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November 2017



U.S. Fish & Wildlife Service

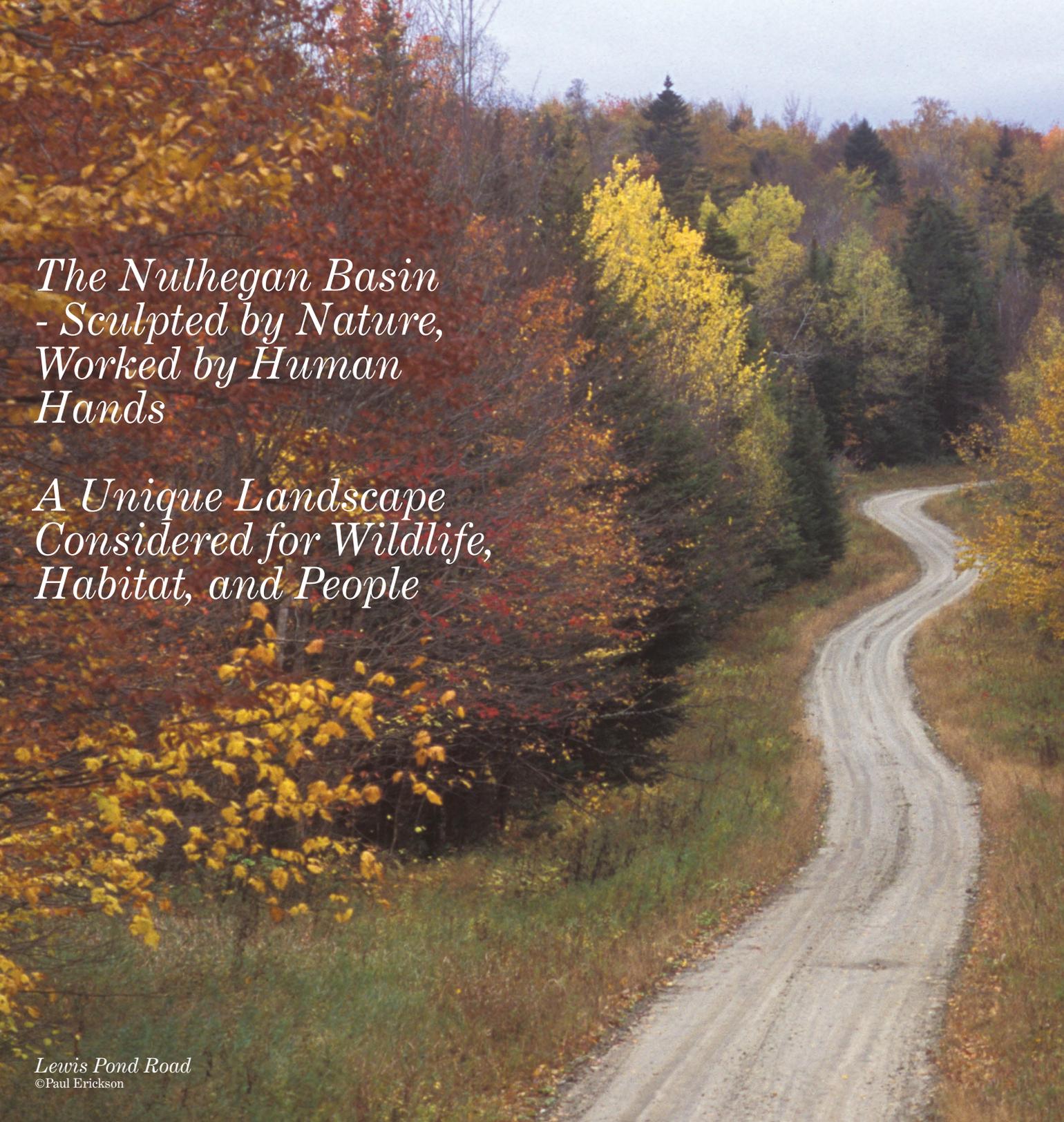
# Silvio O. Conte

*National  
Fish and Wildlife  
Refuge*

*Nulhegan Basin  
Division*



Moose pair in winter  
©Roger Irwin



*The Nulhegan Basin  
- Sculpted by Nature,  
Worked by Human  
Hands*

*A Unique Landscape  
Considered for Wildlife,  
Habitat, and People*

**Silvio O. Conte  
- a Champion of  
Natural Resources**



This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System

What is your lifelong dream? For Massachusetts congressman Silvio O. Conte, it was to see to the preservation and restoration of New England's longest river-the Connecticut. To honor their colleague, Congress passed the Silvio O. Conte National Fish and Wildlife Refuge Act (Conte Act) (P.L. 102-212) in 1991. The Conte Act authorized the U.S. Fish and Wildlife Service (Service) to establish a national fish and wildlife refuge to protect the diversity and abundance of native species within the Connecticut River watershed.

Silvio O. Conte National Fish and Wildlife Refuge is one of more than 560 national wildlife refuges in a network of lands and waters of the National Wildlife Refuge System, administered by a federal agency known as the U.S. Fish and Wildlife Service (Service). The Service is the only federal agency dedicated to working with others for the conservation, protection and enhancement of fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

**The Nulhegan  
Basin - A Special  
Focus Area**

The Nulhegan (pronounced Nul-HEE-gan) Basin in northeastern Vermont (a Native American term referencing log or deadfall traps used to capture small game) was identified as a high priority area for conservation within the watershed when the Silvio O. Conte National Fish and Wildlife Refuge was first

*Nulhegin River*



Tom LaPointe/USFWS



© David Govatski

*Black-backed woodpecker*

established. The basin has high biological value: the presence of rare species, extensive wetlands, and contiguous migratory songbird habitat.

In 1998, Champion International Corporation (a large paper and wood products producer) announced it would sell 132,000 acres of land in northern Vermont, including the Nulhegan Basin. A group of conservation partners, including the Service, State of Vermont Agency of Natural Resources, private investors, the Vermont Land Trust, and The Conservation Fund sought its protection. The Nulhegan Basin Division (division) was established in 1999 with the purchase of 26,000 acres within the basin. The Vermont Agency of Natural Resources purchased 22,000 acres adjacent to the division to form the West Mountain Wildlife Management Area, and a private timber company (now Weyerhaeuser) purchased the remaining 84,000 acres that surrounds the federal and state properties. The combination of ownerships, with varying yet complementary mandates, provides long-term conservation of important wildlife habitat as well as the preservation of traditional uses of the land.



*Fall colors at the division*

## Basin History

The basin formed when a pool of magma solidified below the earth's surface more than 300 million years ago, and slowly eroded creating a crater-like "basin" roughly 10 miles across. What once bubbled with hot magma, is now one of the coldest lowland areas in the Northeast. Annual snowfall averages 100 inches and there are typically 100 frost-free days each year.

Temperatures range from the low 90s (F) in the summer to -30 degrees (F) in the dead of winter.

In the heart of what is known as the Northeast Kingdom, the basin has been the home to hardworking people for centuries. Logging, sawmill operations, home-based trades, hunting, trapping, raising dairy herds, quarrying granite, and tapping sugar maple trees have all been a way of life here. Several privately-owned hunting camps, on lots previously leased by Champion International Corporation, are still present on the division.

## Managing for Wildlife, Habitat and People

### *Wildlife*

The area is well known for its remote and rugged landscape home to an abundance of boreal bird species, migrant songbirds, mammals, cold-water fish, amphibians, and rare plants. Dozens of warbler, thrush, vireo and other migratory songbird species can be seen and heard in



*Williamson's emerald*

the division's forests. American woodcock, ruffed grouse, waterfowl, and various birds of prey can be commonly observed. A variety of mammals including moose, black bear, white-tailed deer, snowshoe hare, red squirrel, beaver, fisher, bobcat, and coyote are year-round residents.

Audubon designated the Nulhegan Basin as an Important Bird Area. The division was recently found to support the federally-threatened Canada lynx. It also possesses among the largest state-wide populations of moose and black bear. The division provides critical habitat for the state endangered spruce grouse and important shelter for wintering deer.

The refuge works to restore and manage habitats for key species, such as forest-dependent migratory songbirds and native fish, in particular, eastern brook trout. To date, this has involved creating early-successional habitats to benefit American woodcock, a species in long-term population decline, as well as, associated birds that depend on this vegetation structure. Future forest management will work to restore diversity in age structure, improve structural complexity of stands, and enhance the development of late successional stages. Aquatic restoration has relied heavily on the efforts of partners such as Trout

Unlimited and the Vermont Fish and Wildlife Department. Activities include in-stream work to create greater channel diversity and a more complex habitat structure, as well as, enlarging culverts to remove barriers to the passage of fish.



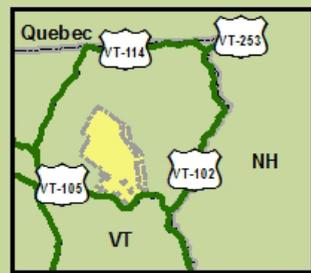
*American woodcock habitat management*



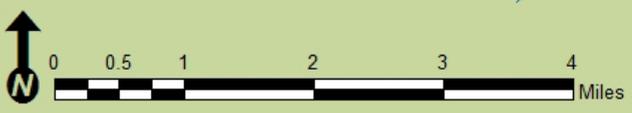
*Red eft*

**Legend**

-  Division Boundary
-  Entrance
-  Fishing
-  Headquarters/Visitor Contact Station
-  Overlook
-  Parking
-  Trail
-  Accessible
-  River
-  Paved Road
-  Gravel Road



**Silvio O. Conte**  
*National Fish and  
 Wildlife Refuge  
 Nulhegan Basin  
 Division*



## Habitat



*Pitcher plant*

Located a few miles south of the Canadian border, the Nulhegan Basin's vegetation contains elements of the boreal forest that occurs farther to the north. The basin is largely a contiguous forest, bisected by streams and intermixed with peatlands, bogs, beaver-influenced wetlands, and forested wetlands.

Northern hardwood forest, dominated by sugar and red maple, beech, and yellow and paper birch, cloak the mountains of the basin rim and the larger hills within the basin's interior. The basin bottom is dominated by spruce-fir forest. Red and black spruce and balsam fir are the main trees in these forests. Tamarack, northern white cedar, black ash, and speckled alder also occur commonly in the basin, but are limited to the wetland areas.

Many rare plants, orchids, and other wildflowers occur in the division including the sundew, pink, white, and yellow lady slippers (or moccasin flower), Canada lily, purple fringed orchid, cotton grass, Rhodora, pitcher plant, trout lily, and many more.

## People



*Log Drive on the Connecticut River*

Little is known about Native American use of the division proper. At the time of European contact, a number of autonomous western Abenaki groups inhabited the upper Connecticut River valley including the Sokokis and Cowasucks. The environs of the Nulhegan Basin offered important hunting and trapping territories for the Cowasucks. The Nulhegan River served to connect settlements in the St. Lawrence and St. Francis River drainages with the Connecticut River and points east.

The late nineteenth century saw the construction of large sawmill complexes on the Nulhegan River, beginning a period dominated by the logging and lumbering industries. At

the turn of the 20th century, mills had largely disappeared and harvested wood was floated down tributaries and ultimately the Connecticut River to western Massachusetts for processing.

## Visitor Opportunities



© Paul Cyr

*Lynx*

The division offers excellent opportunities for wildlife-dependent recreation. An extensive road system gives visitors the ability to access and experience the rugged and remote quality of the division.

Is adding a Canada warbler to your birding life-list something you've only dreamed about, or is photographing a spruce grouse your idea of fun? Does that perfect vacation include the chance to see a moose, wet a line in a cool clear stream, or spend a few autumn afternoons in the woods? Whether it's observing or photographing wildlife that makes your heart skip a beat, planning that ideal hunting or fishing trip, or a backwoods hiking experience, the division has something for everyone.

## Environmental Education & Interpretation

Organizations and schools are welcome to use the division's lands and facilities, including trails, exhibits, and meeting room for a variety of activities from birding trips to snowshoe treks for winter track identification to outdoor skills



Mark Maghini/USFWS

*Environmental Education*

Sharon Lindsay



*Lewis Pond*

classes. Interactive exhibits and an interpretive nature trail are located at the headquarters/visitor contact station. Group events are evaluated on a case-by-case basis and may require a Special Use Permit. Please contact the division headquarters for more information when planning such activities.

### *Hunting and Fishing*

The division is part of Vermont's premier region for both hunting and fishing. Principal game species include white-tailed deer, ruffed grouse, snowshoe hare, moose, black bear, and American woodcock. Lewis Pond and the North and Black branches of the Nulhegan River offer great opportunities for trout fishing.

©Paul Erickson



*Fishing*

Hunting and fishing follow state seasons and regulations. For information regarding division-specific rules, please contact headquarters prior to your visit. Trapping is allowed by Special Use Permit.

### *Photography and Wildlife Observation*

Abundant public access along an extensive road and trail network, or simply by bushwhacking, gives visitors the opportunity to photograph and observe wildlife, plants, and scenic vistas in a variety of settings during any season. Best wildlife viewing times are dawn and dusk. With persistence, moose may occasionally be seen from the division's roads and along Route 105.

### *Division Destinations*

The Basin and Lewis Pond Overlooks provide panoramic vistas of the Nulhegan Basin and the surrounding landscape. The Lewis Pond Overlook has a small, fully accessible parking area and short trail leading to an observation area. The Basin Overlook is accessible from the visitor contact station parking lot.

Mollie Beattie Bog is among the most significant black spruce woodland bogs in Vermont. The self-guided, 200-foot, fully accessible boardwalk and trail includes signs illustrating bog formation, interesting rare plants that inhabit the bog, and the legacy of the late Mollie Beattie. The 76-acre bog, donated to the Service by Champion International, was dedicated to the Service's first female director and former Vermont natural resources administrator. Visitors to the site are asked to stay on the boardwalk to avoid disturbance to the sensitive wetland habitat. In addition, the Nulhegan River Trail, a one-mile interpretive loop, is accessible from the visitor contact station parking area. This trail offers those visitors short on time a chance to experience the uniqueness of the basin. The North Branch Trail, located along Route 105, 3.5 miles west of the contact station is a four-mile loop trail. Both trails are accessible year-round.

## Things to know

The public is welcome to visit the division lands year-round. The type of access (i.e., foot, automobile, snowmobile, bicycle) permitted varies seasonally. Nearly 40 miles of gravel roads are open to driving or hiking in the summer and fall months. Roads are not plowed during winter and are typically gated during the April-May “mud” season. Road conditions can sometimes change rapidly; please be alert at all times for road hazards. Visitors may also hike along unmarked wooded pathways and stream courses. In the winter, access is by snowmobile, cross country skis, or snowshoes. The snowmobile trail system is managed by the Vermont Association of Snow Travelers according to state-wide and division-specific regulations.



*Snowmobilers at kiosk*

An informational kiosk is located at each entrance to the division. Seasonal information may be posted at the kiosks to alert visitors to wildlife viewing opportunities, current logging traffic, or general safety precautions. Brochures and maps are also available at these locations. Please contact division headquarters or the Conte

website ([http://www.fws.gov/refuge/Silvio\\_O\\_Conte/](http://www.fws.gov/refuge/Silvio_O_Conte/)) for any additional information.

## Volunteers



©Bryan Pfeiffer

*Silver-bordered fritillary*

## Come Visit!

Volunteers are encouraged to assist in several areas of refuge operations including visitor services (welcoming the public, designing and delivering interpretive programs) and trail maintenance. Please contact refuge staff for more information. Those wishing to support the Conte Refuge are encouraged to visit the Friends of Conte on Facebook (<https://www.facebook.com/#!/pages/Friends-of-the-Silvio-O-Conte-National-Fish-and-Wildlife-Refuge/121976791147545>)

The division headquarters and visitor contact station is located on Vermont Route 105, approximately 10 miles east of Island Pond, Vermont, and six miles west of Bloomfield, Vermont. Stone Dam Road (1.5 miles east of the visitor contact station on Route 105) serves as the primary access point. The division is also accessible via Henshaw Road off of Route 105 (just outside of Island Pond).



Kathy Fournier/USFWS

*Visitor Contact Station*