

A NEW SPECIES OF *NAMA* FROM THE CUATRO CIENEGAS AREA OF COAHUILA, MEXICO

Guy L. Nesom

Department of Botany, University of Texas, Austin, Texas 78713 U.S.A.

ABSTRACT

Nama cuatrocienegense, *sp. nov.*, apparently is endemic to the vicinity of Cuatro Cienegas, Coahuila, in the Chihuahuan Desert Region of México. It is most closely related to *N. serpylloides*, *N. rzedowskii*, and *N. parvifolium*.

KEY WORDS: *Nama*, Hydrophyllaceae, México, Chihuahuan Desert

General curation at LL,TEX and identification of recent collections has revealed the existence of a previously undescribed species of *Nama*.

Nama cuatrocienegense Nesom, *sp. nov.* TYPE: MEXICO. Coahuila: Mpio. Cuatro Cienegas, slopes of Sierra San Marcos y Pinos, from Cuatro Cienegas 27 km SW on Hwy 30 then 14 km SE, locally abundant on gravelly terraces, 29 Mar 1992, J.L. Neff 92-3-29-1 (HOLOTYPE: TEX!; Isotype: MEXU!).

Namati serpylloidi Hemsley ac *N. parvifolio* (Torr.) Greenm. similis morphologia seminum et foliis oppositis vel suboppositis, ab uterque differt duratione annua et statura minore; differt a *N. serpyllode* pedicellis fructiferis sigmoideis; differt a *N. parvifolio* foliis omnino oppositis.

Annuals, apparently quickly ephemeral, with erect to ascending erect stems 3-8 cm long, the stems, leaves, and calyx with a mixture of stipitate-glands and stiffly spreading, eglandular hairs 0.1-0.4 mm long. Leaves opposite throughout, thin, essentially petiolate, obovate to somewhat spatulate, with broadly involute to nearly flat margins, 5-9 mm long, 2-4(-5) mm wide. Flowers in 2's or 3's in the leaf axils; pedicels filiform, 5-12 mm long, strongly recurved-sigmoid at maturity and bearing erect fruits; sepals free to the base, (3.5-)4.5-6.0 mm

long, linear to linear-lanceolate, apically acute; corollas 7-8 mm long, weakly funnellform-salverform, the tube yellow, the lobes bluish; filaments 2.2-3.0 mm long, the free portions about 2 times longer than the narrowly winged, adnate portions; styles 2.2-2.5 mm long. Fruits (capsules) 2.5-3.2 mm long; seeds slightly ovoid, brown, with reticulate surfaces.

Additional collection examined: MEXICO. Coahuila: Sierra de la Fragua, 25 mi S of Cuatro Cienegas along Hwy 30, N-facing slope of 30%, 2400 ft, 22 Mar 1975, *Venable & McCormick* 769 (LL).

Nama cuatrocienegense is distinctive in its combination of the following features: annual duration, small stature, thin, completely opposite leaves with broadly involute margins, sigmoid fruiting pedicels, and reticulate seed surfaces. The seed morphology of the new species is identical to that of *N. serpylloides* and *N. rzedowskii* Bacon (members of seed "Group 5" of Chance & Bacon 1984) and nearly so to that of *N. parvifolium*. Further, the leaves of *N. serpylloides* and *N. rzedowskii*, like those of the new one, are opposite from the stem base to tip, and *N. parvifolium* tends to produce opposite leaves toward the stem apices. These are the only species in the genus with opposite leaves, the margins of which commonly are involute, and with the similarity in seed morphology, it is clear that they form a monophyletic group (Hitchcock 1939; Bacon 1981; Chance & Bacon 1984).

Among the three close relatives of *Nama cuatrocienegense*, only *N. rzedowskii* is annual, but it differs from the new species in its shorter and relatively straight pedicels and much shorter calyces, corollas, and styles. *Nama serpylloides* produces short styles like those of the new species but the former is easily distinguished by its velvety vestiture and perennial duration. *Nama parvifolium* produces a vestiture similar to that of *N. cuatrocienegense* as well as strongly sigmoid fruiting pedicels, the latter a very distinctive feature that perhaps marks these two species as sister taxa.

Both collections of *Nama cuatrocienegense* were made from localities on the southern edge of the Cuatro Cienegas basin. *Nama parvifolium* occurs well to the east and northeast of Cuatro Cienegas in Tamaulipas, Nuevo León, and south Texas, primarily outside of the Chihuahuan Desert Region; *N. rzedowskii* is endemic to the gypsum plains around Río Verde, San Luis Potosí. Two varieties of *N. serpylloides* (var. *serpylloides* and var. *confertum* I.M. Johnston) have been recorded for the area of Cuatro Cienegas (Pinkava 1976). *Nama serpylloides* var. *velutinum* C.L. Hitchc. (1939) was described from plants in the vicinity of Cuatro Cienegas and appears to be the earliest name for the same entity as *N. serpylloides* var. *confertum*. The new species is compared in the diagnosis to the two species of northeastern México, its closest relatives geographically.

ACKNOWLEDGMENTS

I thank Dr. B.L. Turner and Dr. L.A. Escobar for their review of the manuscript.

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Nesom, Guy L. 1992. "A NEW SPECIES OF NAMA FROM THE CUATRO CIENEGAS AREA OF COAHUILA MEXICO." *Phytologia* 73, 61–63.

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