

F

FABIFORM beanshaped (like kidneybeans, curved).

FACULTATIVE sometimes; not necessarily; not obligate (q.v.).

FALCATE, FALCIFORM bending in one direction, scythe or sickleshaped.

FALSE ISIDIA as used by Taylor, isidialike structures arising primarily as regeneration structures after damage to the thallus; sometimes called "regeneration squamules or lobes"; in this sense not necessarily the same as pseudoisidia.

FARINACEOUS, FARINOSE mealy, finely powdery, like flour, usually referring to very minute and "soft" soredia, but sometimes applied to densely pruinose surfaces.

FASCICLE a close bundle or cluster

FASICULATE growing in fascicles.

FASTIGIATE having parallel, massed upright branches; of lichen cortex, made up of parallel hyphae at right angles to axis of thallus surface; cf. fibrous cortex

FAVEOLATE, FAVEOLOSE honeycombed; alveolate. Compare FOVEOLATE.

FEDERATION a term used in phytosociology.

FENESTRATE 1) with small perforations; with open areas or slits; with "windows" 2) (of spores), muriform

FERTILE HYPHA see conidiophore

FERTILIZATION the fusion of sex nuclei

FESTOONING hanging or draping from

FIBRIL 1) in Usnea, a short, slender, fully grown lateral branch, usually over 3 mm long but seldom over 1 cm long, more or less perpendicular to the branch on which it grows; distinct from a branchlet, which is a small juvenile branch (also see "spinule"); 2) a slender filament, consisting of united hyphae usuing occurring on the margin of the thallus (cf. cilium).

FIBRILLOSE 1) having fibrils; 2) covered with silklike fibers

FIBROSE

FIBROUS composed of fibers, loosely woven distinct hyphae which run more or less parallel to the long axis of the lobe or branch, as in the cortex of Anaptychia, best seen under a microscope; cf. fastigiate cortex; sometimes also applied to an ecorticate surface with randomly oriented hyphae (see arachnoid).

FILAMENTOUS, FILAMENTOSE 1) hair or threadlike; a growth form composed of thin hairlike strands of mycobiont and photobiont, as in Coenogonium and Ephebe; usually the photobiont gives most of the bulk and shape to the lichen, and is surrounded by hyphae or cells of the mycobiont; 2) vinelike branching (e.g., in Usnea.), in which a short main stem is soon divided into subsymmetrical branches, from which secondary branches are grown by further dichotomy, becoming parallel to each other and often equipped

with fibrils.

FILIFORM threadlike

FIMBRIATE fringed, edged, delicately toothed.

FIMBRILLATE diminutive of fimbriate.

FINE STRUCTURE = ultrastructure.

FISSITUNICATE ascus discharge involving the separation of wall layers (in bitunicate asci)

FISSURAL SORALIA soralia opening up by splits in the thallus, forming discrete, more or less oblong fusiform areas with the long axis parallel to the branch, e.g., in some Bryoria spp.

FISSURED cracked, split.

FISTULAR, FISTULOSE hollow, like a pipe

FIXATION DISC a flattened disc by which the base of a fruticose thallus is attached; if there is only one per thallus it is often called basal holdfast or basal disc.

FLABELLATE, FLABELLIFORM fan shaped, in the form of a semicircle.

FLACCID limp, flabby

FLAGELLIFORM like the lash of a whip, applied to very narrow and nonfibrillose branches of a fruticose lichen

FLEXUOSE, FLEXUOUS bending or curving in alternate directions, i.e., "zigzag", but the bends more or less gradual and rounded, not angular; with a wavy outline, but in a horizontal plane (contrasted with undulate); applied to margins of thallus or its parts, or to apothecial margins (in the latter case often due to crowding).

FOLIACEOUS PHYLLOCLADIA flattened, usually somewhat crenate phyllocladia.

FOLIICOLOUS growing on leaves of vascular plants

FOLIOLE a small, dorsiventral, leaflike appendage, usually on the upper surface of a foliose lichen.

FOLIOSE, FOLIACEOUS thallus form usually with upper and lower cortices, dorsiventral, flat and somewhat leaflike; larger than the arbitrarily distinguished squamulose lobes (which are up to 5 mm long and wide); varying in its attachment to the substrate from almost completely adnate to umbilicate; removable intact from the substrate (but sometimes only with great difficulty)

FOOT

FORKED furcate

FORMICIFORM SORALIA soredia produced inside raised helmetshaped structures on the tips of lobes, as in Physcia adscendens

FOVEATE pitted, usually of the upper surface of the thallus; honeycombed, with shallow depressions or lacunae separated by interconnecting ridges.

FOVEOLATE diminutive of foveate. Purvis, et al. define it as delicately pitted, whereas they define FAVEOLATE as honeycombed.

FRAGMENTATION vegetative reproduction of the thallus by the breaking off of bits of dry, fragile pieces

FRAGMENTATION REGIONS small sections of branches (e.g., in Bryoria capillaris) which are narrow, devoid of algae, and either colorless or blackened, and are weak points easily broken by twig movements or strong winds.

FREE CELL FORMATION the process by which the 8 nuclei, each with some adjacent cytoplasm, are cut off by walls in the immature ascus to become ascospores.

FRIABLE readily powdered, crumbling.

FRUIT, FRUIT BODY, FRUITING BODY, FRUCTIFICATION structure in which spores are produced by sexual means (meiosis and fertilization); sporocarp; see ascocarp and basidiocarp.

FRUIT WART a thalline wart (verruca) which contains one or more ascocarps, as in Pertusaria.

FRUTICOLOUS living on shrubs. **FRUTICOSE** thallus form which is usually erect and stalked to rather bushy, shrublike or treelike, pendent and beardlike, or sometimes prostrate or irregularly oriented and becoming tangled; commonly terete and radially symmetrical but sometimes flattened and dorsiventral; stalks simple to richly branched, the branches of any length, filamentous to straplike, attached to the substrate at a single point, or unattached; centers of branches hollow to dense. If developing from a primary thallus, referred to as cladoniiform. For lack of a better term, fruticose is also applied to globular to tubular vagrant thalli derived from crustose to foliose taxa.

FRUTICULOSE having a minutely shrubby habit (e.g., Ephebe, Polychidium)

FULCRUM specialized hyphal structure (sporophore) giving rise to pycnospores; Ainsworth & Bisby refer to it as a "conidiophore within a pycnidium", but it is a neutral term, which could mean either conidiophore or spermatophore depending on how the spores are interpreted.

FUNGAL, FUNGOUS having to do with fungi

FUNGUS a nongreen (nonphotosynthetic), nonvascular, nonflowering plant consisting of threadlike structures (hyphae)

FURCATE 1) regularly forked (often dichotomously, sometimes repeatedly), referring to branching patterns of lobes, podetia, rhzines, etc.; in foliose lichens the margins of the lobe tips are broadly Vshaped; 2) forked once or twice near the apex, in paraphyses.

FURFURACEOUS minutely chaffy or scurfy

FUSCOCAPITATE with a brown, inflated, usually rounded apex (usually of paraphyses)

FUSCOUS dusky, smoky, dark brown or graybrown

FUSIFORM spindle-shaped (ellipsoid but more or less pointed or

tapering at both ends), usually referring to spores.

FUZZY COAT layer of (often) amyloid gelatin on the outside of the sides of an ascus; where it thickens at the apex it is called the apical cap.

G

GELATIN

GELATINIZED, GELATINOUS like a jelly, rubbery, slimy, translucent, swelling when wet; in the gelatinous growth form the thallus is homeomerous (unstratified), and the distinctions among crustose, foliose and fruticose are often blurred.

GENICULATE bent like a knee joint (of branches), often with a subtending spur

GLABROUS 1) having a more or less smooth, shiny surface; 2) with no trace of tomentum or hairs.

GLAUDESCENT of a bluish green color

GLAUCOUS having a bluish gray (to whitish or grayish) color or overcast (resembling the waxy bloom of a plum)

GLEBOSE more or less rounded elevations of thallus surface.

GLEBULOSE having superficial rounded processes or cushionlike areoles.

GLOBOID, GLOBOSE, GLOBULAR, GLOBULOSE approximately spherical (L:W = 11.05).

GLOBULAR ISIDIA irregularly roundish, isodiametric isidia, e.g., in Neofuscelia verruculifera

GLOMERULE, GLOMERULUS a clump or cluster (usually very dense); frequently used of clusters of photobiont cells.

GLOMERULATE

GLYPHOLECINE having particularly labyrinthlike lirella, as in Glypholecia

GONIDIUM photobiont (obsolete)

GONIDIMIUM hymenial photobiont (obsolete)

GONIDIAL LAYER photobiont layer (obsolete)

GONIOCYST, GONIOCYSTULA 1) small aggregations of photobiont cells surrounded by hyphae forming a roundish structure which is not a soredium (because the photobiont is completely enclosed), e.g., the vegetative thallus of Botrydina spp., or structures produced in goniocystangia in some tropical foliicolous lichens; 2) discrete, more or less globular structures c. 1240 μ m diam., ecorticate granules consisting of photobiont cells intertwined and surrounded by shortcelled hyphae, never protected by an amorphous covering layer (in Micarea);

GONIOCYSTANGIA

GRANULE rough, irregularly rounded grainlike structure; 1) in thalli, a spherical or nearly spherical particle, usually corticate (often indistinctly so); b) pertaining to chemical materials, any small regular or irregular particle, opaque or hyaline, found associated with various lichen tissues.

GRANULAR, GRANULATE, GRANULOSE 1) having, composed of, or covered by small particles (granules or granulelike particles);

2) pertaining to soredia, composed of particles large enough to be distinguished under a dissecting microscope, presenting a coarse appearance, not powdery; 3) of isidia (in Pertusaria), small (under 1 mm tall), soon eroding apically to become sorediate; basally corticate, secondarily developing as papillate to coralloid ecorticate isidoid soredia similar to those formed by soralia; contrast with globular isidia.

GRANULIFORM PHYLLOCLADIA roundish, granulelike, entire to weakly crenate phyllocladia

GRAPHIDIAN APOTHECIUM term used by LetrouitGalinou (19 , Bryologist 71) for the kind of ascocarps found in the Graphidiales or Arthoniales, whether lirelliform or not.

GROSS coarse

GROWTH FORM habit

GUTTULE small drop or droplike spot in spores

GUTTULATE (of spores) having one or more oil droplets inside.

GYMNOCARPIC, GYMNOCARPOUS (of a sporocarp) having the primordium and mature hymenium exposed (uncovered).

GYRATE, GYROSE curved to the back and to the front and to the front in turn (as in the top of a cinnamon bun); folded and wavy; convoluted like a brain; formed in a more or less circular or spiral pattern, appearing to be composed of concentric rings, or tightly spiralled; having a folded or ridged surface; usually referring to apothecia, particularly in Umbilicaria, which show the invasion of concentric (or radiating?) rows of sterile excipular tissue into the hymenium.

GYRI rolled ridges between grooves.

GYRODISC an apothecial disc which is furrowed (as though recently plowed).

H

HABIT growth form; overall appearance

HABITAT natural place of occurrence of an organism.

HAFTER flat attachment organs of some fruticose and foliose lichens (e.g., Hypogymnia)

HAIR fine multicellular outgrowths from the cortex, as in species of Phaeophyscia

HALINE found near the seashore.

HALO

HALONATE having a transparent coat (perispore) around it (of the outer layer of spores).

***HAMATHECIUM** a neutral term for all kinds of hyphae or other tissues between asci, or projecting into the locule or ostiole of an ascoma.

HAPTER, HAPTERON an aerial organ of attachment formed by the thallus in response to its contact with the substrate; formed in some fruticose lichens (Alectoria, Bryoria, Usnea) where a secondary branch becomes attached to substrate.

HAUSTORIUM a special hyphal branch, especially one within a living cell of the host, for absorption of nutrients.

HELICOID a type of anisotomous branching (e.g., in Cladina) in which branches arise on the undersides of the main lateral branches, and all lateral branches curve downward; differs from scorpioid in that the main lateral branches arise alternately from different sides of the main stem.

HELMETSHAPED SORALIUM

HELOTISM the physiologic relation of photobiont to mycobiont

HEMIANGIOCARPIC, HEMIOANGIOCARPOUS (of a sporocarp) opening before quite mature, and having an excipulum plus a pseudoexcipulum formed from thallus tissue during ontogeny; characteristic of Peltigeraceae and Stictaceae.

HEPATICOLOUS On liverworts.

HETEROCYST

HETEROMEROUS stratified; thallus form in which more or less distinct tissues (especially a definite algal layer) are present; having the mycobiont and photobiont components in wellmarked layers, with photobiont in a more or less distinct zone between upper cortex and medulla. Note: this term has a different meaning in other branches of botany.

HETEROTYPIC SYNONYMS synonyms based on different nomenclatural types (taxonomic synonyms)

HIRSUTE hairy.

HISPID hairy

HOARY whitish or grayish; pruinose

HOLDFAST an expanded, sometimes disclike, attachment of thallus

to substrate; also used in a general sense to include rhizines or other rootlike structures which are not specialized for absorption.

***HOLOBLASTIC** conidia in the formation of which the existing wall layer of the conidiogenous cell is directly involved; formed from the whole.

HOLOTYPE the one single specimen or other single element used by an author or designated by him as the nomenclatural type of ataxon.

HOMIOMEROUS thallus form in which the photobiont (a cyanobacterium, usually Nostoc) and mycobiont components are uniformly dispersed or intermixed through most of the thallus, except for sometimes a thin cortex; hyphae mostly loosely woven, and photobiont cells more or less densely packed.

HOMOBIMUM a selfsupporting association of a fungus and an alga, as in lichens.

HOMONYM a validly published name spelt exactly like another validly published name in the same rank but based on a different nomenclatural type.

HOMOTYPIC SYNONYM nomenclatural synonym.

HORIZONTAL THALLUS = crustose primary thallus

HORMOCYST a propagule or diospore composed of a few photobiont cells and fungal hyphae growing together in a chainlike manner and breaking into clumps, which arise in special hormocystangia; produced by a few gelatinous lichens, e.g., some species of Lempholemma. (See Degelius, 1945, Svensk bot. Tidskr. 39: 419; Henssen, 1969, Lichenologist 4: 99).

HORMOCYSTANGIUM structure producing hormocysts.

HUMICOLOUS growing on soil (humus).

HYALINE ± transparent (or at least translucent), like glass; frequently used in the sense of colorless.

HYGROPHANOUS having a watersoaked appearance when wet.

HYGROSCOPIC changing position or shape with a change in humidity.

HYMENIAL pertaining to the hymenium.

HYMENIAL ALGAE (or gonidia) photobiont cells in the hymenium, e.g., in Endocarpon and Staurothele.

HYMENIUM that part of the ascocarp composed of asci and paraphyses (or paraphysoid tissue) in a close arrangement; nontechnically referred to as the "spore layer", or "sporebearing layer".

HYPHA a microscopic filament of fungal cells, usually multicellular, making up the body of a fungus or fungal part of a lichen; usually with elongated cells and often with very thick, gelatinized walls which can be hyaline, pigmented, or sometimes carbonized.

HYPHAL NET ("HYPHENFILZ") organ of attachment in some squamulose or placodioid lichens (e.g., Psora decipiens) where a delicately branched, reticulate net penetrates the substrate. (see Poelt & Baumgrtner, 1964, sterr. bot. Z. 111: 1). Compare with rhizinose strand.

HYPHAL RHIZOID a hypha acting as a rhizoid; also called rhizoidal hypha.

HYPHOPHORE erect stalked or peltate asexual sporophore (see section 3.6 of Hawksworth, The Lichenforming Fungi); sometimes forming dual propagules composed of photobiont and mycobiont.

HYPHO (prefix) under

HYPOPHLOEDAL, HYPOPHLOEDIC with most or all of the thalline tissues occurring below one or more layers of bark or cork; endophloedal.

HYPOTHALLUS 1) a growth of undifferentiated purely fungal mycelium (the first hyphae of the thallus to grow), sometimes present as a distinct layer below (or on the underside of) the thallus, and often projecting beyond it; white to darkly colored; sometimes thick; usually in crustose lichens; sometimes vestigial, visible only by blackened margins on crustose to lobate or umbilicate thalli; if occurring at the periphery, usually called a prothallus (protothallus); 2) in some genera (e.g., Anzia, Pannaria, Pannoparmelia), it refers to a special differentiated, often dense and more or less wooly or spongy, often black or dark brown, hyphal tissue on the lower surface and at margins. Purvis, et al. use it in this second sense, and use prothallus for the first sense.

HYPOTHECIUM area of hyaline to pigmented or carbonized tissue in the apothecium immediately below the subhymenium (generative or ascogenous layer), often expanded into a bowl or cone (as seen in median section); often strongly gelatinized, and often difficult to distinguish from the excipulum, of which some authors consider it a part; the term has often been misapplied such that it includes or consists of the subhymenium.

HYPOTRACHNOID having rhizines growing over the entire lower thallus surface, as in Hypotrachyna.

HYSTERIOTHECIUM an oblong to linear, simple to branched, ascocarp in some ascolocular genera, e.g., Opegrapha.

I

ICONES pictures, figures, plates.

ILLEGITIMATE opposite of legitimate (q.v.).

IMBRICATE overlapping, partly covering each other, as tiles on a roof, as applied to squamules, lobes, or lobules.

IMMACULATE not spotted.

IMMARGINATE without a margin or welldefined edge.

IMMERSED sunken into the thallus or substrate.

IMPERFECT in perithecia, having the involucrellum developed only immediately around the ostiole

IMPERFORATE lacking holes or openings, as in closed axils of branches or discs of apothecia.

IMPRESSED pressed in.

INCISED deeply notched, or with cuts or tears, as the margins of lobes, squamules, or occasionally apothecia.

INCRASSATE made thick.

INCRUSTED (of hyphae), having matter excreted on the walls.

INDEFINITE not sharply limited.

INDEPENDENT separate, distinct from one another along most of the length, branched and divergent; applied to the long linear lobes of some foliose or lobate lichens lichens, which often grow away from the substrate and can be intertwined but not crowded.

INDETERMINATE indefinite, vague, effuse; generally indicates that the lichen growth is a confused mass of confluent thalli, extending indefinitely, and developing no consistent outline or welldefined margin.

INDIGENOUS natural to a country or region, native.

INFLATED swollen, distended, blown up, often hollow; in foliose lichens (e.g., Hypogymnia and Menegazzia) and to a much lesser extent some placodioid lichens (Lecanora garovaglii complex) the lower cortex is often separated by a space from the upper cortex and medulla, especially at the puffed out tips.

INFLEXED turned or bent strongly inwards (inrolled), used of a margin of a fruiting body.

INFUNDIBULIFORM funnelshaped.

INNATE sunken, immersed.

INSERSED interpenetrated or sprinkled with granules; applied to tissues, as seen in section under a compound microscope.

INTER (prefix) between; among

INTERASCAL (INTERASCICULAR) = INTERTHECIAL

INTERCALARY lateral (pleurogenous) production of pycnospores; a neutral term for endobasidial

INTERTHECIAL between the asci

INTRA (prefix) within, inside

***INTRAPARIETAL** with a wall or walls.

INTRICATE (at least as applied to the cortex) means the hyphae are "twisted together" (Ainsworth & Bisby)

INTUMESCENCE a swelling

INVOLUCRELLUM upper, often exposed covering or cap external to the excipulum and usually distinct from it, present on many perithecia or pseudothecia; usually carbonaceous, but in some species may be colorless or even contain algae (?); upper part of ascocarps (often pigmented) of some lichenised Ascomycotina. **INVOLUTE** with margins rolled inward (upward or downward?)

IRREGULAR uneven, as in lobe margins of foliose lichens.

ISABELLINE dirty brownish gray, yellowish or tawny.

ISIDIATE (ISIDIOSE) SOREDIA soredia occurring in discrete rounded patches (soralia) that also give rise to isidia (usually cylindrical and pointed), as in some *Usnea* spp.; contrast with sorediate isidia.

***ISIDIOSE** isidialike

ISIDIUM (ISIDIA) an minute (mostly to 0.51 mm) outgrowth of the thallus which has a cortex, contains both mycobiont and photobiont (organized as in the thallus), and serves as a vegetative dispersal unit, usually granular, warty, fingershaped, clubshaped, or corallike, less often becoming compressed and spatulate, squamulelike, or peltate. Often used broadly, to include dactyls.

ISIDIOID GRANULES very tiny, elongated granular outgrowths from the thallus which have the appearance of isidia but not the structure (i.e., _____)

ISIDIOID SOREDIA soredia resembling isidia, often darkened and rather solid looking, but ecorticate and often arising from distinct soralia

ISIDIOID TIPS very fine, cylindrical tips of tapering thallus branches, resembling isidia.

ISO (prefix) equal

ISODIAMETRIC having equal diameters in all directions.

ISOLATERAL the same on each side

ISOTOMIC branching into two or more subbranches of equal size (diameter), resulting in a thallus having no distinguishable main axis.; the dichotomous (to tetrachotomous) branching is visible even in the older parts of the thalli.

ISOTYPE a duplicate of a holotype, i.e., part of the single collection which includes the holotype.

ISTHMUS the narrow canal between the two locules of a polarilocular spore; according to Ainsworth & Bisby it is the "thickened medial perforated septum" (rather than the canal).

JUGA minute carbonaceous structures in or on the thallus (e.g., in Verrucaria), which can be round and dotlike or form elongated to irregularly branched ridges; visible with a lens, especially when the thallus is wet.

K

L

LABIA lateral liplike structures.

LABIATE, LABRIFORM, LABROSE lip shaped, usually referring to apical or marginal soralia of foliose lichens, which form on the undersides but curve backwards onto the upper surface.

LACERATE irregularly incised to form elongated strips, for instance finely lobed; with the appearance of having been irregularly torn; with jagged edges or tips.

LACINIUM (A) a long, slender, linear elongate thallus lobe, as in Pseudevernia and Ramalina.

LACINIATE deeply, usually irregularly, divided into more or less numerous narrow, often more or less pointed, segments or lobes.

LACUNA a hole, deep depression, or gap (hollow) in the thallus.

LACUNOSE having lacunae.

LAGENIFORM swollen at the based, narrowed at the top, like a Florence flask (bottle)

LAMELLA thin sheets or plates, 1) referring to acid crystals; 2) a trabecula on the underside of an Umbillicaria thallus.

LAMELLATE in thin sheets or plates.

LAMINA a thin, flat organ or part, usually the main part or main upper upper surface of a foliose or squamulose thallus, the blade in contrast to the margin; used by Hertel (Calcifer Lecidea) to refer to the combination of hymenium, epihymenium and subhymenium.

LAMINAL superficial on the surface (as opposed to the margins or tips), as in soralia or apothecia.

LANCEOLATE shaped like the head of a lance, broadest at the base and narrowed to the apex.

LATERAL at or near the side or edge, especially side or secondary branches; as applied to production of pycnospores, means pleurogenous or intercalary, and is a neutral term for endobasidial.

LAX loose, loosely woven, not compact.

LECANORATE (in fruiting warts of Pertusaria), having an open disc (with fertile hymenium) at least when mature.

LECANORINE, LECANOROID pertaining to an apothecium containing algae at least below the hypothecium and usually having a distinct amphithecium that often also contains algae, as in the genus Lecanora; often used in a broad sense that includes zeorine, cryptolecanorine, etc.

LECIDEINE, LECIDEOID pertaining to an apothecium which lacks algae and lacks an amphithecium, and therefore in which the exciple forms the apothecial margin (i.e., the proper margin), as in the genus Lecidea; in the strict sense refers to apothecia having a black, often carbonaceous exciple and blackish disc

(dark epihymenium); often used in the broad sense to include biatorine.

LECTOTYPE a type selected from the original elements (specimens or names) on which a taxon was based when the holotype was not designated at the time of publication or for so long as it is missing.

LEGITIMATE (of names or epithets), in accordance with the Code of Botanical Nomenclature. **LEIODISC** (of an apothecium), having a smooth disc, without folds or central umbo.

LENGTH OF LOBES the maximum is from the tip to the end of the deepest "incision"

LENTICULAR shaped like a more or less circular biconvex (double convex) lens.

LEPROSE 1) composed more or less entirely of a loosely organized powdery (to finely granular) mass of algal cells and fungal hyphae (Rogers); 2) irregular patches of erose tissue appearing white and granular (Swinscow & Krog); having the surface dissolved into soredia, loose, powdery.

LEPTODERMATOUS (of hyphae), having the outer wall thinner than the lumen.

LICHEN

LICHEN ACIDS, LICHEN SUBSTANCES

LICHENICOLOUS growing on or in lichens (usually implies parasitic, but is a neutral term that can include parasymbionts and frequently occurring saprophytes or epiphytes)

LIGNEOUS, LIGNOSE woodlike

LIGNICOLOUS growing on decorticate wood.

LIGNUM decorticate wood.

LIGULATE, LIGULIFORM flat and narrow; straplike in form.

LIMBIFORM bordered; applied to soralia.

LIMITING surrounding or setting a limit to; often used of surrounding prothallus.

LINE (as a measure of length, obsolete), 2.1167 mm (1/12 inch).

LINEAR very narrow, elongate and uniform in width (i.e., with parallel margins), as lobes or soralia; as applied to lobes, usually refers to a lobe of greater width than "strapshaped", with ends that are more rounded and dissected rather than forked or squarish.

LINGULATE tongue shaped.

LIRELLA (LIRELLAE) oblong to linear, often branched or more or less stellate, ascocarp, as in *Graphis*; can be interpreted as a discocarp or pyrenocarp; also used (at least in a broad sense) for hysterothecia of ascolocular lichens;

LIRELLATE, LIRELLIFORM in the shape of a lirella; having a shape rather like the characters of Chinese writing, or of hieroglyphics.

LITMUS an amphoteric lichen dye (used for determining acidity or alkalinity of a liquid), obtained from depsidecontaining lichens, e.g. Ochrolechia tartarea and Roccella spp.

LITTORAL growing on the shore of seas or lakes; in the strict sense, implies frequent immersion in water.

LOBATE lobed; most often applied in a broad sense to mean placodioid crustose; defined more specifically by Poelt (1958).

LOBE a rounded to linear division of a thallus, usually applied to foliose or squamulose forms; occasionally also applied to irregular protrusions from the outside of thalline exciples.

LOBULATE having small lobes.

LOBULE a small lobe; (usually juvenile?) extending the growth of the thallus by proliferating from the tips, margins, or surface of larger lobes, or a small lobe projecting out from the thalline exciple; a subdivision of a lobe; flattened and usually ciliate on upper and lower surfaces.

LOCULE a cell, cavity, chamber or "room", as in a spore or a stroma.

LONGITUDINAL running in the direction of the long axis of the spore or other structure.

LOOSE lax, lightly attached to more or less free; 1) as applied to paraphyses means easily freed in water; 2) as applied to foliose thalli means the thallus grows almost parallel to and above the substrate but often partly free of it, at least tips of the lobes often ascend or curl upward, and rhizines are minute to very short (12.5 mm), few or many; this condition is sometimes difficult to identify, as when an adnate or appressed thallus is covered by loose lobules.

LORIFORM ribbon shaped.

LOWER CELL the cell at the very base of the fulcrum in a pycnidium, which gives rise to the sporogenous cells.

LUMEN (LUMINA) the inside of a cell (hypha or spore), usually occupied by the protoplast when alive.