

Appendix B – Abbreviated Overview

Revised through 18 December 2006

Initial Groups ("naked-eye" characters)

Plants essentially leafless ; WS*	<i>Buxbaumia</i>
Plants scattered on a bed of abundant, persistent protonemata ; plants & leaves small to minute .	Group A
Plants small to minute (mostly <5 mm high) with ±immersed capsules growing on bare soil ,	Group B
Plants rosulate (leaves in a tight rosette at stem apex) and large (diameter 1-2 cm); WS	<i>Rhodobryum</i>
Plants erect with clusters of branches (fascicles) along the stem & at the apex (capitulum); WS	<i>Sphagnum</i> †
Plants dendroid (erect, tree-like) or frondose (fern-like) from an unbranched stipe.	Group C
Plants with pendulous branches hanging loosely from tree branches.	Group D
Plants projecting horizontally or hanging as " fish-hooks " (J-shaped) from vertical surfaces.	Group E
Plants growing on dung , decaying animal matter, or other highly nitrogenous materials.	Group F

Freely Branched (mostly pleurocarpous) Mosses

Plants strongly flattened (complanate) or angular .	Group P1
Plants with julaceous shoots – round with crowded overlapping and appressed leaves.	Group P2
Leaves spreading at right angles (squarrose) or squarrose-recurved; leaf tips often channeled .	Group P3
Plants with erect branches from a creeping stem.	Group P4
Plants with leaves sickle-shaped and turned to one side (falcate-secund).	Group P5

Leaf and Stem Characters Section (hand lens)

Plants with paraphyllia or tomentum on stems.	Group P6
Plants with red stems.	Group P7
Plants with shoots flat on top and appearing " braided ".	Group P8
Leaves undulate or rugose (irregular undulations).	Group P9
Plants with dimorphic leaves.	Group P10
Leaves with awns or hair points .	Group P11
Plants thread-like (leaves <1 mm).	Group P12

Costa Characters Section (dissecting scope)

Costa double & more than 1/3 leaf length.	Group P13
Costa single & narrow .	
Leaves with distinct decurrencies .	Group P14
Leaves with a distinct marginal border .	Group P15
Leaves with distinct alar cells .	Group P16
Costa short & double , or none .	
Leaves with distinct decurrencies .	Group P17
Leaves bordered .	Group P18
Leaves with distinct alar cells .	Group P19
Costa of uncommon or variable form.	Group P20

Leaf Cell Ratio Section (compound microscope)

Leaf cells long (>8:1).	
Cells distinctly papillose or prorulose .	Group P21
Cells smooth or indistinctly ornamented; costa single (long & narrow).	Group P22
Cells smooth; costa double (long or short) or none .	Group P23
Leaf cells intermediate (3-8:1).	
Cells distinctly papillose or prorulose .	Group P24
Cells smooth or indistinctly ornamented; costa single	Group P25
Cells smooth; costa double (long or short) or none .	Group P26
Leaf cells short (<3:1).	
Cells distinctly papillose or prorulose .	Group P27
Cells smooth or indistinctly ornamented.	Group P28

Rarely Branched (mostly acrocarpous) Mosses

"Naked-eye" Characters

Shoots flattened or angular (2-5 ranked) in cross-section, i.e., not round.	Group A1
Shoots julaceous when wet (catkin-like; leaves crowded & appressed).	Group A2
Stems tomentose (densely covered by rhizoidal tomentum to near the apex).	Group A3
Stems red .	Group A4
Leaves squarrose-recurved (spreading at right angles with down-turned tips; shoots brush-like).	Group A5
Leaves falcate-secund (sickle-shaped & turned to one side; shoots broom-like).	Group A6
Leaves subulate-setaceous (awl, bristle or needle-like).	Group A7

"Hand-lens" Characters

Leaves finger-like & irregularly inserted; NW.	<i>Takakia</i>
Leaves dimorphic (two kinds on a single branch).	Group A8
Leaves with a distinct hyaline hair-point or awn on vegetative leaves.	Group A9
Leaves with lamellae, ridges or filaments on their laminae or costae.	Group A10
Leaves undulate (distinct transverse waves or ridges).	Group A11
Leaves involute (margins distinctly incurved, inrolled, spirally inrolled, or inflexed).	Group A12

"Dissecting microscope" Characters

Leaves ±all costa , lacking laminae; multistratose.	Group A13										
Leaves with a broad, single costa (>1/3 the leaf width).	Group A14										
Leaves with a narrow, single costa.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Leaves with bases distinctly incurved to expanded & sheathing.</td> <td style="text-align: right; vertical-align: top; padding: 2px;">Group A15</td> </tr> <tr> <td style="padding: 2px;">Leaves with long, pronounced decurrencies.</td> <td style="text-align: right; vertical-align: top; padding: 2px;">Group A16</td> </tr> <tr> <td style="padding: 2px;">Leaves with a defined group of hyaline cells.</td> <td style="text-align: right; vertical-align: top; padding: 2px;">Group A17</td> </tr> <tr> <td style="padding: 2px;">Leaves with distinct marginal border of differentiated cells.</td> <td style="text-align: right; vertical-align: top; padding: 2px;">Group A18</td> </tr> <tr> <td style="padding: 2px;">Leaves with a strongly differentiated set of alar cells.</td> <td style="text-align: right; vertical-align: top; padding: 2px;">Group A19</td> </tr> </table>	Leaves with bases distinctly incurved to expanded & sheathing .	Group A15	Leaves with long, pronounced decurrencies .	Group A16	Leaves with a defined group of hyaline cells.	Group A17	Leaves with distinct marginal border of differentiated cells.	Group A18	Leaves with a strongly differentiated set of alar cells .	Group A19
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Leaves with a strongly differentiated set of alar cells .	Group A19										
Leaves with costa extremely reduced to lacking .	Group A20										

"Compound microscope" Characters

Leaf cells long (>5:1); cells smooth .	Group A21						
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End.