

The Plants of Monterey County – an Illustrated Field Key

Second edition by Mary Ann Matthews & Michael Mitchell

UPDATES & ERRATA

The Jepson Herbarium publishes annual revisions to the treatment of particular genera, sometimes involving a change in the family or genus attribution. Brief summaries of these changes, so far as they relate to taxa found in Monterey County are set out below.

While it would be tedious to indicate all of the typographical and other errors that inevitably escape even the most eagle-eyed proofreader, there are set out below those that appear to be of significance.

Jepson eFlora Revisions

2013 & 2014: Revisions 1 & 2 – These were incorporated in the book when published

2015: Revision 3 – None of the changes affected taxa found in Monterey County

2016: Revision 4

- *Athyrium* transferred from Woodsiaceae to Athyriaceae
This affects *Athyrium filix-femina* var. *cyclosurum* (Western Lady Fern) [p. 11]
- *Cystopteris* transferred from Woodsiaceae to Cystopteridaceae
This affects *Cystopteris fragilis* (Fragile / Bladder Fern) [p. 11]

2017: Revision 5

- All native taxa of *Orobanche* transferred to *Aphyllon*. This affects [pp. 223-5]:
Orobanche bulbosa changed to *Aphyllon tuberosum*
Orobanche californica subsp. *californica* changed to *Aphyllon californicum* subsp. *californicum*
Orobanche californica subsp. *condensa* changed to *Aphyllon californicum* subsp. *condensum*
Orobanche californica subsp. *grandis* changed to *Aphyllon californicum* subsp. *grande*
Orobanche californica subsp. *grayana* changed to *Aphyllon californicum* subsp. *grayanum*
Orobanche californica subsp. *jepsonii* changed to *Aphyllon californicum* subsp. *jepsonii*
Orobanche fasciculata changed to *Aphyllon fasciculatum*
Orobanche parishii subsp. *parishii* changed to *Aphyllon parishii* subsp. *parishii*
Orobanche pinorum changed to *Aphyllon pinorum*
Orobanche uniflora (misapplied, not in California) changed to *Aphyllon purpureum*
Orobanche vallicola changed to *Aphyllon vallicolum*
- *Aphyllon robbinsii* (newly described) added.
This taxon is broadly similar to *A. californicum* subsp. *californicum*, found on loose sandy soils of coastal bluffs and parasitic on *Eriophyllum staechadifolium* (Lizard Tail). Common Name: Robbins Broomrape. See <http://www.phytoneuron.net/2016Phytoneuron/58PhytoN-Orobancherobbinsii.pdf> for full description.

2018: Revision 6

- All *Mimulus* (Phrymaceae) have been transferred to *Diplacus*, *Erythranthe* and *Mimetanthe*. The treatment in the book assumed that these changes would be forthcoming. Only one change to the treatment in the book is required:

The name *Erythranthe inodora* was found to be unavailable to describe plants found in Monterey County and previously identified as *Mimulus moschatus*. Such plants are now recognized under the new name *Erythranthe ptilota*. Calflora ascribes the common name “Muskflower” to this species.

2019: Revision 7

- **Poaceae.** [p. 365-9]
 - *Bromus madritensis* subsp. *madritensis* recognized at species rank as *Bromus madritensis*.
 - *Bromus madritensis* subsp. *rubens* recognized at species rank as *Bromus rubens*.
 - *Bromus carinatus* recognized at varietal rank as *Bromus sitchensis* var. *carinatus*.
 - *Bromus marginatus* recognized at varietal rank as *Bromus sitchensis* var. *marginatus*.
 - *Bromus maritimus* recognized at varietal rank as *Bromus sitchensis* var. *maritimus*.
- **Themidaceae:**
 - *Dichelostemma capitatum* changed to *Dipterostemon capitatus*, as native. [p. 335]
 - *Dichelostemma capitatum* subsp. *capitatum* changed to *Dipterostemon capitatus* subsp. *capitatus*, as native.. [p. 335]

2020: Revision 8

- *Chlorogalum*: Three taxa transferred to *Hooveria*. This affects:
Chlorogalum purpureum var. *p* changed to *Hooveria purpurea* var. *p*. [p. 319]
- *Lupinus variicolor* changed to *Lupinus littoralis* var. *variicolor* [p. 167]
- *Antirrhinum multiflorum* (an illegitimate name) changed to *Antirrhinum thompsonii* [p. 237]

2021: Revision 9

- *Cryptantha*: Recent molecular studies have resulted in a split of the *Cryptantha* genus with a number of taxa being transferred to new genera, specifically *Eremocarya*, *Greeneocharis*, *Johnstonella* and *Oreocarya*. Only one taxon found in Monterey County is affected, namely:
 - *Cryptantha circumscissa* var. *c*. which is being transferred to *Greeneocharis circumscissa* var. *c*.
The key to Group 1 of the Boraginaceae should be amended by replacing 8a with the following:
“8a Nutlets w/ longitudinal groove, forked at base, on inner surface
8Aa Generally wider than tall, often rounded to cushion like, flower bracts present, sepals fused proximally, circumscissile in fruit – GREENEOCHARIS
8Ab Generally taller than wide, not cushion-like, flower bracts 0 – CRYPTANTHA
- Other changes within the narrowed treatment of *Cryptantha* include:
 - *Cryptantha nevadensis* var. *n*. treated at species rank and changed to *Cryptantha nevadensis* [p. 93]
 - *Cryptantha nevadensis* var. *rigida* treated at species rank and changed to *Cryptantha juniperensis* [p. 93]
- *Cynoglossum*: Two species transferred to different genera. This affects:
Cynoglossum grande changed to *Adelinia grande* [p. 95]
- *Pectocarya*: One species transferred to *Gruvelia*. This affects:
Pectocarya pusilla changed to *Gruvelia pusilla* [p. 95]
The key to Group 1 of the Boraginaceae should be amended to insert the following after key break 7a: [p.89]
“7Aa Nutlets paired, bilateral, collectively X-shaped, similar or not – PECTOCARYA
7Ab Nutlets radial, all similar - GRUVELIA
- **Boraginaceae Group 2:** This group of taxa were (except for *Heliotropium*) formerly in the Hydrophyllaceae family. Recent research has confirmed that the two families should properly be separated and most of the families formerly comprised in the Hydrophyllaceae have returned there. [pp 89,99-104]
 - *Emmenanthe*, *Eucrypta*, *Nemophila*, *Phacelia* and *Pholistoma* have been transferred back to Hydrophyllaceae
 - *Heliotropium* has been transferred to Heliotropiaceae
 - *Eriodictyon* and *Nama* have been transferred to Namaceae
- *Emmenanthe penduliflora* var. *p*. is now treated at species rank and changed to *Emmenanthe penduliflora* [p.99]
- *Emmenanthe penduliflora* var. *rosea*. is now treated at species rank and changed to *Emmenanthe rosea* [p.99]
- *Linanthus bigelovii* is now treated as a newly described subspecies and changed to *Linanthus bigelovii* subsp. *johnsonii* [p.251]

Changes in CNPS Rare & Endangered Plants Inventory

- p.393 **Geraniaceae** - *California macrophylla* downgraded from 1b.2 to “considered but rejected” status (Dec 2017)
p.394 **Polygonaceae** - *Chorizanthe minutiflora* added as 1b.2 (Jan 2017)

Other Changes – Taxa newly found in Monterey County

Boraginaceae

p. 97 *Plagiobothrys greenei* [Greene’s Spiny-nut Popcornflower] – similar to *P. acanthocarpus* but distinguished by nutlets which are slightly larger (1.5–3 mm vs. 1–1.8 mm) and which, though prickly adaxially, lack the prominent cross-ribs visible abaxially on the nutlets of *P. acanthocarpus*. Found in wet sites in grassland and woodland.

Chenopodiaceae

p.133 *Cycloloma atriplicifolium* [Winged Pigweed] Like *Salsola tragus* [Russian Thistle] this has a calyx that is horizontally winged in fruit, but unlike it does not have spine-tipped leaves or bracts. Recorded from Fort Ord. Native to central North America.

Fabaceae

p.175 *Trifolium suffocatum* [Suffocated Clover] Prostrate, often more or less covered by sand or soil. Small white sessile flowers crowded around the plant’s crown. Recorded from Fort Ord. European native.

Cyperaceae

p.345 *Cyperus involucratus* [Umbrella Sedge] Related to *Cyperus eragrostis* & *C. squarrosus* [Tall & Awned Cyperus] but its fruit bract tips are not distinctly outcurved (unlike *C. squarrosus*) and it lacks basal leaves (unlike *C. eragrostis*). Recorded from Fort Ord. Native to East Africa.

Errors and Omissions

Pinaceae

p.15 *Pinus coulteri* – substitute “medium tree < 42 m” for “medium tree 12–25m”

Apiaceae

p.29 *Sanicula arguta* – No herbarium records exist for this taxon in Monterey County although there are numerous records for San Luis Obispo County

Asteraceae

p.37 *Tanacetum parthenium* – substitute “J–Au” for “J–A”

p.53 *Malacothrix saxatilis* var. *tenuifolia* – No herbarium records exist for this taxon north of central San Luis Obispo County

p.59 *Cirsium quercetorum* – substitute “plant low, 0.5–2.0 dm” for “plant low, 2.5–3 dm”

p.65 *Pseudognaphalium stramineum* – substitute “dunes, waste places” for “moist waste places”

p.109 *Capsella bursa-pastoris* – substitute “Eurasian” for “Eur”

p.113 *Hirschfeldia incana* – substitute “4–15 dm” for “4–6 dm”

Caryophyllaceae

p.129 *Spergularia villosa* – substitute “S Am” for “Eur”

p.129 *Stellaria media* – substitute “Eur” for “Eurasian”

Chenopodiaceae

p.133 *Chenopodium pratericola* – substitute “open, dry places” for “dry, montane areas”

Convolvulaceae

p.137 *Calystegia collina* (line 6b) – substitute “peduncles < 6 cm” for “peduncles 6–9 cm”

Dipsacaceae

p.145 *Dipsacus fullonum* – delete “mostly shorter than the head”

Fabaceae

- p.167 *Lupinus albifrons* var. *albifrons* – substitute “leaflets 6–10, 10–30 mm” for “leaflets 10–30 mm”
 p.167 *Lupinus albifrons* var. *douglasii* – substitute “leaflets 7–9, 25–45 mm” for “leaflets 25–45 mm”
 p.173 Footnote 3 – substitute “*T. truncatum*” for “*T. stenophyllum*”

Lamiaceae

- p.193 *Monardella* – The key contains an error in the placing of *M. palmeri* and *M. purpurea*. This has necessitated a rewriting of the key; the revised version reads as follows:

“MONARDÉLLA

- 1a Calyx gen \geq 12 mm; cor lobes $\frac{1}{2}$ to $\frac{1}{2}$ length of tube; cor 35–45 mm, scarlet; lvs ovate to elliptic, 1–3 cm, pubescent at least below; pl simple or branched, 1–3 dm; gen on north-facing slopes & ridges > 350 m, esp after fires, C, YPF; Ma–Au; [LARGE-FLOWERED MONARDELLA] *M. macrántha* subsp. *m.*
- 1b Calyx gen \leq 12 mm, cor lobes $\frac{1}{2}$ to $\frac{2}{3}$ length of tube
- 2a Lf margin slightly or not wavy
- 3a Ann, main stem 1; fl clusters 1–several per main stem; 1–6 dm; stamens exerted
- 4a Bracts broadly ovate, abruptly acuminate, w/ 5–9 veins \pm parallel to midvein, scarious between veins, purplish above; cor rose, 12–14 mm, hairy; pl 2–6 dm; sandy flats, FW; Ma–Au; [BREWER’S MONARDELLA] *M. breweri* subsp. *b.*
- 4b Bracts lance-ovate w/ lateral veins \pm perpendicular to midveins, silvery-translucent membrane between veins; cor reddish purple, 11–12 mm; pl 1–3 dm; dry slopes, gen on serpentine, FW; Ma–N; [FENESTRA MONARDELLA] *M. douglásii*
- 3b Subshrub to shrub; main stem 1–many; fl clusters 1–few per main stem; 1–6 dm; stamens not much exerted
- 5a Stem hairs relatively long (> 0.5 mm)
- 6a Pl matted to erect, gen densely tomentose; lvs ovate to widely triangular-ovate; outer leafy bracts 3 prs; lvs woolly-pubescent below; hairs simple, Diablo Range; [SAN FRANCISCO COYOTE MINT] *M. villòsa* subsp. *franciscàna*
- 6b Pl ascending to erect, not tomentose
- 7a Lvs lanceolate to ovate, \pm villous-pubescent below w/ simple hairs; outer bracts 8–20 mm, 1–4 prs; cor 10–30 mm W, pink to purple; widespread in rocky or gravelly places; [COYOTE MINT] *M. v.* subsp. *v.*
- 7b Lvs narrowly ovate, green above, densely white-tomentose below w/ branched hairs; cor white to lavender; sw Mon & SLO; [SAN LUIS OBISPO COYOTE MINT] *M. v.* subsp. *obispoénsis*
- 5b Stems \pm glabrous; cor rose-purple; lvs linear to lance-oblong
- 8a Cor 15–20 mm, calyx 9–12 mm; lvs linear to oblong, subglabrous; stem purple-tinged, internodes < lvs; C, forest, on serpentine, 200–800 m; J–Au; [PALMER’S MONARDELLA] *M. palmeri* 
- 8b Cor 12–16 mm, calyx 6–8 mm, 1 fl cluster per main stem; lvs linear-lance-oblong; stem gen dark purple, shiny, internodes > lvs; gen on serpentine, 400–1400 m; J–Ju; [SISKIYOU MONARDELLA] *M. purpùrea*
- 2b Lf margin gen weakly wavy; pl ann, 8–45 cm, simple or branched proximal to middle; the stems dark red-brown, distal internode spreading-hairy; cor 14–20 mm, lavender to purple; fl cluster 1–many per main stem; calyx & bract tips & bract veins black; sandy places near coast, CSS, CS; Ma–Ju; [CURLY-LEAVED MONARDELLA] *M. sinuàta* subsp. *nigréscens* 

¹ Previously erroneously treated as *M. undulata*, which is confined to Santa Barbara & San Luis Obispo Cos
² TJM2 incl *M. antonina* subsp. *a.*,  found on siliceous shale in San Antonio hills & *M. antonina* subsp. *benitensis*  found on serpentine in Diablo Range. REPI retains *M. antonina* and both subsp”

p.197 *Scutellaria tuberosa* – substitute “leaves thinly pilose on both surfaces, 2 cm” for “leaves thinly pilose on both surfaces, 2 dm”

Linaceae

p.109 *Linum bienne* – substitute “Eurasia” for “Medit”

Malvaceae

p.200 The drawings labelled "*Lythrum hyssopifolium* / Grass Poly by mistake duplicate the drawings of *Alcea rosea* / Hollyhock appearing lower down the same page.

p.205 *Sidalcea hickmanii* subsp. *hickmanii* – substitute “pl densely gray-stellate throughout, 4–8 dm” for “pl densely gray-stellate throughout, 4–8 cm”

Montiaceae

p.207 *Calyptidium parryae* var. *hessae* – substitute “Sepals” for “Aepals”

p.207 *Claytonia* (line 1a) – substitute “tuberclcd at 20 x” for “tuberclcd at each 20x”

p.207 6a – Add *Claytonia rubra* subsp. *depressa*; distinguished from subsp. *rubra* by having basal leaves elliptic to obovate, base wedge shaped; cauline leaves fused as against basal leaves diamond-shaped to deltate, base ± truncate, cauline fused or partly free on 1 side.

Nyctaginaceae

p.211 *Abronia umbellata* – add “var. *umbellata*” in species name

Orobanchaceae

p.223 *Cordylanthus rigidus* subsp. *littoralis* – delete “Mon endemic”

Polemoniaceae

p.247 *Eriastrum wilcoxii**. – This taxon has now been formally described as *Eriastrum calocyanum* (Pretty Blue Woollystar) [See: *Tomum Nominum Eriastri: The Nomenclature and Taxonomy of Eriastrum (Polemoniaceae: Loeseliae)* by Sarah J DeGroot in *Aliso: A Journal of Systematic and Evolutionary Botany*; Vol 34: Iss.2, Article 1]

p.249 *Leptosiphon liniflorus* – substitute “Pedicels 10–30 mm” for “Pedicels 10–30 cm”

Polygonaceae

p.265 *Persicaria maculosa* – substitute “Eurasian” for “Eur”

p.269 *Rumex crassus* – substitute “pl decumbent to ascending, 2–6 dm” for “pl decumbent to ascending, 2–6 cm”

Rosaceae

p.287 *Pyracantha fortuneana* – substitute “China” for “Eur”

Scrophulariaceae

p.297 *Scrophularia californica* – substitute “cor 8–12 mm” for “cor 8–23 mm”

Urticaceae

p.303 *Parietaria judaica* – delete “15–40 mm” in line 2

Cyperaceae

p.347 *Schoenoplectus pungens* – substitute “var. *longispicatus*” for “subsp. *longispicatus*”

Poaceae

p.361 *Andropogon glomeratus* var. *scabriglumis* – substitute “stiffly erect 5–10 dm” for “stiffly erect 5–10 cm”

Index – Common Names

p.415 Delete “Annual Burweed: 67”

p.416 Insert “Burweed, Annual: 67”

p.424 Insert “Poppy, Coulter’s Matilija: 231”

Index – Scientific Names

p.430 *Baccharis salicifolia* – Add “subsp. *salicifolia*”

p.430 *Benitoa occidentalis* (not *B. occidentale*)

p.431 *Centranthus ruber* (not *C. rubra*)

- p.432 *Crassula multicava* subsp. *multicava* (not subsp. *floribunda*)
- p.438 *Nuttallanthus texanus* (Not *N. canadensis*)
- p.439 *Plectritis congesta* – Add “subsp *congesta*”
- p.440 Insert “*Romneya coulteri*: 231”