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# Sagina japonica (Sw.) Ohwi, an overlooked adventive in the northeastern United States

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*SAGINA JAPONICA* (SW.) OHWI (CARYOPHYLLACEAE),  
AN OVERLOOKED ADVENTIVE IN THE  
NORTHEASTERN UNITED STATES<sup>1</sup>

RICHARD S. MITCHELL AND GORDON C. TUCKER

In his taxonomic revision of the genus *Sagina* L., Crow (1978) cited specimens of *S. japonica* from western North America, but not the eastern United States. This introduced species is readily distinguished from our native, annual pearlwort, *S. decumbens* (Ell.) T. & G., by seed, capsule, leaf and pubescence characters (Crow, 1978, 1981). Our attention was first called to eastern North American occurrences of *S. japonica* when a specimen collected by Virginia L. Magee from the Mitchell College campus in New London, Connecticut, was sent by the junior author to Garrett Crow for identification. Subsequent study by the senior author, in conjunction with current preparation of a flora of New York State, turned up three specimens from New York and four from Massachusetts in the collections of the New York State Museum (NYS), which were not consulted by Crow during his study. Pamela Weatherbee provided a list of three additional specimens which she also had checked by Crow and by us. Arthur Cronquist also found a specimen from New York State in the herbarium of The New York Botanical Garden (NY). No additional specimens of *S. japonica* were found in the collections of the Connecticut Botanical Society (NCBS) or Yale University (YU).

Since New York and Massachusetts specimens were collected early in the 1940's, it is apparent that *Sagina japonica* has been an established introduction in the area for 50 years or more. Because of the small size of the plants and their superficial resemblance to *S. procumbens* L., our other introduced *Sagina*, they have been filed with it in herbaria. Their annual growth habit and pubescent peduncles make them readily distinguishable from that species. *Sagina japonica* has spread in the Northeast since its introduction, but it has probably been overlooked and undercollected in the disturbed, often urban, settings where it becomes established. In examining specimens from the northeastern United States, both Garrett Crow (pers. comm.) and the authors noted variability in the tuberculate condition of the seeds of *S. japonica*.

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At least one specimen (*Wilkins 14621*) has prominently and densely tubercled seeds, while the remaining specimens from our area have pebbled seed surfaces. Crow (pers. comm.) suggests that this variation may imply multiple introduction of the species into eastern North America.

For those wishing to identify *Sagina* species in New York and New England, the following diagnostic key is provided:

KEY TO *SAGINA* SPECIES IN THE  
NEW ENGLAND—NEW YORK AREA

1. Petals not showy, about equaling the length of sepals; flowers terminal, solitary, or a second one borne at the ultimate node; upper leaf axils not bearing succulent short-shoots ..... (2)
2. Perianth parts in 5's; annuals with ascending or decumbent, often capillary stems and slender taproots, not strongly tufted or spreading by offshoots ..... (3)
3. Seeds pale, triangular with a dorsal groove; capsules longer than broad; pedicels usually glabrous (sepals may be minutely glandular at base); leaves not succulent ..... *S. decumbens*
3. Seeds dark brown, plump, lacking a dorsal groove; capsules globose; pedicels glandular pubescent (at least the upper halves); leaves succulent .... *S. japonica*
2. Perianth parts in 4's (rarely 5's on the same plant); matted, wiry perennials, spreading by offshoots .....  
..... *S. procumbens*
1. Petals showy, about twice the length of sepals; flowers often more than 2 per inflorescence; upper leaf axils bearing dense, succulent short-shoots ..... *S. nodosa*

SPECIMENS EXAMINED: Connecticut: New London Co.: New London, Mitchell College Campus, dry soil by building, 7 July 1988, *Magee s.n.* (CONN, NCBS, NEBC, NHA). Massachusetts: Berkshire Co.: Egremont, Jug End Road, 27 June 1990, *Weatherbee 2990* (NHA); Florida, base of Torrey Mountain Road, 23 June 1990, *Weatherbee 2986* (NHA); Williamstown, driveway, 17 June 1990, *Weatherbee 2948* (NHA). Hampshire Co.: Northampton, streets, 27 June 1941, *O. L. Schreiber 234* (NYS); Amherst, "Inwood" lawn, 23 June 1950, *R.E. Torrey s.n.* (NYS); Amherst, Sunset Avenue, 18 June 1973, *H.D. Hammond 6801-b* (NYS); Hadley, North Maple Street, 3 July 1978, *H.E. Ahles 85437* (NYS). New York: Bronx Co.: Pelham Bay Park, Sect. 29, 14 June 1947, *H.E. Ahles 1409* (NYS); Chemung Co.: Elmira, curbing and lawns, "1945," *S.J. Smith 4797* (NYS); Kings Co.: Prospect Park,

Brooklyn, N.Y. in grassy soil, 8 June 1957, *Monachino 597* (NY); Ulster Co.: Moon Hollow Rd. 2 mi. w. of W. Sbokan, Town of Olive, growing in dampish soil of shaded roadside, 15 July 1987, *Karl Brooks 7074 & Paul Huah* (SVS). Pennsylvania: Berks Co.: lawn of Reading Museum Grounds, *Wilkins 14621* (NHA).

## LITERATURE CITED

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