

FLORA BUTTENSIS

CONTRIBUTIONS TO THE FLORA OF BUTTE COUNTY, CALIFORNIA

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SECOND SUPPLEMENT TO THE BUTTE COUNTY CHECKLIST

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FLORA BUTTENSIS is irregularly issued in three numbers to a volume per year. Emphasis is placed on Butte county, but contributions on vascular plant taxonomy and floristics of Northern California are welcome. Inquiries concerning purchase of back issues, and contributions should be sent to Mary S. Taylor, Editor, P.O. Box 1686, Chico, CA 95926.

ADDITIONS TO THE BUTTE COUNTY CHECKLIST

From the collections of M.S. Taylor, L. Ahart, R. Schliesing, J. Jokerst,
R. Preston, B. Banchero, plus literature citations

OPHIOGLOSSACEAE

- (1) Botrychium crenulatum W.H. Wagner

POLYPODIACEAE

- (2) Polystichum kruckebergii Wagner

AMARANTHACEAE

- (5) +Amaranthus rudis Sauer

APIACEAE

- (6) Perideridia howellii (Coulter & Rose) Math.

ASTERACEAE

- (11) Crepis pleurocarpa Gray
(11) Erigeron inornatus (Gray) Gray var. viscidulus Gray
(14) Madia elegans D. Don, ssp. vernalis Keck

BRASSICACEAE

- (19) Dentaria pachystigma Wats.
(19) +Descurainia richardsonii (Sweet) O.E. Schulz ssp. viscosa (Rydb.) Detl.
(19) +Descurainia sophia (L.) Webb.
(20) +Lepidium pinnatifidum Ledeb.
(20) +Lunaria annua L.

CAMPANULACEAE

- (21) Downingia yina Appleg.

CAPRIFOLIACEAE

- (22) Sambucus microbotrys Rydb.

CHENOPODIACEAE

- (24) +Atriplex heterosperma Bunse
(24) Atriplex lentiformis (Torr.) Wats.
(24) Bassia hyssopifolia (Pall.) Kuntze

CUCURBITACEAE

- (26) Cucurbita foetidissima HBK.

ELATINACEAE

- (26) +Elatine ambiua Wicht
 (26) Elatine californica Gray

FABACEAE

- (28) +Acacia decurrens Willd.
 (28) Lotus balsamiferus (Kell.) Greene
 (29) Lotus nevadensis (Wats.) Greene
 (29) Lotus purshianus (Benth.) Clem. & Clem. var. glaber (Nutt.) Munz
 (32) Vicia americana Muhl. var. villosa (Kell.) Hermann

FAGACEAE

- (32) Quercus chrysolepis Liebm. var. nana (Jeps.) Jeps.

GENTIANACEAE

- (33) Gentiana newberryi Gray

MALVACEAE

- (38) Sidalcea malvaeflora (DC.) Gray ssp. celata (Jeps.) C.L. Hitchc.

OROBANCHACEAE

- (42) Orobanche fasciculata Nutt. f. ssp. uniflorioides Cox, ined.
 (Note: Accepted on the basis of recent collections determined by Laurence Heckard)

POLEMONIACEAE

- (44) Navarretia propinqua Suksd.

POLYGONACEAE

- (47) Polygonum scabrum Moench
 (47) Rumex californicus Rech. f.
 (47) +Rumex dentatus L. ssp. klotschianus (Meissn.) Rech. f.

PORTULACACEAE

- (48) Montia diffusa (Nutt.) Greene

PRIMULACEAE

- (48) Primula suffrutescens Gray

RANUNCULACEAE

- (49) Actaea rubra (Ait.) Willd. ssp. arguta (Nutt.) Hult.
 (49) Anemone occidentalis Wats.
 (50) Ranunculus flammula L. var. ovalis (Bigelow) L. Benson

ROSACEAE

- (62) Holodiscus boursieri (Carr.) Rehd. in Bailey

SCROPHULARIACEAE

- (57) Bacopa eisenii (Kell) Penn.
- (57) Castilleja applegatei Fernald var. fragilis (Zeile) Holmgren.
- (58) Limosella acaulis Ses. & Moc.
- (58) Mimulus densus Grant
- (60) Pedicularis racemosa Dougl. ex Hook.

ALISMATACEAE

- (65) Sagittaria longiloba Engelm.

AMARYLLIDACEAE

- (65) Allium validum Wats.

CYPERACEAE

- (67) Carex rossii Bott. in Hook.
- (67) Carex straminiformis Bailey
- (69) Scirpus microcarpus Presl.

JUNCACEAE

- (69) Juncus acuminatus Michx.
(Note: The "globose-headed" form is more common = f. spherocephalus
but both are present in the county).
- (70) Juncus covillei Piper
- (71) Luzula parviflora (Ehrh.) Desv.

LIILIACEAE

- (71) Disporum hookeri (Torr.) Nichols var. trachyandrum (Torr.) Q. Jones
- (71) Erythronium purpurascens Wats.
- (72) Xerophyllum tenax (Pursh) Nutt.

POACEAE

- (74) Agropyron parishii Scribn. & Sm. var. laeve Scribn. & Sm.
- (74) Agrostis gigantea Roth.
- (74) +Arrhenatherum elatius (L.) J. & C. Presl.
- (77) Distichlis spicata (L.) Greene
(D. s. ssp. stolonifera absorbed here)
- (78) Festuca subulata Trin. in Bong.
- (78) Glyceria elata (Nash) Hitchc.
- (79) Melica stricta Bol.
- (79) Muhlenbergia andina (Nutt.) A.S. Hitchc.

POACEAE, cont.

- (79) Muhlenbergia richardsonis (Trin.) Rydb.
(81) Puccinellia pauciflora (Presl.) Munz

POTAMOGETONACEAE

- (82) Potamogeton natans L.

SPARGANIACEAE

- (82) Sparganium emersum Rehmann var. multipedunculatum (Morong) Reveal

DELETIONS FROM THE BUTTE COUNTY CHECKLIST
M.S. Taylor, R. Schliesing, R. Preston

ASTERACEAE

- {9} *Arnica spathulata* ssp. *eastwoodiae*
{10} *Brickellia grandiflora*
{12} *Grindelia squarrosa*

BRASSICACEAE

- {18} *Alyssum alyssoides*
{19} *Barbarea vulgaris*
{20} *Thysanocarpus laciniatus*
(20) *Thysanocarpus laciniatus* var. *crenatus*

ONAGRACEAE

- {40} *Camissonia tanacetifolia*
(40) *Clarkia purpurea* ssp. *viminea*

POLEMONIACEAE

- {44} *Linanthus androsaceus*
(44) *Linanthus dichotomus* ssp. *meridianus*

SCROPHULARIACEAE

- (57) *Castilleja applegatei*
(Note: Replaced by *C.a.* var. *fragilis*)

ALISMATACEAE

- (65) *Sarracenia sanfordii*

AMARYLLIDACEAE

- (65) *Allium obtusum*

NOMENCLATURE CHANGES WHICH AFFECT THE FLORA OF BUTTE COUNTY
Compiled by: Mary S. Taylor

OPHIOGLOSSACEAE

Botrychium crenulatum W.H. Wagner
NEW SPECIES
Wagner, W.H. Jr. & P.S. Wagner 1981: 21

ACERACEAE

Acer glabrum Torr. ssp. torreyi (Greene) E. Murr.
STAT. NOV. [A.g. var. torreyi]
Murray, E. 1981: 4
Murray, A.E. Jr. 1971: 14
Murray, E. 1975: 4.

APIACEAE

Yabea microcarpa (H. & A.) Koso-Pol.
[Caucalis microcarpa H. & A.]
Thorne, R., et al. 1981: 118
Kartesz, J.T. & R. Kartesz 1980: 38

ASTERACEAE

Euthamnia occidentalis Nutt.
[Solidago occidentalis]
Sieren, D.J. 1981: 551-579
Kartesz, J.T. & R. Kartesz 1980: 77

BERBERIDACEAE

Mahonia dictyota (Jeps.) Fedde
[Berberis dictyota Jeps.]
Ahrendt, L.W.A. 1961: 334
See also: Meacham, C.A. 1980 and Smith, J.P., et al. 1980
Mahonia repens G. Don.
[Berberis repens Lindl.]
Ahrendt, L.W.A. 1961: 334
See also: Meacham, C.A. 1980 and Smith, J.P., et al. 1980

BORAGINACEAE

Heliotropium curassavicum L. ssp. oculatum (Heller) Thorne
STAT. NOV. [H.c. var. oculatum (Heller) Jtn.]
Thorne, R., et al. 1981: 131

Plagiobothrys

Note: Some botanists are now re-splitting this genus into Plagiobothrys and Allocarya (See J.T. Howell 1981: 12). The Butte county checklist will retain Plagiobothrys until a systematic treatment of the division is published.

CHENOPODIACEAE

Salsola australis R. Br.

[Salsola iberica, S. pestifera, S. kali var. tenuifolia]

Howell, J.T. 1981: 8

Botschantzev, V. 1974: 614

GENTIANACEAE

Gentianella amarella (L.) Börner ssp. acuta (Michx.) J. Gillett

[Gentiana amarella L., as in Munz]

Kartesz, J.T. & R. Kartesz 1980: 244

Gillett, J.G. 1957: 253

Gentianopsis simplex (Gray) Iltis

[Gentiana simplex Gray]

Iltis, H.H. 1965: 136

Kartesz, J.T. & R. Kartesz 1980: 245

HYPERICACEAE

Hypericum scouleri Hook.

[Hypericum formosum var. scouleri, H. formosum ssp. scouleri]

Gillett, J.M. & N.R.B. Robson 1981: 29

ONAGRACEAE

Epilobium adenocaulon complex

Note: This complex is presently under revision by Peter Raven. The change has been partially published, but for the sake of completeness, it will not be indicated in the Butte county checklist until a synoptical version has been presented. Hoch and Raven (1977: 136) have published Epilobium ciliatum Raf. [Epilobium adenocaulon] and Epilobium ciliatum Raf. ssp. glandulosum (Lehm.) Hoch & Raven [Epilobium glandulosum, E. adenocaulon var. occidentale], while not addressing the placement of Epilobium adenocaulon var. parishii and var. holosericeum. Thorne, R., et al (1981: 155) and Kartesz and Kartesz (1980: 305) place Epilobium adenocaulon var. parishii and var. holosericeum in synonymy under Epilobium ciliatum Raf.

Epilobium paniculatum Nutt. ex T. & G.

[Epilobium brachycarpum Presl.]

Hoch, P.S. & P.H. Raven 1981: 666

Note: J.T. Howell (1981: 12) uses E. brachycarpum. Hoch & Raven discovered this to be the more correct name, but since they also propose it to be officially rejected, the taxa will probably remain Epilobium paniculatum.

OROBANCHACEAE

Orobanche fasciculata Nutt. ssp. unifloroides Cox, ined.

NEW SUBSPECIES (unpublished)

Watson, K.C. 1975: 93

POLEMONIACEAE

Petrohagia velutina (Gussone) Ball & Heywood

Note: J.T. Howell (1981: 8) places this into Dianthus velutinus Gussone, See Ball & Heywood 1962 & 1964.

PRIMULACEAE

Trientalis borealis Raf. ssp. latifolia (Hook.) Hulten
 [Trientalis latifolia]
 Hulten, E. 1967: 105
 Kartesz, J.T. & R. Kartesz 1980: 380

SALICACEAE

Salix gooddingii Ball
 [Salix gooddingii var. variabilis absorbed]
 Thorne, R., et al. 1981: 166
 Kartesz, J.T. & R. Kartesz 1980: 424

SCROPHULARIACEAE

Castilleja applegatei Fernald var. fragilis (Rydb.) Ownbey
 NEW VARIETY [Replaces Castilleja applegatei in California]
 Holmgren, Noel H. 1971: 38
 Kartesz, J.T. & R. Kartesz 1980: 440

LILIACEAE

Tofieldia glutinosa (Michx.) Pers. ssp. occidentalis (S. Watson.) C.L. Hitchc.
 [Tofieldia glutinosa var. occidentalis]
 Kartesz, J.T. & R. Kartesz 1980: 278

POACEAE

Paspalum paspalodes (Michx.) Scribn.
 [Paspalum distichum]
 Howell, J.T. 1981: 5

SPARGANIACEAE

Sparganium emersum Rehm. var. multipedunculatum (Morong) Reveal
 [Sparganium multipedunculatum]
 Reveal, J. 1970: 797
 Cronquist, A., et al 1977; Vol. 6: 468
 Note: Some botanists are lumping the variety under Sparganium emersum.

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 113-116

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PULGA SERPENTINE

A PRELIMINARY CHECKLIST

Compiled by: Mary S. Taylor

This checklist is taken from field notes and collections of Mary S. Taylor, James D. Jokerst, and John Thomas Howell. The area covered is the serpentine outcrop on the north and south ends of Pulga Bridge over Highway 70, ca. 1 mile west of the community of Pulga and ca. 20 miles northeast of Oroville (T22N R5E ne $\frac{1}{4}$ section 6. Pulga quadrangle). Collections were deposited in the herbaria of California State University, Chico and California Academy of Sciences.

SELAGINELLACEAE

Selaginella hansenii

POLYPODIACEAE

Cheilanthes carlotta-halliae

Cheilanthes siliquosa

Pityrogramma triangularis

Pityrogramma triangularis var.
semipallida

Polypodium californicum

Polystichum imbricans

PINACEAE

Pseudotsuga menziesii

APIACEAE

Daucus pusillus

Lomatium marginatum

ANACARDIACEAE

Toxicodendron diversilobum

ASTERACEAE

Achillea millefolium ssp.
lanulosum?

Brickellia greenei

Calycadenia truncata var.
scabrella

Centaurea solstitialis

Eriophyllum lanatum var.
grandiflorum

Filago californica

Grindelia camporum

ASTERACEAE, cont.

Lessingia nemaeclada

Microseris lindleyi

Senecio eurycephalus ssp.

lewisrosei

Senecio vulgaris

BORAGINACEAE

Cryptantha hendersonii

BRASSICACEAE

Draba verna var. *aestivalis*

Erysimum capitatum

Streptanthus polygaloides

Thysanocarpus curvipes

CALYCANTHACEAE

Calycanthus occidentalis

CAPRIFOLIACEAE

Symphoricarpos rivularis

CARYOPHYLLACEAE

Stellaria media

CRASSULACEAE

Sedum albomarginatum

Sedum spathulifolium var.
purdyi

ERICACEAE

Arctostaphylos viscida

2(3):10

FABACEAE

Cercis occidentalis
Lotus humistratus
Medicago sativa
Trifolium microcephalum

FAGACEAE

Quercus chrysolepis

GERANIACEAE

Erodium cicutarium

HIPPOCASTANACEAE

Aesculus californica

HYDROPHYLACEAE

Phacelia corymbosa
Phacelia heterophylla var.
 virgata

LAMIACEAE

Monardella villosa ssp.
 sheltonii

LAURACEAE

Umbellularia californica

ONAGRACEAE

Clarkia gracilis ssp.
 albicaulis
Epilobium minutum

POLEMONIACEAE

Gilia capitata
Linanthus filipes

POLYGONACEAE

Eriogonum luteolum
Eriogonum nudum var.
 pubiflorum
Eriogonum umbellatum var.
 speciosum

RANUNCULACEAE

Aquilegia formosa var.
 truncata

RHAMNACEAE

Ceanothus cuneatus
Ceanothus integrifolius
Rhamnus californica var.
 tomentella
Rhamnus ilicifolia

ROSACEAE

Heteromeles arbutifolia
Holodiscus boursieri
Potentilla glandulosa

RUBIACEAE

Cruciaria angustifolia
Galium bolanderi

SALICACEAE

Salix laevigata
Salix lasiolepis

SAXIFRAGACEAE

Philadelphus lewisii ssp.
 californica

SCROPHULARIACEAE

Antirrhinum breweri
Castilleja applegatei var.
 fragilis
Collinsia tinctoria
Diplacus grandiflorus
Mimulus glaucescens
Mimulus guttatus
Mimulus torreyi
Penstemon azureus

AMARYLLIDACEAE

Allium sanfordii

LILIACEAE

Calochortus albus
Erythronium clintonii, ined.

POACEAE

Agropyron elongatum
Agrostis exarata var. *monolepis*
Bromus laevipes
Bromus madritensis
Bromus mollis
Bromus rubens
Bromus sterilis
Festuca californica
Holcus lanatus
Lolium perenne
Melica californica
Phleum pratense
Poa scabrella
Sitanion hystrix
Vulpia myuros var. *hirsuta*

COMPUTER, DATA BASE, AND PUNCHED CARD
APPLICATIONS IN PLANT TAXONOMY AND FLORISTICS:
A PRELIMINARY BIBLIOGRAPHY

Compiled by: Mary S. Taylor

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Explanatory Data

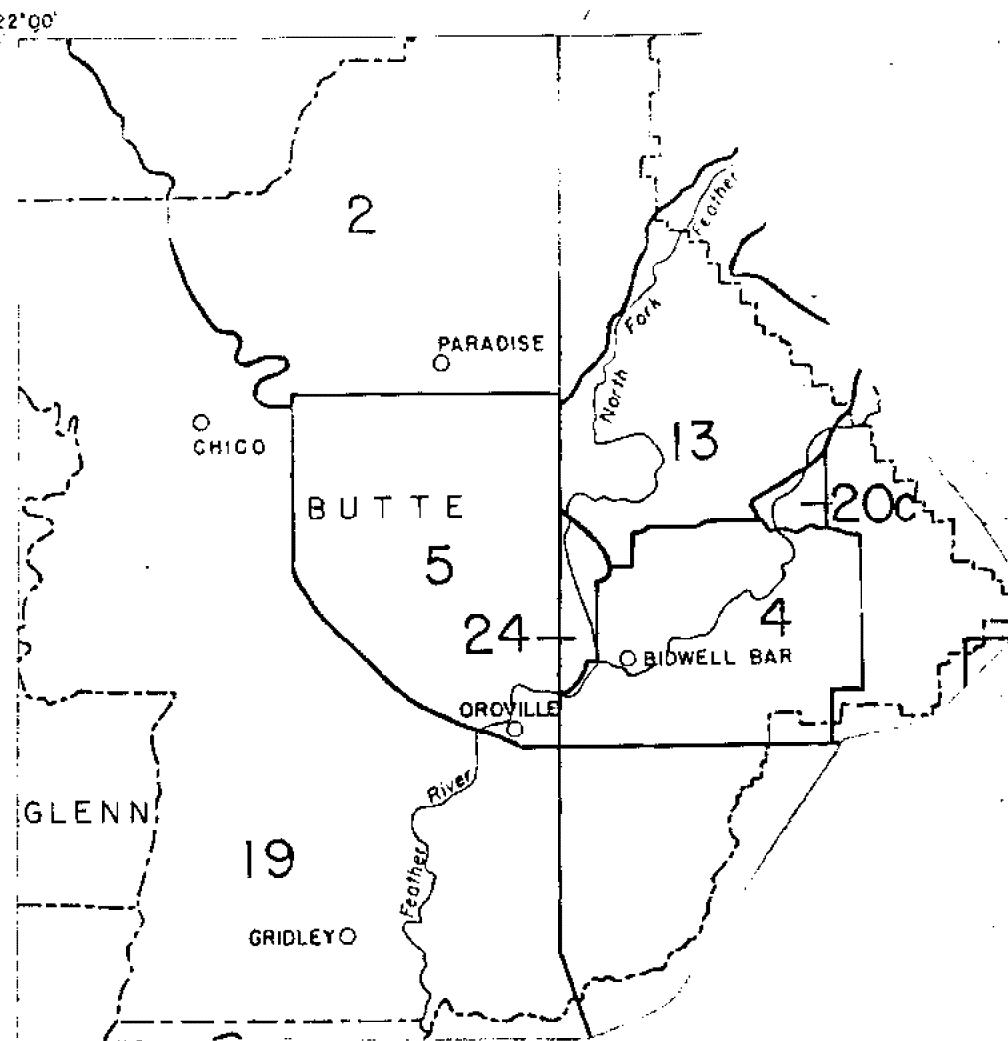
CHICO SHEET

Geologic Map of California old P Jenkins edition

1962

Index to Geologic Mapping used in compilation of the Chico Sheet

Div. Mines + Geol.
Dept. Conservation



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Explanatory Data

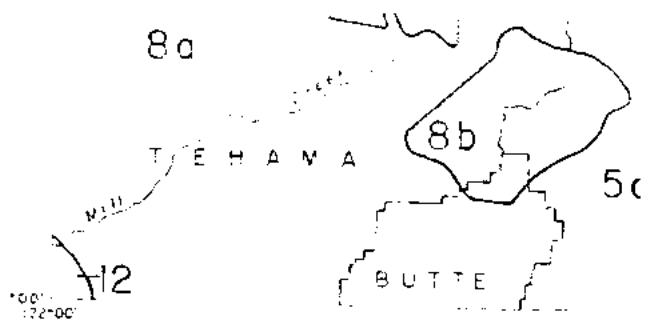
WESTWOOD SHEET

Geologic Map of California

Olaf P. Jenkins edition

1960

Index to Geologic Mapping
used in Compilation of
the Westwood Sheet



- 8a. Lydon, P. A., Reconnaissance geology of the western and south-central portions of the Westwood sheet, California, scales 1:48,000 and 1:62,500, California Div. Mines, unpublished (1959-60). (NW part of Montgomery Creek quadrangle based on photogeologic interpretation without field check).
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MUNZ UPDATE. I.

Mary S. Taylor

A California Flora by Philip Munz was published in 1959, and his supplement in 1968. In the succeeding thirteen years a massive amount of taxonomic work has been written concerning the California flora. No one publication, or even an on-going journal series (as Munz's "California Miscellany" series in Aliso), has attempted to keep track of all the changes and controversies in the literature. It is left to the individual botanist to read all the journals, floras, and utilize the abstract/indexing services - a monumental chore.

I institute this supplemental series primarily because the need for it is so apparent. Since I extensively scan the literature for nomenclature changes which affect Butte county, it is a (relatively) simple matter to note other changes for California outside of Butte county. Of course, this is bound to be as hit and miss as other systems, but a lot can be pulled together nonetheless. Contributions to this column would be welcome. Current and retrospective (1969-1981) changes will be presented, including complete literature references, with controversies and disagreements among authorities indicated. Range extensions will not be covered. Future updates will also include some synoptical treatments at the family level.

POLYPODIACEAE

Athyrium alpestre (Hoppe) Rylands ssp. americanum (Butters) Lellinger
[Athyrium alpestre var. americanum; A. distentifolium]
Lellinger, David B. 1981: 91

CUPRESSACEAE

Cupressus arizonica Greene var. nevadensis (Abrams) Little
[Cupressus nevadensis]
Little, E.L. 1970: 433
. 1966: 164
Silba, J. 1981: 391
Kartesz, J.T. & R. Kartesz 1980: 18

Cupressus arizonica Greene var. stephensonii (C.B. Wolf) Little
[Cupressus stephensonii]
Little, E.L. 1966: 164
. 1970: 433
Silba, J. 1981: 393
Kartesz, J.T. & R. Kartesz 1980: 18

Cupressus goveniana Gord. var. abramsiana (C.B. Wolf) Little
[Cupressus abramsiana]
Little, E.L. 1970: 435
Silba, J. 1981: 396
Kartesz, J.T. & R. Kartesz 1980: 18

CUPRESSACEAE, cont.

- Cupressus goveniana Gord. var. pigmaea Lemmon
 [Cupressus pygmaea]
 Little, E.L. 1970: 433
 Silba, J. 1981: 396
 Kartesz, J.T. & R. Kartesz 1980: 18
- Cupressus guadalupensis S. Wats. var. forbesii (Jeps.) Little
 [Cupressus forbesii]
 Little, E.L. 1970: 435
 Silba, J. 1981: 396
 Kartesz, J.T. & R. Kartesz 1980: 18

ASTERACEAE

- Carduus acanthoides L.
 NEW TO CALIFORNIA? Marin county
 Howell, J.T. 1981: 16
- Erechtites glomerata (Poir.) DC.
 [Erechtites arguta]
 Barkley, T.M. 1981: 526
- Erechtites minima (Poir.) DC.
 [Erechtites prenanthoides]
 Howell, J.T. 1981: 17
 Kartesz, J.T. & R. Kartesz 1980: 72

BERBERIDACEAE

- Mahonia nervosa (Pursh) Nutt. var. mendocinensis J.B. Roof
 [Berberis nervosa var. mendocinensis]
 Roof, J.B. 1981: 14
- Mahonia pinnata (Lag.) Fedde ssp. insularis (Munz) J.B. Roof
 [Berberis pinnata ssp. insularis]
 Roof, J.B. 1981: 14

LAMIACEAE

- Scutellaria holmgreniorum Crong.
 NEW SPECIES. TL: 25 km se of Ravendale, Lassen county
 Cronquist, A. 1981: 449-450

POLYGONACEAE

- Eriogonum grande Greene var. dunklei Reveal
 NEW VARIETY TL: San Miguel Island, Santa Barbara county
 Reveal, J.L. 1981: 445
- Polygonum baldschuanicum Regel
 NEW INTRODUCTION. Marin county
 Howell, J.T. 1981: 7

RHAMNACEAE

- Ceanothus greggii Gray ssp. vestitus (Greene) Thorne
 STAT. NOV. [Ceanothus greggii var. vestitus]
 Thorne, R., et al. 1981: 163

2(3):19

ROSACEAE

Acaena anserinifolia (J.R. & G. Forster) Druce
 NEW INTRODUCTION. Marin county (eradicated)
 Howell, J.T. 1981: 10

Oemleria cerasiformis (H. & A.) Landon
 [Osmaronia cerasiformis]
 Howell, J.T. 1981: 10
 Landon, J.W. 1975: 200

SCROPHULARIACEAE

Limnophila indica L.
 NEW INTRODUCTION. Yuba county
 Ahart, L. 1981: 7-8

Mimulus filicaulis S. Wats.
 [Mimulus bielettei absorbed here]
 Bacigalupi, R. 1981: 3-5

AMARYLLIDACEAE

Ipheion uniflorum (R.C. Grah.) Raf.
 [Brodiaea uniflora] (in Munz supplement, pg. 177)
 Howell, J.T. 1981: 7

IRIDACEAE

Romulea longifolia (Salisb.) Baker
 NEW INTRODUCTION. Marin county
 Howell, J.T. 1981: 7

POACEAE

Piptochaetium stipoides (Trin. & Rupr.) Hackel var. purpurascens (Hackel) Parodi
 NEW INTRODUCTION. Marin county
 Howell, J.T. 1981: 5

Piptochaetium setosum (Trin.) Arechavaleta
 NEW INTRODUCTION. Marin county
 Howell, J.T. 1981: 5

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 Changing Seasons 1(3-Suppl.): 7-8.

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 1(3-Suppl.): 3-5

Barkley, Theodore M. 1981. Senecio and Erechtites (Compositae) in the
 North America Flora: supplementary notes. Brittonia 33(4): 523-527.

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