Brief Note: Ruppia Maritima, New for the Flora of Ohio

Ungar, Irwin A.; Loveland, David G.
RUPPIA MARITIMA, NEW FOR THE FLORA OF OHIO

IRWIN A. UNGAR and DAVID G. LOVELAND, Department of Botany, Ohio University, Athens, OH 45701

Ruppia maritima L. (Ruppiaceae), a submersed aquatic halophyte, has not previously been reported as part of the flora of Ohio (Braun 1967, Weishaupt 1971). We collected specimens of this species with flowers and fruits on 26 September 1980 from a shallow saline pond located on the property of the Morton Salt Company at Rittman, Wayne County, Ohio (long. 81° 47' 30", lat. 40° 57' 30"; SW ¼ Sec. 12, T18N, R13W).

Muenscher (1944) and Fernald (1950) indicate that R. maritima is broadly distributed in Atlantic and Gulf coastal environments of eastern North America, and that it is also associated with saline ponds of the western half of North America. It has also been obtained from saline ponds in western New York. Svenson (1927) hypothesized that this distribution of halophytes around the Great Lakes could only be related to salinization during a post-pleistocene submergence in New York and the St. Lawrence Valley where saline conditions have persisted to the present time. He concluded that human agencies may be the most important factor in the dispersal of these plants. Schofield (1959) reported the occurrence of R. maritima in the James Bay region of Canada. As suggested earlier for Spergularia marina (Riehl and Ungar 1980), we can only explain the disjunct inland distribution of R. maritima through long distance dispersal by man or migrating birds.

A large population of R. maritima was found growing in shallow waters along the margin of a small saline pond on the Rittman marsh. In September 1980 most plants were in flower, and some contained mature fruits. By November, 2 m along the edge of the pond had dried exposing dense populations of R. maritima. The waters of the pond had a pH of 8.5, an electrical conductivity of 16.0 mmhos/cm at 25°C, and a dissolved solid content, determined gravimetrically, of 10,803 ppm. No other submersed flowering plants were found in this pond and adjacent shallow saline ponds did not contain R. maritima, indicating that even locally there is a disjunct distribution of this species.

ACKNOWLEDGMENTS. This research was supported by National Science Foundation Grant-DEB 7927236 and research grant 573 from the Ohio University Research Committee. The authors wish to thank the Morton Salt Company for permission to carry out investigations on their property. Thanks go to an anonymous reviewer for his helpful comments.

LITERATURE CITED