

roadsides, particularly in the Columbia River gorge. Flowers June to August.

Representative specimens. CALIFORNIA. Plumas Co.: between Taylorsville and Genesee, *J. T. Howell* 28209. Siskiyou Co.: Mt. Shasta, *Grant* 5064; on U.S. 97, ¾ mile south of turnoff to Highway A12, north of Weed, *G-6682*. OREGON. Jefferson Co.: 2½ miles west of Metolius on road to Round Butte, *G-6686*. Sherman Co.: 6 miles west of Arlington on 8ON, *G-6691*. Wasco Co.: 2 miles west of The Dalles on U.S. 30, *G-6687*. WASHINGTON. Douglas Co.: Rock Island, *Sandberg and Leiberg* 2303. Klickitat Co.: Columbia River, *Suksdorf* 982. Walla Walla Co.: Waitsburg, *Horner* 28. Yakima Co.: 5 miles south of Toppenish on U.S. 97, *G-704*. IDAHO. Canyon Co.: Falks Store, *MacBride* 1687. Elmore Co.: King Hill, *Nelson and MacBride* 1085. Owyhee Co.: about 8 miles east of Silver City on road to Murphy, *G-719*.

Stephanomeria paniculata shows close phylogenetic affinities to *S. exigua* ssp. *coronaria*. It is self-compatible and is highly self-pollinating in the greenhouse. Correlated with its breeding system are short narrow ligules and reduced number of pollen grains.

3. ***Stephanomeria diegensis*** n. sp. Inter *S. exiguam* et *S. virgatam* quasi intermedia; ab *S. exigua* pappi setis non incrassatis, ab *S. virgata* acheniis sulcatis differt.

Heads solitary or clustered on short (3–4 mm) peduncles (fig. 2); heads averaging 11–13 florets; involucre subtended by reflexed calyculate bracts, glandular-puberulent; ligules various shades of pink or white on upper surface, generally purple-tinged on back; achenes averaging 1.9 to 2.3 mm long, five-sided with a narrow longitudinal groove on each side (fig. 3); pappus bristles averaging 19–21 in number; plumose on the upper 80–85% of their length, not thickened, distinct at the base, completely deciduous. $n = 8$.

Type. Near entrance to Torrey Pines State Park, San Diego County, California, August 15, 1966, *Gottlieb* 66168. (Holotype: UC)

Distribution (*Gottlieb*, 1971, fig. 3). Frequent in open, pioneer sites such as old clearings, the landward side of coastal sand dunes, chaparral openings, and sandy roadside embankments below 2000 feet from Santa Monica Mountains south to San Quintin, Baja California. Flowers August to November.

Representative specimens. CALIFORNIA. Los Angeles Co.: Santa Catalina Island, Descanso Canyon, *Millsbaugh* 4534; canyon below Lemon Tank, San Clemente Island, *Raven* 17978; Mosquito Harbor, San Clemente Island, *Abrams and Wiggins* 344; Mandeville Canyon, Santa Monica Mountains, *Clokey and Templeton* 4581; U.S. 101, 0.2 miles east of Zuma Beach turnoff, Santa Monica Mountains, *Raven and Thompson* 13721; Inglewood, *Abrams* 2979. Orange Co.: Route 74 immediately west of Lower San Juan Campground, *G-6860*. San Diego Co.: La Jolla, *F. E. and E. S. Clements* 269; Del Mar, *Jepson* 1607; Coronado, *Spencer* 1009; Torrey Pines, *Raven and Wedberg* 9474; 4 miles north of Lakeside on Highway 67, *G-6637*; ¼ mile north of Rancho San Bernardo Road on U.S. 395, *G-66162*; 1½ miles west of Harbison Canyon Road on U.S. 8, *G-66164*. Ventura Co.: on Deer Creek Road, 2½

miles east of Route 1, G-6945. MEXICO. Baja California. 2 miles north of Rosario Beach, *Wiggins and Gillespie* 3896; San Quintin Bay, *Mason* 2062a; Middle Island, Coronado Islands, *Moran* 6805; South Cove, Todos Santos del Sur, *Philbrick and Benedict* B68-421.

The morphological characteristics of *Stephanomeria diegensis* are an amalgam of those of *S. exigua* and *S. virgata*. The evolutionary relationships of the species are fully described in Gottlieb, 1971.

4. STEPHANOMERIA ELATA Nutt., J. Acad. Nat. Sci. Phil, n.s., 1.173, 1847.

Herbage glabrous or short pubescent or glandular-pubescent on branchlets and involucre; heads solitary or clustered on short (3–7 mm) peduncles (fig. 2); heads averaging 9–15 florets; involucre subtended by strongly reflexed, slightly reflexed, or rarely appressed calyculate bracts; ligules various shades of pink or white on upper surface, purple-tinged on back; achenes averaging 2.8–4.5 mm in length, five-sided with a narrow longitudinal groove on each side (fig. 3); pappus bristles averaging 17–22 in number, generally completely plumose (pinnae may be sparse in proximal 10% of bristle), the bases various, either not thickened, not connate, and completely deciduous, or thickened, connate in groups of 2–4, and remaining on the achene. $n = 16$.

Type. Holotype: "Santa Barbara, Upper California", not located at Phil. Acad. Nat. Sci. or British Museum. Neotype: Devereux Dunes, University of California, Santa Barbara Campus, Goleta, California, October 11, 1971, *Gottlieb and Philbrick* 7140, deposited at UC.

Distribution (fig. 4). Populations with thickened and connate pappus bristles are found in chaparral openings, grassy meadows, and along roadsides from Monterey County to southwestern Oregon in the Coast Ranges and also on the western slopes of the Sierra Nevada from 500 to 4500 feet south to Fresno County. Populations with unthickened and distinct bristles are distributed near the coast from Marin to Santa Barbara counties. Flowers from July to October.

Representative specimens. OREGON. Douglas Co.: 5 miles north of Jackson County line on Highway 227, G-697. Lane Co.: Willamette River near Oakgrove, *Henderson* 16508. CALIFORNIA. Amador Co.: 1.5 miles west southwest of Rich Gulch, *Belshaw* 2478. Alameda Co.: Strawberry Canyon, Berkeley, *Tracy* 1953. Eldorado Co.: 1 mile south of Coloma, *J. T. Howell* 5575. Humboldt Co.: White Thorn Valley, *Tracy* 5034. Lake Co.: 4 miles from Middleton on Adams Springs Road, *J. T. Howell* 5449. Marin Co.: south end Bolinas Ridge, Mt. Tamalpais, *J. T. Howell* 21552; on bluffs above ocean east of lighthouse, Point Reyes, G-6958. Mariposa Co.: 7 miles southwest of Mariposa on Merced Road, *Stebbins* 2652. Monterey Co.: headwaters of Arroyo Seco, *Mason* 5745; Laureles Grade, G-66123. Napa Co.: Wooden Valley Grade, *Raven* 3057. Nevada Co.: west of Greenhorn Creek, *Raven* 7979. San Francisco Co.: Lake Merced, *J. T. Howell* 716. San Luis Obispo Co.: mouth of Hazard Canyon, Morro Bay, *Chambers* 2474; Baywood Park, Santa Isabel Avenue, G-66132. San Mateo Co.: Pt. San Pedro, *J. T. Howell* 15369. Santa Clara Co.: Mt. Hamilton, *J. T. Howell* 11718; Skyline Blvd., 4 miles south of junction with Page Mill Road, G-66120. Santa Cruz Co.: head of San Lorenzo River,