief. The elevations or differnces in elevation, considered collectively, of a land surface.

Remote sensing. Acquisition of information about objects or phenomena in the surficial environment (including land, oceans, and atmosphere) through the use of sensory devices at positions separated from (remotely situated) the subject under study; involves measurements of electromagnetic radiation, acoustical energy, force fields, or nuclear radiations.

Resolution. (1) Ground resolution, the minimum distance between two or more adjacent features or the minimum size of a feature that can be detected and separated from its surrounding features. (2) Image resolution is expressed in lines per millimeter for a given photographic emulsion under specified conditions.

Resurgence. The point where an underground stream reappears at the surface to become a surface stream. It is usually near the point where an impermeable stratum, underlying a rock such as limestone, intersects the surface.

Savanna. (1) An open grassy, essentially treeless plain, especially as developed in tropical or subtropical regions. Usually there are distinct wet and dry seasons; what trees and shrubs are found there are drought resistant. (2) The tall grass characteristic of a savanna. (3) Along the southeastern Atlantic coast of the United States the term (often spelled savannah) is used for marshy alluvial flats with occasional clumps of trees.

Scarp. (1) A line of cliffs produced by faulting or by erosion. The term is an abbreviated form of escarpment. (2) a relatively steep and straight, clifflike face or slope of considerable linear extent.

Scour. (1) The powerful and concentrated clearing and digging action of flowing air or water, especially the downward erosion by stream water in sweeping away mud and silt on the outside curve of a bend, or during time of flood. (2) A place in a streambed swept (scoured) by running water, generally leaving a gravel bottom. (3) Glacial scour. (4) Tidal scour.

Scrub. Low growing or stunted vegetation growing on poor soil or in semiarid regions and which sometimes forms impenetrable masses.

Selective herbicide. A chemical that is more toxic to some plant species than to others.

Slurry. A watery mixture or suspension of an insoluble herbicide.

Snowline. (1) The line or altitude on land separating areas in which deposited snow disappears in summer from areas in which snow remains throughout the year; on glaciers it is identical to the firn line. (2) The ever-changing extreme limit from the equator within which no snow reaches the ground or falls unmelted. Its position depends on such physical conditions as altitude and nearness to the sea. The term is applied especially to the winter snowline in the Northern Hemisphere.

Species (plural: Species). A morphologically, genetically, and ecologically defined biological entity to which a binomial and authority is given.

Solvent. A liquid such as water, oil, or kerosene used to dissolve other materials such as herbicides.

Spot treatment. Application of an herbicide to individual plants or small clumps of plants.

Spray drift. The movement of airborne spray particles from the intended areas of application.

Spreader-sticker. A surfactant closely related to wetting agents that facilitates spreading and increase sticking of an herbicide on vegetation.

Standing crop. The quantity of living organisms present in an environment at a selected point in time.

Stem-foliage application. An application of an herbicide to both stems and leaves of a plant.

Submersed plants. Aquatic macrophytes that grow or are adapted to grow beneath the surface of the water.

Succession. The orderly process of compositional change in populations and communities.

Surfactant. A material that improves the emulsifying, dispersing, spreading, wetting, and other surface-modifying properties of herbicide formulation.

Susceptible species. One that can be killed with moderate rates of a herbicide.

Suspension. A system consisting of very finely divided solid particles dispersed in a liquid.

Syncline. A troughlike fold, the core of which contains the stratigraphically younger rocks; it is concave upward.

Tableland. (1) A general term for a broad, elevated region of land with a nearly level or undulating surface of considerable extent; e.g., South Africa. (2) A plateau bordered by abrupt clifflike edges rising sharply from the surrounding lowland; a mesa.

Taiga. A swampy area of coniferous forest sometime found lying between tundra and steppe regions.

Taxon (plural: Taxa). A unit of plant classification of any chosen rank; e.g., Potamogetonaceae (the Potamogeton family), Potamogeton (everything included in this genus), Potamogeton foliosus Far. (everything included in his species), or Potamogeton foliosus Far. variety macellus Fern.

Taxonomic authority. Biologist who described the morphological, ecological and genetic limits of any taxon, or who more recently revised the taxonomic position of a taxon.

Total alkalinity. Total of hydroxide (OH^-), carbonate (CO_3^{--}), and bicarbonate (HCO_3^-) ions in water; the capability of water to accept protons.

Translocated herbicide. One that is move within the plant from the point of entry.

Trap. Any dark-colored, fine-grained, nongranitic, hypabyssal or extrusive rock such as a basalt, peridotite, diabase, or fine-grained gabbro; also, applied to any such rock used in building roads.

Trellis drainage patter. A drainage pattern characterized by parallel main streams intersected at or near right angles by their tributaries.

Tributary. (1) A stream feeding, joining, or flowing into a larger stream (at any point along its course) or into a lake. Synonyms: tributary stream; affluent; feeder; side stream; contributory. (2) A valley containing a tributary stream.

Tule marsh. A marsh consisting of large bulrushes, found predominantly in the Southwest.

Turbid. Opaque with suspended matter, such as of a sediment-laden stream flowing into a lake.

Underfit stream. A misfit stream that appears to be too small to have roded the valley in which it flows. It is a common result of drainage changes effected by capture, by glaciers, or by climatic variations.

Uplife. A structurally high area in the crust produced by positive movements that raise or upthrust the rocks, as in a dome or arch.

Upthrust. A nongeological term sometimes applied to uplifted blocks of crust or mountains; not synonymous with overthrust.

Upwarping. The upward warping or uplift of a regional area of the Earth's crust, usually as the result of the release of isostatic pressure; e.g., melting of an ice sheet.

Vapor drift. The movement of herbicidal vapors from the area of application.

Viscosity of oil. Expressed in time (seconds) required for 60 c.c. of heated oil to flow through a Saybolt Universal Viscosimeter.

Volatile. A compound is a volatile when it evaporates or vaporizes (changes from a liquid to a gas) at ordinary temperatures on exposure to the air.

Water hardness. The total concentration of calcium, magnezium, and the metallic ions that have the capacity of precipitate sop(Soft water = 50 mg/l - Hard water = 150 mg/l).

Water-soluble power. A finely ground powder which will dissolve in water.

Weed. A plant growing where it is not desired.

Weed eradication. The complete elimination of all live plants, plants part, and seeds of a weed infestation from an area.

Wetland plants. Terrestrial plants which preferentially grow in 100% water-saturated soil.

Wettable powder. A finely ground powder plus a wetting agent to keep the particles suspended in but not floating on the water to which it is added.

Wetting Agent. A compound that when added to a spray causes the spray to contact plant surfaces mor throughly.

WSSA. Weed Science Society of America.