

1993

## Back Matter 13 (4)

Follow this and additional works at: <http://scholarship.claremont.edu/aliso>

---

### Recommended Citation

(1993) "Back Matter 13 (4)," *Aliso: A Journal of Systematic and Evolutionary Botany*: Vol. 13: Iss. 4, Article 7.  
Available at: <http://scholarship.claremont.edu/aliso/vol13/iss4/7>

REVIEWERS OF MANUSCRIPTS

The Editor and other members of the Editorial Board are grateful to the following persons who kindly gave of their time to review manuscripts that were considered for publication in *Aliso*, Volume 13.

BARNETT, LISA C.  
BILLINGS, WILLIAM D.  
BLACKWELL, MEREDITH  
CRONQUIST, ARTHUR  
DALY, DOUGLAS C.  
DANIEL, THOMAS F.  
DICKISON, WILLIAM C.  
DONOGHUE, MICHAEL J.  
DOYLE, JAMES A.  
DOYLE, MICHAEL F.  
ECKENWALDER, JAMES E.  
ERTTER, BARBARA  
EWERS, FRANK W.  
FAGERBERG, WAYNE R.  
FAHN, ABRAHAM  
FAIRBROTHERS, DAVID E.  
FRYXELL, PAUL A.  
GIFFORD, ERNEST M.  
HAYDEN, W. JOHN  
HEGENAUR, ROBERT  
HUFFORD, LARRY D.  
JUNAK, STEVEN A.  
KARRON, JEFFREY D.  
KEATING, RICHARD C.

KUMMEROW, JOCHEN  
LES, DONALD H.  
LEWIS, WALTER H.  
LISTON, AARON  
LUCANSKY, T. W.  
MCCLURE, JERRY W.  
MERRILL, EDWARD K.  
MISHLER, BRENT D.  
ORNDUFF, ROBERT  
OLMSTEAD, RICHARD G.  
PRIGGE, BARRY A.  
REZNICEK, ANTON A.  
ROBICHAUX, ROBERT H.  
SCHMID, RUDOLF  
SIMBERLOFF, DANIEL S.  
SIMPSON, MICHAEL G.  
SOLTIS, DOUGLAS E.  
STERN, WILLIAM L.  
STUESSY, TODD F.  
TAVARES, ISABELLE I.  
TODZIA, CAROL A.  
TUCKER, GORDON C.  
WHEELER, ELIZABETH A.

INDEX TO VOLUME 13, ALISO

Includes authors and subject matter as well as all plant and animal taxa appearing in the scientific papers. New taxa and the pages where published are in boldface; synonyms and invalid names are in italics; illustrations are designated by page numbers followed by lower case i; maps are designated by page numbers followed by lower case m. An attempt has been made to correct scientific names misspelled in the text.

- Acanthaceae 88  
 Acanthosyris 499, 500  
   *falcata* 499, 501, 503i, 508i  
   *glabrata* 499, 501, 502i, 508i  
   *spinescens* 499, 501, 504i, 508i  
 Aceraceae 547  
 Achyrachaena mollis 490, 496i  
 Acompsomyces 355, 362, 574  
   *lasiochili* 357  
 Aconitum 555  
 Acrogynomyces 362, 440  
   *ellipsoideus* 442  
 Acronychia 547  
 Actaea 555, 556  
 Actinidiaceae 546  
 Adenandra 547  
 Adiantaceae 300  
 Adiscanthus 547  
 Adonis 556  
 Aesculus 547  
 Agastache sect. *Agastache* 398  
   *rugosa* 398, 403  
 Agathosma 547  
 Ailanthus altissima 547  
 Alliaceae: *Allium fimbriatum* complex 411  
 Allium 411  
   *abramsii* 413, 416i, 417, 420m  
   *anserinum* 421  
   *atrorubens* 413  
   *canadense* 412  
   *denticulatum* 413, 414, 416i, 420m  
   *diabolense* 414, 422m, 425  
   *fimbriatum* 411, 421  
     subsp. *mohavense* 424  
     subsp. *parryi* 418  
     subsp. *purdyi* 423  
     var. *aboriginum* 421  
     var. *abramsii* 417  
     var. *denticulatum* 414  
     var. *diabolense* 425  
     var. *fimbriatum* 414, 419i, 421, 422m  
     var. *mohavense* 414, 419i, 422m, 424  
     var. *munzii* 415  
     var. *purdyi* 414, 422m, 423  
     var. *sharsmithae* 417  
   *howellii* 413  
   *jepsonii* 413  
   *monticola* 413  
   *munzii* 413, 414, 415, 416i, 420m  
   *nevadense* 413  
   *parishii* 413  
   *parryi* 414, 418, 420m  
   *purdyi* 423  
   *sanbornii* 411, 413  
     var. *congdonii* 413  
     var. *sanbornii* 413  
   *sharsmithae* 414, 417, 419i, 420m  
   *shevockii* 414  
   *tuolumnense* 414  
 Allozymes: variation in Saxifragaceae and Polystichum 215  
 Alnus maritima 404  
 Anacardiaceae 547  
 Anatomy: North American *Astragalus* 339, 344  
   see Wood anatomy  
 Anemone 555  
   *nemorosa*: chromosome number 554  
 Angiospermae 365  
   (Annonopsida): synopsis of the class 375  
   Angiosperms: primitive 447  
   Annonidae (Dicotyledoneae): synopsis of the subclass 375  
   Annonopsida (Angiospermae): synopsis of the class 375  
   Anther walls: use in dicotyledon classification 110i, 111  
   Anthocoridae 355, 442  
   Anthoxanthum odoratum 300  
   Antipodal cells: use in dicotyledon classification 128, 129i  
   Aphanandromyces 574  
   Aporomyces 427, 444  
   Aquilegia 554–556  
   Aralia chinensis 398  
     *spinosa* 398  
   Araucaria 293  
   Argyrea obtusifolia 56  
   Argyroxiphium caliginis 490, 492i  
     *grayanum* 490, 492i  
     *kauense* 490  
     *sandwicense* 490, 492i  
     *virescens* 490  
   Ascarina 447, 452, 460  
   Ascomycetes 355, 427, 559  
   Aspleniaceae 300  
   Asplenium 303  
   Asteraceae 487  
     tribe Mutisiceae 406  
   Astracantha 339, 343  
   Astragalus 339  
     sect. *Ervoidei* 340  
       subsect. *Submonospermi* 341, 342  
     sect. *Humillimi* 340–342  
     sect. *Jejuni* 340–342  
     sect. *Neonix* 340–342  
     *cremnophylax* 340, 341i, 342  
     *gilensis* 340, 341i, 342  
     *humillimus* 340, 341i, 342  
     *jejunus* 340, 341i, 342  
     *johannis-howellii* 340, 341i, 343  
     *kentrophyta* 342  
       var. *coloradoensis* 340  
       var. *danaus* 340  
       var. *elatus* 340, 341i  
       var. *implexus* 340  
       var. *jessiae* 340  
       var. *kentrophyta* 340  
       var. *neomexicanus* 340  
       var. *ungulatus* 340  
     *limnocharis* 340, 341i, 342  
     *mulfordae* 340, 341i, 342  
     *peckii* 340, 341i, 342  
     *troglydites* 340, 341i, 342  
     *wittmannii* 340, 341i, 342  
     Old World vs. New World 343  
     petiolar anatomy 339  
 Atacama and Peruvian deserts: localities and geographic features 3m  
 Atacama Desert: phytogeography and ecology 1  
 Autophagomyces 574  
 Avicenniaceae 338  
 Barosma 547  
 Behnke, H.-D. Sieve-element plastids in dicotyledons 167  
 Benjamin, R. K. Cupulomyces, a new genus of Laboulbeniales 355  
 ———. Laboulbeniales on semiaquatic Heteroptera. VI. *Tavaresiella* 559  
 ———. Phalacrichomyces, a new genus of Laboulbeniales 427  
 Bensoniella oregona 219, 223  
 Berberidaceae 301, 551  
 Berberidales 522

- Billia* 547  
 Biogeography of islands: geodaphnic 225  
 Blechnaceae 299, 300  
*Blechnum* 303  
*Blepharipappus scaber* 490  
*Blepharizonia plumosa* 490  
*Boeninghausenia* 547  
*Bonamia cymosa* 55  
     *maripoides* 56, 59i  
 Bonin Islands flora: endemism, dispersal modes 95  
 Boraginaceae 298, 301  
*Breweria menziesii* 56, 59i, 61i  
 Bromeliaceae 299, 301  
 Bruniaceae 473  
 Bruniales 472, 473  
 Burseraceae 547  
*Bystropogon canariensis* 312  
     *plumosus* 312  
*Callicarpa*: adaptive radiation in Bonin Islands 100  
 Callitricales 472  
 Callitriche 473  
*Calodendrum* 547  
*Caltha* 555  
*Calycadenia multiglandulosa* 490, 493i  
*Calyptosepalum* 510  
*Camellia japonica* 515  
 Campanulaceae 301, 302  
*Cantharomyces bordei* 427  
 Caprifoliaceae 546  
*Carex berteroaana* 305  
 Carlquist, S. Wood anatomy of *Hedyosmum* (Chloranthaceae) 447  
     ———. Wood anatomy of Lamiaceae 309  
     ———. Wood, bark, and pith anatomy of Old World *Ephedra* 255  
     ———, and M. A. Hanson. Wood and stem anatomy of *Convolvulaceae* 51  
     ———, P. L. Morrell, and S. R. Manchester. Wood anatomy of *Sabiaceae* 521  
     see MacLachlan and Carlquist 487  
 Caryophyllaceae 301, 302  
*Cedrus deodara* 391  
     *libani* 391  
 Celastraceae 546  
*Centaurodendron* 298  
*Chaetotropis imberbis* 305  
 Chemistry: anthocyanins 517  
     flavonoids 395, 397  
     xanthenes 515  
 Chenopodiaceae 301, 303  
*Chenopodium* 303  
     *sanctae-clarae* 303  
 Chile: Atacama Desert, geomorphology and vegetation 12  
*Chiranthodendron pentadactylon* 239, 242i  
 × *Chiranthofremontia lenzii* 239, 242i  
 Chloranthaceae 338, 447  
*Chloranthus* 447, 461  
 Chloroplast: DNA 395, 405  
 Chromosome numbers: Bonin (Ogasawara) Islands 98  
     *Allium abramsii* 417  
         *denticulatum* 415  
         *diabolense* 425  
         *fimbriatum* 421  
         *munzii* 415  
         *parryi* 418  
         *sharsmithae* 418  
     *Anemone nemorosa* 554  
     *Hydrastis* 554, 557  
     Ranunculaceae 554, 557  
 Cimicifuga 555, 556  
 Circaeasteraceae 553  
 Cladistics: significance of parallelism 191  
 Classification: Angiospermae 365  
     *Hydrastis* (Ranunculaceae) 551  
*Clausena* 547  
*Clematis fremontii* var. *reihlii* 232, 233m  
 Clifford, H. T. Germination patterns in dicotyledons 207  
 Climate: western South America, coastal desert 2  
 Clusiaceae 516  
 Cneoraceae 547  
 Coleoptera 427  
 Comocladia 547  
 Compositae 298, 299, 301, 302  
     *Compsomyces* 445  
     Cones: bisexual, *Cupressus sempervirens* 391  
         aggregated (proliferated) 475  
     *Conimitella williamsii* 219, 223  
     Contreras, V. R., R. Scogin, C. T. Philbrick, and A. Novelo R.  
         Phytochemical study of *Podostemaceae* 513  
     Convergence: persistent petioles in *Astragalus* 344  
 Convolvulaceae: wood and stem anatomy 51  
*Convolvulus cneorum* 56, 63i  
     *floridus* 56, 64i  
     *scoparius* 56, 66i  
*Coprosma* 302  
*Coptis* 555, 556  
 Crassulaceae 513, 518  
 Crawford, D. J., et al. Plant species disjunctions 395  
     see Stuessy et al. 297  
*Crepidiastrum*: adaptive radiation in Bonin Islands 100  
 Cruciferae 301  
*Cryptandromyces* 574  
 Cryptophagidae 442  
 Cucujidae 442  
*Cuminia* 298, 302  
     *eriantha* 312, 323i  
     *fernandeziana* 312, 329i  
 Cupressaceae 293  
*Cupressus arizonica* 391  
     *macrocarpa* 391  
     *sempervirens* 391, 392i, 393i, 483  
*Cupulomyces* 356, 440, 442  
     *lasiochili* 357, 358i, 360i, 442  
 Cycadales 293  
 Cycadeoideales 293  
 Cyperaceae 301  
*Cystopteris* 516  
 Dahlgren, G. Natural system of the Dicotyledons: embryological characters 107  
*Datisca cannabina* 398, 402  
     *glomerata* 398, 402  
*Delphinium* 555, 556  
*Dendroseris* 298, 303  
     *macrantha* 305  
 Dicksoniaceae 298, 300  
 Dicotyledoneae (Annonidae): synopsis of the subclass 375  
 Dicotyledons: classification, use of serological characters 183  
     distribution and evolution of sieve-element plastids 167, 178i  
     embryology 107  
     seed germination patterns in 207  
*Dicranostyles densa* 56, 67i  
     *holostyla* 56  
 Dillon, M. O., see Rundel et al. 1  
*Dioicomyces* 444  
*Diphylleia* 552  
 Disjunctions: perspectives from molecular data 395  
 Dispersal modes: Bonin (Ogasawara) Islands 95  
*Distolomyces* 574  
 DNA: chloroplast 395, 405  
*Dorystoechas hastata* 312, 322i  
 Dryopteridaceae 299, 300  
     *Polystichum*, genetic variation in 215  
*Dubautia* 405  
     *ciliolata* 490  
     *laxa* 490, 496i  
     *menziesii* 490, 492i  
     *paleata* 490  
     *platyphylla* 490, 495i  
     *scabra* 490  
 Ecology: *Hedyosmum* 461  
     Lamiaceae 333  
         coastal Atacama and Peruvian deserts 1  
 Edaphic islands and biogeography 225  
 Ehleringer, J. R., see Rundel et al. 1  
 El Niño 10  
 Elateridae 442  
 Electrophoresis: enzyme 395, 399  
 Elias, T. S., and V. V. Korzhenevsky. Taxol and related compounds in *Taxus baccata* 463  
*Elliottia bracteata* 397  
     *pyroliiflora* 397  
*Elmera racemosa* 219, 223  
 Embryo sac formation: use in dicotyledon classification 127  
 Embryo size: use in dicotyledon classification 149, 150i  
 Embryogeny: use in dicotyledon classification 131i, 132  
 Embryology: use in classification of dicotyledons 107

- Embryos: chlorophyllous, use in dicotyledon classification 147, 148i
- Endemism 365
- Bonin (Ogasawara) Islands 95
- coastal Atacama and Peruvian deserts 41
- genetic variation 215
- Juan Fernandez Islands 297
- Endosperm: formation, use in dicotyledon classification 133, 136i
- haustoria, use in dicotyledon classification 143
- persistence, use in dicotyledon classification 140i, 141
- ruminate, use in dicotyledon classification 142i, 143
- storage compounds, use in dicotyledon classification 145, 146i
- Engel, T. Petiolar anatomy of North American *Astragalus* 339
- Ephedra* 255
- alata 258, 287i
- altissima 258, 263i, 276i, 277i
- americana 291
- aphylla 258, 276i, 277i, 283i
- campylopoda 258, 285i
- ciliata 258, 268i
- coryi var. viscida 291
- distachya var. distachya 258, 287i
- var. monostachya 258, 265i, 275i
- equisetina 258, 265i, 267i, 271i, 273i, 275i, 281i, 283i
- foliata 258, 271i, 283i
- fragilis 258, 263i, 277i
- gerardiana 258, 267i, 271i, 275i
- intermedia 258, 268i, 271i
- kokanica 258, 263i, 268i, 275i
- lomatolepis 258
- major 258, 268i
- monosperma 259, 265i
- pachyclada 259, 281i
- pedunculata 257
- procera 259, 287i
- przewalskii 259, 265i, 268i, 273i, 276i, 281i
- sarcocarpa 259, 285i, 287i
- sinaica 259
- sinica 259, 277i
- strobilacea 259
- triandra 257
- tweediana 257
- infrageneric categories 256
- wood, bark, and pith anatomy 255
- Ephedraceae* 255
- Eranthis* 556
- Ericaceae* 301, 397
- Ericybe coccinea* 56
- Erigeron* 303, 304
- fernandezianus 305
- Eryngium* 303
- Euphorbiaceae* 301
- Euroschinus* 547
- Evolution: habitat, *Hedyosmum* 460
- significance of parallelism 191
- Exogonium bracteatum* 56, 61i
- Fabaceae* 339, 547
- Fagara* 302
- Flacourtiaceae* 301
- Flavonoids 395
- Hydrostachys insignis* 471–473
- Fremontodendron* 'Pacific Sunset' 239, 242i
- Fungi 355, 427, 559
- Gentianaceae* 516
- Geomorphology and vegetation: Chilean Atacama Desert 12
- coastal Peruvian Desert 26
- Georgia 463
- Gerbera* 406
- Germination, seed: patterns in dicotyledons 207
- Glaucidiaceae* 553
- Glaucidium* 552, 555
- Gleicheniaceae* 300
- Gnetales 255, 292–294
- Goodeniaceae* 546
- Gossypium davidsonii* 400, 405
- klotzschianum 400, 405
- Gramineae* 299, 301
- Great Basin 347
- Gulmon, S. L., see Rundel et al. 1
- Gunnera* 303
- Gunneraceae* 301
- Gymnosperms* 255
- Haloragaceae* 301
- Hanson, M. A., see Carliquist and Hanson 51
- Hebridae* 559
- Hebrus* 559, 565
- isaloii 565
- pusillus 559, 565
- ruficeps 559, 561
- Hedyosmum arborescens* 449, 457i
- bonplandianum 449, 455i
- brasiliense 449, 455i
- brenesii 449, 455i
- cumbalense 449, 454i
- domingense 449
- goudotianum 449, 451i, 455i
- luteynii 449, 454i, 457i
- mexicanum 449
- nutans 449
- peruvianum 449
- racemosum 449
- scaberimum 449, 457i
- scabrum 449, 459i
- wood anatomy 447
- Helleborus* 554–556
- Hemiandra pungens* 312, 317i, 322i
- Hemizonia clementina* 490
- fitchii 490, 495i
- pallida 490
- Hemizygia obermayerae* 312, 322i
- Hemoglobins, plant: parallelism 200
- Henrickson, J. × *Chiranthofremontia*, an intergeneric hybrid [Sterculiaceae] 239
- Hepatica* 555
- Herpomyces* 445
- Hesperomyces* 355, 362
- lastochilii 357
- Heteroptera 355, 442, 559
- Heuchera americana* 219
- grossularifolia 219
- micrantha 219
- parviflora 219
- pubescens 219
- villosa 219
- Hippocastanaceae* 547
- Hippuris* 473
- Holocarpa heermannii* 490
- Holozonia filipes* 490
- Hoslundia opposita* 312
- Hunnemannia fumariaefolia* 68
- Hydrangeaceae* 546
- Hydrastidaceae* 551, 553, 556
- Hydrastis*: classification 551
- Hydrostachyaceae* 471–473, 513, 518
- Hydrostachyales* 472
- Hydrostachys insignis* 471–473
- Hymenophyllaceae* 299, 300
- Hypostase: use in dicotyledon classification 130i, 132
- Hyptis arborea* 312
- emoryi 312, 323i
- mutabilis 312
- Hyssopus officinalis* 312, 331i
- Icacinaceae* 522, 546
- Ilyomyces* 440, 442
- Insect parasites 355, 427
- Insects 559
- Ipomoea adenoides* 56, 69i
- arborescens var. arborescens 56
- var. glabrata 56, 69i, 81i, 83i
- bona-nox 56
- cardiosepala 57, 72i, 83i
- fistulosa 57, 70i
- hederifolia 52, 78
- intrapilosa 57, 70i
- mauritiana 57
- murucoides 57
- pauciflora 57, 72i
- prismatosiphon 57
- tiliacea 57, 72i
- tuba 57
- verbascoidea 57, 70i
- Island evolution: Juan Fernandez Islands 297
- Islands: biogeography; geodaphics 225
- endemism and dispersal modes 95
- Isomeris arborea* 68

- Jeffersonia* 554  
 Jensen, U. Natural system of the dicotyledons: serological characters 183  
*Jodina* 499  
   *rhubifolia* 499, 501, 505i, 506, 509i  
 Jakerst, J. D. New species of *Pogogyne* (Lamiaceae) from California 347  
 Juan Fernandez Islands 297  
   ecological zones 302  
   endemic angiosperms 300  
   families of dicots 301  
   ferns 300  
   monocots 301  
*Juania* 299  
   *australis* 300  
 Julianaceae 547  
 Juncaceae 301  
 Keener, C. S. Review of the classification of *Hydrastis* 551  
 Keys: *Allium fimbriatum* and *A. sanbornii* complexes 413  
   *Hydrastis* vs. *Ranunculaceae* (s.s.) 557  
   *Phalacrichomyces* (Laboulbeniales) 428  
   *Tavaresiella* (Laboulbeniales) 560  
 Kingdoniaceae 553  
 Korzhenevsky, V. V., see Elias and Korzhenevsky 463  
 Kruckeberg, A. R. Geoadaptics and island biogeography for vascular plants 225  
 Kubitzki, K., et al. Parallelism: origin and systematic significance 191  
 Labiatae 298, 301, 302, 309, 398  
 Laboulbenia 574  
   *acupalpi* 444  
   *chaetophora* 445  
   *flagellata* 444  
   *formicarum* 444  
   *gyrinidarum* 445  
   *parvula* 444  
 Laboulbeniaceae 559  
 Laboulbeniales 355, 427, 559  
   subtribe *Stigmatomycetinae* 427, 443, 559, 574  
   mirror-image asymmetry 444  
 Lactoridaceae 298, 301  
 Lactoris 298, 461  
*Lagophylla ramosissima* 490  
*Lambertia* 546  
 Lamiaceae 347  
   intrafamilial categories 310  
   wood anatomy 309  
 Lardizabalaceae 522  
*Lasiochilus pallidulus* 355  
 Lauraceae 461  
*Lavandula dentata* 312  
*Layia platyglossa* 490, 495i  
 Lee, Nam Sook, see Crawford et al. 395  
 Leguminosae 301  
*Leibnitzia* 406  
*Leonotis leonurus* 312  
*Lepechinia calycina* 312, 327i  
   *cardiophylla* 312  
   *fragrans* 312, 316i, 325i, 327i, 331i  
   *ganderi* 312  
   *hastata* 312, 316i  
*Leptothyrsa* 547  
*Leucosceptrum canum* 312, 316i, 329i, 331i  
 Lev-Yadun, S. Abnormal cones in *Cupressus sempervirens* 391  
 ———. Aggregated cones in *Pinus halepensis* 475  
 Liliidae (Monocotyledoneae): synopsis of the subclass 385  
*Limnichidae* 427  
*Limnichus sericeus* 427  
*Liquidambar acalycina* 403  
   *formosana* 403  
   *styraciflua* 403  
*Liriodendron chinense* 399, 403, 405  
   *tulipifera* 399, 403, 405  
*Lithraea* 547  
 Loganiaceae 546  
*Lysiostyles scandens* 57  
 MacLachlan, A. A., and S. Carlquist. Nonglandular trichomes of Californian and Hawaiian tarweeds 487  
*Madia bolanderi* 490, 496i  
   *sativa* 490  
*Madiinae* 487  
 Magnoliales 522  
 Manchester, S. R., see Carlquist et al. 521  
*Marathrum elegans* 514  
   *haenkeanum* 514  
*Maripa janusiana* 57, 73i  
   *panamensis* 57  
 Marticorena, C., see Stuessy et al. 297  
 McNeal, D. W. Revision of the *Allium fimbriatum* complex 411  
*Megalachne* 299  
   *berteroanus* 305  
*Meliosma* 521  
   subgen. *Kingsboroughia* sect. *Kingsboroughia* 526  
   subgen. *Meliosma* sect. *Lorenzanea* 526  
   sect. *Meliosma* subsect. *Pinnatae* 526  
   subsect. *Simplices* 526  
   *alba* 524, 537i  
   *allenii* 524  
   *arnottiana* 524, 526, 535i  
   *cuneifolia* 524, 526, 529i, 535i  
   *dentata* 524  
   *dilleniifolia* ssp. *cuneifolia* 526  
   ssp. *dilleniifolia* 524  
   ssp. *flexuosa* 524, 529i, 530i, 534i, 541i  
   ssp. *tenuis* 526  
   *ellipticifolia* 524, 531i, 534i  
   *fischeriana* 524, 526  
   *glabrata* 524  
   *glossophylla* 524, 535i, 537i  
   *hachijoensis* 524, 526, 528i, 534i  
   *herbertii* 524, 539i  
   *kirkii* 524, 526  
   *lanceolata* 524, 534i  
   *lepidota* ssp. *squamulata* 526  
   *macrophylla* 524, 526  
   *myriantha* 524, 530i, 531i  
   *nitida* 524, 526  
   *occidentalis* 524, 531i  
   *oldhamii* 524, 526  
   *panamaensis* 531i, 539i  
   *parviflora* 525, 537i  
   *pinnata* ssp. *arnottiana* 526  
   var. *oldhamii* 526  
   ssp. *macrophylla* 526  
   ssp. *ridleyi* 526  
   *pittieriana* 525, 530i  
   *rhoifolia* 525, 526  
   *rigida* 525, 526, 528i  
   *sarawakensis* 526  
   *simplicifolia* 525, 528i, 530i, 541i  
   ssp. *rigida* 526  
   ssp. *yunnanensis* 526  
   *squamulata* 525, 526, 530i  
   *sumatrana* 525, 526, 528i  
   *tenuis* 525, 526  
   *veitchiorum* 525, 529i, 531i  
   *wallichii* 525, 526  
 Meliosmaceae 521, 546  
 Menispermaceae 522, 546  
*Menispermum canadense* 403, 404  
   *dauricum* 403, 404  
*Merremia cissooides* 57  
   *nymphaeifolia* 57  
   *peltata* 58, 76i  
 Microsporogenesis: use in dicotyledon classification 116i, 117  
*Mida salicifolia* 510  
*Mina lobata* 58  
 Modoc Plateau 347  
*Monardella linoides* 312, 316i  
 Monocotyledoneae (Liliidae): synopsis of the subclass 385  
 Mooney, H. A., see Rundel et al. 1  
 Moraceae 516  
 Moringaceae 547  
 Morphology: leaf, *Hydrastis* 555  
   Laboulbeniales 427  
   *Cupulomyces* 355–362  
   *Phalacrichomyces* 435–440  
   *Tavaresiella* 571–574  
   Lamiaceae 336  
   aggregated cones 475  
 Morrell, P. L., see Carlquist et al. 521  
*Mourera fluviatilis* 516  
*Myoschilos* 499  
   *oblongum* 499, 501, 506, 507i, 509i  
 Myristicaceae 461

- Myrtaceae 301, 302  
 Nelumbonaceae 546  
 Neuropeltis acuminata 55  
   prevosteoides 55  
 Nigella 556  
 Nitidulidae 442  
 Norverto, C. A. Wood anatomy and relationships of Santalaceae 499  
 Novelo R., A., see Contreras et al. 513  
 Nymphaeaceae 293  
 Obturator: use in dicotyledon classification 125  
 Ochagavia 299  
 Ocimum basilicum 312  
 Ogasawara Islands: flora, endemism, and dispersal modes 95  
 Olacaceae 510  
 Ono, M. Flora of Bonin (Ogasawara) Islands: endemism and dispersal modes 95  
 Operculina palmeri 58, 76i, 77i, 81i  
   passifloroides 58, 80i  
 Ophiocaryon 521  
   paradoxum 525, 542i  
 Ophioglossaceae 300  
 Orchidaceae 301  
 Origanum majorana 312  
 Orthosiphon labiatus 312  
 Oserya coulteriana 514  
 Ovule morphology: use in dicotyledon classification 118i, 119, 120i, 121  
 Palma, B., see Rundel et al. 1  
 Palmae 299, 301  
 Parallelism: evolutionary origin and significance 191  
 Paramignya 547  
 Parietal tissue: use in dicotyledon classification 125, 126i  
 Passifloraceae 88  
 Peperomia 303  
 Perisperm: use in dicotyledon classification 144i, 145  
 Permettya rigida 305  
 Peru: coastal desert: geomorphology and vegetation 26  
 Peruvian Desert: phytogeography and ecology 1  
**Phalacrichomyces 428**  
   **anomalous 431, 434i, 437i, 439i, 441i**  
   **normalis 429, 430i, 432i**  
 Phalacrichus 427  
   diligens 428, 431, 434  
 Philbrick, C. T., see Contreras et al. 513  
 Phloem: sieve-element plastids, distribution and evolution in dicotyledons 167  
 Phoxanthus 521  
 Phryma leptostachya var. asiatica 403, 404  
   var. leptostachya 403, 404  
 Phyllostegia lantanoides 312, 317i, 327i  
 Phylogeny: Angiospermae 365  
   Hedyosmum 460  
     embryological characters in dicot classification 107  
     significance of parallelism 191  
 Phytochemistry: Hydrostachys insignis 471–473  
   Podostemaceae 513, 518  
 Phytogeography 365  
   coastal Atacama and Peruvian deserts 1  
 Pinus 475, 483  
   banksiana 475, 482  
   clausa 475, 482  
   contorta 475, 482  
   halepensis 475, 477m, 480i, 481i  
     populations in Israel 478–479  
   massoniana 475, 482  
   monticola 391  
   mugo 475, 482  
   pinaster 475  
   ponderosa 391  
   rigida 475, 482  
   sylvestris 475, 482  
   thunbergii 475, 482  
 Piperaceae 301  
 Pith, anatomy: Ephedra 284, 291  
 Pittosporum: adaptive radiation in Bonin Islands 100  
 Plantaginaceae 300, 301, 472  
 Plantago fernandezia 300  
 Plants: aquatic 471, 513  
 Plastids, sieve-element: distribution and evolution in dicotyledons 167  
   forms and types 169, 174i  
 Platanaceae 546  
 Platanus occidentalis 398  
   orientalis 398  
 Platydesma 547  
 Plectranthus barbatus 312, 317i, 323i  
 Poa 406  
 Poaceae 406  
 Podophorus 299  
 Podophyllum 552  
 Podostemaceae 471–473  
   phytochemical study 513  
   systematics 513  
 Podostemales 513, 518  
 Podostemiflorae 513, 518  
 Podostemopsida 518  
 Podostemum ceratophyllum 513  
 Pogogyne 347  
   sect. Hediomoides 351  
   **floribunda 347, 348i, 350m**  
   serpylloides 351  
   tenuiflora 351  
   zizyphoroides 351  
 Poliomintha longiflora 312, 320i  
 Pollen grains: use in dicotyledon classification 114i, 115  
 Pollen, morphology: Ranunculaceae 554  
 Polyembryony: use in dicotyledon classification 133, 134i  
 Polygalaceae 516  
 Polygonum esotericum 352  
 Polypodiaceae 300  
 Polystichum acrostichoides 221  
   dudleyi 221  
   imbricans 221  
   lemmonii 221  
   munitum 221  
   genetic variation in 215  
 Poppendieck, H.-H., see Kubitski et al. 191  
 Prolixandromyces 362, 440, 442  
 Prostanthera aspalanthoides 312, 317i  
   rotundifolia 312, 322i  
 Proteaceae 546  
 Pyrularia 510  
 Quercus acutissima 398  
   chenii 398  
   consimilis 398  
   myrsinifolia 398  
   stenophylla 398  
 Raillardella argentea 490, 493i  
   minima 490  
   scaposa 491  
 Raillardopsia muiirii 491, 495i  
   scabrida 491, 496i  
 Ranunculaceae 301  
   classification of Hydrastis 551  
 Ranunculus 556  
 Rhamnaceae 301  
 Rhaphithamnus venustus 305  
 Rhizopodomycetes californicus 444  
 Robinsonia 298, 302, 303  
 Rodriguez R., R., see Stuessy et al. 297  
 Rosaceae 301  
 Rosanae 472, 518  
 Rosidae 518  
 Rosmarinus officinalis 313, 325i  
 Rubiaceae 301, 302, 546  
 Rundel, P. W., et al. Atacama and Peruvian deserts: phytogeography and ecology 1  
 Russia, southern 463  
 Rutaceae 301, 302, 547  
 Rutales 521, 546  
 Sabia 521  
   japonica 525, 543i  
   olacifolia 530i  
 Sabiaceae 521, 546  
   ecology 544  
   generic and infrageneric distinctions 547  
   ordinal position 546  
   systematics 546  
 Salazaria mexicana 313, 333i  
 Salvia apiana 313  
   canariensis 313  
   dorrii 313, 325i  
   funerea 313, 320i  
   lanceolata 313  
   mellifera 313, 329i

- Santalaceae 301  
 wood anatomy and relationships 499
- Santalum fernandezianum 305
- Sapindaceae 547
- Sapindales 521, 546
- Sarcandra 447, 461
- Saururus cernuus 403, 404  
 chinensis 403, 404
- Saxifragaceae 301, 397, 513, 578  
 genetic variation in 215
- Schisandraceae 293, 522
- Schoepfia 510
- Scleropyrum 510
- Scogin, R. Phytochemical profile of *Hydrostachys insignis* (Hydrostachyaceae) 471  
 see Contreras et al. 513
- Scrophulariaceae 301
- Scrophulariales 471–473
- Scydaenidae 440
- Seed coat characters: use in dicotyledon classification 151
- Seed germination: cryptocotly 207, 208i  
 phanerocotly in dicotyledons 207, 210
- Seeds: arils—use in dicotyledon classification 157, 178i  
 exotegminal fibers—use in dicotyledon classification 152i, 153  
 exotegminal palisade—use in dicotyledon classification 154i, 155  
 germination patterns in dicotyledons 207  
 sclerotic mesotestal layer—use in dicotyledon classification 155, 256i
- Selkirkia 298
- Senecio flavus 401  
 ssp. breviflorus 401  
 ssp. flavus 401  
 mohavensis 401
- Sengbusch, P. v., see Kubitski et al. 191
- Serology: *Hydrastis* 556  
 use in dicotyledon classification 183
- Serpentine 230, 230i
- Sieve-element plastids: distribution and evolution in dicotyledons 167
- Silva O., M., see Stuessy et al. 297
- Silverswords 487
- Simaroubaceae 547
- Solanaceae 301, 472
- Solanum 303
- Soltis, P. S., and D. E. Soltis. Genetic variation: Saxifragaceae, *Polystichum* 215
- South America, western: coastal desert climate 2
- Spergularia confertiflora 302, 305
- Sphaleromyces 559, 574
- Staphylinidae subfam. Steninae 442
- Stein anatomy: Convolvulaceae 51
- Stemmatomyces 440, 442
- Steninae 442
- Stenus 442
- Sterculiaceae: ×*Chiranthofremontia*, an intergeneric hybrid 239
- Stictocardia benaviensis 58
- Stigma types: use in dicotyledon classification 159, 160i
- Stigmatomyces 355, 362, 574  
*lasiochili* 355, 357
- Stigmatomycetinae 427, 443, 559, 574
- Stilbaceae 338
- Stuessy, T. F., et al. Endemism in the vascular flora of the Juan Fernandez Islands 297  
 see Crawford et al. 395
- Sullivantia hapemanii var. hapemanii 219  
 var. purpusii 219  
 oregana 219  
 sullivantii 219
- Synandromyces 440, 442  
 floriformis 443
- Systematics: *Allium fimbriatum* complex 411  
*Hedyosmum* 460  
*Hydrastis* (Ranunculaceae) 551  
 Lamiaceae 337
- Tapetum, integumentary: use in dicotyledon classification 123, 124i
- Tapetum types: use in dicotyledon classification 112i, 113
- Tarweeds: Californian and Hawaiian 487, 490
- Tavaresiella 559  
 hebri 561, 562i, 571i  
 majewskii 566, 567i, 571i  
 polheimi 568, 570i, 571i  
 santamariae 563, 564i, 571i
- Taxol 463
- Taxonomy: *Allium fimbriatum* complex 411  
 Angiospermae 365  
 ×*Chiranthofremontia lenzii* (Sterculiaceae) 239
- Laboulbeniales 427  
 Cupulomyces 356  
 Phalacrichomyces 428  
 Tavaresiella 560
- Pogogyne (Lamiaceae) 347  
 dicotyledons—use of serological characters 183  
 embryology and classification of dicotyledons 107
- Taxus 463  
 baccata 464  
 presence of taxol 463  
 taxane compounds 466  
 brevifolia 463  
 cuspidata 464  
 × media 464
- Tellima grandiflora 219
- Tenebrionidae 442
- Tetracentraceae 546
- Tetracentron 453
- Teucrium flavum 313  
 heterophyllum 313
- Theales 522
- Thorne, R. F. Phylogenetic classification of the flowering plants 365
- Thyrsopteris 298
- Tiarella cordifolia 397  
 polyphylla 397  
 trifoliata 397
- Timasius 559  
 chinai 568, 569
- Tinnea rhodesiana 313
- Tolmiea menziesii 219
- Tracheids 447  
 vascular 309  
 vasiscient 309
- Triceromyces 362, 574
- Trichomes: nonglandular 487
- Trichostema lanatum 313, 323i, 331i
- Tristicia trifaria 514
- Tristicaceae 518
- Trochodendraceae 546
- Trollius 554–556
- Turbina stenosphon 58, 80i
- Ugni selkirkii 302
- Ukraine (Crimea) 463
- Ultrastructure: nonglandular trichomes 487
- Umbelliferae 301
- Uncinia douglassii 305
- Urticaceae 301
- Valeriana glauca 68
- Vanroyenella plumosa 514
- Veliidae 442
- Verbenaceae 301, 337
- Vernal pool 347
- Vessel elements 447
- Vessels: helical sculpture 309  
 helical thickenings 309
- Wahlenbergia 302, 303  
 berteroi 303  
 fernandeziana 303  
 masafueriae 303
- Welwitschia 293
- Westringia rosmariniformis 313, 333i
- Wilkesia gymnoxiphium 491, 493i
- Wilsonia humilis 58
- Winteraceae 301
- Wood anatomy: Chloranthaceae 447  
 Convolvulaceae 51  
 Ephedra 255, 262  
 Lamiaceae 309  
 Sabiaceae 521  
 Santalaceae 499
- Xanthorrhiza 555
- Yew 463
- Yunquea 298

*Publications for Sale*

TECHNICAL REPORTS

The Rancho Santa Ana Botanic Garden, often in cooperation with USDA Forest Service, publishes a series of low-cost technical reports on various botanical subjects. These reports have paper covers and spiral binders; they are available from:

Publications  
Rancho Santa Ana Botanic Garden  
1500 North College Avenue  
Claremont, CA 91711

Shipping and handling: \$1.50 in U.S. funds for first volume; \$0.50 for each additional volume.

- No. 1. "Species management guide for *Castilleja gleasonii* A.D.F. Elmer." O. Mistretta and W. J. Brown, Jr., 26 p., Oct. 1987. \$5.00.
- No. 2. "Species management guide for *Claytonia lanceolata* Pursh var. *peirsonii* Munz & Johnson." O. Mistretta and W. J. Brown, Jr., 23 p., Nov. 1987. \$5.00.
- No. 3. "Species management guide for *Mahonia nevinii* (Gray) Fedde." O. Mistretta and W. J. Brown, Jr., 17 p., Feb. 1989. \$5.00.
- No. 4. "Manual para la identificacion de las Compositae de la Peninsula de Yucatan y Tabasco." J. L. Villaseñor, 122 p., Jan. 1989. \$15.00.
- No. 5. "Species management guide for *Dudleya densiflora* (Rose) Moran." O. Mistretta and W. J. Brown, Jr., 21 p., Dec. 1989. \$5.00.
- No. 6. "Drought tolerant planting bibliography." B. Beck, 67 p., Jun. 1990. \$14.00.
- No. 7. "Species management guide for *Opuntia basilaris* Engelm. & Bigel. var. *brachyclada* (Griffiths) Munz." O. Mistretta and M. Parra-Sziji, 53 p., Jun. 1991. \$8.00.
- No. 8. "Species management guide for *Lilium paryi* Wats." O. Mistretta and M. Parra-Sziji, 53 p., Jun. 1991. \$8.00.