

High-energy Rivershore Meadow

State Rank: S2 - Imperiled



High-energy Rivershore Meadow on both sides of fast flowing river. Photo: Patricia Swain, NHESP.

Description: High-energy Rivershore Meadows are level to gently sloping communities in frequently flooded areas just above the summer low water levels of high-energy rivers. Frequent flooding and occasional extreme events contribute to the occurrence and persistence of Rivershore Meadows, although the impacts of storm events on individual rivershore meadows and plant populations are highly variable. Vegetation structure and composition vary considerably within rivershore meadows apparently related to differences in elevation, substrate, frequency of flooding, and degree of ice scour. Being along high-energy rivers, the community tends to be on large materials such as cobbles along the river, with sand and smaller materials accumulating only where water slows. The fairly dense plants and their roots contribute to slowing water and finer sediments collect in vegetated areas.

Characteristic Species: High-energy Rivershore Meadows are dominated by perennial graminoid and forb species. Riverside-sedge with prairie dogbane and Canadian burnet form a

High-energy Rivershore Meadows are densely vegetated by sedges and herbaceous plants in narrow bands along high-energy rivers. Flooding and ice scouring restrict growth of tall shrubs and trees.

characteristic group in the central areas. Associated with these are a mix of species including groundnut, deer-tongue, swamp candles, fringed loosestrife, field-mint, blue monkey-flower, obedient plant, small purple-fringed orchis, grass-leaf flat-topped goldenrod, and New York aster. Low-lying areas near the river edge and scoured or eroded depressions with moist, mineral substrates have sparse to moderate cover of low sedges and rushes, especially Brown Beak-rush, spike-rushes, and rush species. Higher areas are characterized by tall forbs and grasses, including big bluestem, Canada bluejoint, tall flat-topped white aster, riverbank wild rye, spotted Joe-Pye-weed, sunflower, reed canary-grass, and goldenrods. The highest portions of the rivershore meadows, just below the adjacent woodlands, are often dominated by ferns and shrubs, especially interrupted fern, speckled alder, and glossy alder-buckthorn, and by Japanese knotweed.



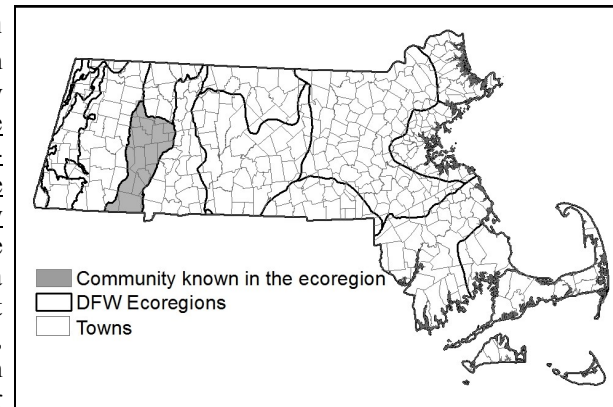
Mixed vegetation with Canadian Burnett flowers. Photo: Patricia Swain, NHESP.

Differentiating from Related Communities:

On cobble shores along high-energy rivers, High-energy Rivershore Meadow intergrade with High-energy Riverbank and Riverside Seep communities. High-energy Rivershore Meadows are densely vegetated with a characteristic group of dominant plants - prairie dogbane, riverside-sedge and Canadian burnet - in a mix with other forbs and graminoids. Riverside Seeps occur at the base of steep riverbanks where groundwater seeps out of the bottom of the upland slope; they are usually wetter and muddier than associated High-energy Rivershore Meadows and High-energy Riverbank Communities. Yellow monkey flower, Canadian burnet, and golden Alexanders as a group are good indicators of Riverside Seeps. High-energy Riverbank Communities have, on average, sparser vegetation and more bare substrate than do High-energy Rivershore Meadows or Riverside Seeps. Cobble shores that have a tree canopy (cover >30%) are classified as Cobble Bar Forests.



Ice and snow accumulated on a Rivershore Meadow. Photo: Glenn Motzkin.



Habitat for Associated Fauna:

High-energy Rivershore Meadows filter water coming from surrounding uplands, improving water quality for the fish and other animals of the stream. Being small communities, they are part of the habitat of wide ranging riverine and upland animals.

Examples with Public Access:

Gilbert A. Bliss SF, Chesterfield.



A narrow High-energy Rivershore Meadow. Photo: Bruce A. Sorrie, NHESP.

