

1–2 cm longi in fructem 5–25 floribus; pedicelli in fructem 2–3 mm longi; sepala 1.3–2 mm longa obtusa hyalina aspre pilosa saepe purpurascentia; petala 2–3 mm longa alba purpurascentia; fructus 2.5–3 mm longa, 2.3–2.5 mm lata ovata late usque ad 1 mm crassa sinus 0.2 mm profundus; stylus 0.4–0.7 mm longus.

HOLOTYPE: Utah, Beaver Co., T27S, R13W, Sec 23 (SW $\frac{1}{4}$ ), San Francisco Mountains, at Frisco, on rocky ridge, in pinyon-juniper community, K. Ostler and D. Anderson 1258, 6 June 1978 (BRY).

PARATYPES: Utah, Beaver Co., T27S, R13W, Sec 23 (NW $\frac{1}{4}$ ), near Frisco, 6900 feet, rocky slopes, K. Ostler and D. Anderson 1210, 1 June 1978 (BRY); do, T27S, R13W, Sec 16 (SE $\frac{1}{4}$ ), San Francisco Mountains, near Utah Hwy 21, at 5800 ft, on west slope, dry limestone, *Atriplex* community, K. Ostler 1415, 19 June 1978 (BRY); do, west slope of San Francisco Mountains, bristlecone pine, ponderosa pine, Douglas fir, white fir community, K. Ostler 1588, 5 July 1978 (BRY).

The obvious relationship of this perennial dwarf species lies with the *Lepidium nanum*, an endemic of Nevada. The longer racemes, greater flower number, and dense pubescence constitute the most important diagnostic features. The petals of *Lepidium ostleri* are white, while those of *L. nanum* are yellow to cream yellow. While probably of less importance than other features, the color of the petals becomes important when taken with the differences in raceme, flower number, and pubescence features.

The species is named in honor of its collector, Dr. Kent Ostler, an enthusiastic collector and botanist.

*Lygodesmia entrada* Welsh & Goodrich, sp. nov.

Ab *Lygodesmia grandiflora* Nutt. in caulibus rigidioribus ramosissimis foliis brevioribus et paucioribus et radiis albis differt.

Herbae perennes caudice subterraneo ramosissimo omnino usque ad 45 cm altae; folia integra linearia vel acicularia 5–30 mm longa; pedunculi potius numerosi bracteati elongati 12–20 cm longi in capitulum terminans; bractae involucrorum hyalinae exteriores 5–10 mm longae fimbriatae interiores circa sex 16–18 mm longae apex puberulus;

radii albi circa 3 cm longi; pappus barbellatus sordidus setae 10–15 mm longae; achena costata glabra.

HOLOTYPE: Utah, Grand Co., T24S, R19E, Sec 25, Tusher Canyon, ca. 15 mi. due WNW of Moab, 4800 feet elev., Entrada Sandstone Formation, juniper community, S. L. and S. L. Welsh 16725, 3 June 1978 (BRY, four isotypes to be distributed).

This white-flowered material has been identified by A. S. Tomb (pers. comm.) as a probable triploid assignable to *Lygodesmia arizonica* Tomb. The triploid hypothesis cannot herein be questioned because of lack of knowledge concerning the cytological nature of the plants in question. However, despite the ultimate disposition of these plants following future determinations of chromosome numbers, the strikingly different morphological features dictate taxonomic recognition, if for no reason other than the fact that the plants are so different from other plants of *Lygodesmia* in Utah.

A second collection at BRY, here assigned to *L. entrada*, is J. S. Allen 132, from north of Courthouse Wash Ridge in Arches National Park. Dried flower remnants appear to be pink, but the tall nidularius habit and definitely ligneous stems and branches are apparent.

*Lygodesmia arizonica* Tomb is a low herbaceous plant usually of more southern distribution in Utah. Even in late anthesis the stems are herbaceous and lack the characteristic bird's nest appearance of *L. entrada*. *Lygodesmia entrada* differs from *L. grandiflora* in ways similar to those discussed for *L. arizonica*.

*Pediocactus despainii* Welsh & Goodrich, sp. nov.

Ab *Pediocacto bradyi* L. Benson differt in spinis paucioribus brevioribus gracilioribus et floribus colorum.

Plantae carnosae hemisphaericae depressae 3–6 cm in diametrum 4–8 cm longae; tuberculi ovata numerosa ordinata in serialia circularia vel spiralia; areolae spinis 8–14; spinae 2–5 mm longae serialia stellatim; pilis coactis instructis interdum; flores 2.5–4 cm diametrum fragrantis ad apicem gerenti; sepala numerosa; petala numerosa albida suffusa rosea et flava; stamina numerosa lutea