***Skeleton to Rarely Branched (mostly acrocarpous) Mosses***

***of the West Coast***

*Revised through 27 January 2010*

***Reminder****: a dagger* (†) *indicates that not all of the species within the given genus have the character(s) defining that Group.*

***Group A1 – Shoots flattened or angular, i.e., not round***

Group A1

***Acaulon***† ***Distichium*** ***Paludella***

***Aulacomnium***† *Erpodium* ***Plagiomnium***

***Bryoxiphium Fissidens Schistostega***

***Catoscopium Meesia***† ***Triquetrella***

***Conostomum***

***Group A2 – Shoots julaceous both wet and dry***

Group A2

***Anomobryum Bryum***†***Plagiobryum***

***Aongstroemia Conostomum Pleuridium***†

***Aulacomnium***†

***Group A3 – Stems densely tomentose***

Group A3

***Anacolia Dicranum***† ***Rhizomnium***†

***Aulacomnium***†***Paludella*** *Scopelophila*†

***Cinclidium******Polytrichum***† ***Zygodon***†

***Group A4 – Stems red***

Group A4

***Anacolia Cinclidium Pohlia***†

***Anomobryum Epipterygium Rhizomnium***†

***Aongstroemia Mnium***†***Roellia***

***Blindia******Philonotis***† *Trachycystis*

***Bryum***† ***Plagiobryum***

***Group A5 – Leaves squarrose-recurved***

Group A5

***Barbula***† ***Paludella*** ***Tortula***†

***Dicranella***† *Pleurochaete* ***Trichodon***

***Geheebia*** *Rhexophyllum* ***Triquetrella***

*Leptodontium*

***Group A6 – Leaves falcate-secund***

Group A6

***Andreaeobryum Dicranum***† ***Paraleucobryum***†

***Dicranella***† ***Kiaeria***†

***Group A7 – Leaves subulate / setaceous***

Group A7

***Anacolia******Dicranodontium******Orthodontium***†

***Archidium***†***Dicranoweisia******Paraleucobryum***

***Arctoa Dicranum***† ***Pleuridium***†

***Bartramia***† ***Ditrichum***† *Pseudoditrichum*

***Blindia*** *Eccremidium* ***Seligeria***†

***Brachydontium Kiaeria*** *Symblepharis*

***Bruchia***†***Leptobryum******Trematodon***†

*Campylopus*†***Oncophorus***†***Trichodon***

***Dicranella***†

***Group A8 – Leaves dimorphic***

Group A8

***Epipterygium*** *Erpodium*

***Group A9 – Leaves with hair-points or awns***

Group A9

***Acaulon***† *Erpodium*†***Pyramidula***

***Aloina***† ***Grimmia***† ***Schistidium***†

*Brachymenium*†***Jaffueliobryum Splachnum***†

***Bryum***† *Lorentziella* ***Stegonia***†

***Campylopus***† ***Orthotrichum***† ***Tetraplodon***†

***Coscinodon Phascum Tortula***†

***Crossidium Polytrichum***† ***Ulota***†

***Desmatodon***†***Pseudocrossidium***† *Venturiella*

***Encalypta***†***Pterygoneurum*** *Voitia*

***Group A10 – Leaves with lamellae, ridges, or filaments***

Group A10

***Aloina Dicranum***† ***Polytrichastrum***

***Atrichum***†***Dryptodon Polytrichum***

***Bartramiopsis*** *Lyellia Psilopilum*

***Campylopus***† ***Oligotrichum Pterygoneurum***

***Crossidium Pogonatum******Saelania***

***Group A11 – Leaves undulate***

Group A11

***Atrichum***† ***Aulacomnium***† ***Dicranum***†

***Group A12 – Leaves involute***

**Group A12**

***Aloina*** *Indusiella* ***Polytrichum***†

*Astomum Neohyophila* ***Weissia***

*Hyophila*

***Group A13 – Leaves all costa***

**Group A13**

*Leucobryum Octoblepharum*

***Group A14 – Leaves with a broad, single costa***

**Group A14**

***Amblyodon Campylopus******Leptobryum***

*Brothera* ***Dicranella***†***Meesia***†

*Campylopodiella* ***Dicranodontium Paraleucobryum***

***Reminder****: The costa in Groups A15 through A19 is long and single.*

***Group A15 – Leaves with expanded, sheathing bases***

Group A15

*Bartramia*† *Oligotrichum*† *Rhexophyllum*

*Bartramiopsis Oncophorus*† *Symblepharis*

*Dicranella*† *Pogonatum Timmia*

*Ditrichum*† *Polytrichastrum Trematodon*

*Indusiella Polytrichum Trichodon*

*Lyellia Pseudoditrichum*

***Group A16 – Leaves with long decurrencies***

**Group A16**

***Bryum***†***Paludella******Pohlia***†

***Meesia***† ***Plagiomnium* *Triquetrella***

***Mnium***

***Group A17 – Leaves with a defined group of hyaline cells***

**Group A17**

***Bryoerythrophyllum******Hedwigia Pottia***†

***Bryum***† *Luisierella Syrrhopodon*

*Calymperes* ***Oxystegus Tortella***

***Desmatodon***† ***Paraleptodontium*** *Tortula*†

***Encalypta***† ***Plagiobryum***†***Trichostomopsis***†

***Eucladium*** *Pleurochaete* ***Trichostomum***

***Group A18 – Leaves with a distinct border***

**Group A18**

***Atrichum Desmatodon*†** *Psilopilum*

***Bartramiopsis Entosthodon*† *Rhizomnium***

***Brachymenium*† *Epipterygium*** *Rhodobryum*

***Bryum*†** *Leptodontium*† *Roellia*

***Buxbaumia Mnium*† *Scouleria***

*Calymperes*† *Oedipodium Splachnobryum*

***Cinclidium******Plagiomnium*** *Syrrhopodon*†

***Crumia Pseudobryum Tortula*†**

*Cyrtomnium* ***Pseudocrossidium***† *Trachycystis*

***Group A19 – Leaves with distinct alar cells***

**Group A19**

***Arctoa Dicranodontium Grimmia*†**

***Blindia Dicranoweisia*† *Kiaeria***

*Campylopus* ***Dicranum Paraleucobryum***

***Group A20 – Leaves with costa extremely reduced to lacking***

**Group A20**

***Andreaea*† *Micromitrium******Tetrodontium***†

***Ephemerum*† *Schistostega*** *Venturiella*

*Erpodium* ***Sphagnum***

***Reminder****: Definitions for cell length to breadth ratios are found in the Introduction, the Overview and at the end of this section.*

***Group A21 – Cells long (>5:1) and smooth***

**Group A21**

***Orthodontium*† *Pohlia*†**

***Group A22 – Cells intermediate (2-5:1) and distinctly papillose***

**Group A22**

***Bartramia***† *Gymnostomiella* ***Philonotis***†

***Group A23 – Cells intermediate and distinctly prorulose***

**Group A23**

***Bartramia*† *Bruchia*† *Ephemerum*†**

*Bartramidula* ***Conostomum*** ***Philonotis***†

***Group A24 – Cells intermediate and smooth (or indistinctly ornamented#)***

**Group A24**

***Bruchia***† ***Ditrichum* *Pohlia***†

*Bryobrittonia* ***Entosthodon* *Seligeria***†

***Bryum Funaria*** *Splachnobryum*

***Catoscopium Mielichhoferia Tayloria***

***Dicranella* *Orthodontium***†***Tetrodontium***

***Discelium Physcomitrium***

# Cells bulging, mammillose (both bulging & papillose) or indistinctly papillose, i.e. low papillae.

***Group A25 – Cells short (<2:1) and distinctly papillose***

**Group A25**

***Amphidium Didymodon***†***Orthotrichum***†

***Andreaea***† ***Encalypta Pseudocrossidium***

***Anoectangium Geheebia*** *Rhexophyllum*

***Aulacomnium***†***Gymnostomum******Timmia***†

***Barbula***†*Gyroweisia*†*Tuerckheimia*

***Cynodontium***†***Hymenostylium******Ulota***†

***Desmatodon***† *Leptodontium* ***Zygodon***

***Dichodontium*** *Molendoa*

***Group A26 – Cells short and smooth (or indistinctly ornamented#)***

**Group A26**

***Andreaea***† *Gyroweisia*† *Rhacithecium*

***Andreaeobryum*** *Hyophila* ***Schistidium***

***Barbula***† ***Meesia*** *Scopelophila*

*Campylostelium Neohyophila* ***Scouleria***

***Ceratodon******Oncophorus Seligeria***†

***Crumia*** *Oreas Stegonia*

***Cynodontium***† ***Orthotrichum***† ***Tetraphis***

***Desmatodon***† ***Plagiopus Timmia***†

***Didymodon***† ***Pottia***† ***Timmiella***

***Diphyscium Ptychomitrium Tortula***†

*Globulinella Pyrrhobryum* ***Trichostomopsis***†

***Grimmia*** *Rhabdoweisia* ***Ulota***†

# Cells bulging, mammillose (both bulging and papillose) or indistinctly papillose, i.e. low papillae.

Bulging: *Diphyscium, Hyophila, Neohyophila, Ptychomitrium*†*, Timmia & Timmiella*

Cuticular ridges: *Amphidium*, *Grimmia & Plagiopus*

**Cells** = medial, laminal cells; cells ~2/3 of the way from insertion to apex, midway between the costa and the margin.

Length to breadth **ratios** of medial, laminal cells:

**Long** cells: >5:1; commonly termed linear.

**Intermediate** cells: 2-5:1; commonly termed elongated, rectangular, hexagonal, or rhomboidal.

**Short** cells: <2:1; commonly termed isodiametric, quadrate, rounded-quadrate, or   
sub-quadrate.

End.