Appendix E. Glossary of terms

Term	Definition
Abney level:	A surveying instrument consisting of a spirit level and a sighting tube; used to measure the angle of inclination of a line from the observer to the target.
Acanthochorous diaspores:	In LEDA part of the diaspores with elongated appendages (one or many short or long hooked appendages).
Acanthochory:	Seed dispersal by animals, mainly in the fur.
Achene:	Dry, one-seeded fruit lacking special seams that split to release the seed. The seed coat is attached to the thin, dry ovary wall (husk) by a short stalk, so that the seed is easily freed from the husk, as in buckwheat. The fruits of many plants in the buttercup family and the rose family are achenes.
Acrisol:	Acid soil type with clay-enriched lower horizon, low CEC, and low saturation of bases.
Age of first flowering:	This is the earliest age at which a plant can flower in the field.
Agochory:	Unintended dispersal by man.
Albeluvisol:	Soil type with a clay-enriched lower horizon into which an albic horizon is deeply tongued.
Alisol:	Acid soil type with clay-enriched lower horizon, high CEC, but low saturation of bases.
Andosol:	Soil type composed of volcanic materials, usually dark coloured.
Anemochory:	Diaspore dispersal by wind.
Annual:	Plants completing their entire life cycle within one growing season or year (see also perennial).
Anthrosol:	Soil type dominated by human activities.
Arenosol:	Soil type with a sandy or loamy sand texture.
Aril:	Cup-like structure that partly covers the seed.
Attachment capacity:	Capacity of the seeds of a species to stay attached to the fur of animals.
Autochory:	The plant itself is acting as a dispersal agent (self dispersal).
Awn:	A tuft or growth of hairs or bristles on certain plants (e.g. bristle or beard of barley, oats, grasses, or any similar bristle-like appendage).
Awns:	Fine bristles or beards on some grains and grasses. In LEDA part of the elongated appendages.
Axillary buds:	Buds situated on stems in axils of leaves; they develop exogenously during a normal ontogeny of shoots at the shoot apex.
Ballochory:	Seed dispersal by an explosive mechanism.
Balloon structures:	Structures that are wrapped around the germinule in a more or less balloon like form (e.g. utricle in *Carex* species, glumes in Poaceae species).
Bed rock:	A stratum of rock, especially sedimentary rock.
Biennial:	Plant which needs for completing their life cycle (from seed to seed) more than one year (usually two years) (see also annual, perennial, monocarpic).
Biomass:	Usually refers to the dry-weight of all organic matter (total mass) contained within plants, animals or micro-organisms in a given area or individual.
Blade:	Is usually the flat part of the leaf, excluding the petiole.
Blastochory:	Autonomous placement of seeds or daughter plants away from the mother plant using ground crawling sprouts.
Boulders:	Sub-category of the substrate type rocky, indicating rocky soil with all stones >600 mm in diameter.
Bud bank:	Are all viable axillary and adventitious buds which are present on a plant and are at dis posal for spring re-growth (renewal buds), branching and replacement of shoots through a season or for vegetative regeneration after an injury (regenerative buds); some adventitious buds may be initiated by an injury.
Bud:	A meristematic region which may rise to a new shoot. The new shoot may develop within the bud so that a whole shoot including an inflorescence is formed inside the bud (preformed bud).
Bulb:	A perennating organ consisting of storage leaves and a shortened stem base; it may growth monopodially or sympodially; the bulb is formed by organs produced during a single season or in the course of several seasons, therefore in plants with sympodial growth they belong to different shoot generations.

Appendix E. Continued

Term	Definition
Buoyancy:	The floating ability of diaspores on water (see also floating capacity).
Calcisol:	Soil type dominated by calcium carbonate as powdery lime or concretions.
Calyx:	Lowest whorl on the receptacle of a flower. Composed of a few or many sepals. In some species, sepals are green and photosynthetic. In other species, they are showy and almost indistinguishable from petals.
Cambisol:	Soil type with moderately developed soils with lower horizons having colour or structure changes from the parent material which permit the identification of a cambic B horizon. Soils that show soil formation by either: colour change compared to parent material, soil structure development, leaching of carbonates, or formation of silicate clays and sesqui(hydr)oxides as result of weathering of primary minerals.
Canopy height:	The distance between the highest photosynthetic tissue and the base of the plant.
Capsule:	In botany, dry fruit that opens when ripe. It splits from apex to base into separate segments known as valves, as in the iris, or forms pores at the top (poppy), or splits around the circumference, with the top falling off (pigweed and plantain). The spore-forming organ of liverworts and mosses also is called a capsule.
CGO:	See clonal growth organ.
Chamaechory:	Dispersal unit rolling over the soil surface caused by wind (i.e. tumbleweed).
Chamaephyte:	Shrub with renewal buds situated at or above soil surface and covered by snow in winter.
Chamaephyte:	Woody or herbaceous evergreen perennial from 25 to 50 cm tall or whose shoots die back periodically. Can have buds that are located above soil level, but never by more than 50 cm. This group includes dwarf shrubs and some perennial herbs.
Chernozem:	Soil type with a dark colour, deep soils in organic matter, calcareous lower in profile, also typical of grass steppe/prairie.
Clay:	Particle size less than 0.002 mm in diameter.
Clinometer:	Instrument used for measuring the height of a standing tree.
Clonal growth organ:	= CGO. Is a morphological unit of a plant, which bears a bud-bank and provides vascular connections between shoots. CGO is characterised by its placement in relation to soil surface, by its origin in relation to the soil surface, by the location of adventitious roots, by the location and preformation of renewal and regenerative buds, by annual increment and by its life-span. CGO serves for persistence of a perennial plant by providing room for storage, regenerative and renewal buds develop on it, new shoots release from CGO, and many CGO provide vascular connection between individual organs and shoots belonging to a plant. The role of CGO may change in the course of a season and is affected by the environment and disturbance. After a disturbance the CGO guarantees reiterative growth by its bud bank and stored nutrients.
Clonal plant fragment:	All physically inter-connected parts of a clonal plant.
Closed balloon structures:	Balloon structures where the air can not escape easily (e.g. utricle of *Carex*).
Cobbles:	Sub-category of the substrate rocky, indicating rocky soil with all stones from 75-250 mm in diameter.
Compound leaf:	Compound leaves are built from several small leaves (= leaflets) or from pinnae that sit in a regular organisation at the undivided or branched rachis.
Corolla	Whorl on the receptacle of a flower. Composed of a few or many petals. Petals are typically showy and brightly coloured. They serve to attract pollinators for many species.
Cotyledon:	First leaf or leaves of a plant to appear after germination; morphologically and anatomically markedly different from true leaves; may be found already in the embryo.
Cryosol:	Soil which occur under the unique environmental conditions of alternating thawing and freezing. These soils have permafrost within 100 cm of the soil surface and are saturated with water during the period of thaw.
Cryptophyte:	Plants whose buds develop underground or under water.
Culm:	Herbaceous or woody, cylindrical, not branched, variably high stalk. It is flexible, hollow inside, full in the knots where leaves arise (typical of the Graminae).
Cystometeorochorous diaspores:	In LEDA: Diaspores with (closed) balloon structures.
Cystometeorochory:	Seeds with air filled structures for winddispersal.

Appendix E. Continued

Term	Definition
Daughter shoot:	Shoot which may be traced as a descendant of another shoot (parent shoot).
Dendrometer:	An instrument to measure height and diameter of trees.
Diaspore type:	Describes the type of diaspore, i.e. discriminates between vegetative/ generative dispersule.
Diaspore:	Reproductive portions of a plant such as a seed or buds that are dispersed and may give rise to a new plant (see also disseminule).
Dicyclic:	Plants with a life cycle that is completed in two years.
Dispersal vector:	Dispersal agent for a species to disperse seeds (e.g. water, wind, animals). See also dysochory, ethelochory, meteorochory, endozoochory, ectozoochory, chamaechory, speirochory, zoochory).
Dispersal:	Process of spreading out from point of origin.
Dispersion:	Pattern resulting from dispersal.
Dispersule:	Every morphological part of a plant that serves as a unit of dispersal and becomes detached from the mother-plant to disperse. Here we only provide data for the generative dispersules, i.e. units of dispersal that contain a seeds (see also germinule).
Disseminule:	A plant part that can be easily separated from the parent plant, is dispersed, and can grow into a new plant (see also diaspore).
Durisol:	Soil in semi-arid environments, which have an accumulation of secondary silica, either in the form of nodules, or as a massive, indurated layer.
Dysochory:	Dispersal by scatter-hoarding animals.
Ectozoochory:	Dispersal of diaspores via attachment to the fur of animals (adhesive dispersal) (opposite: endozoochory).
Elaiosomes:	Appendages that are nutritious (mainly for ants); serve as reward for ants that carry the seeds away. Elaiosomochorous diaspores with nutrient containing structures.
Elaiosomochory:	Seeds with nutrient containing structures for e.g. dispersal by ants.
Elongated appendage:	Elongated appendages comprise all structures that prominently stick out from the main part of the diaspore in an elongated form; one dimension of the appendage is generally considerably larger than the other two dimensions.
Endozoochory:	Dispersal of a seed by an animal which carries it from one place to another in its digestive tract (Internal animal dispersal). (opposite: ectozoochory - see also survival of digestion).
Epiphyte:	Plant growing on other plant without using it as source of water, assimilates and nutrients.
Epiphyte:	Plant that germinates and root on other plants (their growing buds occur on another plant).
Epizoochory:	See ectozoochory.
Errant vascular hydrophyte:	Free-moving water plant (i.e. the floating aquatic plants).
Ethelochory:	Dispersal by trading of plants or seeds.
Eutrophic soil:	Soils with a high nutrient content supporting a high productivity. This was originally applied to nutrient-rich waters with high primary productivity but now also applied to soils.
External animal dispersal:	See ectozoochory.
Ferralsol:	Soil type composed of kaolinite and quartz, enriched in Fe and Al oxides.
Flat appendage:	Flat appendages comprise all structures that stick out of the more compact part of the dispersule with a flat, thin form and that increase the surface of the main part of the dia spore by at least one tenth; one dimension of the appendage is generally considerably smaller than the other two dimensions.
Floating capacity:	Percentage of seeds that are still floating after a defined time step (see also buoyancy)
Fluvisol:	Soil type with a soil developed on river deposits showing alluvial stratification.
Fruit mast:	See masting.
Gemma:	An asexual reproductive body that becomes detached from a parent plant.
Gemmipary:	Production of adventitious buds on leaves on bare wet soil they develop into plantlets resembling by their size seedlings.
Genet:	Plant or clone originating from a zygote.

Appendix E. Continued

Term	Definition
Geophyte:	Perennial (or biennial) herbaceous plants in which the stems die back to a remnant shoot system with storage organs (bulbs, corms, rhizomes, tubers) that are imbedded in the soil.
Geophyte:	Plant with renewal buds overwintering under soil surface.
Germinule:	Unit of germination. In many cases the dispersule is not the unit that will enter the soil after dispersal and germinate and therefore differs from the dispersule. This difference is due to morphological structures, such as pappus, wings, awns or fleshy nutrient containing tissues, that get lost between the time of dispersal and the time of germination.
Gleysol:	Soil type with waterlogged soils with poor drainage and anaerobic conditions.
Greyzem:	Soil type with a organic rich surface horizon with uncoated sand grains, typical of grass steppe/ prairie.
Ground water:	Ground water is the part of precipitation that seeps down through the soil until it reaches rock material that is saturated with water.
Growth form:	Type of growth morphology and architecture (the concept is free of any hypotheses about adaptation) (see life form).
Gypsisol:	Soil type with the presence of gypsum (calcium sulphate) in crystals or concretionary layers.
Habitat:	Biotic and/or abiotic environment of an organism or community. Place where an organism or a community of organisms lives, including all living and nonliving factors or conditions of the surrounding environment. Microhabitat is a term for the conditions and organisms in the immediate vicinity of a plant or animal.
Hairs:	Part of the elongated appendages in LEDA. A seed could contain one or many short or long hooked appendages.
Hapaxanthic:	Plant which dies after one flowering period (opposite = polacanth or polycarpic).
Haustorium:	Modified root by which a vascular plant parasite enters and draws nutrients from a host plant.
Helophyte:	Plants that mainly grow in soil saturated with water or in the water itself, and from which leaf and flower-bearing shoots emerge. Helophytes do not include all the plants ordinarily known as marsh plants.
Hemerochory:	General dispersal by man (e.g. by tires, mowing machines).
Hemicryptophyte:	Have herbaceous stems that often die-back during unfavorable seasons, and surviving buds placed on (or just below) soil level (remnant shoot system). This group includes many herbaceous perennial or biennial plants.
Hemi-cryptophyte:	Plant with renewal buds overwintering near soil surface covered only by plant litter.
Hemi-epiphyte:	Plant that uses other plant individuals for support for part of their life. Either the plant germinates on other plant individuals and then establishes soil contact or the plant germinates on the ground but loses contact with the later on (see also epiphyte).
Hemi-epiphyte:	Plant that germinates on other plants and then establishes soil contact; or plant that germinates on the ground but later loses contact with the soil.
Hemi-parasite:	Plant which obtains nutrients (but not assimilates) from other plant (see also parasite and holoparasite).
Heterocarpy:	Heteromorphism of the whole fruit that serves as a dispersal unit (see heteromorphism).
Heteromericarpy:	Heteromorphism of parts of a fruit that serves as dispersal unit (see heteromorphism).
Heteromorphism:	Occurrence of different morphological forms of the same functional unit, e.g. seeds produced by a single individual.
Heterophyllous:	Having dissimilar leaves on one plant.
Heterospermy:	Heteromorphism of the seed (see heteromorphism).
Histosol:	Soil type with more than a defined amount of organic matter; an organic soil.
Holo-parasite:	Plant which obtains both nutrients and assimilates from other plants (see parasite and hemi-parasite).
Hooks:	Part of the elongated appendages in LEDA. A seed could contain one or many short or long hooked appendages.
Hydrochory:	Diaspores dispersal by means of water.

Appendix E. Continued

Term	Definition
Hydrophyte:	(1) Plants which survives the unfavourable season by means of buds that live at the bottom of the water; the vegetative shoots remain submerged, leaves can be submerged or floating and only the flowers and inflorescences rise above the water surface. (2)A plant usually found growing in water, or in soil containing water well in excess of field capacity most of the time.
Hypsometer:	Instruments used for measuring the height of a standing tree.
Inflorescence:	In a flowering plant, a cluster of flowers on a branch or a system of branches. An inflorescence is categorized on the basis of the arrangement of flowers on a main axis (peduncle) and by the timing of its flowering (determinate and indeterminate).
Internal animal dispersal:	See endozoochory.
Kastanozem:	Soil type with calcareous soils rich in organic mater, brown colour, typical of semiarid climates with grasses.
Lamina:	A typical leaf is organised into blade (= lamina), petiole and leaf base - The blade is usually the flat part of the leaf excluding the petiole.
Latitude:	Reference lines over the earth surface (also called parallels).
LDMC:	See leaf dry matter content.
Leaf dry matter content:	LDMC - leaf dry mass per unit leaf fresh mass.
Leaf:	Lateral organ of a plant stem which arises exogenously from stem apex. It is usually flat green structure which may be divided into lamina, petiole and leaf base.
Leaflet:	The single part of a compound leaf.
Leptosol:	Soil type with a weakly developed shallow soil.
Liana:	High climbing herbaceous or woody plants that germinate on the ground and maintain soil contact while using another plant for support (also called liane).
Liana:	Plant that germinates on the ground and maintains soil contact while using another plant for support. Grape vines are typical lianas.
Life form:	Types of plants with the same location of renewing buds in respect to soil surface (e.g. annual plants, geophytes, hemicryptophytes, epiphytes, shrubs, trees).
Lifespan:	See plant lifespan.
Lixisol:	Soil type with clay-enriched lower horizon, low CEC, and high saturation of bases.
Loam:	Particle size ranging from 0.002 mm to 0.05 mm in diameter.
Longitude:	Reference lines over the earth surface (also called meridians).
Long-term persistent:	Seeds that persist in the soil for at least five years (see transient and short-term persistent).
Lophocory:	Dispersal via wind with hairy seed appendages (see also Hairs).
Luvisol:	Soil type with a clay-enriched lower horizon, high CEC, and high saturation of bases.
Masting:	Is (synchronous) intermittent of seed production of large crops by a population of plants.
Mesotrophic soil:	Soils with a moderate (or intermediate) nutrient status and primary production.
Meteorochory:	Dispersal by wind. Note that this is flyers only, no tumbleweeds or wind-ballistics species.
Monocarpic:	Fruiting only once then dying. Usually applied to perennials that live for years before flowering, setting seed and dying. May describe annuals or biennial as well (see also hapaxanthic).
Monocyclic:	Plants with a life cycle that is completed in one year or shoots of a plant that live for one year.
Myrmechochory:	Diaspore dispersal by ants.
Nautochory:	Diaspore dispersal by surface currents of water.
Necessary CGO:	Clonal growth organ which is necessary for plant to complete its life cycle.
Nitisol:	Soil type with deep, clay-enriched lower horizon with shiny ped surfaces.
Nutrient:	Substance that an organism must obtain from its surroundings for growth and the sustainment of life. So-called nonessential nutrients are those that can be synthesized by the cell if they are absent from the food. Essential nutrients cannot be synthesized within the cell and must be present in the food. In most living organisms nutrients provide not only the energy necessary for certain vital processes but also the various materials from which all structural and functional components can be assembled.

Appendix E. Continued

Term	Definition
Oligotrophic soil:	Soils that are poor in nutrients, with in general a low primary production.
Ombrochory:	Raindrop-ballists where raindrops triggering ballistic seed dispersal.
Open balloon structures:	Balloon structures where the air can escape easily (e.g. glumes of Poaceae).
Organic matter:	The organic fraction that includes plant and animal residue at various stages of decomposition, cells and tissues of soil organisms, and substance synthesized by the soil population. Commonly determined as the amount of organic material contained in a soil or water sample.
Pappus:	An appendage or tuft of appendages that crowns the ovary or fruit in various seed plants and functions in dispersal of the fruit. In LEDA part of the elongated appendages: One long appendage and two or more long appendages (e.g. *Taraxacum officinale*) or many long appendages (e.g. *Centaurea* spec.).
Parasite:	An plant that is depending on another plant for part or all of its nutrition while contributing nothing to the survival of its host A plant (see also hemi-parasite and holo-parasite).
Peat:	Is a heterogeneous organically formed substance that results from the incomplete decomposition of plants in a wet or humid environment.
Peat:	Heterogeneous organic substance incomplete decomposition of plants.
Pebbles:	Sub-category of the substrate rocky, indicating rocky soil with all stones from 2-75 mm in diameter.
Perennation:	Perennation in plants is the survival of unfavourable periods or conditions (e.g. drought, cold winters) by storing food in underground organs (e.g. bulbs, tubers, corms, rhizomes), or in the case of woody plants in the buds situated on their stems.
Perennial:	A plant that can live on from year to year (>2 growing seasons) producing flowers/seeds repeatedly. The plant may appear to die-off in fall (as an annual) but their roots remain alive in a semi-dormant stage furing winter (see annual).
Perigone:	The floral envelope, consisting of the calyx (protective structure around flower formed by sepals collectively) and corolla (innermost whorl of petals in a flower when present) (synonym = perianth).
Petiole:	Leaf stalk, connecting the blade with the stem.
pH:	Stands for potential Hydrogen (abbreviation = pH) - a log scale measurement of the aci dity/alkalinity of a solution with 1 being extremely acidic, 10 being extremely alkaline, and 7 being neutral. The full range of the pH scale (0-14) is not used in soils.
Phaeozem:	Soil type with dark coloured soils rich in organic matter, with deep leaching of carbonates, associated with forest steppe.
Phanerophyte:	Woody or herbaceous evergreen perennial, taller than 50 cm, whose shoots do not die back. Including trees and larges shrubs (buds 3 m above ground), smaller shrubs (nanophanerophytes - buds located between 0.5 to 3 m) and herbaceous phanerophytes.
Photosynthetic tissue:	Plant tissue that manufactures sugar through the action of sunlight.
Planosol:	Soil type developed in flat areas, with seasonal saturation caused by impermeable lower horizon.
Plant height:	Actual measurement of plant height is from the soil surface to the highest photosynthetic organ of the plant.
Plant lifespan:	Is the length of time plants remain alive.
Plant:	In the strictest definition a plant is the genetic individual with the lifespan as the time from zygote formation to death of the genet genetics is irrelevant here, it is rather a photoautothrophic organism.
Plinthisol:	Soil type with a mottled appearance that harden on exposure to atmosphere.
Plumed diaspores:	In LEDA part of the diaspores with elongated appendages, with either one or many short or long appendages.
Podzol:	Soil type with bleached, light-coloured horizon below surface, with spodic B horizon.
Podzoluvisol:	Soil type with a clay-enriched lower horizon into which an albic horizon is deeply tongued.
Pogonochorous diaspores:	In LEDA these are categorised as diaspores with flat appendages (large (e.g. *Acer* spec.) or small appendages (e.g. *Leucanthemum vulgare*)).
Pogonochory:	Wind dispersal with seeds with special hairy structures.

Appendix E. Continued

Term	Definition
Polacanth:	Plant with more than one flowering period (opposite = hapaxanthic or monocarpic).
Polycarpic:	A plant that can repeatedly bear fruits, as is the case for most perennial plants (see also polacanth).
Polycyclic:	Plants with a life cycle that is completed in more than two years.
Prickles:	In LEDA classified as elongated appendages with one or many short or long, maybe hooked, appendages.
Propagule:	Any part of an organism that can be detached from the organism and disseminated and that serves as a unit of reproduction.
Pseudovivipary:	Is an asexual reproductive strategy exhibited by some plant species in which leafy plantlets or bulbils are produced instead of seeds.
Ptero(meteoro)chorous diaspores:	In LEDA these are categorised as diaspores with flat appendages (large (e.g. *Acer* spec.) or small appendages (e.g. *Leucanthemum vulgare*)).
Ptero(meteoro)chory:	Wind dispersal of seeds with wings.
Pulp:	Fleshy structure enclosing the seeds.
Rachis:	The main leafstalk of a compound leaf or the main stalk of a flower cluster - in ferns it is the continuation of the stipe (= fern stem) through a compound frond (also called Rhachis).
Ramet:	A potentially independent part of a clonal plant.
Regenerative buds:	Dormant (resting) axillary and adventitious buds which break their dormancy or adventitious buds formed de novo and substituting lost shoots after an injury; they may be located on all living plant parts, including aboveground shoots.
Regenerative CGO:	Clonal growth organ which functions after an injury of a plant only; injury of a plant results in the initiation of adventitious buds on organs which usually do not bear them when intact, or in fragmentation and initiation of adventitious roots on organs.
Regosol:	Soil type with a weakly developed soil with texture finer than sandy loam.
Releasing height:	The difference between the elevation of the highest fruit or seed and the base of the plant.
Renewal bud:	Buds used for seasonal re-growth in seasonal environments. A small proportion of buds on a plant and their location is species-specific and similar in the same CGO; their location is used in the definition of Raunkiaer's life-forms.
Replicate:	To reproduce or make an exact copy or copies by sampling something again in exactly the same way (synonym: duplicate, copy, reproduce, repeat).
Resin:	Secretions (often aromatic) that are insoluble in water but soluble in ether or alcohol (see resinous species).
Resinous species:	Plant species that are coated with a sticky gum or resin (see resin).
Rhizome:	Horizontal, underground plant stem capable of producing the shoot and root systems of a new plant. This capability allows the parent plant to propagate vegetatively (asexually) and also enables a plant to perennate (survive an annual unfavourable season) under ground. In some plants (e.g., water lilies, many ferns and forest herbs), the rhizome is the only stem of the plant. In such cases, only the leaves and flowers are readily visible.
Rocky:	Rock fragments are unattached pieces of rock 2 mm in diameter or larger that are described by shape (spherical class 1-4 or flat class 5-8) and size.
Root tubers:	Tubers of root origin. The tubers are short-lived and serve as storage and regenerative organ; the plant dies back in autumn, except for the root tuber(s) which bear just one bud each for spring re-growth; during summer old tubers decay and new ones are formed.
Rosette plant:	A plant that forms a cluster of leaves on stems with shortened internodes
Sample:	A set of individuals or items selected from a population for analysis to yield estimates of, or to test hypotheses about, parameters of the whole population (synonym: individual, representative, specimen).
Sand:	Majority of particle size ranging from 0.05 mm to 2.0 mm in diameter.
Sarcochorous diaspores:	In LEDA are these diaspores with nutrient containing structures (e.g. aril or pulp).
Sarcochory:	Dispersal by animals (via digestion) of seeds that are contained in fleshy fruits.
Seed coat:	The outer protective covering of a seed.
Seed dispersal:	Movement of a plant seed away from the parent plant by a passive or active mechanism.

Appendix E. Continued

Term	Definition
Seed height:	Is the shortest axis of the seed perpendicular to the length axis and perpendicular to the width axis.
Seed length:	Is the longest axis that can be found in the seed.
Seed longevity:	A measure of duration of existence of seeds in the soil.
Seed number:	Is the number of seeds produced by a plant - usually given per shoot or per inflorescence.
Seed set:	To produce seeds after flowering.
Seed shape:	The shape variance (Vs) is captured by dividing length, width and height of a seed separately by length and then calculating the variance of the three values (minimum value of Vs is 0 in perfectly spherical seeds and the maximum values range between 0.2.
Seed structure:	Refers to the morphological structures of the dispersule, i.e. which kind of appendages or structures are attached to the seed. For seed structure a coarse categorisation of six morphological structures are followed in the LEDA Traitbase (nutrient rich structures, balloon structures, elongated appendages, flat appendages, other specailisations, no appendages). Per category subcategories allow the classification of seed morphology into a finer scale.
Seed thickness:	See seed height.
Seed width:	Is the widest axis of the seed perpendicular to the length axis.
Seed:	Generative unit of reproduction of the spermatophytes. Seeds contain an embryo and have an outer cover (testa). Mostly they also contain endosperm (tissue that serves as nutrition source during the germination).
Sessile leaf:	A leaf without a petiole.
Shoot cyclicity:	Life-span of a shoot from the onset of its growth until its death after fruiting (see monocyclic, dicyclic and ploycyclic).
Shoot:	Is a new growth on part of a plant.
Short-term persistent:	Seeds that persist in the soil seed bank for at least one year, but less than five years (see transient and long-term persistent).
SLA:	See specific leaf area.
Soil acidity:	See pH.
Soil moisture:	Is water stored in soils. The level of soil moisture is often depending on the height of the ground water table.
Solonchak:	Soil type where salt accumulation is the dominant process.
Solonetz:	Soil type dominated by sodium salts.
Specific leaf area:	SLA: The ratio of leaf area to leaf dry mass.
Speirochory:	Dispersal with seeds of agricultural species.
Stem density:	Determined by dividing the dry mass of a stem segment by its fresh volume - obtained value (stem specific density) quantifies woodiness and stem water content.
Stolon:	A stolon - or runner - is a slender stem that grows horizontally along the ground, giving rise to roots and aerial (vertical) branches at specialized points called nodes.
Stomatochory:	Dispersal by 'mouth', e.g. by ants, mainly seeds with nutrient containing structures (see also Elaiosome).
Stones:	Sub-category of the substrate rocky, indicating rocky soil including all stones from 250-600 mm in diameter.
Succulent species:	Plant species with thick, fleshy, water-storing leaves or stems.
Survival of digestion:	Percentage seeds of a species having survived (simulated) digestion in comparison with untreated seeds from germination studies.
Terminal velocity:	The maximum rate at which an object can fall in still air - theoretically it will start to fall at a slow rate and will accelerate until it reaches it's maximum fall rate or terminal velocity.
Therophyte:	Annual - or plant that dies after seed production and completes its entire life cycle within one year and survive the unfavourable season as a seed. This group includes all annual herbs.
Therophyte:	Annual plant which survives unfavourable conditions (e.g. winter) as a seed.

Appendix E. Continued

Term	Definition
Thorns:	In LEDA part of the elongated appendages. Could be one or many short or long, maybe hooked, appendages.
Tissue density:	Is defined as the dry weight per unit volume.
Transient:	Seeds that persist in the soil for less than one year (see also long-term persistent and short-term persistent).
Trial:	Each separate experiment or site or individual on which different replicate measurements are performed.
Trichometeorochorous diaspores:	In LEDA part of the category elongated appendages (one or many short or long appendages).
Trichometeorochory:	Wind dispersal of seeds with special hairy structures.
Turgor:	Large positive internal pressure a plant can build up in the cells. Turgor has a decisive influence on the maintenance of the rigidity and stability of plant tissues.
Turion:	Detachable over-wintering bud composed by tightly arranged leaves filled by storage compounds, formed in axially or apical position by some water plants; turions usually have dormancy and need to pass through winter conditions to re-grow.
Tussock plant:	Plant forming mats or tufts - often refers to a short plant with many stems or branches forming a cushion-like appearance.
Twines:	A climbing plant in which the stem winds around other plants or objects for support.
Umbrisol:	Soils having an umbric horizon (deep, brownish or blackish horizon with a significant acculumaton of organic matter and low bae saturation).
UTM:	The Universal Transverse Mercator projection is designed to provide a single grid system that can be applied to the surface of the earth. In this projection, the world is divided into 60 north-south zones, each covering a strip 6° wide in longitude. These zones are numbered consecutively beginning with Zone 1, between 180° and 174° west longitude, and progressing eastward to Zone 60, between 174° and 180° east longitude.
Vascular parasite:	Non-green plant growing on living, green plants.
Vascular parasite:	Non-green plant growing on living, green plants. Indian-pipe (Monotropa uniflora) is a good example of a vascular parasite.
Vascular semi-parasite:	Green plant growing attached to other living, green plants. Many plants photosynthesise but also supplement their nutrients by parasitizing other plants.
Vascular semi-parasite:	Green plant growing attached to other living, green plants. Many plants, such as eastern North American native gerardia (*Agalinis purpurea*), photosynthesize but also supplement their nutrients by parasitizing other plants.
Vertisol:	Soil type with a clayey soil which cracks widely when dry and swells when wet.
Vines:	A plant that trails, clings, or twines, and requires support to grow vertically.
Wing:	Any membranaceous expansion, as that along the sides of diaspores.
Winged diaspore:	In LEDA part of the flat appendages, which either could be large (e.g. *Acer* spec.) or small (e.g. *Leucanthemum vulgare*).
Winter annual:	A plant that dies after producing seeds that germinate later the same year and over winter as immature plants.
Xerophyte species:	Plant species adapted to live under very dry conditions.
Zoochory:	General dispersal by animals (see mymecheochory, endozoochory, ectozoochory).

URL of main dictionaries or glossaries used: Allaby, M. (1998) *Dictionary of Plant Scences*. Oxford University Press, Oxford - Govaerts, R., Frodin, D.G. & Radcliffe-Smith, A. (2000) *World Checklist and Bibliography of Euphorbiaceae (with Pandanaceae). Volume 1*. The Royal Botanic Gardens, Kew - Hickery, M. & King, C. (2000) The Cambridge illustrated glossary of Botanical terms. Cambridge University Press, Cambridge - http://www.biologie.uni-hamburg.de/b-online - http://davesgarden.com - http://glossary.gardenweb.com/glossary - http://www.istitutoveneto.it/venezia/divulgazione/glossario_en - http://www.hcs.ohio-state.edu/hort/biology/Lab/ growthform.html.