



Coastal Plain Pondshore – Inland Variant

Community Code: CP2A0B120A

State Rank: S1



Concept: The community has apparent vegetation zones of graminoids or herbaceous species on sloping, seasonally exposed, gravelly, sandy or muddy shores of acidic, inland lakes and ponds with substantial natural fluctuation of water levels.

Environmental Setting: Coastal Plain Pondshore Community - Inland variant is very similar to the Coastal Plain Pondshore Community: both are subsets of Acidic Pondshores/Lakeshores. Coastal Plain Pondshore Community - Inland Variant develops in groundwater-flooded depressions in outwash sand plains outside of southeastern Massachusetts. The shorelines of Coastal Plain Pondshore Communities - 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 shores on ponds in steep depressions, and large sand-bottomed ponds where shoreline substrate ranges from sand to deep muck. Essentially all of the Coastal Plain Pondshore Communities - Inland Variant have been impacted by recreation and development.

Vegetation Description: The vegetation of Coastal Plain Pondshore Communities - 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 season. A characteristic



zonation pattern from dry to waterline is: 1. shrub border dominated by highbush blueberry (*Vaccinium corymbosum*) associated with red maple (*Acer rubrum*), often grading into water-willow (*Decodon verticillatus*); 2. zone of exposed sandy pondshore with mostly annual species such as flatsedges (*Cyperus* spp.), rushes (*Juncus* spp.), smartweeds (*Polygonum* and *Persicaria* spp.), false pimpernel (*Lindernia dubia*), and St. John's-worts (*Hypericum* and *Triadenum* spp.); 3. semipermanently flooded zone with low herbaceous and emergent species on organic sediments characterized by spike-rushes (*Eleocharis* spp.), pipewort (*Eriocaulon aquaticum*), beak-rushes/ horned-sedges (*Rhynchospora* spp.), golden pert (*Gratiola aurea*), seedboxes or water purslane (*Ludwigia* spp.), or false pimpernel (*Lindernia dubia*), or stranded aquatic plants; 4. open, deeper water zone with rooted aquatic vegetation including yellow (*Nuphar variegata*) and white water-lilies (*Nymphaea odorata*). Not every pond has every zone, and zones vary in width and species composition from year to year.

Differentiating Occurrences: Coastal Plain Pondshore Communities are in the coastal plain, generally on sand around ponds in closed basins that intersect groundwater that affects 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 shoreline 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 Pondshore Communities - Inland Variant are treated as part of the pondshore community.

Associated Fauna: Coastal Plain Pondshore Communities - 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 shorebirds. Larger ponds and pondshores are used by migrating and wintering waterfowl.

Public Access: Five Mile Pond, Loon Pond, and Lake Lorraine, Springfield; Spectacle Pond, Wilbraham.

Threats: Trampling from walking and ORVs, alteration of normal water-level fluctuations, and shoreline development. Exotic plants including purple loosestrife.

Management Needs: Protection of areas near beaches from clearing, filling, and trampling. Control of invasives.

USNVC/NatureServe: CES203.518 Northern Atlantic Coastal Plain Pond - system.