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BAJA CALIFORNIA FLORAS

Dr. Robert Thorne of Rancho Santa Ana Botanic Garden is composing a flora for the northern portion of Baja California. As a product of that effort he has compiled a series of valuable checklists for selected localities in Baja California. The following list of vascular plants is the third of a series that will be published in CROSSOSOMA

VASCULAR PLANTS OF THE PARQUE NACIONAL DE CONSTITUCION DE 1857 SIERRA DE JUAREZ, BAJA CALIFORNIA, MEXICO

By

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A list of the species is for plants collected in the Parque Nacional de Constitucion de 1857, especially in and about Laguna Hanson (Laguna Juarez), with an elevation at the lake surface of ca. 1610 m at ca. 32° 03' N - 115° 55' W, on decomposed granitic soil in open forest dominated by Pinus jeffreyi or in montane chaparral with scattered Pinus quadrifolia and Pinus coulteri among the sierritas to the west and north of the lake. A few other species of interest collected to the north, east, and south of the lake are

also included. The list is based primarily on collections made by Robert F. Thorne and associates from the Rancho Santa Ana Botanic Garden, Claremont, California on various trips in 1983 to 1985, usually in May or June. Late summer and fall botanical surveying trips are badly needed to complete the list. A few additional species not found on our surveying trips are included from collections made by others, especially by Reid V. Moran and Ira Wiggins, deposited at RSA, SD, and DS. The Thorne et al. specimens are mostly deposited at RSA, SD, MEXU, and BCMEX. A preceding * in the list denotes species believed to be introduced in the area.

Adiantaceae

- Cheilanthes couvillei* Maxon
- Pellaea mucronata* (D. C. Eat.) D. C. Eat.
- Pityrogramma triangularis* (Kaulf.) Maxon var. *triangularis*
- Pteridium aquilinum* (L.) Kuhn var. *lanuginosum* (Borg.) Fern.

Aizoaceae

- Sesuvium verrucosum* Raf.

Alismataceae

- Alisma triviale* Pursh.

Alliaceae

- Allium fimbriatum* S. Wats var. *parryi* (S. Wats.) Ownbey & Aase
- Dichelostemma pulchellum* (Salisb.) Heller var. *pulchellum*

Amaranthaceae

- Amaranthus albus* L.
- Amaranthus californicus* (Moq.) S. Wats.
- Amaranthus powellii* S. Wats.

Anacardaceae

- Rhus trilobata* Nutt. ex. T. & G. var. *quinata*

Apocynaceae (incl. Asclepiadoideae)

- Apocynum cannabinum* L. var. *glaberrimum* A. DC.
- Asclepias eriocarpa* Benth.

Aspidiaceae

- Woodsia plummerae* Lemmon

Asteraceae

- Achillea millefolium* L. var. *californica* (Poll.) Jeps.
- Agoseris heterophylla* (Nutt.) Greene
- Ambrosia psilostachya* DC ssp. *californica* (Rydb.) ined.
- Anisocoma acaulis* T. & G.
- Artemisia dracunculus* L.
- Artemisia ludoviciana* Nutt. ssp. *albula* (Woot.) Keck
- Artemisia tridentata* Nutt ssp. *tridentata*
- Aster frondosus* (Nutt.) T. & G.
- Aster occidentalis* (Nutt.) T. & G. var. *delectabilis* (Hall) Ferris
- Brickellia californica* (T. & G.) A. Gray var. *californica*
- Chaenactis parishii* A. Gray
- Chaetopappa aurea* (Nutt.) Keck
- Chrysothamnus nauseosus* (Pall.) Britt. ssp. *consimilis* (Greene) Hall & Clem.
- Cirsium californicum* A. Gray ssp. *bernardinum* (Greene) ined.
- Cirsium tioganum* (Cong.) Petr. (C. *foliosum* (Hook.) DC.)
- Conyza canadensis* (L.) Cronq.
- Corethrogyne filaginifolia* (Hook. & Arn.) Nutt. var. *glomerata* Hall
- **Cosmos bipinnatus* Cav.
- Erigeron divergens* T. & G. var. *cinereum* A. Gray
- Erigeron foliosus* Nutt.
- Eriophyllum confertiflorum* (DC) A. Gray
- Eriophyllum wallacei* A. Gray ssp. *australe* (Rydb.) Wigg.

Asteraceae (Cont.)

- Gnaphalium bicolor* Bioletti
Gnaphalium luteo-album L.
Gnaphalium microcephalum Nutt.
Gnaphalium palustre Nutt.
Gutierrezia sarothrae (Pursh) Britt. & Rusby
Haplopappus cuneatus A. Gray
Helianthus californicus DC.
Hulsea mexicana Rydb.
**Hypochoeris glabra* L.
Hymenopappus filifolius var. *lugens* (Greene) Jeps.
Lasthenia californica DC ex Lindl. (*L. chrysostoma*
(Fisch. & Mey.) Ornduff)
Layia glandulosa (Hook.) Hook. & Arn. ssp. *glandulosa*
Madia elegans D. Don ex Lindl. ssp. *elegans*
Madia exigua (Smith) A. Gray
Machaeranthera asteroides (Torr.) Greene ssp. *lagunensis*
(Keck) ined. (*M. tephrodes* (A. Gray) Greene)
Microseris lindleyi (DC.) A. Gray (*M. linearifolia*
(Nutt.) Sch. Bip.)
Solidago californica Nutt.
**Sonchus asper* (L.) Hill.
Stephanomeria virgata Benth. ssp. *pleurocarpa* (Greene) Gottlieb
**Taraxacum laevigatum* (Willd.) DC.
Wyethia ovata T. & G. in Emory

Berberidaceae

- Mahonia higginsae* (Munz) Ahrendt. (*Berberis higginsae* Munz)

Boraginaceae

- Cryptantha micrantha* (Torr.) Jtn. ssp. *lepida* (A. Gray) Mathew
& Raven (*Eremocarya micrantha* (Torr.) Greene var. *lepida*
(A. Gray) Macbr.)
Cryptantha muricata (Hook. & Arn.) Nels. & Macbr.
Heliotropium curassavicum L. ssp. *oculatum* (Heller) Thorne
Plagiobothrys bracteatus (Howell) Jtn. (*Allocarya bracteata*
Howell)
Plagiobothrys californicus (A. Gray) Greene
Plagiobothrys undulatus (Piper) Jtn. (*Allocarya undulata* Piper)

Brassicaceae

- Arabis sparsiflora* Nutt. in T. & G.
Barbarea orthoceras Ledeb.
Descurainia pinnata (Walt.) Britt.
Erysimum capitatum (Dougl.) Greene
Lepidium virginicum L. var. *pubescens* (Greene) Thell.
Lesquerella kingii S. Wats. ssp. *latifolia* (Nels.)
Roll. & Shaw
Rorippa tenerrima Greene
Streptanthus campestris S. Wats.

Callitrichaceae

- Callitriche longipedunculata* Morong
Callitriche verna L.

Caprifoliaceae

- Lonicera subspicata* Hook. & Arn. var. *denudata* Rehd.
Lonicera subspicata var. *johnstonii* Keck
Sambucus mexicana Presl ex DC.
Symphoricarpos parishii Rydb. (*S. oreophilus* of Wiggins)

Caryophyllaceae

- Arenaria confusa* Rydb.
Silene antirrhina L.
Silene verecunda S. Wats. ssp. *platyota* (S. Wats.)
Hitchc. & Maguire

Ceratophyllaceae

- Ceratophyllum demersum* L.

Chenopodiaceae

- Chenopodium rubrum* L.
Monolepis nuttalliana (Schult.) Greene

Crassulaceae

- Crassula connata* (R. & P.) Berger in Engl. & Prantl
var. *connata* (*Tillaea erecta* Hook. & Arn.)
Dudleya abramsii Rose

Cyperaceae

- Carex globosa* Boott
- Carex praeegracilis* W. Boott
- Carex subfusca* W. Boott
- Cyperus squarrosus* L. (*C. aristatus* Rottb. var. *inflexus* (Muhl.) Boeckl.
- Eleocharis acicularis* (L.) R. & S.
- Eleocharis bella* (Piper) Svenson
- Eleocharis macrostachya* Britt. ex Small
- Eleocharis parishii* Britt.
- Eleocharis parvula* (R. & S.) Link var. *coloradensis* (Britt.) Beetle
- Eleocharis pauciflora* (Lightf.) Link ssp. *bernardina* (Munz & Jtn.) ined.
- Scirpus acutus* Muhl. ex Bigel. ssp. *occidentalis* (Beetle) ined.

Datisceae

- Datisca glomerata* (Presl.) Baill.

Dracaenaceae

- Nolina palmeri* S. Wats. ssp. *palmeri*

Elatinaceae

- Elatine californica* A. Gray ssp. *californica*

Ericaceae

- Arctostaphylos peninsularis* Wells
- Arctostaphylos pungens* HBK

Euphorbiaceae

- Chamaesyce serpyllifolia* (Pers.) Small (*Euphorbia serpyllifolia* Pers.)
- Euphorbia palmeri* Engelm.

Fabaceae

- Amorpha californica* Nutt.
- Astragalus circumdatus* Greene
- Astragalus didymocarpus* Hook. & Arn.
- Astragalus douglasii* (T. & G.) A. Gray var. *parishii* (A. Gray) M. E. Jones
- Astragalus filipes* Torr.
- Astragalus palmeri* A. Gray var. *palmeri*
- Lathyrus laetiflorus* Greene ssp. *alefeldii* (White) Brads.
- Lotus argyraeus* (Greene) Greene
- Lotus hamatus* Greene
- Lotus nevadensis* Greene
- Lotus oblongifolius* (Benth.) Greene
- Lotus purshianus* (Benth.) Clem. & Clem. ssp. *purshianus*
- Lotus rigidus* (Benth.) Greene
- Lupinus bicolor* Lindl. ssp. *microphyllus* (S. Wats.) D. Dunn
- Lupinus concinnus* Agardh ssp. *optatus* (C. P. Sm.) D. Dunn
- Lupinus excubitus* M. E. Jones ssp. *austromontanus* (Heller) Beauchamp
- Lupinus formosus* Greene ssp. *proximus* (Heller) Conrad
- Lupinus latifolius* Agardh ssp. *wigginsii* (C. P. Sm.) Kenney & Dunn
- Psoralea californica* S. Wats.
- Psoralea orbicularis* Lindl.
- Psoralea rigida* Parish
- Trifolium amplectens* T. & G.
- Trifolium microcephalum* Pursh
- Trifolium tridentatum* Lindl.
- Trifolium variegatum* Nutt. in T. & G.
- Trifolium wormskjoldii* Lehm.

Fagaceae

- Quercus chrysolepis* Liebm.
- Quercus dunnii* Kell.
- Quercus peninsularis* Trel.
- Quercus turbinella* Greene ssp. *turbinella*
- Quercus wislizenii* A. DC. ssp. *frutescens* (Engelm.) ined.

Garryaceae

- Garrya veatchii* Kell.

Gentianaceae

- Frasera parryi* Torr.

Geraniaceae

- **Erodium cicutarium* (L.) L'Her. ex Ait.
- Geranium atropurpureum* Heller

Grossulariaceae

- Ribes indecorum* Eastw.

Hydrophyllaceae

- Eriodictyon trichocalyx* Heller ssp. *lanatum* (Brand) Munz
(*E. lanatum* (Brand) Abrams)
Hesperochiron californicus (Benth.) S. Wats.
Phacelia imbricata Greene ssp. *patula* (Brand) Heckard
Phacelia suffrutescens (Parry) Const.

Iridaceae

- Sisyrinchium bellum* S. Wats.

Juncaceae

- Juncus bryoides* F. J. Hermann
Juncus bufonius L. var. *halophilus* Buch. & Fern.
Juncus macrophyllus Coville
Juncus mexicanus Willd.
Juncus sphaerocarpus Nees
Juncus tiehmi Ertter (J. Kelloggii of Wiggins)

Juncaginaceae

- Lilaea scilloides* (Poir.) Haum.

Lamiaceae

- Mentha arvensis* L. var. *villosa* (Benth.) S. R. Stewart
Monardella lanceolata A. Gray var. *microcephala* A. Gray
Salvia pachyphylla Epling
Stachys rigidus Nutt. ssp. *quercetorum* (Heller) Epling
Trichostema austromontanum Lewis ssp. *austromontanum*

Lemnaceae

- Lemna minuscula* Herter (*L. minima* Phil.)

Lentibulariaceae

- Utricularia vulgaris* L.

Liliaceae

- Calochortus splendens* Dougl. ex Benth.

Linaceae

- Linum lewisii* Pursh.

Loasaceae

- Mentzelia montana* (A. Davids.) A. Davids.

Malvaceae

- Sidalcea malvaeflora* (DC.) A. Gray ex Benth. ssp. *sparsifolia*
C. L. Hitchc.

Nyctaginaceae

- Mirabilis pumila* Standl.

Onagraceae

- Boisduvalia densiflora* (Lindl.) S. Wats.
Camissonia hirtella (Greene) Raven
Camissonia strigulosa (F. & M.) Raven
Epilobium canum (Greene) Raven ssp. *latifolium* (Hook.) Raven
(*Zauschneria californica* Pressl. ssp. *latifolia* (Hook.) Keck)
Gayophytum diffusum T. & G. ssp. *parviflorum* Lewis &
Szweykowski
Oenothera californica (S. Wats.) S. Wats.

Papaveraceae

- Platystemon californicus* Benth.

Pinaceae

- Pinus coulteri* D. Don
Pinus jeffreyi Grev. & Balf.
Pinus monophylla Torr. & Frem.
Pinus quadrifolia Parl.

Plantaginaceae

- **Plantago major* L.

Poaceae

- Agropyron trachycaulum* (Link) Malte
Agrostis scabra Willd.
Agrostis semiverticillatus (Forsk.) C. Chr.
Aristida schiediana Trin. & Rupr. (incl *A. oreuttiana* Vasey)
Bouteloua curtispindula (Michx.) Torr. var. *caespitosa*
Gould & Kapadia
Bromus carinatus Hook. & Arn.
**Bromus diandrus* Roth (*B. rigidus* Roth)
**Bromus rubens* L.
**Bromus tectorum* L.
Deschampsia danthonioides (Trin.) Munroe ex Benth.
Distichlis spicata (L.) Greene ssp. *stricta* (Torr.) Thorne
Elymus longifolius (J. G. Sm.) Gould (*Sitanion hystrix*
(Nutt.) J. G. Sm.)

Poaceae (Cont.)

- **Eragrostis cilianensis* (All.) E. Mosher
- Eragrostis intermedia* Hitchc.
- Eragrostis pectinacea* (Michx.) Nees
- **Hordeum glaucum* Steud.
- **Hordeum leporinum* Link.
- Melica imperfecta* Trin.
- Muhlenbergia asperifolia* (Nees & Mey.) Parodi
- Muhlenbergia emersleyi* Vasey
- Muhlenbergia fragilis* Swallen
- Muhlenbergia rigens* (Benth.) Hitchc.
- Muhlenbergia wrightii* Vasey
- Panicum hirticaule* Presl (*P. distichum* auct.)
- Paspalum paspaloides* (Michx.) Scribn. (*Paspalum distichum* auct.)
- **Poa annua* L.
- Poa fendleriana* (Steud.) Vasey
- Poa secunda* Presl (*P. scabrella* (Thurb.) Benth. ex Vasey)
- **Polypogon monspeliensis* (L.) Desf.
- Scribneria bolanderi* (Thurb.) Hack.
- Sporobolus cryptandrus* (Torr.) A. Gray
- Stipa coronata* Thurb. in S. Wats.
- Vulpia microstachys* (Nutt.) Benth. var. *pauciflora* (Beal) Lonard & Gould (*Festuca pacifica* Piper, *F. reflexa* Buckl.)
- Vulpia myuros* (L.) K. C. Gmel. var. *hirsuta* Hack. (*Festuca megalura* Nutt.)
- Vulpia octoflora* (Walt.) Rydb. (*Festuca octoflora* Walt.)

Polemoniaceae

- Eriastrum densifolium* (Benth.) Mason ssp. *austromontanum* (Craig) Mason
- Eriastrum sapphirinum* (Eastw.) Mason ssp. *sapphirinum*
- Gilia diegensis* (Munz) A. & V. Grant
- Gilia mexicana* A. & V. Grant
- Ipomopsis tenuifolia* (A. Gray) V. Grant
- Linanthus bellus* (A. Gray) Greene
- Linanthus floribundus* (A. Gray) Greene ssp. *floribundus*
- Linanthus jamaicensis* Moran
- Linanthus lemmonii* (A. Gray) Greene
- Linanthus melingii* (Wigg.) Grant
- Microsteris gracilis* (Dougl. ex Hook.) Greene
- Navarretia intertexta* (Benth.) Hook
- Phlox austromontana* Coville

Polygonaceae

- Eriogonum davidsonii* Greene
- Eriogonum foliosum* S. Wats.
- Eriogonum hastatum* Wigg.
- Eriogonum parishii* S. Wats
- Eriogonum wrightii* Torr. ex Benth. ssp. *membranaceum* S. Stokes ex Jeps.
- Polygonum amphibium* L. var. *stipulaceum* Coleman
- **Polygonum arenastrum* Bor.
- **Rumex crispus* L.
- Rumex maritimus* L. var. *fueginus* (Phil.) Dusen (*R. fueginus* Phil.)
- Rumex salicifolius* Weinm. var. *denticularis* Torr. (*R. californicus* Rech.f.)

Polypodiaceae

- Polypodium californicum* Kaulf.

Portulacaceae

- Claytonia perfoliata* Donn ssp. *perfoliata*
- Claytonia perfoliata* ssp. *viridis* (A. Davids.) Fellows
- Lewisia brachycalyx* Engelm. ex A. Gray
- Montia fontana* L. ssp. *amporitana* Sennen
- **Portulaca oleracea* L.

Primulaceae

- Anagallis minima* (L.) Krause (*Centunculus minimus* L.)

Ranunculaceae

- Aquilegia formosa* Fisch. in DC. var. *hypolasia* (Greene) Munz
- Clematis pauciflora* Nutt. in T. & G.
- Myosurus aristatus* Benth. ex Hook.
- Myosurus minimus* L.
- Ranunculus aquatilis* L. var. *capillaceus* (Thuill.) DC.
- Ranunculus cymbalaria* Pursh ssp. *saximontanus* (Fern.) Thorne

Rhamnaceae

- Ceanothus greggii* A. Gray ssp. *perplexans* (Trel.) Beauchamp
Ceanothus leucodermis Greene
Rhamnus californica Esch. ssp. *tomentella* (Benth.) C. B. Wolf
Rhamnus ilicifolia Kell.

Rosaceae

- Adenostoma fasciculatum* Hook. & Arn. var. *fasciculatum*
Adenostoma sparsifolium Torr. in Emory
Amelanchier utahensis Koehne
Cercocarpus betuloides Nutt. ex T. & G.
Horkelia bolanderi A. Gray ssp. *ssp. clevelandii* (Greene) Keck
Potentilla biennis Greene
Potentilla glandulosa Lindl. ssp. *reflexa* (Greene) Keck
Potentilla saxosa Lemmon ex Greene
Prunus ilicifolia (Nutt.) Walp. ssp. *ilicifolia*
Prunus virginiana L. ssp. *demissa* (Nutt.) E. Murra
Rosa californica Cham. & Sch.
Vauquelinia californica (Torr.) Sarg.

Rubiaceae

- Galium andrewsii* A. Gray ssp. *andrewsii*
Galium angustifolium Nutt. ex T. & G. ssp. *angustifolium*
Galium wrightii A. Gray

Salicaceae

- Salix exigua* Nutt.
Salix laevigata Bebb var. *laevigata*
Salix lasiolepis Benth. var. *lasiolepis*

Saururaceae

- Anemopsis californica* (Nutt.) Hook. & Arn.

Saxifragaceae

- Heuchera leptomeria* Greene var. *peninsularis* Rosend.,
Butt., & Lak.

Scrophulariaceae (incl. Orobanchoidae)

- Castilleja foliolosa* Hook. & Arn. (toward *C. lanata* A. Gray)
Castilleja miniata Dougl. ex Hook. var. *oblongifolia*
(A. Gray) Munz
Castilleja stenantha A. Gray
Cordylanthus filifolius Nutt. ssp. *involutus* (Wigg.) Heckard
Cordylanthus nevinii A. Gray
Keckiella ternata (Torr. ex A. Gray) Straw (*Penstemon*
ternatus Torr.)
Limosella acaulis Sesse & Moc.
Linaria canadensis (L.) Dum.-Cours. ssp. *texana*
(Scheele) Pennell
Mimulus diffusus Grant
Mimulus floribundus Dougl. ex Lindl.
Mimulus guttatus Fisch. ex DC. ssp. *guttatus*
Mimulus nasutus Greene
Mimulus pilosus (Benth.) S. Wats.
Orobanche californica C. & S. ssp. *feudgei* (Munz) Heckard
Orobanche fasciculata Nutt.
Orthocarpus attenuatus A. Gray
Penstemon bridgesii A. Gray
Penstemon centranthifolius Benth.
Penstemon clevelandii A. Gray ssp. *clevelandii*
Veronica peregrina L. ssp. *xalapensis* (HBK.) Pennell

Solanaceae

- Nicotiana attenuata* Torr. ex S. Wats in King
Petunia parviflora Juss.
Solanum xanti A. Gray

Sterculiaceae

- Fremontodendron californicum* (Torr.) Cov.

Typhaceae (incl. Sparganioideae)

- Sparganium eurycarpum* Engelm. (*S. greenei* Morong)

Urticaceae

- Urtica dioica* L. ssp. *holosericea* (Nutt.) Thorne

Verbenaceae

- Verbena orcuttiana* Perry

Violaceae

- Viola purpurea* Kell ssp. *purpurea*

Viscaceae

- Arceuthobium campylopodum* Engelm. (on *Pinus jeffreyi*)
Arceuthobium divaricatum Engelm. (on *Pinus quadrifolia*)
Phoradendron villosum (Nutt. in T. & G.) Nutt. ssp.

Zannichelliaceae

- Zannichellia palustris* L.
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A Commentary on the 13th Annual Symposium

If a symposium is considered "successful" in terms of quality of presentation by the speakers, then the November Symposium held at U.C.Irvine was outstanding! Each speaker in turn was thoroughly prepared and gave an excellent presentation on his/her topic (refer to the October issue of *Crossosoma* for the speaker's abstracts). Many anecdotes were given to illustrate the rich and colorful history of those botanists who have significantly contributed to our current wealth of botanical collections and research on the Southern California flora. Additionally, advance publicity of the Symposium was well organized (thanks to Kathleen Pahl, Katie Barrows, and Allan Schoenherr of the S.C.B. Board of Directors), facility accommodations were excellent (thanks to Peter Bowler of U.C.I. and Alan Romspert of Cal. State Fullerton), and the program registration/parking was handled efficiently (thanks to Sherry Schmidt, Coleen Cory, Judy Smith, Diana Cosand, and others). A special thank you goes to Bruce Trotter for his contributing the fascinating display of photos, journals, and camping memorabilia of the famous Edmund Jaeger "palavers."

An Additional Comment on the Symposium.

In light of the reputation of the speakers and their obvious dedication to present a high-quality symposium, and with respect to the well-prepared advance publicity, it was disappointing to have mediocre attendance at the program. Of particular concern to me and the Board of Directors is that virtually no students or faculty of botany departments at our regional colleges and universities were in attendance. If the faculty members of these institutions show an apparent apathy and non-interest in supporting botanical symposia/conferences, their students will likewise not become involved. This is regrettable, because it is through our educational programs that recognition of the importance of the natural sciences to our highly urbanized society is best fostered.

Geoff Smith, SCB President



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