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## A FOURTH SPECIES OF OREOXIS (UMBELLIFERAE)

Stanley L. Welsh and Sherel Goodrich<sup>2</sup>

ABSTRACT.— Described as a new species is *Oreoxis trotteri* Welsh & Goodrich from Utah.

The genus *Oreoxis* is regarded in contemporary treatments (Mathias and Constance 1944, Harrington 1954) as consisting of three species, *O. alpina* (Gray) Coult. & Rose, *O. humilis* Raf., and *O. bakeri* Coult. & Rose. The three species are reported by Harrington (1954) and occurring at elevations of 2898 to 3965 m in Colorado. Goodrich (1984) notes that *O. alpina* grows at 2440 to 3475 m and *O. bakeri* at ca 3660 m in Utah. Thus, we did not expect to find an *Oreoxis* at ca 1464 m on sandstone in the Courthouse Pasture vicinity northwest of Moab in Grand County, Utah. The elevation at the site where the plants grow is almost 1000 m below the lowest reported occurrence of the genus in Utah.

Special attention was given to the plant because of its vertical displacement from other known taxa of the genus. A detailed description was prepared from the collection taken upon discovery. That description was then compared to those of other species in the genus, but especially to *O. alpinus*, with which it is evidently allied. The Courthouse Pasture plants differed in the copious, persistent leaf bases and peduncles, more glandular herbage, fewer leaflet segments, and broader leaflets (Fig. 1). The magnitude of the differences dictates that the plants be recognized at specific rank, as follows:

*Oreoxis trotteri* Welsh & Goodrich sp. nov.  
Similis *Oreoxis alpino* sed in foliis basis et pedunculis persistentibus plantis plus glandulos foliolis segmentis paucioribus et foliis segmentis ultimo latioribus differt.

Plants pulvinate-caespitose, forming clumps to 30 cm wide, 4–8 cm tall, scabrous

and more or less glandular, from a branching caudex, this clothed with a thatch of persistent terete leaf bases and peduncles; leaves all basal, bipinnate, with ca 4 opposite pairs of sessile, lateral, primary leaflets, the upper pairs and those of the smaller leaves sometimes once-pinnate and then trifid or pinnatifid; petioles 1–3.5 cm long; blades 1.5–2.3 cm long, oblong in outline, the lowest pair of primary leaflets 3.5–5 mm long, the ultimate segments 1–3.5 mm long, 1–3 mm wide, elliptic to cuneate-ovate; peduncles 4–7.5 cm long; umbel solitary; involucre lacking; rays 5–7, 3–5 mm long, involuclers of 4–7 linear-subulate bractlets 2–3.5 mm long, distinct or essentially so; pedicels obsolete or to ca 1 mm long; calyx teeth ca 1 mm long, green or purplish; petals and stamens yellow; styles 1–1.2 mm long; fruit 2.8–4.8 (5) mm long, the ribs with low, corky wings to 0.7 mm wide.

TYPE.—USA. Utah, Grand County, T24S, R20E, S21, ca 1 km SSE of historic stage station and 20 km NW of Moab, in mixed juniper and desert shrub community, on Navajo Sandstone, at ca 1464 m, 30 April 1984, S. L. Welsh and D. Trotter 22729 (Holotype BRY; 10 isotypes to be distributed). Additional specimens: Utah, Grand County, same locality as above, 30 May 1984, D. Trotter s.n. (BRY, fruit only).

The plants grow in crevices on the joints in Navajo Sandstone, sheltered by pillowlike outcrops in the sandstone. The crevices are more mesic than the surrounding sandstone, which acts like a funnel in concentrating water that flows from its surface into the crevices. The rounded outcrops tend to shade the

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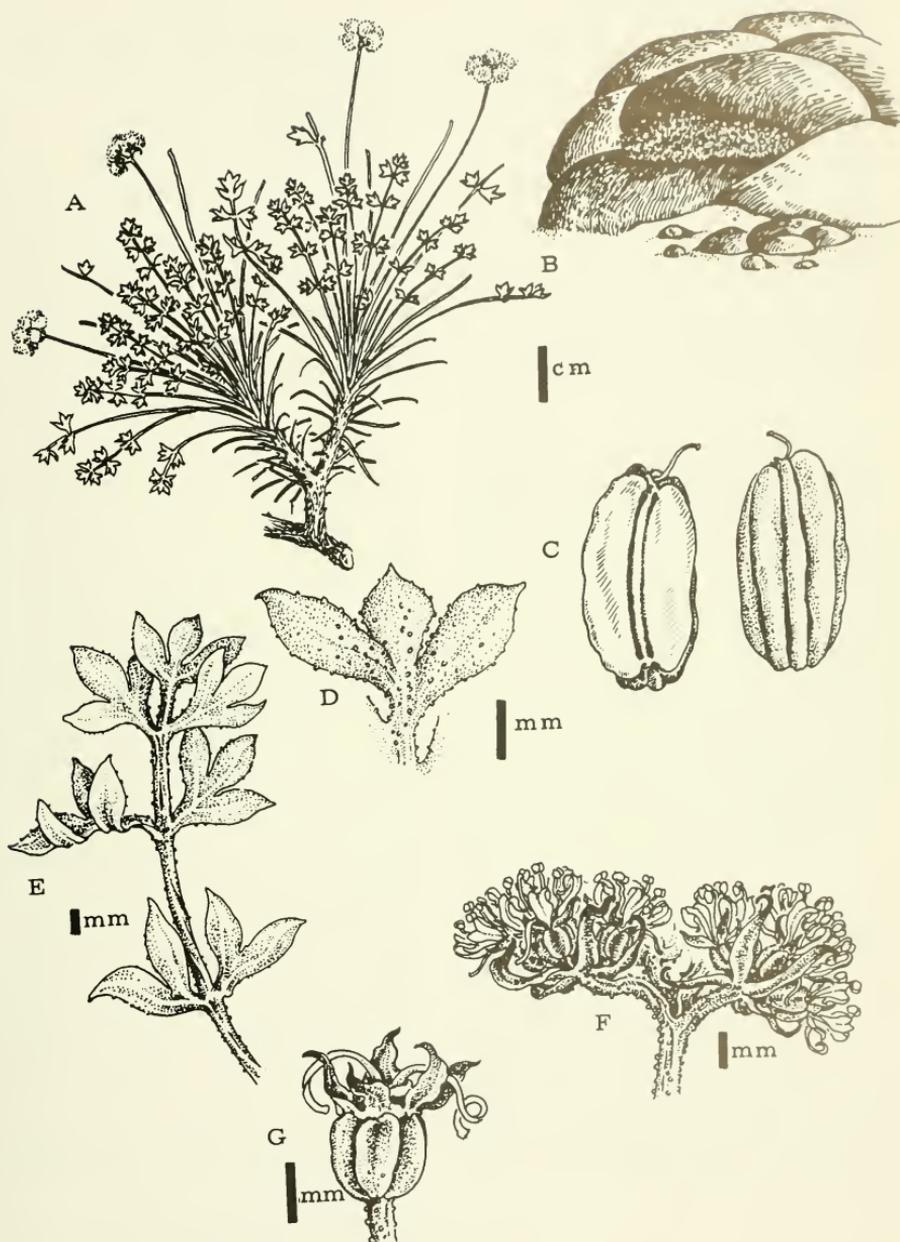


Fig. 1. *Oreoxis trotteri* Welsh & Goodrich. A. Habit. B. Habitat. C. Fruit. D. Foliar detail and glandular dots. E. Stem. F. Inflorescence detail. G. Floral detail.

plants for a portion of the day, decreasing further the stress from drought.

The species is named for Daryl Trotter, of the Bureau of Land Management in Moab, Utah, whose knowledge of the area and willingness to help others with its exploration are hereby acknowledged.

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