

SAINT-GAUDENS NATIONAL HISTORIC SITE

Cornish, New Hampshire



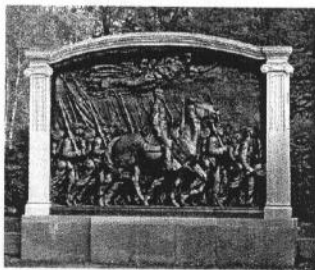
PARK MISSION

It is the mission of the National Park Service to preserve, protect, and interpret cultural and natural resources historically associated with Augustus Saint-Gaudens (1848-1907), a prominent figure during the "Cosmopolitan Era" in American Art (1860-1900) and the "Cultural Nationalism" movement that followed. To promote the arts through events in the spirit of those conducted by Augustus Saint-Gaudens and the Saint-Gaudens Memorial during its stewardship of the site.



SIGNIFICANCE

The primary significance of Saint-Gaudens NHS may be summarized as the site of the home, studios, designed landscape, and extensive collection of the works of Augustus Saint-Gaudens (1848-1907), a prominent figure in American Art. The site's significance is further enhanced by the retention of the rural character of the surrounding countryside that attracted and inspired Saint-Gaudens and the Cornish Colony artists.



Resource Management Issues



- Invasive Species
- Public Health
- Water Quality
- Forest Health
- Viewshed
- Cultural Landscape
- Amphibians
- Environmental Ed.

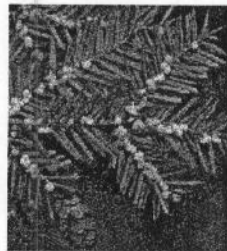
Invasive Species



Purple Loosestrife



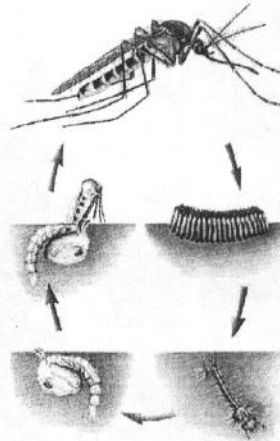
Japanese Tree Lilac



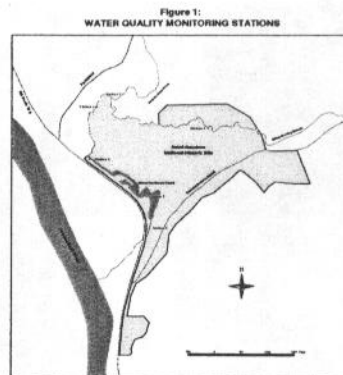
Hemlock Woolly Adelgid

Public Health Concerns

- West Nile Virus
- Foot & Mouth Disease
- Water Quality



Water Quality



The park has maintained an in-house water quality monitoring program since 1997. High fecal coliform levels were observed in 1999 and 2000. Highway deicing agents are also a concern.

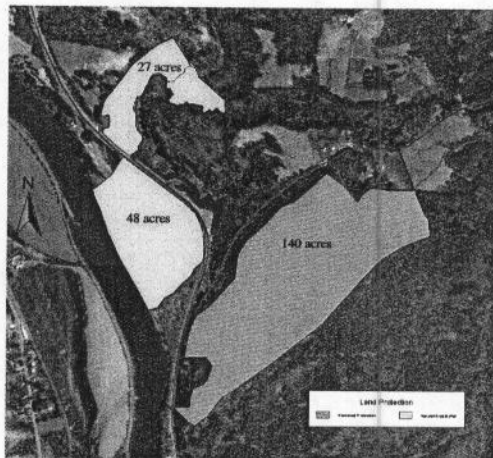
Forest Health

- Significant decline in white ash, likely ash yellows (seek confirmation in 2001)

- Hemlock Woolly Adelgid and other invasive species pose serious threats to cultural and natural resources



Viewshed & Habitat Protection



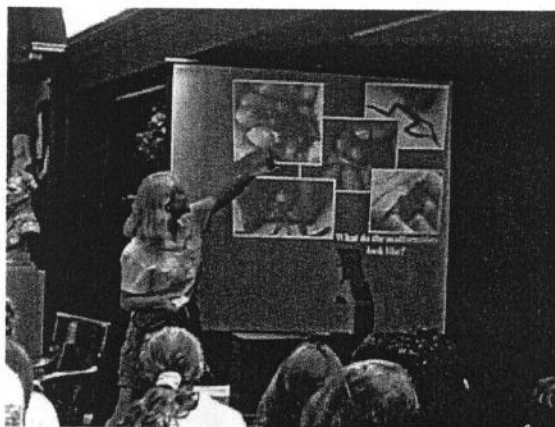
The park's GMP and Land Protection Plan call for the acquisition/protection of three parcels with significant natural resources. The land on the CT River was recently purchased by a park partner.

Cultural Landscape Management



- Pond & Wetlands (dredging)
- Golf course (mowing frequency)
- Non-native vegetation (garden escapees)
- IPM

Amphibian Malformations/Decline



In 1999 and 2000 SAGA hosted NH DES workshops to train volunteers in how to conduct malformed amphibian surveys in NH. Thus far no malformed frogs have been found at SAGA.

Environmental Education



RAVINE TRAIL

Welcome to the Ravine Trail, a 1.4 mile, moderately strenuous, well-defined path often used by Angerstein Saint-Gaudens. At an average pace it takes about 15 minutes to complete the hike. For your safety, sturdy footwear is recommended. Please try to be on the trail at the beginning and end of the trail. It is best to follow the cautionary advice: "Leave no trace, let it be."

You are currently at the forest edge, an area that supports diverse flora and fauna in the habitat transition between

forest and meadow. Increased species diversity is usually found in areas where differing habitat types converge. Here you will find such mammals as Chipmunks, Squirrels, Mice, Voles, and various species of birds including Blue Jays, Turkey Vultures, Woodpeckers, Thrashers, and Sparrows.

The area at the forest edge along the Northern Hardwoods forest community including deciduous trees like Red Oak, American Beech, and White Ash. There are also tree crotches, White Pine and Eastern Hemlock.

COMMON "EDGE" SPECIES



Foxglove
(Digitalis purpurea)



Eastern Bluebird
(Sialia sialis)



Wild Turkey
(Meleagris gallopavo)

PLANT LIFE

The moist flood plain of Blow-Me-Up Brook supports a wide variety of plant life. You have already seen a number of different tree species. In addition, you will note that there are several tree species present on the Ravine bottom including Hemlock, Pine, Oak, Maple, Birch, Spruce, Birch, and an occasional American Sycamore, characterized by its shaggy, mottled gray and brown bark and large maple-like leaves.

The flood plain is also a haven for a variety of flowering plants such as Jack-in-the-Pulpit, Trout Lily, and Red Trillium. Please note this site is a National Park Service area, therefore picking plants, or taking of any other natural or cultural resources is prohibited.

PLANTS COMMONLY FOUND IN THE BLOW-ME-UP RAVINE



Jack-in-the-Pulpit
(Arisaema)



Red Trillium
(Trillium)



Trout Lily
(Erythronium)

MOUNT ASCUTNEY

As you reach your breath from climbing out of the Ravine, look across the field toward Mt. Ascutney (elevation 2,340 feet) which lies on the Vermont side of the Connecticut River Valley. Angerstein Saint-Gaudens and his artist friends referred to this peak as "The Sacred Mountain," making it a frequent subject of their marks of art. Powerful today, this "sacredness," or mountain standing isolated, was in a hazy, misty chamber beneath a glass volcano 120 million years ago.

Mt. Ascutney has the distinction of being the second tallest "volcanic" east of the Mississippi River.

Early maps depict the mountain with the name Ascutegrick, Algonquian for "meeting of the waters." However, some historians believe the name is from a Native American word, Ascutegrick, meaning "mountain of the rocky summit." Perhaps the true origin of the mountain's name may remain a mystery.



Mt. Ascutney from the Vermont side, looking across the Connecticut River Valley, ca. 1900



Mt. Ascutney from the Vermont side, looking across the Connecticut River Valley, ca. 1900



Mt. Ascutney from the Vermont side, looking across the Connecticut River Valley, ca. 1900



Mt. Ascutney from the Vermont side, looking across the Connecticut River Valley, ca. 1900

SWIMMING HOLE AND DAM

There is a swimming hole that was created and enjoyed by Angerstein Saint-Gaudens. He and his assistants often came here to relax and be refreshed by the cold water of Blow-Me-Up Brook. In Saint-Gaudens' time, the trail leading to the dam was an easy path.

The swimming hole was used by Saint-Gaudens until 1906, the year he built a swimming pool behind the Little Studio.

The old stone dam was restored by a CIBAC Conservation Corps camp that was in the area in the 1950's.

This improvement is an important example of how humans can alter natural processes. In this case the natural flow of a small stream. It also provides habitat for fish during particularly dry periods of the year, especially various cold-water species, such as brook trout.



Blow-Me-Up Dam, 1908



Blow-Me-Up Dam, 1955

SONGBIRDS IN DECLINE

Songbirds are about one-half of all bird species, over 8,000 species worldwide. Many New Hampshire songbirds live far away for much of the year, migrating to far as North America.

Tragically, half of all migratory bird species are declining. If these rates of decline continue, we are likely to witness the disappearance of several species in our lifetime.

If birds are declining, why do I see so many?

Although conditions are improving for species such as robins, who prefer fields, lawns, or forest edges, many others are in danger of serious decline.

What you can do to help the birds:

- Keep cats indoors
- Minimize pesticide use in your home, and on the food you buy
- Volunteer with conservation and bird organizations
- Purchase shade-grown coffee instead of sun-grown coffee
- Most importantly, keep learning about birds, then tell others!

Songbirds are declining for a number of reasons:

- People alter and destroy habitats through forestry and agricultural practices, development, and the importation of exotic species.
- House cats kill an astonishing 1 billion birds in North America each year.
- Contaminated towers, vehicles, and other structures kill over 100 million birds annually in the U.S. 10,000 birds have been killed at a single tower in one day.
- Pollutants affect bees causing malnutrition and reproductive problems.
- Not parasites by other birds, such as the House Wren, which causes reproductive success.
- Climate Change will cause the weather in a bird's habitat to shift. If the birds time breeding or migration wrong, the young could starve or freeze.

WILDLIFE

The forest communities of Saint-Leonard National Historic Site are home to an abundance of wildlife. Below are just a few examples of various mammals, birds, reptiles, and amphibians that frequent the Ravine. Of course, not everyone who walks the Ravine Trail will see all of these species. However, if you hike slowly and quietly, you are likely to encounter wildlife, whether it be a scurrying chipmunk or a squirrel, or perhaps the song of one of the many birds that inhabit the park.



Eastern Coyote
(Canis latrans)



Eastern Fox Squirrel
(Sciurus amoenus)



Wood Turtle
(Desmognathus m'clelleni)



Red-bellied Sapsucker
(Sphyrapicus varius)

FERNS

Native ferns growing along the banks of Blue-Me-Up Brook. There are an estimated five of plants that reproduce by spores rather than seeds and therefore do not produce flowers. At one time the Eastern United States was covered with forests of tree-ferns.

Several different species of ferns grow here in the Ravine. Ferns grow best in wet areas, so it is easy to see why they flourish here. As you continue your hike along Blue-Me-Up Brook, look for the various species.



Christmas Fern
(Polystichum acrostichum)



Cinnamon Fern
(Osmunda cinnamomea)



Maidenhair Fern
(Adiantum species)



Interrupted Fern
(Osmunda cinnamomea)



Sensitive Fern
(Onoclea sensibilis)



Ostrich Fern
(Matricaria arifolia)

BLOW-ME-UP BROOK

Blue-Me-Up Brook is home to a variety of aquatic organisms including a small population of native Brook Trout. Blue-Me-Up Brook, from which this stream flows, provides habitat for 19 different species of fish within the park's boundary including Brook Trout, Perch, Sandfish, Shiner, and Bass.

You will also find numerous invertebrates in the waters of the brook including water-caddisflies and beetles. If you look closely at the water's surface you may be able to observe these insects.

This is a small, but powerful stream. Look at the steep walls of the Ravine and imagine the amount of soil and rock that the brook removed through erosion as the Ravine was formed over several thousand years.

So-called by the artists of the Currier Gallery, Blue-Me-Up Brook is deeply a play on words of Blue-Me-Up Brook. The name Blue-Me-Up Brook may have come from a colorful surveyor in the 1700s, recalling a similar landscape from his work at Cape Blomidon, Nova Scotia.



Brook Trout
(Salvelinus fontinalis)



Water Strider
(Gerris sp.)

BATS

The Order Chiroptera (bats), comprises the only mammals that fly. New Hampshire has nine species of bats including Little Brown Bat, Big Brown Bat, Hoary Bat, and Silver-haired Bat. Each is nocturnal, which means they feed at night.

Bats are able to fly at night using echolocation, the process of bouncing sound off an object in order to navigate and locate prey. Not all bats do this, however. Many so-called "fruit-eating" bats are diurnal, which means they feed during the day. They navigate by sight and have large, light-sensitive eyes.

Unfortunately, for many years bats have evoked fear and loathing, as a result of myths depicting them as evil, bloodsucking creatures. In fact, only about 1,000 species worldwide, actually feed on blood. Most bats eat fruit or insects. As a result, the Little Brown Bat can increase wet weather by consuming 600 mosquitoes in an hour.

In the United States, nearly 40% of the native bat species are endangered as a result of habitat destruction, indiscriminate use of pesticides, or human disturbance.



Silver-haired Bat
(Lasiurus noctivagus)



Big Brown Bat
(Eptesicus fuscus)



Little Brown Bat
(Myotis lucifugus)

BLOW-ME-DOWN TRAIL

Welcome to the Blow-Me-Down Trail, an approximately two mile (round trip), moderately strenuous woodland path leading to the historic Blow-Me-Down Pond, Milk Pond, and Stone Arch Bridge. Visitors are reminded to stay on the trail, watch for poison ivy, and to use sturdy footwear.

Here in the field it is often possible to view butterflies, the most commonly observed being the Monarch (Danaus plexippus). Since the field is covered in tall grass, wildflowers and milkweed (Asclepias spp.) have an opportunity to grow, providing a source of food for the butterflies. Milkweed is also an important host plant for the Monarch caterpillar.

The North American Monarch is perhaps best known for its extensive migration, and often travels up to 3,000 miles to reach winter roosts in California and Mexico. Those found east of the Rocky Mountains migrate to Mexico, while those to the west of that range migrate to the California coast. Such a migration is unusual in the insect world, as most insects found in temperate climates, like New England, have adapted to survive overwintering.

In order to ensure long-term survival of significant Monarch populations, efforts are needed to conserve wintering sites, migration corridors, and principal breeding areas.



Caterpillar



Adult Male



Emerging from Chrysalis



Chrysalis



Common Milkweed

DRAGONFLIES & DAMSELFLIES

Dragonflies are among the largest, oldest, and fastest insects, with over 6,000 species known worldwide, including over 120 species in New Hampshire. Dragonflies begin their life cycle as aquatic larvae, later emerging from the water to take their familiar winged, adult form. Therefore, ponds, lakes, rivers, and wetlands are favorite viewing locations for these insects.

Damselflies are found in the same order (Zygoptera) as dragonflies. Though they have a very similar appearance to dragonflies, they can be readily distinguished by the position of their wings at rest. Dragonflies hold their wings horizontally and away from the body, while damselflies keep them together and above the body.

It is believed that weather conditions and topography play a significant role in dragonfly migration and they frequently take flight just ahead or behind a frontal system, similar to hawk migration. Since little is known about this natural phenomenon, scientists are currently studying this migratory behavior.



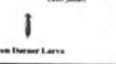
Green Darner
(Zygoptera)



Great Blue Skimmer
(Zygoptera)



Primer Bush-tail
(Zygoptera)



Green Darner Larva



Common Blue Damselfly
(Zygoptera)

INVASIVE SPECIES

Invasive species are those alien or exotic species whose introduction, or whose spread, causes harm to the environment, human health, or the economy. Alien species are those that are not native to a particular ecosystem including its soils, eggs, spores, or other biological material capable of propagating that species. They tend to thrive after being introduced into new habitats, as there is often a lack of natural controls, such as predators, to limit their expansion in new environments.

There in New Hampshire, there are a number of alien species that currently pose a threat to native natural resources.

Purple loosestrife (Lythrum salicaria) is an aquatic plant species, found here at the park, that damages wetland habitat by outcompeting native plants, such as cattails (Typha latifolia). The park is currently developing a management strategy to control this introduction. Another example of an invasive species plant in New Hampshire is European spruce sawfly (Pristiphora spruceana).

In the future, other environmentally harmful invasives may reach New Hampshire including Hairywood woolly adelgid (Adelges borealis) and Asian longhorned beetle (Anoplophora glabripennis).

In order to combat the environmental devastation brought about by the introduction of exotic species, scientists are currently seeking new methods of controlling these harmful invaders.



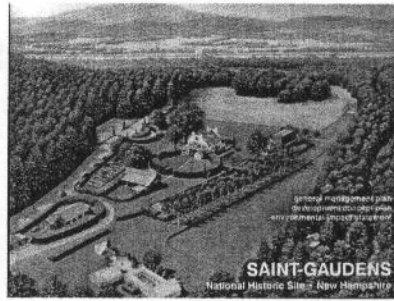
Purple loosestrife



Asian longhorned beetle

Planning Documents

- General Management Plan (1996)
- Resource Management Plan
- IPM Plan (1997)
- Wildland Fire Mgt. Plan (1998)
- Land Protection Plan (1995)
- Environmental Assessment for Purple Loosestrife Mgt. (sent to WASO 4-30-01 for publication in Federal Register)



On-Going Monitoring

- Water Quality (six samplings 1982 - 1994; permanent monthly program since 1997, utilizes local students)
- Forest Health (1996, 1999; conducted every three years)
- Gypsy Moth (1984 - present, annual)
- Amphibian Abnormalities (established 1999, annual)
- Purple Loosestrife Monitoring (established in 2000, annual)
- IPM (various potential pests, especially those that may impact cultural resources)

Inventories

- Fish (1980, 1985, 2000)
- Herpetofauna (1980, 1985, 2001)
- Mammals (1980, 1985)
- Birds (1980, 2001)
- Flora (1980, 1996)



Partners

- | | |
|--|---------------------------------------|
| • USDA Forest Service | • Boy Scouts |
| • NH Dept. of Environmental Services | • Stevens High School |
| • NH Fish & Game Dept. | • St. Anselm College |
| • U.S. Fish & Wildlife Service | • New England College |
| • The Nature Conservancy | • Student Conservation Association |
| • Upper Valley Lake Sunapee Regional Planning Commission | • Connecticut River Joint Commissions |
| • Upper Valley Land Trust | • Connecticut River Watershed Council |
| • Upper Valley Purple Loosestrife Coalition | • Montshire Museum |
| | • NH Audubon |

