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*Molecular Phylogenetics and Evolution*

**Appendix 1. Relation of species represented on the phylogenies of study with the chromosome number used for analysis. Species with an asterisk depicts unpublished counts by M. Luceño.**

|  |  |  |
| --- | --- | --- |
| Hinchliff and Roalson (2013) | Chromosome number | Spalink et al. (2016) |
| *Abildgaardia ovata* | 10 |  |
| *Actinoscirpus grossus* | 41 | *Actinoscirpus grossus* |
| *Baumea articulata* | 12 |  |
| *Blysmus compressus* | 22 | *Blysmus compressus* |
|  | 20 | *Blysmus rufus* |
| *Bolboschoenus fluviatilis* | 47 | *Bolboschoenus fluviatilis* |
| *Bolboschoenus maritimus* | 20 |  |
| *Bolboschoenus planiculmis* | 28 | *Bolboschoenus planiculmis* |
| *Bulbostylis barbata* | 5 | *Bulbostylis barbata* |
| *Bulbostylis densa* | 32 | *Bulbostylis densa* |
| *Bulbostylis hispidula* | 5 | *Bulbostylis hispidula* |
|  | 42 | *Bulbostylis juncoides* |
| *Calyptrocarya glomerulata* | 10 | *Calyptrocarya glomerulata* |
|  | 22 | *Carex albursina* |
| *Carex aquatilis* | 38 |  |
| *Carex aquatilis* var *aquatilis* | 38 |  |
| *Carex aquatilis* var *minor* | 38 |  |
|  | 27 | *Carex arcta* |
| *Carex atrofusca* | 19 |  |
| *Carex baccans* | 23 | *Carex baccans* |
| *Carex backii* | 33 |  |
| *Carex canescens* | 28 |  |
| *Carex capillacea* | 30 |  |
| *Carex capillaris* | 9 | *Carex capillaris* |
|  | 25 | *Carex capitata* |
| *Carex cephalophora* | 24 |  |
| *Carex chordorrhiza* | 31 | *Carex chordorrhiza* |
| *Carex comans* | 20 |  |
| *Carex conferta* | 26 | *Carex conferta* |
|  | 21 | *Carex cruciata* |
| *Carex debilis* | 27 |  |
|  | 27 | *Carex deweyana* var *deweyana* |
|  | 30 | *Carex diandra* |
|  | 19 | *Carex dissitiflora* |
| *Carex distans* | 35 |  |
|  | 31 | *Carex disticha* |
| *Carex divulsa* | 28 |  |
|  | 27 | *Carex eburnea* |
| *Carex echinata* | 26 |  |
| *Carex echinochloe* | 21 | *Carex echinochloe* |
| *Carex extensa* | 30 |  |
|  | 41 | *Carex foenea* |
| *Carex fuliginosa* | 20 |  |
|  | 17 | *Carex gibba* |
| *Carex glacialis* | 17 |  |
|  | 21 | *Carex granularis* |
| *Carex grayi* | 26 |  |
| *Carex halleriana* | 26 |  |
| *Carex heterolepis* | 40 |  |
| *Carex hochstetteriana* | 38 |  |
| *Carex hostiana* | 28 | *Carex hostiana* |
| *Carex humilis* | 18 |  |
| *Carex kiotensis* | 37 |  |
| *Carex lachenalii* | 31 |  |
| *Carex lamprocarpa* | 29 |  |
| *Carex leptalea* | 26 | *Carex leptalea* var *leptalea* |
| *Carex livida* | 16 |  |
|  | 37 | *Carex macrocephala* |
| *Carex magellanica* | 29 |  |
| *Carex marina* | 31 |  |
| *Carex maritima* | 30 |  |
| *Carex membranacea* | 38 |  |
| *Carex microglochin* | 28 |  |
| *Carex nardina* | 34 |  |
| *Carex nigra* | 41 |  |
| *Carex obtusata* | 26 |  |
|  | 38 | *Carex oligosperma* |
| *Carex otrubae* | 29 |  |
| *Carex ovalis* | 33 |  |
|  | 6 | *Carex pachygyna* |
| *Carex pairae* | 28 |  |
| *Carex paleacea* | 36 |  |
|  | 32 | *Carex pallescens* |
| *Carex panicea* | 16 |  |
| *Carex pauciflora* | 19 | *Carex pauciflora* |
| *Carex pendula* | 29 | *Carex pendula* |
| *Carex peregrina* | 31 |  |
| *Carex pilulifera* | 9 |  |
|  | 33 | *Carex pseudocyperus* |
| *Carex pulicaris* | 30 |  |
| *Carex punctata* | 34 |  |
|  | 29 | *Carex radiata* |
| *Carex rariflora* | 26 |  |
| *Carex recta* | 38 |  |
|  | 26 | *Carex richardsonii* |
| *Carex rostrata* | 37 |  |
| *Carex rupestris* | 25 |  |
|  | 19 | *Carex satsumensis* |
| *Carex saxatilis* | 39 |  |
| *Carex scirpoidea* | 31 |  |
| *Carex shimidzensis* | 34 |  |
|  | 6 | *Carex siderosticta* |
| *Carex viridula* | 35 |  |
| *Carex xerantica* | 34 |  |
| *Chrysitrix capensis* | 23 | *Chrysitrix capensis* |
| *Cladium mariscoides* | 39 | *Cladium mariscoides* |
| *Cladium mariscus* | 18 | *Cladium mariscus* |
| *Cyperus alternifolius* | 16 | *Cyperus alternifolius* |
| *Cyperus capitatus* | 41 |  |
| *Cyperus cuspidatus* | 56 |  |
| *Cyperus cyperoides* | 41 |  |
| *Cyperus difformis* | 16 |  |
| *Cyperus eragrostis* | 21 | *Cyperus eragrostis* |
| *Cyperus esculentus* | 54 |  |
| *Cyperus fuscus* | 24 | *Cyperus fuscus* |
|  | 39 | *Cyperus houghtonii* |
| *Cyperus involucratus* | 16 |  |
| *Cyperus iria* | 16 | *Cyperus involucratus* |
| *Cyperus longus* | 60 | *Cyperus longus* |
|  | 50 | *Cyperus papyrus* |
|  | 40 | *Cyperus schweinitzii* |
| *Desmoschoenus spiralis* | 15 |  |
| *Dulichium arundinaceum* | 16 | *Dulichium arundinaceum* |
| *Eleocharis acicularis* | 10 | *Eleocharis acicularis* |
| *Eleocharis acicularis*var*longiseta* | 10 |  |
| *Eleocharis acuta* | 10 |  |
| *Eleocharis atropurpurea* | 5 |  |
|  | 9 | *Eleocharis compressa* var *compressa* |
| *Eleocharis confervoides* | 19 |  |
| *Eleocharis congesta* | 10 |  |
| *Eleocharis cylindrostachys* | 10 |  |
| *Eleocharis dulcis* | 38 | *Eleocharis dulcis* |
| *Eleocharis engelmannii* | 5 |  |
| *Eleocharis erythropoda* | 9 |  |
| *Eleocharis flavescens* | 10 |  |
|  | 15 | *Eleocharis flavescens* var *olivacea* |
| *Eleocharis geniculata* | 5 |  |
| *Eleocharis gracilis* | 10 |  |
|  | 8 | *Eleocharis mamillata* var *mamillata* |
| *Eleocharis montevidensis* | 10 |  |
| *Eleocharis multicaulis* | 10 |  |
| *Eleocharis obtusa* | 5 |  |
| *Eleocharis pallens* | 20 |  |
| *Eleocharis palustris* | 5 |  |
| *Eleocharis quinqueflora* | 10 |  |
| *Eleocharis tenuis* | 12 |  |
| *Eleocharis tuberculosa* | 15 |  |
|  | 24 | *Eleocharis uniglumis* |
| *Eriophorum angustifolium* | 29 | *Eriophorum angustifolium* var *angustifolium* |
| *Eriophorum brachyantherum* | 29 |  |
| *Eriophorum chamissonis* | 30 |  |
|  | 30 | *Eriophorum gracile* |
| *Eriophorum vaginatum* | 29 | *Eriophorum virginicum* |
| *Ficinia nodosa* | 15 | *Ficinia nodosa* |
|  | 15 | *Ficinia spiralis* |
|  | 5 | *Fimbristylis aestivalis* |
|  | 5 | *Fimbristylis autumnalis* |
| *Fimbristylis complanata* | 5 | *Fimbristylis complanata* |
| *Fimbristylis dichotoma* | 5 |  |
| *Fimbristylis ferruginea* | 5 |  |
| *Fimbristylis littoralis* | 5 |  |
|  | 5 | *Fimbristylis ovata* |
| *Fimbristylis squarrosa* | 5 | *Fimbristylis squarrosa* |
| *Fimbristylis velata* | 12 |  |
| *Fuirena breviseta* | 23 |  |
| *Fuirena ciliaris* | 19 | *Fuirena ciliaris* |
| *Fuirena pumila* | 23 |  |
| *Fuirena scirpoidea* | 23 |  |
| *Fuirena simplex* | 15 |  |
| *Fuirena umbellata* | 26 |  |
| *Gahnia aspera* | 40 | *Gahnia aspera* |
| *Isolepis aucklandica* | 21 |  |
| *Isolepis cernua* | 27 |  |
| *Isolepis crassiuscula* | 32 | *Isolepis crassiuscula* |
| *Isolepis fluitans* | 30 |  |
| *Isolepis marginata* | 4 |  |
| *Isolepis prolifera* | 33 | *Isolepis prolifera* |
| *Isolepis setacea* | 14 | *Isolepis setacea* |
| *Kobresia fragilis* | 29 |  |
|  | 29 | *Kobresia myosuroides* |
| *Kobresia simpliciuscula* | 35 | *Kobresia simpliciuscula* |
| *Kyllinga brevifolia* | 9 | *Kyllinga brevifolia* |
| *Kyllinga bulbosa* | 7 | *Kyllinga bulbosa* |
| *Kyllingiella microcephala* | 50 |  |
|  | 17 | *Lagenocarpus guianensis* |
| *Lepironia articulata* | 17 | *Lepironia articulata* |
|  | 26 | *Lipocarpha micrantha* |
|  | 23 | *Lipocarpha microcephala* |
|  | 12 | *Machaerina articulata* |
| *Machaerina mariscoides* | 39 | *Machaerina mariscoides* |
| *Oreobolus pectinatus* | 19 | *Oreobolus pectinatus* |
| *Pycreus flavescens* | 35 |  |
| *Rhynchospora alba* | 13 | *Rhynchospora alba* |
| *Rhynchospora albiceps* | 10 | *Rhynchospora albiceps* |
| *Rhynchospora barbata* | 5 |  |
| *Rhynchospora brownii* | 18 |  |
|  | 13 | *Rhynchospora capillacea* |
| *Rhynchospora cephalotes* | 9 |  |
| *Rhynchospora chinensis* | 31 | *Rhynchospora chinensis* |
| *Rhynchospora corniculata* | 9 |  |
| *Rhynchospora fusca* | 13 |  |
| *Rhynchospora globosa* | 12 | *Rhynchospora globosa* |
| *Rhynchospora latifolia* | 5 |  |
| *Rhynchospora marisculus* | 5 |  |
| *Rhynchospora nervosa* | 5 | *Rhynchospora nervosa* |
| *Rhynchospora pubera* | 5 |  |
| *Rhynchospora riparia* | 5 |  |
| *Rhynchospora robusta* | 5 | *Rhynchospora robusta* |
| *Rhynchospora rubra* | 10 | *Rhynchospora rubra* |
| *Rhynchospora rugosa* | 18 |  |
| *Rhynchospora tenerrima* | 10 |  |
| *Schoenoplectiella articulata* | 15 |  |
| *Schoenoplectiella hotarui* | 22 | *Schoenoplectiella hotarui* |
| *Schoenoplectiella juncoides* | 37 |  |
| *Schoenoplectiella lineolata* | 30 |  |
| *Schoenoplectiella mucronata* | 21 |  |
| *Schoenoplectiella senegalensis* | 14 |  |
| *Schoenoplectiella wallichii* | 36 |  |
|  | 19 | *Schoenoplectus acutus* var *acutus* |
|  | 15 | *Schoenoplectus articulatus* |
|  | 11 | *Schoenoplectus hallii* |
|  | 19 | *Schoenoplectus heterochaetus* |
| *Schoenoplectus lacustris* | 21 | *Schoenoplectus lacustris* |
| *Schoenoplectus litoralis* | 20 |  |
| *Schoenoplectus pungens* | 39 | *Schoenoplectus pungens* |
|  | 19 | *Schoenoplectus purshianus* var *purshianus* |
|  | 20 | *Schoenoplectus smithii* var *smithii* |
| *Schoenoplectus tabernaemontani* | 21 |  |
| *Schoenoplectus triqueter* | 21 |  |
| *Schoenoplectus validus* | 21 |  |
| *Schoenoxiphium burkei* | 35\* |  |
| *Schoenoxiphium ecklonii* | 36\* |  |
| *Schoenoxiphium filiforme* | 36\* |  |
| *Schoenoxiphium ludwigii* | 34 |  |
| *Schoenoxiphium sparteum* | 32\* |  |
| *Schoenus apogon* | 4 |  |
| *Schoenus brevifolius* | 61 | *Schoenus brevifolius* |
| *Schoenus nigricans* | 22 | *Schoenus nigricans* |
| *Scirpoides holoschoenus* | 21 | *Scirpoides holoschoenus* |
| *Scirpoides holoschoenus* var *thunbergii* | 42 |  |
| *Scirpus ancistrochaetus* | 27 |  |
| *Scirpus atrocinctus* | 34 |  |
| *Scirpus cyperinus* | 33 | *Scirpus cyperinus* |
|  | 14 | *Scirpus di*var*icatus* |
| *Scirpus expansus* | 32 | *Scirpus expansus* |
| *Scirpus ficinioides* | 52 | *Scirpus ficinioides* |
| *Scirpus flaccidifolius* | 27 |  |
| *Scirpus fontinalis* | 18 |  |
| *Scirpus georgianus* | 26 |  |
| *Scirpus hattorianus* | 28 |  |
|  | 32 | *Scirpus maximowiczii* |
| *Scirpus microcarpus* | 32 | *Scirpus microcarpus* |
| *Scirpus mitsukurianus* | 34 |  |
| *Scirpus orientalis* | 14 |  |
| *Scirpus pendulus* | 20 | *Scirpus pendulus* |
| *Scirpus polystachyus* | 30 | *Scirpus polystachyus* |
| *Scirpus radicans* | 28 | *Scirpus radicans* |
| *Scirpus sylvaticus* | 31 | *Scirpus sylvaticus* |
| *Scleria foliosa* | 10 | *Scleria foliosa* |
| *Tetraria capillaris* | 10 | *Tetraria capillaris* |
| *Trichophorum alpinum* | 29 | *Trichophorum alpinum* |
| *Trichophorum cespitosum* | 52 | *Trichophorum cespitosum* |
| *Trichophorum pumilum* | 39 |  |
| *Uncinia filiformis* | 44 |  |
| *Uncinia phleoides* | 48 | *Uncinia phleoides* |
| *Uncinia uncinata* | 44 | *Uncinia uncinata* |

**LITERATURE CITED**

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