

KEY TO *Eriogonum* – CRATER OF THE MOON NATIONAL PARK

1. Plants perennial.
 2. Flowers hairy abaxially.
 3. Plants tall; flowers white; involucre lobes erect; achenes glabrous *E. elatum*
 3. Plants low; flowers yellow or yellowish; achenes often hairy at apex.
 4. Flowering stem without subtending bracts on flowering stem or at base on solitary involucre; plants matted *E. caespitosum*
 4. Flowering stems with subtending bracts at base of inflorescences of numerous involucre; plants low shrubs or subshrubs *E. sphaerocephalum*
 2. Flowers glabrous abaxially.
 5. Flowers with a distinct stipelike base; involucre lobes strongly reflexed.
 6. Flowering stems with a distinct whorl of leafy bracts about midlength between leaves and inflorescences; to be expected at CMNP *E. heracleoides*
 6. Flowering stems without a distinct whorl of leafy bracts, occasionally with a single leafy bract in some.
 7. Flowers yellow *E. umbellatum* var. *stragalum*
 7. Flowers cream to white.
 8. Leaves densely hairy on both surfaces.
 9. Leaf-blades linear-oblongate, 1.5-3 cm long, 0.2-0.5 cm wide, densely whitish lanate to tomentose on both surfaces *E. heracleoides* var. *leucophaeum*
 9. Leaf-blades oblanceolate to elliptic, 0.5-2 cm long, 0.3-1 (1.5) cm wide, densely whitish, greenish or reddish lanate abaxially, glabrous and olive green to bright green adaxially *E. umbellatum* var. *majus*
 8. Leaves thinly hairy on lower surface or essentially glabrous on both surfaces.
 10. Leaves thinly hairy on lower surface *E. umbellatum* var. *dichrocephalum*
 10. Leaves essentially glabrous on both surfaces *E. umbellatum* var. *desereticum*
 5. Flowers without a distinct stipelike base; involucre lobes erect.
 11. Plants shrubs or subshrubs; flowers white *E. microthecum* var. *laxiflorum*
 11. Plants matted or caespitose; flowers yellow or white to cream.
 12. Plants caespitose; leaves mostly 0.5-2 cm long; flowers yellow; involucre campanulate, membranaceous, the lobes hairy, mostly 1.5-3.5 mm long; flowers with tepals all alike *E. crosbyae* (*capistratum*)
 12. Plants matted; leaves mostly 1-8 cm long; flowers yellow or cream to white; involucre turbinate, rigid, hairy throughout, mostly 3-5 mm long; flowers with outer whorl of tepals usually distinctly broader than those of inner whorl.
 13. Leaf blades mostly 0.4-0.8 cm long; flowering stems mostly suberect to decumbent, 1-4 cm long; flowers white to rose *E. ovalifolium* var. *depressum*
 13. Leaf blades mostly 1-6 cm long; flowering stems erect, 5-20 cm long; flowers yellow or cream to white.
 14. Flowers yellow to pale yellow *E. ovalifolium* var. *ovalifolium*
 14. Flowers white to cream *E. ovalifolium* var. *purpureum*
 1. Plants annual.
 15. Involucres on spreading to ascending or deflexed peduncles; flowers white, tepals pandurate (sides straight and wrinkled) *E. cernuum*
 15. Involucres sessile; flowers white or yellow, tepals not pandurate.
 16. Stems and branches tomentose; flowers yellowish, outer tepals broadly fan-shaped; inflorescence branches incurved *E. nidularium*
 16. Stems glabrous or if thinly hairy then branches glabrous; flowers white, tepals not fan-shaped; inflorescence branches spreading.
 17. Involucres 2-3.5 (4) mm long, narrowly cylindric; flowers glabrous, 2-2.5 mm long; achenes 2-2.5 mm long; stems thinly hairy *E. vimineum*
 17. Involucres 1-1.5 mm long, turbinate; flowers minutely glandular, 1.5-2 mm long; achenes 1-1.5 mm long; stems glabrous *E. baileyi*

Descriptions:

ERIOGONUM BAILEYI S. Watson, Proc. Amer. Acad. Arts 10: 348. 1875 • Bailey's wild buckwheat
Plants erect to spreading annuals 1-4(-5) dm, glabrous or tomentose. Leaves basal; leaf-blades suborbicular, 0.5-2 × 0.5-2 cm, densely white tomentose abaxially, mostly tomentose adaxially; petioles 0.5-3 cm, tomentose. Flowering stems erect, 0.5-1 dm. Inflorescences open or more commonly diffuse, erect and narrow to spreading, 0.5-3.5(-4.5) dm; bracts 3, scalelike, 0.5-3 × 1-3 mm. Peduncles lacking. Involucres turbinate, 1-1.5 × 0.5-1 mm; teeth 5, 0.2-0.3 mm. Flowers white to pink, 1.5-2 mm, finely glandular or rarely some glabrous; perianth lobes monomorphic, oblong to oblong-obovate, somewhat constricted near the middle and flaring adaxially. Stamens included, 1-1.5 mm; filaments pilose. Achenes trigonous, brown, 1-1.5 mm, glabrous.

Only the glabrous phase, var. *baileyi*, is found at CMNP.

ERIOGONUM CAESPITOSUM Nutt., J. Acad. Nat. Sci. Philadelphia 7: 50. 1834 • Matted wild buckwheat
Plants low, compact, pulvinate to caespitose, polygamo-dioecious herbaceous perennials 1-5(-12) dm across. Leaves in compact basal rosettes; leaf-blades elliptic to obovate or nearly oval, 0.2-1(-1.5) × 0.15-0.4(-0.5) cm, grayish to whitish tomentose on both surfaces to less so and greenish adaxially; petioles 0.05-0.4(-0.7) cm. Flowering stems scapose, ascending to weakly erect, (0.1-)-0.3-0.8(-1) dm, mostly floccose to glabrous; bracts lacking. Inflorescences capitate. Involucres solitary, campanulate, 2-3.5 × 2-4 mm; teeth 6-9, strongly reflexed, 2-3.5 mm, narrowly oblong. Flowers yellow to reddish or rose, 2.5-10 mm including the 0.5-1 mm long stipe, densely pilose to villous; male flowers shorter, 2.5-4 mm; perianth lobes mostly monomorphic, oblong-ob lanceolate, those of the female flower becoming slightly dimorphic in fruit. Stamens exerted, 3-4 mm; filaments pilose. Achenes trigonous, light brown to brown, (3.5-)-4-5 mm, glabrous or slightly pubescent on the beak.

ERIOGONUM "CAPISTRATUM Reveal, Phytologia 66: 254. 1989" • Hitchy's wild buckwheat
Plants low, caespitose matted herbaceous perennials 0.05-4(-5) × 0.1-3 dm, glandular or thinly floccose. Leaves basal, solitary; leaf-blades spatulate to narrowly elliptic or elliptic, 0.5-1.5 × 0.2-0.7(-1) cm, densely white tomentose on both surfaces, sometime less so and grayish to greenish adaxially, plane; petioles 0.2-1 cm, tomentose. Flowering stems scapose, erect or nearly so, 0.1-1 dm, glandular or thinly floccose. Inflorescences capitate, 0.7-1.2 cm; bracts 3, scalelike, (1-)-1.5-2.5 mm, triangular. Peduncles lacking. Involucres congested, 3-7, turbinate-campanulate to campanulate, 2-4 × 2-4 mm, membranaceous, tomentose and often glandular; teeth 5-7, erect, 0.3-1.5 mm. Flowers yellow, 2-3.5(-4) mm, glabrous or sparsely glandular abaxially; perianth lobes monomorphic, oblanceolate to oblong, united 1/4-1/3 their length. Stamens mostly exerted, 2-4 mm; filaments pilose. Achenes trigonous, brown, 2-3 mm, glabrous.

This member of the *Eriogonum ochrocephalum* complex was included in *E. crosbyae* Reveal (Brittonia 33: 442. 1981) in *Flora of North America*. This phase consists of two variants, the var. *capistratum* of Idaho and the depauperate, glandular var. *muhlickii* Reveal of Montana. On going work may well show that *E. capistratum* would be better considered a variety of *E. crosbyae*.

ERIOGONUM CERNUUM Nutt., Proc. Acad. Nat. Sci. Philadelphia 4: 14. 1848 • Nodding wild buckwheat
Plants spreading to erect annuals, 0.5-6 dm high, glabrous. Leaves basal or sheathing up the stems; leaf-blades round-ovate to orbicular, (0.5-)-1-2(-2.5) × (0.5-)-1-2(-2.5) cm, white to grayish tomentose abaxially, tomentose to floccose or glabrate and greenish adaxially; margins entire and plane; petioles 1-4 cm, tomentose. Flowering stems 1-several, mostly erect, 0.3-2 dm long. Inflorescences cymose, open to sometimes diffuse, 0.5-5 dm high; bracts 3, scalelike, 1-2 × 1-2.5 mm. Peduncles, when present, slender, (1-)-2-25 mm, cernuous, spreading to ascending or deflexed. Involucres turbinate, (1-)-1.5-2 × 1-1.5 mm; teeth 5, 0.4-0.7 mm. Flowers white to pinkish, becoming rose to red in fruit, 1-2 mm, glabrous; perianth lobes dimorphic with the outer ones panduriform with crisped margins and truncate bases, those of the inner whorl obovate. Stamens mostly excluded, 1-2 mm; filaments pilose. Achenes trigonous, light brown to brown, 1.5-2 mm, glabrous.

ERIOGONUM ELATUM Douglas ex Benth., Trans. Linn. Soc. London 17: 413. 1836 • Tall wild buckwheat
Plants erect herbaceous perennial 4-8(-15) × 1-4 dm, glabrous or villous. Leaves basal; leaf-blades lanceolate to lance-ovate, 4-15(-25) × 1.5-6 cm, loosely villous and green on both surfaces or infrequently thinly tomentose abaxially and glabrate adaxially; petioles 5-25 cm, villous. Flowering stems erect, infrequently

fistulose, 1.5-4(-8) dm. Inflorescences cymose, 1.5-5 × 1-3 dm; bracts 3, scalelike and triangular, 1-4 mm or semifoliateous at the lower nodes and linear, 0.5-3 × 0.2-0.5 cm. Peduncles, when present, 0.5-4 cm, erect. Involucres solitary or more commonly 2-5, turbinate, (2.5-)3-4 × 2.5-3 mm, glabrous or slightly tomentose; teeth 5, erect, 0.4-0.9 mm. Flowers white, 2.5-4 mm, glabrous except for some slender hairs abaxially; perianth lobes monomorphic, obovate. Stamens exserted, 2.5-4 mm; filaments pilose. Achenes trigonous, light brown, 3.5-4 mm, glabrous.

Only the var. *elatum* ($2n = 40$) occurs at CMNP; it has glabrous stems and branches.

ERIOGONUM HERACLEOIDES Nutt., J. Acad. Nat. Sci. Philadelphia 7: 49. 1834

Plants low, spreading, freely branched herbaceous perennials 1-6 × 2-10, tomentose to floccose. Leaves in loose rosettes; leaf-blades mostly linear to oblanceolate, (1-)2-5 × (0.1-)0.4-1(-1.5) cm, densely white lanate to tomentose abaxially, thinly floccose to glabrous and green or rarely lanate adaxially; petioles 0.5-3 cm, usually floccose. Flowering stems erect, (0.5-)1-3(-4) dm, nearly always with a whorl of foliaceous bracts about midlength. Inflorescences simple or compound umbellate, rarely reduced and compact, 0.1-1 × 0.1-1 dm; bracts 3-several, foliaceous at first node and oblanceolate to linear, 0.3-1 × 0.2-0.4 cm, mostly bracteate and 1-5 × 0.5-2.5 mm adaxially. Peduncles lacking. Involucres solitary, turbinate to campanulate, 3-4.5 × 2.5-5(-6) mm, tomentose or rarely glabrous; teeth reflexed, linear to lanceolate, (2-)3-6(-8) mm. Flowers white to cream or ochroleucous, 4-9 mm including the 1.5-3 mm long stipe, glabrous; perianth lobes monomorphic, spatulate to oblong-ovate. Stamens exserted, 4-8 mm; filaments pilose. Achenes trigonous, light to dark brown, (2-)3.5-5 mm, sparsely pubescent apically.

The var. *heracleoides* has a distinct whorl of leaflike bracts about midlength along the stem between the leaves and inflorescence. This taxon is to be expected at CMNP. The species can be confused with *E. umbellatum* var. *majus*.

NOTE: The distinction between *E. heracleoides* var. *leucophaeum* Reveal (Phytologia 25: 200. 1973), or what has been called mistakenly *E. heracleoides* var. *minus* Benth. (a synonym of var. *heracleoides*) at CMNP, is difficult in this part of Idaho. The var. *leucophaeum* is basically a plant of eastern Washington and Gooding and Kootenai cos., Idaho. However, there seemingly are scattered populations of var. *leucophaeum* in both Elmore and Valley cos., Idaho, in the valleys of the Idaho batholith. There are a few specimens in the herbarium with long, narrow leaves that may well be var. *leucophaeum* but it is possible this is allied to the grayish lanate phase (informally called "var. *lanatum*" at <http://www.life.umd.edu/emeritus/reveal/pbio/eriog/oligogonum/heracleoides.html>) but without a well-defined whorl of bracts. At this point, I am referring all of the CMNP material to var. *majus*, although this is not correct. To resolve this problem, I would need to study the plants in the field. It is possible that you have an unnamed taxon.

ERIOGONUM MICROTHECUM Nutt., Proc. Acad. Nat. Sci. Philadelphia 4: 15. 1848

Plants tall and erect to low and spreading subshrubs to shrubs, 0.5-1.5 × 6-13(-16) dm, white to tannish tomentose, floccose or glabrous. Leaves cauline, solitary or in fascicles; leaf-blades linear to obovate, mostly elliptic, 0.3-3.5(-4) × 0.1-2 cm, tomentose abaxially, less so to glabrous adaxially, occasionally revolute; petioles 0.1-0.5 cm. Flowering stems numerous, erect to spreading, 0.1-1 dm. Inflorescences cymose, rather compact and often flat-topped, 0.5-6(-12) × 1-10(-13) cm, whitish to brownish or reddish tomentose to floccose, infrequently green or gray and subglabrous to glabrous; bracts 3, scalelike, 1-5 mm, linear to triangular. Peduncles, when present, slender, 0.3-1.5 cm, mostly erect, tomentose to floccose. Involucres solitary, turbinate, (1.5-)2-3.5(-4) × 1.3-2.5(-3) mm; teeth 5, erect, (0.3-)0.5-1(-1.7) mm. Flowers yellow or white, becoming orange or rose to red, 1.5-3(-4) mm, glabrous; perianth lobes essentially monomorphic, oblong to obovate, united 1/5-2/5 their length. Stamens mostly exserted, 2.5-4 mm. Achenes trigonous, brown, 1.5-3 mm, glabrous.

Only one variety occurs at CMNP:

ERIOGONUM MICROTHECUM Nutt. var. **LAXIFLORUM** Hook., Hooker's J. Bot. Kew Gard. Misc. 5: 264. 1853 • Great Basin wild buckwheat

Plants low subshrubs (1-)2-4(-5) × 3-8 dm. Leaf-blades mostly elliptic, (0.5-)1-2(-2.5) × (0.1-)0.2-0.6(-0.8) cm, densely to sparsely white-tomentose abaxially, less so to sparsely white floccose adaxially, not revolute. Flowering stems 0.2-0.6(-0.8) dm, floccose or tomentose. Inflorescences (1-)2-4(-8) cm, floccose to glabrate. Involucres 2-3(-3.5) mm, subglabrous to glabrous or merely floccose between angled ridges. Flowers white to pink, 2-3 mm. Achenes 2-3 mm.

ERIOGONUM NIDULARIUM Coville, Contr. U.S. Natl. Herb. 4: 186. 1893 • Birdnest wild buckwheat

Plants erect to slightly spreading annuals 0.5-1.5(-2) dm, floccose to tomentose. Leaves basal; leaf-blades rounded to cordate, 1-2(-2.5) × 1-2(-2.5) cm, densely white tomentose abaxially, tomentose to floccose and occasionally greenish adaxially; petioles 1-3(-5) cm, tomentose. Flowering stems mostly erect, 0.05-0.3 dm. Inflorescences diffuse with inwardly curved branches, 0.5-1.5(-2) dm; bracts 3, scalelike, 0.5-3 mm × 1-3 mm. Peduncles lacking. Involucres cylindrical-turbinate, 1-1.3 × 0.5-0.7 mm; teeth 5, 0.1-0.2 mm. Flowers pale yellow or more commonly yellow, rarely creamy-white, becoming red in fruit, 1-3(-3.5) mm, glabrous; perianth lobes dimorphic, those of the outer whorl obovate and fan-shaped apically, those of the inner whorl oblanceolate. Stamens included, 1-1.5 mm; filaments pilose. Achenes trigonous, light brown, 1-1.3 mm, glabrous. *n* = 20.

ERIOGONUM OVALIFOLIUM Nutt., J. Acad. Nat. Sci. Philadelphia 7: 40. 1834

Plants low, pulvinate to caespitose herbaceous perennials 0.2-3 × (0.3-)1-4 dm, floccose to tomentose or lanate. Leaves basal, solitary; leaf-blades oblanceolate to elliptic or spatulate to rounded, 0.3-6 × (0.1-)0.2-1.5 cm, lanate to tomentose, sometimes less so adaxially; petioles 0.1-10 cm, mostly tomentose. Flowering stems scapose or seemingly so, mostly erect, 0.3-3 dm. Inflorescences capitate or rarely umbellate and 0.7-3.5 × 0.7-3.5 cm; bracts 3, scalelike, linear to triangular, 0.8-4 mm. Peduncles lacking. Involucres solitary or 3-15, turbinate to turbinate-campanulate, (2-)3.5-5(-6.5) × 2-4 mm, tomentose to floccose; teeth 5, erect. 0.1-1 mm. Flowers white to yellow or rose to purple, (2.5-)3-6(-7) mm, glabrous; perianth lobes dimorphic, those of the outer whorl mostly oval to orbicular, 2-4 × 2-4 mm, erect, those of the inner whorl oblanceolate to elliptic, 3-7 × 0.8-1.5 mm, erect. Stamens mostly included, 1-3 mm; filaments pilose. Achenes trigonous, light brown to brown, 2-3 mm, glabrous.

Three of the ten varieties occur at CMNP

ERIOGONUM OVALIFOLIUM Nutt. var. **PURPUREUM** (Nutt.) Durand, Trans. Amer. Philos. Soc. 11: 175.

1860 • Purple cushion wild buckwheat

Plants 2.5-4 dm across. Leaf-blades mostly obovate to oval, 0.5-2 cm; margin not colored. Scapes erect, (4-)5-20 cm, tomentose. Inflorescences capitate, 1.5-3.5 cm across. Involucres 3-15, 4-5 mm. Flowers white to cream or pinkish, rose, red or purplish, 4-5 mm. *2n* = 40.

ERIOGONUM OVALIFOLIUM Nutt. var. **OVALIFOLIUM** • Cushion wild buckwheat

Plants 2.5-4 dm across. Leaf-blades mostly elliptic to spatulate or oblong, (1-)3-6 cm; margin rarely colored. Scapes erect, (4-)5-20 cm, thinly tomentose. Inflorescences capitate, 1-3.5 cm across. Involucres 3-15, 4-5(-6.5) mm. Flowers yellow 4-5 mm. *2n* = 40.

ERIOGONUM OVALIFOLIUM Nutt. var. **DEPRESSUM** Blank., Mont. Agric. Coll. Stud. Bot. 1: 49. 1905 •

Dwarf cushion wild buckwheat

Plants 1-2.5 dm across. Leaf-blades elliptic or infrequently oblong to spatulate, 0.4-0.8 cm; margins not colored. Scapes mostly erect, 1-4(-8) cm, thin floccose in most. Inflorescences capitate, 1-1.5(-2) cm across. Involucres 2-4, 3-3.5 mm. Flowers white, cream or rose, 4-5 mm.

ERIOGONUM SPHAEROCEPHALUM Douglas ex Benth., Trans. Linn. Soc. 17: 407. 1836 • Rock wild buckwheat

Plants low spreading to erect, freely branched woody subshrubs 0.5-4 × 3-5(-6) dm. Leaves in loose to rather congested basal rosettes; leaf-blades narrowly oblanceolate or narrowly spatulate to oblanceolate, 1-3(-4) × (0.2-)0.3-0.6(-1) cm, lanate or tomentose to floccose or glabrous; petioles 0.05-0.3 cm. Flowering stems mostly erect, (0.3-)0.5-1 dm, thinly floccose to nearly glabrous with a whorl of bracts about midlength when inflorescences capitate. Inflorescences capitate or umbellate; bracts 4-8 in a whorl, narrowly oblanceolate, 1-2 × 0.2-0.4 cm. Involucres solitary, turbinate-campanulate to campanulate, 3-4 × 2.5-4.5 mm; teeth 6-10, slightly reflexed, 1.5-3(-5) mm, silky pubescent in some. Flowers yellow to pale yellow or cream to ochroleucous, (5-)6-9 mm including the stipe 1-2 mm long stipe, villous; perianth lobes monomorphic, obovate to oblong-ovate. Stamens exserted, 4-6 mm; filaments pilose. Achenes trigonous, light brown, 3-4 mm, glabrous except for the slightly pubescent beak.

Only the yellow-flowered var. *sphaerocephalum* is found on CMSP.

ERIOGONUM UMBELLATUM Torr., Ann. Lyceum New York 2: 241. 1828 • Sulphur flower

Plants low caespitose, matted herbaceous perennials to large spreading shrubs 1-12(-20) × 3-12(-20) dm across, glabrous to tomentose. Leaves in loose to compact basal rosettes; leaf-blades elliptic to round, 0.3-3(-4) × 0.2-3 cm; petioles 0.1-2.5(-4) cm. Flowering stems erect, (0.3-)0.5-3(-4) dm, leafless. Inflorescences umbellate to compound umbellate, 0.3-2.5 × 0.2-1.8 dm; bracts 3-several, semifoliateous at first node,

0.3-1.5 × 0.2-1 cm, mostly bracteate and 1-5 × 0.5-3 mm adaxially. Peduncles mostly lacking. Involucres solitary, turbinate to campanulate, 1-6 × (1-)1.5-10 mm, tomentose to glabrous; teeth 6-12, reflexed, 1-4(-6) mm. Flowers yellow, cream to red or purple, 2.5-12 mm including the (0.7-)1.3-2 mm long stipe, glabrous; perianth lobes monomorphic, mostly spatulate to obovate, 3-6 × 1-3 mm, mostly erect. Stamens exserted, 2-8 mm; filaments pilose. Achenes trigonous, light brown to brown, 2-7 mm, glabrous except for the usually sparsely pubescent beak.

The complex species of some 40 varieties is represented on CMNP by the following:

ERIOGONUM UMBELLATUM Torr. var. **DESERTICUM** Reveal in Welsh et al., Great Basin Naturalist 35:

365. 1975 • Desert sulphur flower

Plants loose, spreading mats mostly 3-6 dm across. Leaves in loose rosettes; leaf-blades mostly elliptic, 1-2(-2.5) × 0.5-1.5(-2) cm, glabrous on both surfaces at full anthesis. Flowering stems erect, mostly 1-3 dm, thinly floccose to glabrous. Inflorescences umbellate; branches 2-4 cm, glabrous. Involucral tubes 2-3 mm; teeth 1-2.5 mm. Flowers pale yellow to cream, 4-8 mm.

ERIOGONUM UMBELLATUM Torr. var. **DICHOCEPHALUM** Gand., Bull. Soc. Roy. Bot. Belgique 42: 199.

1906. • Bicolor sulphur flower

Plants loose, spreading (rarely compact) mats mostly 5-10 dm across. Leaves in mostly loose rosettes; leaf-blades elliptic to broadly elliptic, 1-2(-2.5) × 0.5-1.5(-2) cm, tomentose to floccose abaxially, thinly tomentose to glabrous adaxially. Flowering stems erect, mostly (0.5-)1-2.5 dm, thinly tomentose to floccose or rarely glabrous. Inflorescences umbellate; branches 0.5-4 cm, thinly tomentose. Involucral tubes 2-3 mm; teeth 1-2.5 mm. Flowers pale yellow to cream or whitish, 4-8 mm.

ERIOGONUM UMBELLATUM Torr. var. **MAJUS** Hook., Hooker's J. Bot. Kew Gard. Misc. 5: 264. 1853 •

Subalpine sulphur flower

Plants large prostrate and spreading, compact mats 2-8(-10) dm across. Leaves in loose rosettes; leaf-blades oblanceolate to elliptic, (0.3-)0.5-2(-4) × 0.3-1(-1.5) cm, densely whitish-, greenish- or reddish lanate abaxially, olive-green to bright green and glabrous adaxially. Flowering stems erect, mostly 1.5-3 dm, usually floccose. Inflorescences umbellate; branches 3-9 cm. Involucral tubes 2-3.5 mm long; lobes 1-4 mm. Flowers cream-colored, 3-7(-9.5) mm.

Often confused with *Eriogonum heracleoides* – see above.

ERIOGONUM UMBELLATUM Torr. var. **STRAGULUM** Reveal, Phytologia 86: 156. 2004 • Spreading sulphur flower

Plants loose, spreading mats mostly 2.5-10(-12) dm across. Leaves in loose rosettes; leaf-blades elliptic to ovate, (0.8-)-3(-3.5) × (0.7-)1-2(-2.5) cm, thinly tomentose to sparsely floccose abaxially, thinly floccose or glabrous and green adaxially. Flowering stems erect, mostly 1-3 dm, thinly floccose. Inflorescences umbellate; branches (1-)2.5-5(-8) cm, usually thinly floccose. Involucral tubes 2-3 mm; teeth 3-5 mm. Flowers bright yellow, 4-7(-8) mm. *n* = 40.

ERIOGONUM VIMINEUM Douglas ex Benth., Trans. Linn. Soc. 17: 416. 1836 • Wicker-stem wild buck-wheat

Plants erect to slightly spreading annuals 0.5-3 dm high, glabrous to floccose or thinly tomentose. Leaves basal; leaf-blades round-ovate to rounded, 0.5-2 × 0.5-2 cm, densely white tomentose abaxially, less so to nearly glabrous and greenish adaxially; petioles 1-4 cm. Flowering stems erect or nearly so, 0.5-1 dm. Inflorescences cymose, erect or nearly so, 0.5-2.5 dm; bracts 3, scalelike, 1-3 × 1-2 mm. Peduncles lacking. Involucres narrowly cylindric, 2-3.5(-4) × 1-2 mm, mostly glabrous; teeth 5, 0.3-0.6 mm. Flowers white to rose or pale yellow, 2-2.5 mm, glabrous; perianth lobes slightly dimorphic, those of the outer whorl broadly spatulate to obovate, those of the inner whorl oblanceolate. Stamens included, 1-1.5 mm; filaments pilose or glabrous. Achenes trigonous, brown 2-2.5 mm, glabrous. *n* = 12.