Natural Heritage &
Endangered Species
Program

Commonwealth of Massachusetts
Division of Fisheries & Wildlife
Route 135
Westborough, MA 01581
(508) 792-7270 ext. 200

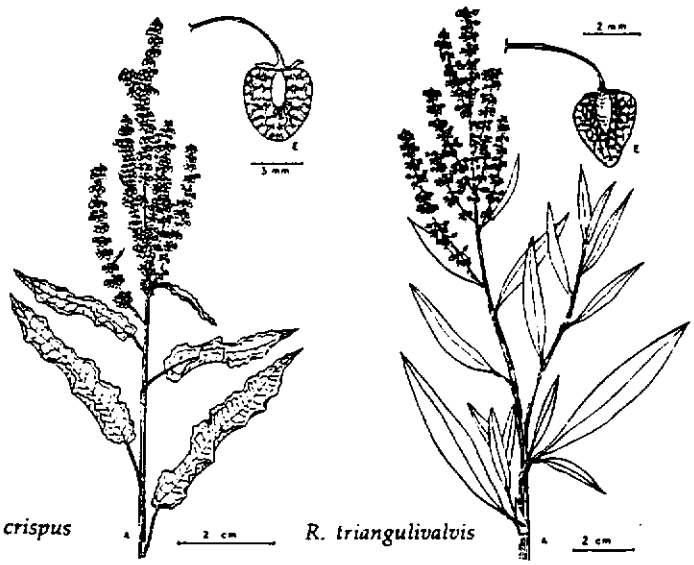
THREATENED PLANTS OF MASSACHUSETTS

SWAMP-DOCK
(*Rumex verticillatus* L.)

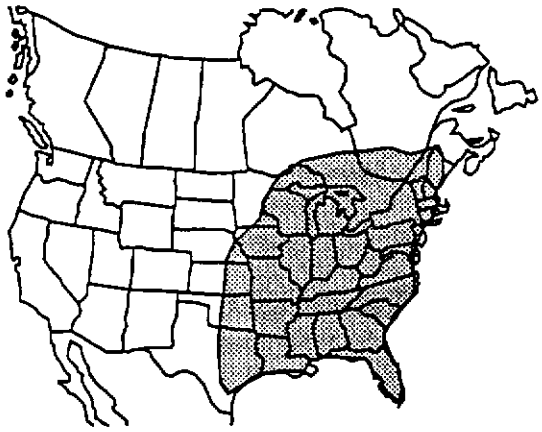
GENERAL DESCRIPTION: Swamp-dock is a tall, herbaceous, perennial with numerous, inconspicuous, drooping green flowers of swamps and wet lowland woods.

AIDS TO IDENTIFICATION: Swamp-dock, also known as water-dock, is a member of the Buckwheat family (Polygonaceae) that grows up to 1.5 m tall (about 5 ft.). The plant is smooth throughout with many short axillary branches and a taproot. The flat, lance-shaped leaves are alternate on the stem, and the leaf margins are entire. Lower leaves are up to 30 cm (about 1 ft.) long. Like all members of the family, plants have a thin-membranous sheath (ocrea) marked with longitudinal lines (striae) surrounding the stem just above the base of the leaf. Swamp-dock blooms between July and September, and the small, greenish flowers are grouped in pendulous whorls. Flowering stalks (pedicels) are 10-15 mm (about 1/2 in.) long, club-shaped and sharply divergent from a jointed base. Flowers have 6 sepals: the inner three (valves) are broadly triangular-ovate, 4-5 mm long, truncate at the base and very thick toward the center, while the outer three (grains) are about 3 mm long, lanceolate and with a blunt base that extends 0.5 mm below the valves. The fruit is a small (about 3 mm long), shiny, brown trigonous achene.

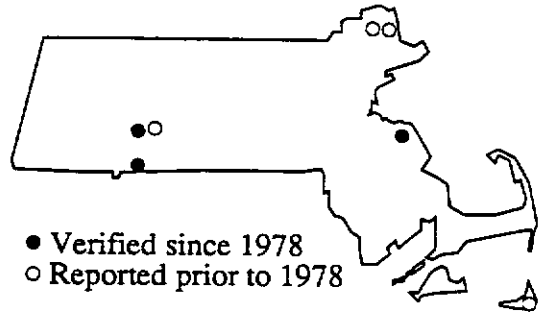
SIMILAR SPECIES: *Rumex triangulivalvis* (Triangular-valved swamp-dock) is most similar, but has very short, jointed pedicels up to 2 x the fruit length but not 2-5 x as in *R. verticillatus*. *R.. crispus* (Curly dock), has leaves with curly margins and shorter flowering stalks (5-10 mm) that are jointed in the middle.



Mitchell, R.S. & J.K. Dean. 1978. Polygonaceae (Buckwheat Family) of New York State. NY State Museum Bulletin #431.



Documented Range of
Swamp-dock



Distribution in Massachusetts
by town

RANGE: The documented range of Swamp-dock extends from Quebec and Ontario in Canada to Wisconsin and Kansas, south to southern Florida and eastern and southeastern Texas.*

HABITAT & ASSOCIATED SPECIES: Swamp-dock is found in water or in places that are periodically flooded, such as stream and river floodplains, swamps, marshy shores and drainage or irrigation ditches, and possibly brackish situations. The similar triangular-valved dock (*R. triangulivalvis*) may be found in similar habitats. In Massachusetts, Swamp-dock has been found growing with yellow water-lily (*Nuphar*), water-plantain (*Alisma* sp.), arrow-head (*Sagittaria* sp.), common and bulbiliferous water-hemlock (*Cicuta maculata* and *C. bulbifera*), and buttonbush (*Cephalanthus occidentalis*). Associated arboreal taxa are silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*) and cottonwood (*Populus deltoides*).

POPULATION STATUS IN MASSACHUSETTS: Swamp-dock is listed as "Threatened" in Massachusetts. As with all species listed in Massachusetts, individuals of the species are protected from take (picking, collecting, killing...) and sale under the Massachusetts Endangered Species Act. There are ten known stations, three extant and seven historical (unverified since 1978), in the Commonwealth. Because several stations are in the same town, they do not appear separately on the town distribution map. Swamp dock occurs throughout New England, but it is not listed in any of the other New England states. In Vermont, it is found primarily in the Lake Champlain region.

MANAGEMENT RECOMMENDATIONS: As for many rare species, exact needs for management of Swamp-dock are not known. The following comments are based primarily on observations of populations in Massachusetts. The occurrence of Swamp-dock is linked to the availability of suitable floodplain habitat that remains wet well into spring and summer, such as low-lying wet depressions within floodplain forests and borders of permanently wet buttonbush swales. Any alteration of the particular moisture regime required by Swamp-dock would adversely impact the plant, and raising or lowering of water levels should be avoided. Floodplain habitats required for Swamp-dock are rare in the state due to housing and industrial development, restrictions on flooding regime due to river control projects and to conversion of these highly-fertile areas to agricultural land. The success of Swamp-dock in Massachusetts will depend on protecting suitable, remaining floodplain areas. Although existing human-created ditches or irrigation canals may also provide habitat for this species, such features alter wetlands and should not be considered as viable alternative habitat.

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