

R. PARVIFLORUS f. *acephalus*, n.f., f. *adenium* simulans sed foliis subtus subvelutinis. TYPE, in Herb. Univ. Wis.: Port Orford, Ore., Aug. 12, 1938, *Doris K. Gillespie 15399*.

R. parviflorus var. *velutinus*, confined to the Coast Ranges of California, shows variations just paralleling those in the rest of the species. In studying the fluctuations of var. *velutinus* the writer has had the advantage of the loan of the material from the herbaria of the University of California and of Pomona College, as well as the most generous mass collections made by Drs. Gillespie, Mathias, Schreiber, Constance and Wiggins. To keep clear the parallelism of forms, each one in var. *velutinus* is here given a name based on that of the corresponding form in the widespread phase of the species.

R. PARVIFLORUS var. *VELUTINUS* f. *parbifarius*, n.f., caulibus, petiolis, pedicellis pedunculisque villosis; foliis subtus velutinis; pedicellorum glandulis stipitatis 0.5–1.0 mm. longis. TYPE, in Herb. Univ. Wis.: north slope of Strawberry Creek Canyon, 0.7 miles above its mouth, 1100 ft. alt., Berkeley, Calif., Aug. 4, 1938, *L. Constance 2397*.

R. PARVIFLORUS var. *VELUTINUS* f. *praebifarius*, n.f., f. *parbifarium* simulans sed pedicellis non villosis. TYPE, in Herb. Univ. Wis.: Eureka, Calif., Aug. 6, 1938, *Doris K. Gillespie 15397*.

R. PARVIFLORUS var. *VELUTINUS* f. *paratrichophorus*, n.f., f. *parbifarium* simulans sed calycibus villosis. TYPE, in Herb. Univ. Wis.: under *Sequoia sempervirens*, $\frac{1}{2}$ –1 mile from the ocean, Palo Colorado Canyon, Santa Lucia Mts., about 12 miles south of Carmel, Calif., Aug. 7, 1938, *Mildred E. Mathias 1389*.

R. PARVIFLORUS var. *VELUTINUS* f. *parahypomalacus*, n.f., caulibus, petiolis, pedicellis, pedunculisque villosis; calycibus non villosis vel subvillosis ad basem; pedicellorum pedunculorumque glandulis stipitatis 1–2 mm. longis. TYPE, in Herb. Univ. Wis.: 1.5 miles southeast of Abbot's Lagoon, Marin Co., Calif., Aug. 6, 1938, *Beryl O. Schreiber 2538*.

R. PARVIFLORUS var. *VELUTINUS* f. *isohypomalacus*, n.f., nodis stipulisque villosis; pedicellis calycibusque non villosis; pedicellorum pedunculorumque glandulis stipitatis 1.0–1.5 mm. longis. TYPE, in Herb. Univ. Wis.: Elk River 6 miles south of Eureka, Calif., Aug. 8, 1938, *Doris K. Gillespie 15398*.

R. PARVIFLORUS var. *VELUTINUS* f. *parvillosus*, n.f., caulibus, petiolis, pedunculis, pedicellis, calycibusque villosis; pedicellorum pedunculorumque glandulis stipitatis 1–2 mm. longis. TYPE, in Herb. Univ.

Wis.: 1.5 miles southeast of Abbot's Lagoon, Marin Co., Calif., Aug. 6, 1938, *Beryl O. Schreiber 2538*.

R. PARVIFLORUS var. *VELUTINUS* f. *paramicradenius*, n.f., caulibus stipulisque sparse villosis; pedicellorum pedunculorumque glandulis subsessilibus. TYPE, in Herb. Univ. Wis.: Eureka, Calif., Aug. 6, 1938, *Doris K. Gillespie 15397*.

KEY TO VARIETIES AND FORMS OF *R. PARVIFLOEUS*

- a.* Stem, stipules and petioles without long spreading hairs; leaves of thin texture, not rugose above, their lower surfaces glabrous, glabrate, appressed-pubescent, or moderately velvety; pedicels only very exceptionally with long hairs exceeding the glands; petioles with or without a minute puberulence much shorter than the glands.....var. *genuinus*
- b.* Pedicels with setae which are usually gland-tipped, the stalks more than 4 times as long as the diameter of the gland
- c.* Setae of the pedicels gland-tipped
- d.* Setae 1-2 mm. long
- a.* Leaves soft-pubescent beneath
- f.* Calyx not villous.....f. *hypomalacus*
- f.* Calyx with villous hairs hiding the glands.....f. *villosus*
- e.* Leaves not soft-pubescent beneath.....f. *heteradenius*
- d.* Setae mostly about 0.5 mm. long
- g.* Leaves soft-pubescent beneath
- h.* Calyx not villous.....f. *bifarius*
- h.* Calyx with villous hairs hiding the glands.....f. *trichophorus*
- g.* Leaves not soft-pubescent beneath
- i.* Calyx not villous.....f. *glabrifolius*
- i.* Calyx with villous hairs hiding the glands.....f. *Nuttallii*
- c.* Setae broad-based and not gland-tipped
- j.* Leaves soft-pubescent beneath.....f. *acephalus*
- j.* Leaves not soft-pubescent beneath.....f. *adenius*
- b.* Pedicels glandless or with sessile glands or with glands on stalks less than 4 times as long as the diameter of the gland
- k.* Leaves soft-pubescent beneath.....f. *micradenius*
- h.* Leaves not soft-pubescent beneath
- l.* Calyx not villous.....f. *scopulorum*
- l.* Calyx with villous hairs hiding the glands.....f. *allocalyx*
- a.* Stem, stipules and petioles with long spreading hairs; leaves of thickish texture, rugose above, their lower surfaces always densely velvety; pedicels usually with long hairs exceeding the glands; petioles always with a minute puberulence much shorter than the glands.....var. *velutinus*
- m.* Pedicels with copious villous hairs exceeding the glands
- n.* Gland-tipped setae of pedicels 1-2 mm. long
- o.* Calyx not villous.....var. *velutinus* f. *parahypomalacus*
- o.* Calyx with villous hairs hiding the glands....var. *velutinus* f. *parvillosus*
- n.* Gland-tipped setae of pedicels about 0.5 mm. long
- p.* Calyx not villous.....var. *velutinus* f. *parbifarius*