

NEW SPECIES AND COMBINATIONS IN *NERISYRENIA* (BRASSICACEAE)
OF MEXICO

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ABSTRACT

A new species of *Nerisyrenia*, *N. baconiana* B.L. Turner, is described from the Sierra de la Paila of Coahuila, México. The taxon is confined to gypseous soils and was previously included within Bacon's concept of *N. linearifolia* (S. Wats.) E. Greene var. *linearifolia*. Additionally, *N. linearifolia* var. *mezicana* Bacon is elevated to specific rank, *N. mexicana* (Bacon) B.L. Turner. Three species are now recognized within Bacon's 1978 concept of *Nerisyrenia linearifolia*: *N. linearifolia*, now confined to the U.S.A.; *N. mezicana*, relatively widespread in the Mexican states of Coahuila, Nuevo León, closely adjacent Tamaulipas, and San Luis Potosí; and *N. baconiana*, a localized gypseous endemic seemingly confined to the Sierra de la Paila, Coahuila.

KEY WORDS: Brassicaceae, *Nerisyrenia*, México

Bacon (1978) provided an excellent systematic account of the genus *Nerisyrenia*, recognizing nine species, only one of which, *N. linearifolia*, was treated as having infraspecific units. *Nerisyrenia linearifolia* has come under close scrutiny by the present author during his numerous forays into northern México since Bacon's study. Because of this I have little hesitation in proposing the following novelties and nomenclatural changes.

Nerisyrenia baconiana B.L. Turner, *sp. nov.*, Figure 1. TYPE: MEXICO. Coahuila: Sierra de la Paila, SW quadrant, Canyon Carrera (= Canyon Corazón del Toro of older maps), northern exposed gypsum slopes of Cerro Alto in desert grassland, 1450-1750 m, 26 Jul 1993, *Thomas F. Patterson 7263*, with Karen Clary & B.L. Turner (HOLOTYPE: TEX!; Isotypes: ENCB, GH, MEXU, NY).

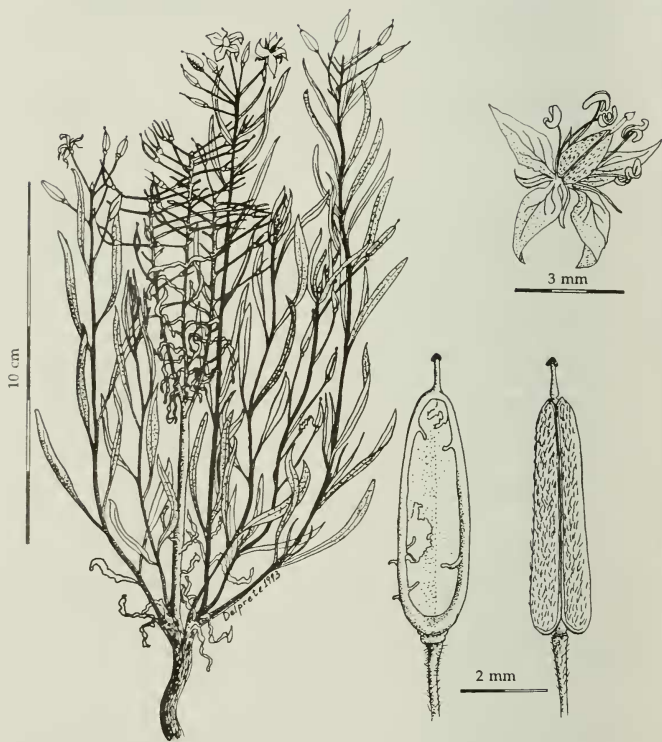


Figure 1. *Nerisyrenia baconiana*, from the holotype.

Nerisyrenia linearifoliae (S. Wats.) E. Greene var. *linearifoliae* similis sed plantis radice palari (vs. rhizomatosis), foliis magis uniformiter angustioribus (plerumque 1-2 mm latis vs. 2-6 mm), et siliculis brevioribus angustioribus obcompressisque (plerumque 6-8 mm longis vs. 10-30 mm) differt.

Suffruticose tap-rooted stiffly erect perennial herbs or shrublets 20-30 cm high. Stems brown, pubescent with appressed mostly dendritic hairs. Leaves linear to linear-oblongate, ascending, mostly 2-4(-5) cm long, 1-2(-3) mm wide, finely strigose with mostly dendritic hairs. Inflorescence terminal, racemose, 1-3 cm long, 10-20 flowers per stem, the pedicels mostly 5-10 mm long in flower, up to 20 mm long in fruit. Sepals green to lavender, lanceolate, 4-5 mm long; petals white to lavender-white, broadly lanceolate, 6-8 mm long, 1.5-2.0 mm wide, the indistinct claw ca. 2 mm long. Stamens 2.0-3.5 mm long. Ovary with styles 1.5-2.0 mm long, stigma bifid. Siliques mostly 6-8 mm long, 1.5-3.0 mm wide, linear to linear-elliptic, obcompressed, minutely pubescent; seeds (immature) 8-16 per carpel, brown, ca. 0.75 mm long, ca. 0.50 mm wide.

ADDITIONAL SPECIMENS EXAMINED: MEXICO. Coahuila: Sierra de la Paila, upper reaches of Cañon Corazón del Toro at Mina la Abundancia and above on one of the peaks, "calcareous gravel or almost pure crumbly gypsum" (25°54'30" N, 101°38'00" W), 1900-2100 m, 5 Nov 1972, *Wendt et al. 1011a* (LL); near the same locality, 1725 m, 6 Nov 1972, *Chiang et al. 10118* (LL); near the same locality, 1750 m, 31 Mar 1973, *Johnston et al. 10510* (LL).

This species is known from only four collections, all from within a 5 km radius. So far as known it is confined to gypseous outcrops along the middle and lower slopes of the Cerros Prietos (one of these shown on some maps as Cerro Alto). The holotype itself was obtained from the lower northern slopes of Cerro Alto, about a 1.5 km walk southeast across an *Agave lechugilla* flat from the primitive road which passes along this protuberance. The remaining collections were obtained from a more accessible site ca. 4 km NE of the type locality, where the plant occurs near some abandoned fluorite mines (M.C. Johnston, pers. comm.).

Bacon (1978) included this taxon (with considerable reservation, as noted below) in his concept of *Nerisyrenia linearifolia* (S. Wats.) E. Greene var. *linearifolia*. It differs from the latter in being a tap-rooted perennial (vs. rhizomatous) with more uniformly, narrowly linear leaves (mostly 1-2 mm wide vs. 2-6 mm wide), smaller flowers (petals mostly 6-8 mm long, vs. ca. 13 mm), and shorter narrow obcompressed pods (mostly 6-8 mm long vs. 10-30 mm). Bacon also recognized a Mexican variety of *N. linearifolia*, var. *mexicana* Bacon, which he surmised (1978, p. 218) "on further study, may prove to be worthy of specific status." Indeed, with description of the present taxon, and considering the remoteness of both *N. linearifolia* var. *mexicana* and *N. baconiana* from populations of *N. linearifolia* var. *linearifolia*, I have

little hesitation in elevating *N. mexicana* to specific rank, as follows:

Nerisyrenia mexicana (Bacon) B.L. Turner, *comb. & stat. nov.* BA-
SYNONYM: *Nerisyrenia linearifolia* (S. Wats.) E. Greene var. *mexicana*
Bacon, *Rhodora* 80:216. 1978.

Nerisyrenia mexicana is readily distinguished from both *N. linearifolia* and *N. baconiana* by its low sprawling habit, the stems branching mostly from the very base, and by its thicker more arcuate siliques.

I have named the present species in honor of John D. Bacon, an "academic son" of mine who obtained his Ph.D. at the University of Texas in 1975 and is currently Professor of Biology at the University of Texas, Arlington. He worked on *Nerisyrenia* for his doctoral thesis and clearly called to the fore the novelty described here, as noted in the above. Except for the collections from México described here as new, all of the specimens accepted by Bacon as *N. linearifolia* var. *linearifolia* are confined to the U.S.A. (Texas and New México).

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LITERATURE CITED

- Bacon, J.D. 1978. Taxonomy of *Nerisyrenia* (Cruciferae). *Rhodora* 80:159-224.