***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.