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BRIEF NOTE

SPERGULARIA MARINA, A NEW SPECIES RECORD FOR THE FLORA OF OHIO¹

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Spergularia marina (L.) Griesb. is an annual halophytic species with succulent leaves. Specimens of this organism containing fruiting material were collected on 28 October 1978 (Riehl 1, Ohio University Herbarium) from a wet saline marsh at the location of the Morton Salt Company at Rittman, Wayne County, Ohio (long. 81°47'30", lat. 40°57'30": SW¼ Sec. 12, T18N, R13W).

Fernald (1950) indicates that *S. marina* is a widely distributed species of saline or brackish habitats occurring from Quebec south along the Atlantic coast to Florida and locally inland in New York and Illinois. Schofield (1959) reports that *S. marina* is one of the halophytic species found growing along the shore of James Bay, Ontario and Quebec, Canada, and Svenson (1927) reports that it is found around salt springs in western New York. The disjunct inland distribution of *S. marina* in saline environments implies that its seeds are probably transported over long distances by migrating birds. Further evidence for the sporadic and recent introduction of *S. marina* into this area is that it was not reported as occurring at the Rittman salt marsh by Cusick (1970), and we did not find it growing at this location between 1972-1977.

A small population of *S. marina* occupying about 600 cm² was found growing in a single community at the Rittman marsh. The density of *S. marina* ranged from 5 to 15 plants per 100 cm² plot. Plants appeared to be making good growth and flowers were observed at different stages of development, with some containing capsules with mature seeds. Young *S. marina* seedlings, containing only cotyledonary leaves, were found growing below mature plants, apparently developing from this year's seed crop. Other species of halophytes occurring with *S. marina* were *Salicornia europaea* L., *Atriplex triangularis* Willd., and *Hordeum jubatum* L.

Soils were saturated with water at the time of this collection and the water table was only 6 cm below the soil surface. The soil texture was a sandy loam containing 65% sand, 21% silt, and 14% clay. Water potential measurements taken at the soil surface average -1.07 MPa, and plant leaf water potentials averaged -2.4 MPa. The median soil pH was 5.6. Mean electrical conductivity measurements from a 1:1 soil-water extract was 18.2 mmho/cm, indicating a soil salinity level of 1.4‰ total salts. Data on soil and plant ionic content is presented in table 1.

¹Note received 8 December 1978 (#78-73).

TABLE 1
Plant and Soil Ionic Content.

	Sample No.	Ionic Concentration (meq/l)*				
		Cl ⁻	Na ⁺	K ⁺	Ca ⁺⁺	Mg ⁺⁺
Soil	5	142.1	133.4	0.6	53.3	40.5
Roots	4	—	167.9	50.0	2.9	40.5
Stems	4	—	333.9	50.6	18.8	88.5
Leaves	4	—	351.0	41.1	3.7	62.2

*Chloride determination with Beckman specific ion electrode. Calcium and magnesium by atomic absorption and sodium and potassium by flame emission with a Perkin Elmer AAS model 360.

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