ERIGERON HESSII SP. NOV. AND ERIGERON KUSCHEI EASTWOOD (COMPOSITAE), TWO CLOSELY RELATED NARROW ENDEMICS FROM THE SOUTHWESTERN UNITED STATES

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Nesom, Guy L. (Department of Botany, University of North Carolina, Chapel Hill, NC 27514). *Erigeron hessii* sp. nov. and *Erigeron kuschei* Eastwood (Compositae), two closely related narrow endemics from the southwestern United States. Brittonia 30: 440-446. 1978.—A new species of *Erigeron, E. hessii*, from the Mogollon Mountains in southwestern New Mexico, is described and illustrated. The low, caespitose habit is particularly characteristic of these plants. They have a highly branched caudex system with fibrous roots and no strong central root or rhizomatous axis, monocephalous and unbranched stems, subclasping lower cauline leaves and small, sessile upper ones, purplish, punctate-glandular and sparsely hirsute phyllaries, 44-75 white rays, and an essentially simple pappus. The closest relative of *E. hessii* is probably *E. kuschei* Eastwood, a narrow endemic from the Chiricahua Mountains in southeastern Arizona. An illustration and detailed descriptions of *E. kuschei* are also provided.

In a genus where a large number of narrow endemics are already known, it is not surprising that most of the North American species of *Erigeron* described since the most recent comprehensive treatment of the genus (Cronquist, 1947) have themselves been of this type (Shinners, 1947; Welsh and Moore, 1968; Boivin, 1972; Spongberg, 1973; Turner, 1975; Becker, 1976; and Nesom, 1976). Relatively few botanists since 1947 have specialized in the systematics of this large and taxonomically difficult genus, and a number of undescribed species, primarily local endemics from the southwestern United States and Mexico, have accumulated in various herbaria (Nesom, in prep. and unpubl.). This paper describes one such species from the Mogollon Mountains of southwestern New Mexico, and it also furnishes an illustration and a detailed description of *Erigeron kuschei*, apparently a very close relative of the new species. *Erigeron kuschei* is recognized as an endangered species, and its relative described here deserves the same recognition and corresponding protection. The epithet of the new species honors Dr. William J. Hess, Curator of the Herbarium at the Morton Arboretum and a student of the flora of the Mogollon Mountains, where *Erigeron hessii* is endemic.

*Erigeron hessii* Nesom, sp. nov. (Fig. 1)

Ab affini *E. kuschei* Eastw. habitu intricatim caespitoso, foliorum basalium lamina elliptic caulinorum superiorum sessili nec amplexicauli, involuci phyllariis plurumque purpurascensibus crassiunculis secus costam tantum hirsutulis, flosculis radiatis 44-75 (nec 32-45) achaeniisque 1.1-1.3 (nec 4-1.6) mm longis diversa.

Perennial herbs with fibrous roots, without a well-defined central axis, caespitose from many, crowded, short (ca. 0.5 cm), erect, perennating branches, or these branches up to 4 cm long, rhizome- or caudex-like, slender and woody, thicker at their apices with old leaf bases attached; basal leaves and one to several erect stems borne at the tops of the caudex branches. Stems 4.5-16.0 cm high, rarely with a single primary branch, very sparsely stigose, loosely appressed to sparsely spreading-hirsute with often flattened and twisted Type A trichomes (Fig. 2), more dense and spreading.


just under the heads, very small Type B trichomes (Fig. 3) also present on the stems but inconspicuous. Basal leaves conspicuously but often rather sparsely long-ciliate on the margins with sparsely strigose-hirsute lamina, Type B trichomes common but inconspicuous; lower cauline leaves similar in pubescence to the basal ones, the upper cauline leaves ciliate, sparsely strigose or hirsute to almost glabrous except for Type B trichomes; basal leaves up to 6.8 cm long and 7 mm wide, usually somewhat smaller, the blades oblanceolate to elliptic, entire or with a pair of very small, serrate teeth near the top, apex acute or sharply acuminate, blades about ⅔ to ⅔ the length of the leaf, tapering to a winged, ciliate petiole 0.5–0.8 mm wide, widening slightly at the base but not membranaceous, sometimes with a slight purple tinge at the base; cauline leaves 5–11 in number, alternate, clasping on the lower ⅓ of the stem, sessile above, entire, mostly oblanceolate with acute apices, much reduced in size on the upper half of the stem, linear and about 5 mm long just under the heads. Heads solitary at the ends of erect stems or occasional branches; peduncles 3–21 mm long; involucres 8–13 mm wide, 5–6 mm high, composed of phyllaries in about 3 subequal series; the outer phyllaries lanceolate, the inner elliptic-lanceolate with erect or sometimes loose and reflexed, acuminate tips, 3–6 mm long, 0.5–0.8 mm wide, purple