

# Coastal Plain Pondshore Community - Inland Variant

State Rank: S1 - Critically Imperiled



CPPS-Inland Variant with emergent vegetation on muck. Photo: Bruce A. Sorrie, NHESP.

**Description:** Coastal Plain Pondshore Community (CPPS) - Inland Variant is very similar to the Coastal Plain Pondshore Community. CPPS - Inland Variant develops in groundwater flooded depressions in outwash sand plains outside of southeastern Massachusetts. The shorelines of CPPS - Inland Variant are seasonally exposed but submerged or saturated for a significant part of the year or continuously in wet years. Natural fluctuation of water levels throughout any particular year and between years is necessary for the community to develop: plants of the community emerge during low water periods and high water years limit invasion by woody species. Shorelines range from broad expanses of mucky shores on very shallow, muddy ponds with shrub islands to narrow sandy

Coastal Plain Pondshore - Inland Variant occur in zones around ponds on sand and gravel outwash plains in inland Massachusetts. Coastal plain species grow in them, but include fewer specialists than in the main Coastal Plain Pondshore Community.

shores on ponds in steep depressions; and large sand bottomed ponds where shore line substrate ranges from sand to deep muck. Essentially all of the CPPS - Inland Variants have been impacted by recreation and development.

**Characteristic Species:** Vegetation of Coastal Plain Pondshores - Inland Variant may be sparse or dense, with variable species composition. Exposed pondshores may be narrow bands or cover much or all of a basin. The community is usually a mix of graminoid and herbaceous vegetation in zones created when habitat is made accessible as water levels go down throughout the growing



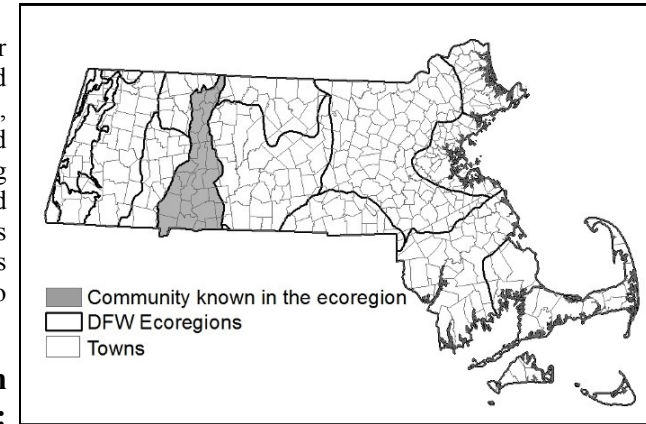
Pondshore Arrowhead, CPPS specialist found in Inland Variants. Photo: Bryan Connolly, NHESP.

season. A characteristic zonation pattern from dry to waterline is: 1. Shrub border dominated by highbush blueberry associated with red maple, often grading into water-willow; 2. Zone of exposed sandy pondshore with mostly annual species such as flatsedges, rushes, smartweeds, false pimpernel, and St. John's-worts; 3. Semipermanently flooded zone with low herbaceous and emergent species on organic sediments characterized by spike-rushes, pipewort,

beak-rushes/horned-sedges, golden pert, water purslane, or false pimpernel, or stranded aquatic plants; 4. Open, deeper water zone with rooted aquatic vegetation including water-lilies. Not every pond has every zone, and zones vary in width and species composition from year to year.

## Differentiating from Related Communities:

Coastal Plain Pondshore Communities are in the coastal plain, generally on sand around ponds in closed basins that intersect groundwater that affect pond levels. The seasonally and annually fluctuating water table typically leaves an exposed shoreline by late summer that supports herbaceous species. Coastal Plain Pondshores - Inland Variant also occur in closed basins in sandy outwash, but are in the Connecticut River Valley. Some, but fewer, coastal plain species grow in them. Acidic Pondshore/Lakeshore Community is broadly defined, variable, and includes shorelines not explicitly included in coastal plain pondshores, the inland variant, or calcareous ponds. The shore line may merge into marsh or other wetlands. Many ponds have inflow or outflows. Kettlehole Wet Meadows are also seasonally inundated but develop into dense graminoid marshes on mucky peat. Freshwater Mud Flat Communities are within ponds rather than along shores. Mud flats in Coastal Plain Pondshores - Inland Variant are treated as part of the pondshore community.



## Habitat for Associated Fauna:

Coastal Plain Pondshores - Inland Variant and ponds are parts of the habitat of wide ranging animals including dragonflies and damselflies. Shorelines, particularly larger muddy areas, are used for foraging by shore birds. Larger pond and pondshores are used by migrating and wintering waterfowl.

## Examples with Public Access:

Five Mile Pond/Lake Lorraine, Springfield; Loon Pond, Springfield; Spectacle Pond, Wilbraham; Minechoag Pond, Ludlow.



CPPS-Inland Variant with stranded aquatics on muck sediments. Photo: Patricia Swain, NHESP.

