

Small-river Floodplain Forest

State Rank: S2 - Imperiled



Small-river Floodplain Forest with spring high water. Photo: B.A. Sorrie, NHESP.

Description: Small-river Floodplain Forests occur along small rivers where banks are low and annual overbank flooding occurs. Soils often have a surface organic layer. Patches of the Small-river Floodplain Forest community type also occur in poorly-drained depressions of other types of floodplain forests. Intact floodplain forests limit and slow surface runoff nutrients from the uplands, contribute to bank stabilization, and shade the waterways.

Characteristic Species: Small-river Floodplain Forests have been called a silver maple - green ash - false nettle - sensitive fern vegetation association. Silver maple is almost always dominant in the overstory, often with green ash in the canopy or subcanopy. American and slippery elms, swamp white oak, and red maple often occur in low numbers. Pin oak can be a canopy associate in the Connecticut River basin, and river birch is typical in the Merrimack River basin. The

Small-River Floodplain Forests are silver maple/green ash forests along small rivers and streams. Most occur in relatively flat areas of the coastal plain or the Connecticut River valley.

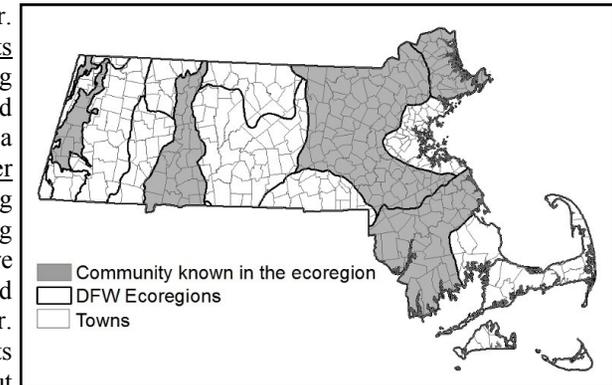
shrub layer is mainly silky dogwood and buttonbush. Small-river Floodplain Forests have greater herbaceous plant diversity than do Major-river and Transitional types. Sensitive fern and false nettle are most common; associates include moisture-loving water hemlock, swamp candles, and water parsnip. Non-native moneywort, forget-me-not, and glossy alder-buckthorn are often prevalent in small disturbed areas. Other invasives regularly include bush honeysuckles, Japanese barberry, and privet.



Green ash bark and leaf. Photo: Tom DeGomez, University of Arizona, Bugwood.org.

Differentiating from Related Communities: All floodplain forests occur along rivers with active annual flooding and silt deposition. They differ in the size of river on which they occur and in the flooding severity. They are points in a continuum of scouring and drainage. Small-river Floodplain Forests occur on small rivers where flooding occurs with limited water volume and scour. Soils are hydric silt or fine sandy loams, sometimes

with a surface organic layer. Transitional Floodplain Forests are intermediate in flooding severity, soil texture, and drainage, and usually lack a surface organic layer. Major-river Floodplain Forests occur along large rivers with severe flooding and scouring. Soils are predominantly not hydric and lack a surface organic layer. Small-river Floodplain Forests usually lack cottonwood, but



otherwise have the most canopy species of the annually flooded floodplain forest types, as well as more substantial shrub layer and greater herbaceous diversity than the Major-river and Transitional types. However Alluvial Red Maple Swamps are the most diverse. Alluvial Red Maple Swamps along low-gradient rivers flood annually and are slow to drain. Silver maple is often a codominant with red maple. Alluvial Hardwood Flat Communities are along small streams that have multiple short floods throughout the year. Black cherry and white pine are abundant in the canopy with red, but not silver maple. High-terrace Floodplain Forests are on high alluvial terraces that do not flood annually and then for a short duration. They are sometimes seen as a hybrid between floodplain and upland forests. They have more litter accumulation than other floodplain forests.

Habitat for Associated Fauna: Small-river Floodplain Forests often contain meander scars or backwater sloughs that function as vernal pools and provide important amphibian breeding habitat. Being small communities, they

are part of the habitat of the wide ranging riverine and upland animals. Floodplain forests are insect-rich habitats that attract warblers, thrushes and other songbirds.

Examples with Public Access: Bailey Conservation Area (ECGA), North Andover; Great Meadows NWR, Concord; Oxbow NWR, Ayer; Arcadia WS (MAS), Northampton; Hop Brook WMA, Lee.



Small-river Floodplain Forest with river birch. Photo: Bruce Sorrie, NHESP.

