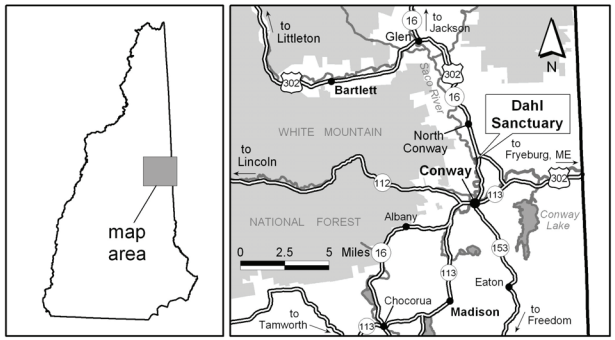
DIRECTIONS

From Conway, travel north on Rte. 16 to the junction with Rte. 302. Turn left at the light into the parking lot for L.L. Bean. The trailhead is to the left, at the edge of the woods at the far end of the parking lot. Please try to park as close to the trailhead as possible.



PROPERTY USE GUIDELINES

Please, for the protection of the area and its inhabitants, and for everyone's safety and enjoyment:

- Sanctuary is open to the public dawn through dusk
- Foot travel only, except for snowmobiles on designation trail only (snowmobiles are not allowed off the designated corridor)
- For your safety, please stay on the marked trails
- Pets must be kept on a leash
- Horses, bicycles, or motor vehicles are not permitted
- No collecting or disturbing plants or animals
- Hunting, firearms, camping, fires, swimming, fishing, smoking, or alcohol are not permitted
- Please respect private property
- Carry out all trash and litter

ABOUT NEW HAMPSHIRE AUDUBON

New Hampshire Audubon is an independent statewide organization whose mission is to protect New Hampshire's natural environment for wildlife and people. It operates nature centers throughout the state that provide educational programs for both children and adults. It is also involved in research projects, protects thousands of acres of wildlife habitat, and advocates for sound public policy on conservation issues. For information on NH Audubon, including membership, volunteering, programs, and publications, call (603) 224-9909 or visit their website: www.nhaudubon.org.

DAHL SANCTUARY

The Dahl Sanctuary is a 60-acre property along the Saco River near the intersection of Routes 16 and 302 in Conway. It is owned and managed as a wildlife sanctuary by New Hampshire Audubon, and the Natural Resources Conservation Service holds a conservation easement through the Wetlands Reserve Program.

The sanctuary is bordered by the Saco River, retail and outlet stores, Route 16, and a private campground. Primary access to the site is via a trail that starts at the southeast corner of the L.L. Bean Retail Store parking lot on Route 16.

The property was donated to NH Audubon by Helen and Ruth Dahl in 1988. Used as farmland throughout the 1800s and early 1900s, the Dahl Sanctuary is now used primarily for open space and wildlife habitat. It includes a wide variety of habitats, including wooded shoreline on the Saco River, a large gravel barren, silver maple floodplain forest, old oxbow channels, upland softwood forests, open fields, and early successional shrub and grassland habitats. Several of the natural community types are rare in the state, and two rare plant species occur. The Dahl Sanctuary is an excellent place to observe wildlife like birds, amphibians, and mammals, and it is open for public exploration on a year round basis.

This brochure was created by the New Hampshire Natural Heritage Bureau as part of a series designed to educate the public about the state's special plants and natural communities. More site guides and profiles are available on the Visiting New Hampshire's Biodiversity program page at:

www.nhnaturalheritage.org

New Hampshire Natural Heritage Bureau

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The DFL is an equal opportunity employer and educator.

NH Natural Heritage Bureau

Visiting New Hampshire's Biodiversity

Riparian Communities at the Dahl Sanctuary

a property owned and managed by

New Hampshire Audubon

N.H. AUDUBON

This brochure was paid for with funds from the NH Conservation License Plate
www.mooseplate.com

TRAIL DESCRIPTION:

From the trailhead, follow the woods roads downhill through the woods to a trail junction. A segment of the trail ends at an open cobble barren along the river with beautiful views of the region. Waterbird species such as spotted sandpiper, belted kingfisher, and common merganser can be found here during the breeding season. Only the upstream portion of the barren is owned by NH Audubon; the rest is owned by the Town of North Conway.

An example of the globally-rare ***hudsonia - silverling river channel*** community occurs along the upper portion of the cobble barren at the edge of the forest, where it forms a narrow strip of vegetation on the channel shelf above the river. Grasses, forbs, mosses, and lichens are the dominant life forms, although vegetation is sparse overall. Widely scattered shrubs and saplings are also present. The substrate on the surface ranges from a thin layer of nearly pure sand to a mixture of sand, gravel, and small cobbles that have been deposited by the Saco River.

Two state-threatened plants occur in this community, hairy hudsonia (*Hudsonia tomentosa*) and silverling (*Paronychia argyrocoma*). There are over three hundred patches of silverling on the Audubon portion of the cobble barren. These patches range in size from a single stem to 3 square feet. The hairy hudsonia is less common here, occurring in scattered clumps that total only about 4 square feet of cover. Hairy hudsonia is most frequently associated with the sandier zones found near the highest areas of the channel, which are often farthest from the river itself. The distribution of silverling is similar, but it extends further out onto the cobble.

Besides the hudsonia and silverling, other characteristic plant species here include little bluestem, early goldenrod, Rand's goldenrod, biennial evening primrose, jointweed, panic grass, and intermediate pinweed. Sand sometimes forms low, tear-shaped mounds behind vegetation clumps. These mounds are aligned with stream flow direction, and are the result of deposition in lower velocity eddies behind the plants.

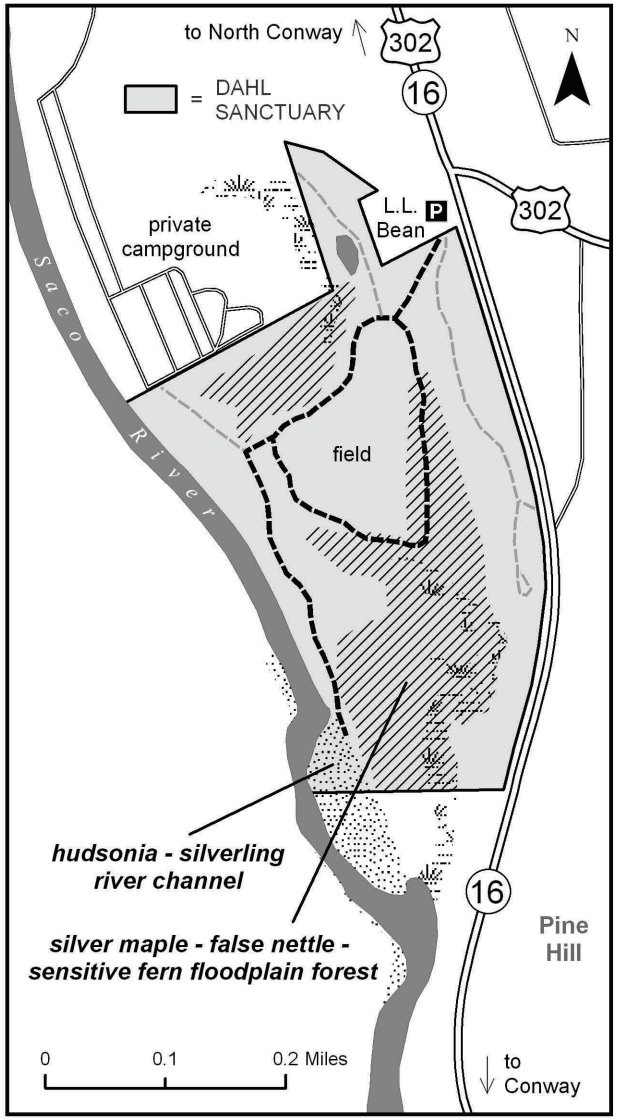
This natural community is currently known only from river channel barrens along the Saco River in New Hampshire and Maine. Its restricted distribution likely corresponds to a combination of flood-related disturbance and soil conditions along the river profile. Above open cobble shores, river channel barren zones are scoured enough to prevent most woody plant growth, but stable enough for perennial species such as hairy hudsonia and silverling to survive and sometimes thrive. Still higher is a sandy environment that is heavily vegetated by shrubs, saplings, and a variety of grasses and forbs. At this height in the channel, floodwater velocities slow to the point where depositional processes outpace erosion. The forested floodplain occurs above this zone.

Backtracking to the trail junction across the streambed, a loop trail leads to the right around a field edge that is being managed for early successional habitat. Nest boxes here are used by Eastern bluebirds, tree swallows, house wrens, and black-capped chickadees, and many species of wildlife depend upon the young forest habitat for food and cover. Continuing around the field, you will reach a ***silver maple - false nettle - sensitive fern floodplain forest***, a dynamic natural community that in New Hampshire is primarily associated with large and medium-sized rivers affected by periodic and temporary flooding. At the Dahl Sanctuary, the canopy is dominated by silver maple, which forms a tall, arching, cathedral-like ceiling above the level floodplain adjacent to the river channel. Other trees such as American elm, sugar maple, white ash, and basswood also occur as associates. Barred owl and red-shouldered hawk both make their nests in this canopy, and floodplain specialist songbird species can be found here during the breeding season.

The understory is distinguished by a diverse and variable suite of herbaceous plants including an abundance of sensitive fern and false nettle. Other species present in the herb layer include drooping woodreed, drooping sedge, wild sarsaparilla, wood nettle, Canada mayflower, northern short husk grass, sessile-leaved bellwort, hairy Solomon's seal, inflated sedge, ostrich fern, white baneberry, red baneberry, large enchanter's nightshade, wakerobin, tall meadow-rue, and northern lady fern. Shrubs and understory trees are more common at the edges and in canopy gaps and include ironwood, choke cherry, mountain holly, red elderberry, meadowsweet, dwarf raspberry, Virginia creeper, maple-leaved viburnum, poison ivy, and partridgeberry.

There is a high degree of microtopographic variation on the ground within the floodplain forest community, with sand deposits, riparian vernal pools, old oxbows, and flood channels occurring throughout, allowing for a high diversity of plant life and wildlife. Evidence of denning mammals, nesting birds, and breeding amphibians can often be found throughout the floodplain forest understory.

Return to the parking area by way of the loop trail, which connects back with the old woods road. From here, you can explore some of the other side trails within the sanctuary. Of particular interest is corridor extending to the Pine Trail (which permits snowmobile access in winter), a short spur trail dominated by a second-growth upland forest bordering Route 16.



Map and photo by Ben Kimball, 2011