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Addenda on Texas Chamaesyce (Euphorbiaceae)'

Lloyd H. Shinners

CHAMAESYCE carunculata (Waterfall) Shinners, comb. nov. Euphorbia carunculata Waterfall, Rhodora 50: 63-64. 1948. TYPE (not examined) from drifting sand, north of the Cimarron River, on the Waynoka sand dunes, Woods Co., northwestern Oklahoma (deposited in Bebb Herb., Univ. of Oklahoma). Five additional collections may now be cited, two in the Herbarium of Southern Methodist University, (SMU), three in that of the University of Texas (T).
OKLAHOMA. WOODS Co.: unstabilized sand dunes, south of Waynoka, U. T. Waterfall 10373, Oct. 6, 1951 (SMU).

This species was assigned a manuscript name in Euphorbia by Standley, based on the Chihuahua specimen, and honoring its collector. Acquainted only with Mr. Cory’s collection from the Texas Panhandle, I was preparing to name it as a new species when Dr. Tharp kindly called to my attention the other collections and earlier names for the plant. Perhaps the most anomalous feature of Chamaesyce carunculata is the form of the seeds, which shown no indication whatever
of the basically trigonous shape characteristic of the genus, and have instead of the usual ridge or angle a well-defined suture line marking the raphe. Its nearest relative in the United States is perhaps the very rare and local *C. platysperma* (Engelm.) Shinners¹, known only from two collections made in southeastern California and Arizona. According to Wheeler (1941), this species has petioles 1.5-2.5 mm. long, stipules 1.5-2 mm. long, peduncles as much as 5 mm. long, bracteoles 1-1.5 mm. long with a few hairs above, staminate flowers about 50 per cyathium in clusters of 10, androphores exserted, styles parted to base, capsule slightly 3-lobed, about 4 mm. long, seeds white, 2.4-3 x 1.7 x 1 mm., the back rounded, the inner face nearly flat and divided by the elevated raphe, and with an inflexed apical mucro bent toward the raphe. *C. carunculata* has petioles 3-6 mm. long, stipules 1-1.25 mm. long, peduncles 1-1.25 mm. long, bracteoles 0.6 mm. long and bristly-pubescent, staminate flowers about 15-20 per cyathium, in clusters of 5-7, included within the involucre except for the anthers, styles bifid about 1/2-1/3, capsule strongly 3-angled, 4.5-6 mm. long, seeds with whitish coat and reddish brown testa (in the sense of Wheeler) producing a mottled appearance, nearly tear-drop shaped and somewhat compressed, not at all angled, 3.7-4.5 x 1.6-2 x 0.7-0.9 mm., the caruncular apex not inflexed. The distribution of *C. carunculata* is remarkably like that of another euphorbiaceous plant which (at least in Texas) grows with it: *Reverchonia arenaria* Gray. This is known from the Panhandle and Trans-Pecos Texas, and the state of Durango, Mexico.

In publishing new names in *Chamaesyce* in 1949, I neglected to state my reasons for adopting this segregate from *Euphorbia*. It appears to me to deserve separate generic status because of the consistent presence of a combination of vegetative features which set it off from the rather heterogeneous remaining groups in the genus. The reduction or outright suppression of the primary stem axis is the feature usually emphasized as peculiar to *Chamaesyce*. To this may be added the bilateral instead of radial symmetry in the phyllotaxy, and the combination of opposite leaves with stipules — a rather rare condition which in the Texas flora

appears only in the Zygophyllaceae, Euphorbiaceae (Chamaesyce), Loganiaceae, and Rubiaceae. I was also influenced in part by the cytological studies of Bruce A. Perry (1943), who found haploid chromosome numbers of 6, 7, 8, 9, and 10 in *Euphorbia* in the broad sense. One of his statements particularly deserves quoting (italics are mine): “Chromosome number, chromosome size and certain morphological differences, especially vegetative specialization, suggests that the *Euphorbia* complex could be broken up into several genera” (op. cit., p. 541).

REFERENCES


An Ecological Study of Cladophora glomerata (Chlorophyceae) near Dallas

Martha Hasty Thurman & Robert A. Kuehne

*Cladophora glomerata*, a green alga of the order Ulotrichales, family Cladophoraceae, is characterized by dichotomous branching, with ramuli ending in dense terminal fascicles. Its filaments range from 75 to 100 micra in diameter; its ramuli are not tapered but rounded at the ends; and its thalli (which may reach a length of 40 cm.) are dark green, strong, and rough to the touch. Fruiting bodies are terminal or sub-terminal.

Between October, 1949 and July, 1950, we collected this species in the Dallas area from Elm Fork of the Trinity River, and Bachman’s, White Rock, and Ten Mile creeks. With the exception of the Elm Fork habitat, those streams in which the species is found are typically clear, with rocky beds and banks, and swift, shallow riffles alternating with quiet pools.

In our studies, we sought this species (but unsuccessfully) in the West Fork of the Trinity River, and in Denton, Mountain, and Hackberry creeks. These streams all have a high turbidity, sluggish flow, muddy banks and bottoms, and

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