



The New Canaan Land Trust's Firefly Sanctuary

Thank you for visiting the Marvin, Massarella and Friends Firefly Sanctuary. This property is owned and managed by the NCLT and is open to visitors year-round. Below is a short history of the preserve, notes about how we steward and maintain the land, and some interesting facts about fireflies.

History of the Firefly Sanctuary:

The Firefly Sanctuary is comprised of two separate parcels, donated at different times in the Land Trust's history. The first parcel, which lies along Sleepy Hollow Road, was donated in 1983 by David and Marion Marvin. These 2.5 acres are comprised of wetlands and mixed hardwood forests with species such as maple, ash, oak and hickory. The second parcel was acquired through a bargain sale from Anthony and Marie Massarella; the funds for which were raised by neighbors of the property. These 4 acres contain additional woodlands as well as the firefly field for which the property is named.

How We Steward the Land:

Although this preserve may seem somewhat 'wild', the NCLT maintains the meadow portion of the property through annual mowing. This ensures that grasses, wildflowers and forbs are the dominant vegetation, and can provide the food and shelter that are required by fireflies, as well as, birds, bees and other native fauna. We also maintain the woodland trail leading from Sleepy Hollow Road, often engaging our summer interns to help remove obstacles, install water diversion bars, build raised walkways and cut back vegetation.

About Fireflies:

- There are over 2,000 species of fireflies worldwide; 170 species are found in North America
- Fireflies rely on grasses and shrubs, and sometimes venture to forest edges
- Each species has its own flashing patterns, which are all about finding a mate. Females lying in the grass signal to the males flying high or perched in trees; males and females can synchronize their flashing.

- Light is created through bioluminescence. Scientists believe that firefly lights are one of the most efficient forms of light ever observed as no energy is lost to heat.
- Light is created by mixing ATP, an enzyme (Luciferase), a protein (Luciferin) and oxygen

Firefly Life Cycles:

- Fireflies are beetles (not flies) with a 4-phase life cycle: egg, larva, pupa and adult
- Females can lay as many as 1,000 eggs
- After a month or so, the eggs hatch into worm-like larva that live in the ground and prey on other insects
- Fireflies spend the majority of their lives in larval form (sometimes up to two years)
- In late spring, the larva become pupa and about 10 days later transform into adult fireflies
- Adult fireflies only live for 1-3 weeks and do not eat. Their sole purpose as adults is to mate and lay eggs to perpetuate the species.

Visiting the Preserve and Watching Fireflies:

The Firefly Sanctuary is open year-round and accessible via a woodland trail leading up from Sleepy Hollow Road. Fireflies are most active in late June and early July. In an effort to protect the natural resources and limit visitor impacts, NCLT implemented a registration system in 2021. During peak viewing season (last week of June and first week of July) we limit attendance to 30 visitors per night. Guests are provided with a red-beam flashlight (which does not interfere with firefly signaling) and asked to apply bug spray before walking up to the meadow.

Supporting the New Canaan Land Trust

The acquisition, maintenance and stewardship of all the NCLT preserves is supported by members of our community. If you enjoy your visit, please consider becoming a member.