he natural landscape of New Hampshire offers a fascinating study of great contrasts and rich biological wonders. To bring some of this spectacular but complex ecological diversity into perspective, the N.H. Natural Heritage Bureau, a N.H. Fish and Game partner, classifies recognizable, recurring combinations of plants into units called “natural communities.” The results of many years of field work were compiled and analyzed to produce a natural community classification, which became the basis of a new book, *The Nature of New Hampshire: Natural Communities of the Granite State*. The book features descriptions of nearly 200 natural communities, setting each in the context of broader habitat types, such as Forests, Marshes and Floodplains. Here, we offer a glimpse of several of these natural community groups, and explain why they’re special and important to wildlife.

**Old-growth Forest**

Forest patches that were not harvested or subject to other significant human activities are rare in New Hampshire. While they lack the truly enormous trees of western forests, eastern old-growth forests nevertheless instill an undeniable sense of awe at their fullness and complexity. The large tree trunks that fall take many years to decay, the rotting structure of each one providing temporary habitat for many animals, microorganisms, flowering plants, mosses, lichens, and fungi. Many of the state’s large mammals frequent old-growth forests, including bear, moose, deer, and bobcat. A good example of old-growth hardwood forest occurs at the Lafayette Brook Scenic Area in Franconia.
munities

Story and Photos
by Ben Kimball
**Atlantic White Cedar Swamp**

Atlantic white cedar swamps or “poor swamps” can appear foreboding, perhaps even prehistoric-looking, with mossy hummocks capped with lush ferns and muddy pools of dark, still water. These wetland communities – there are four distinct types, all dominated by Atlantic white cedar – perform important ecosystem services such as water-quality improvement and flood storage. Many plant and wildlife species can be found in these habitats, and some are even specialists. For example, Hessel’s hairstreak is a rare butterfly that spends most of its life cycle high in the tree canopy of Atlantic white cedar swamps. Boardwalk trails pass through good examples of Atlantic white cedar swamps at Bradford Bog in Bradford Forsaith Forest in Chester, Loverens Mill Preserve in Antrim and Manchester Cedar Swamp Preserve.

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**Talus Barren**

Talus barrens are piles of large boulders that often form at the bases of cliffs, ledges and other steep slopes where frequent landslides prevent the establishment of much soil. Some hardy plants root in cracks and crevices, however, while colorful lichens encrust many of the exposed rock surfaces. Talus barrens are extremely hard to walk on, as the loose rocks are prone to sliding underfoot. A variety of snakes, insects and small mammals use talus habitat. Good examples of very large, open talus communities can be found at the base of Cannon Cliff and in Zealand Notch.

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**Sandy Pond Shore Marsh**

New Hampshire’s sandy pond shore marshes are few and imperiled, but still occur along the wave- and ice-disturbed margins of some large, sandy-bottomed lakes and ponds. As in other marsh communities, water levels fluctuate annually, and vegetation ranges from emergent aquatic species at the lowest elevations to dry-site shrub species on higher, sandy berms. These habitats support many uncommon and state-rare plants, and birds, amphibians and insects are all common. Open sandy pond shore marshes are extremely vulnerable to human impact and are best viewed from boats. Good examples occur at several locations in the Lakes Region.
**Major River Floodplain Forest**

Once much more common along the state’s large riverbanks, silver maple floodplain forests are now rare because the fertile, low-lying land on which they occur is also extremely productive for agriculture. These communities typically have an “open” feel, with tall, arching tree canopies and low, lush ground cover. They provide critical breeding and feeding habitat for a tremendous number of wildlife species, including turtles, frogs, fish, warblers, eagles, mink and deer. Examples of intact silver maple floodplain forests can be seen along the Connecticut River in Haverhill and the Ashuelot River in Keene.

**Sand Dunes**

Sand dune communities were once much more common in New Hampshire, but development has destroyed most of them. These dry, sandy, salty and windy environments offer the state’s only remaining habitat for a handful of endangered plants, like hairy hudsonia and several sedges, and they are also extremely important for the survival of birds like the federally threatened piping plover, which nests between open sandy beaches and well-vegetated foredunes. Several ants and beetles are also dune specialists. Only remnant examples of dune communities still occur in New Hampshire, at Seabrook Beach and Hampton Beach state parks.
Alpine Tundra
The wind-exposed summits of New Hampshire’s highest mountains support a variety of specially adapted plants and animals found nowhere else in the state. The area above treeline is called the alpine zone, and the vegetation there is called alpine tundra. Alpine tundra is a patchwork of several distinct natural communities, all of which share the common trait of very low-growing vegetation. Anyone who has ever hiked through this habitat knows that alpine plants, despite their impressive resilience to the harsh physical conditions, are very sensitive to trampling, which means that hikers must take great care to stay on trails. Overall, wildlife diversity is low in alpine tundra, but it supports several state-rare animals like the White Mountain Arctic butterfly and Bicknell’s thrush. Excellent examples of alpine communities can be found on the high peaks of the mountains in the Presidential Range, and on the crest of Franconia Ridge.

Nature of N.H.
Explore New Hampshire’s natural beauty and ecological diversity with The Nature of New Hampshire: Natural Communities of the Granite State from the N.H. Natural Heritage Bureau. Featuring hundreds of photos and illustrations of rare and special plant communities and wildlife habitats throughout the state, you’ll learn new ways to look at the landscape and discover many special places to visit. Copies are available at your local bookseller, or online from University Press of New England: www.upne.com/1584658986.html

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