REPORT FOR:
EAGLE LAKE PROPERTY OWNERS, INC.
CROWN POINT, NY

AQUATIC MACROPHYTE SURVEY
SEPTEMBER 4, 2008
EAGLE LAKE
CROWN POINT, NY

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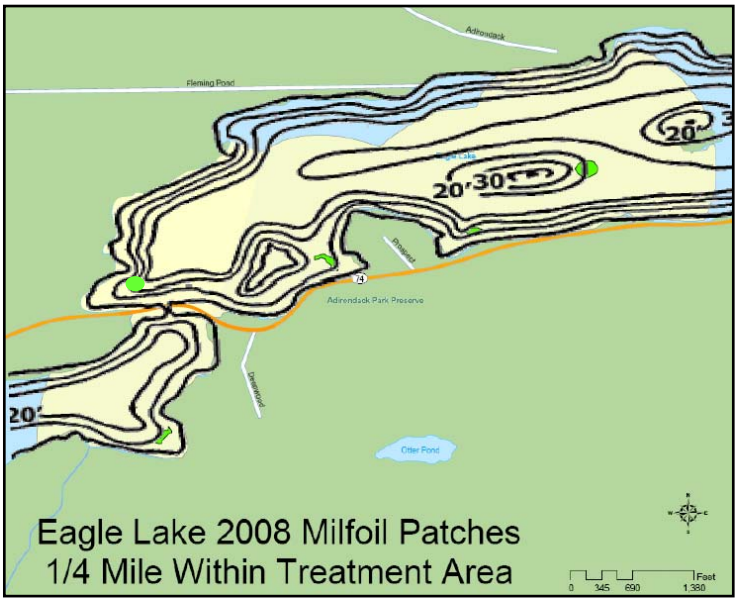
I. Introduction

On September 4, 2008 Allied Biological, Inc. conducted a detailed aquatic macrophyte survey at Eagle Lake in Crown Point, New York. The purpose of the survey was to determine the relative abundance and distribution of the aquatic macrophytes that could be adversely affected by the proposed herbicide application for the control of the exotic invasive species Eurasian water milfoil. The survey will also be used to identify suitable sites for the proposed herbicide applications, and future benthic barrier installation and hand pulling sites.

II. Procedures



The survey was performed under the Tier III Pesticide Program Monitoring Requirements for Lakes (NYSDEC, 2006). Using these guidelines, two anchor tosses per site were performed for this Pre-application sampling event. Since Eagle Lake has a surface area of 420 acres, and a limited littoral zone (the zone of a lake that can support plant growth), the entire lake was not sampled. Instead, three sites were selected as probable herbicide application sites, based on historical surveys of Eurasian water milfoil growth and a preliminary survey prior to the weed anchor sampling on September 4th. These plots were surveyed at 3 to 6 sites, with the remaining sampling locations spread out in the littoral zone within a ¼ mile of these plots. See the map to the left for the potential herbicide application sites (in light green), with 1/4 mile zones highlighted in yellow.

Using the above map and aerial photos as a guide, the survey boat is piloted to the first sample location. On arrival, the GPS coordinates of the sample location are recorded using a TeeJet Smartpad II (ver. 4.02, or equivalent), and a Midtech High Accuracy Differential Receiver (RX 400p, or equivalent). The water depth is also measured, using a boat mounted depth finder (or equivalent). The water depth is recorded on a field log, and is depicted on a map in the Appendix. Any other pertinent field notes regarding the sample location are also recorded on a field log.

Next, a weed anchor attached to a 10 meter-long piece of rope is tossed from a random side of the boat. It is important to toss the weed anchor the full 10 meters (a loop at the end of the rope should be attached to the boat to prevent losing the anchor). The weed anchor was allowed to settle on the bottom, before being slowly retrieved along the bottom, and

carefully hoisted into the boat. To determine the overall submersed vegetation density, the weed mass is assigned one of five densities, based on semi-quantitative metrics developed by Cornell University (Lord, et al, 2005). These densities are: No Plants (empty anchor), Trace (one or two stems per anchor, or the amount that can be held between two fingers), Sparse (three to 10 stems, but lightly covering the anchor, or about a handful), Medium (more than 10 stems, and covering all the tines of the anchor), or Dense (entire anchor full of stems, and one has trouble getting the mass into the boat). See the Appendix of this report for pictures of these representative densities. These densities are abbreviated in the field notes as 0, T, S, M, and D. Next the submersed weed mass is sorted by genus (or species if possible) and one of the five densities (as described above) is assigned to each Genus. Finally, overall floating macrophyte density within a 10 meter diameter of the survey boat is assigned a density, as well as an estimated density for each separate genus (or species). This data is recorded in the field notes. Since two anchor tosses per site were required for this survey, this process was repeated from the opposite side of the boat. This entire two toss procedure is then repeated for the remaining sample points.

From 1996 to 1998, two transects, one located in the east basin and one in the west basin were surveyed by divers over semi-permanent test-plots to determine aquatic macrophyte abundance and diversity. The results of these surveys are discussed in Eichler, et al., 1998. Both of these test plots were surveyed with weed anchor tosses in 2008, in an attempt to simulate the 1996 to 1998 survey. A 50 foot long transect was established at each site, referenced with GPS-coordinates. Every 10 feet along this transect (a total of six locations) was sampled with two weed anchor tosses, following the procedures established above.

A sample of each different macrophyte is collected and placed in a bottle with a letter or number code (A, B, 1, 2, etc.). If possible, these samples included both submersed and floating leaves (if any), seeds, and flowers (if present), to facilitate identification. These bottles are placed in a cooler stocked with blue-ice packs or ice, and returned to Allied Biological's lab for positive identification and photographing. Regionally appropriate taxonomic keys are used to identify the aquatic macrophytes (see section V for a list of references).

The weed anchor used for aquatic macrophyte surveys has a specific design. It is constructed with two 13.5-inch wide metal garden rakes attached back to back with several hose clamps. The wooden handles are removed and a 10 meter-long nylon rope is attached to the rake heads.

Two factors regarding the sampling of Eagle Lake using traditional anchor toss procedures need to be touched on. The first is the presence of numerous large rocks, fallen trees and other "snags" in the littoral zone. Weed anchors frequently became hung up on such structures at the sample locations, and this reduces the distance of drag on the bottom, thus possibly reducing the number of plants on the anchor. Second, the lakes in the Adirondacks region are typically low nutrient, oligotrophic systems with excellent water clarity. It's not uncommon to have submersed plants inhabiting water depths around 20 feet. Since a standard weed anchor has 10 meters (or about 33 feet) of line attached to it, sampling these deep water sites will also result in less drag on the bottom, and possibly fewer plants being

collected on the anchor. Cornell University (and subsequently the NYSDEC) might want to consider using a longer lead line (say, 50 feet) when sampling lakes in the Adirondacks region.

III. Macrophyte Summary

The following aquatic macrophytes were observed at Eagle Lake on September 4, 2008. The respective macrophyte densities for both anchor tosses are summarized in Table #1 in Appendix A. The two anchor tosses were assigned a numeric value based on density (0 for no plants, 1 for trace, 2 for sparse, 3 for medium and 4 for dense). The mean of these two numbers per site was calculated to assign an overall density to that site or particular species (always rounding up). These calculations and final densities are included in Table #1. Table's #2 through #4 summarizes the abundance of macrophytes at Eagle Lake for the main basin and the two transect surveys. In addition, the distribution of each individual macrophyte is depicted on separate maps located in the Appendix B of this report. Below is a short description of each macrophyte and a picture. Unless otherwise noted, all pictures of macrophytes represent the actual plants located at Eagle Lake, either taken in the field, or from samples returned to Allied Biological's laboratory.

Eurasian Water Milfoil (*Myriophyllum spicatum*. Common Names: Asian Water milfoil. **Aggressive, Exotic, Invasive**.): Eurasian water milfoil has long (2 meters or more) spaghetti-like stems that grow from submerged rhizomes. The stems often branch repeatedly at the water's surface creating a canopy that can crowd out other vegetation, and obstruct recreation and navigation. The leaves are arranged in whorls of 4 to 5, and spread out along the stem. The leaves are divided like a feather, resembling the bones on a fish spine. Eurasian water milfoil is an exotic species originating in Europe and Asia, but its range now includes most of the United States. It's ability to grow in cool water and at low light conditions gives it an early season advantage over other native submersed plants. In addition to reproducing via fruit production, it can also reproduce via fragmentation. Waterfowl graze on Eurasian water milfoil, and its vegetation provides habitat for invertebrates. However, studies have determined mixed beds of pondweeds and wild celery can support more diverse invertebrate populations.

Pipewort (*Eriocaulon aquaticum*. Common Names: Pipewort. **Native**.): Pipewort has translucent green leaves, 2 to 10 cm long, that form a compact basal rosette. The individual leaves taper from the base to the tip, and bear a checkered appearance due to fine crossing veins. Pipewrot has pale unbranched roots that appear segmented, a distinguishing characteristic. Each rosette typically produces a single flower stalk that can range

from a few centimeters to several meters in length, depending on the depth of the water. The flower head is round with many small flowers packed in a tight formation. Pipewort prefers sandy substrates and soft water with excellent clarity. Reproduction can be from overwintering roots, or insect pollination of flower tips.

Slender Naiad (*Najas flexilis*: Common Names: slender naiad, bushy pondweed. **Native**.): Slender naiad has fine-branched stems that can taper to lengths of one meter, originating from delicate rootstalks. Plant shape varies; sometimes compact and bushy, other times long and slender, depending on growing conditions. The leaves are short (1-4 cm long) and finely serrated, tapering to a point. It is found in a variety of habitats, and can colonize sandy or gravelly substrates. If conditions are ideal, it can reach nuisance densities. It is a true annual, and dies off in the fall, relying on seed dispersal to return the next year. It is an important food source for waterfowl.

Common Waterweed (*Elodea Canadensis*: Common Names: elodea, common waterweed. **Native.**): Common waterweed has slender stems that can reach a meter in length, and a shallow root system. The stem is adorned with lance-like leaves that are attached directly to the stalk in whorls of three that tend to congregate near the stem tip. The leaves are populated by a variety of aquatic invertebrates. Male and female flowers occur on separate plants, but it can also reproduce via stem fragmentation. Since common waterweed is disease resistant, and tolerant to low-light conditions, it can reach nuisance levels, creating dense mats that can obstruct fish movement, and the operation of boat motors.

Water Stargrass (*Zosterella dubia* (=*Heteranthera dubia*): Common Name: Water stargrass. **Native.**): Water stargrass has slender free-branched stems that originate from rhizomes. The leaves are narrow and alternate, attaching directly to the stem. Leaves can be up to 15 cm long, and lack a prominent midvein, a distinguishing characteristic. Water stargrass can inhabit a wide range of water depths and sediment types, and can tolerate reduced clarity environments. Yellow star-shaped flowers are produced by midsummer, but reproduction is usually via over wintering rhizomes. Water stargrass is a locally important waterfowl food source, and provides suitable cover and foraging for fish.

Muskgrass (*Chara* sp. Common Names: muskgrass, stonewort, chara. **Native**.): Muskgrass is actually a multi-branched algae that appears as a higher plant. It is simple in structure and has rhizoids instead of true roots. The branches of muskgrass have ridges that are often encrusted with calcium carbonate. This grants the entire plant a "crusty" feel and appearance. The side branches develop in whorls that look like the spoke in a wheel. Muskgrass is easily identified by a pungent, skunky odor. It prefers softer sediments, and can often be found in deeper water than other plants. As such, it's considered an early pioneer, the first species to colonize a disturbed lakebed.

Flat-stem Pondweed (*Potamogeton zosteriformis*. Common Name: Flat-stem pondweed. **Native.**): Flat-stem pondweed is freely branched, emerging from a delicate rhizome system. The stems are strongly flattened with an angled appearance. The long leaves are stiff and linear with a prominent midvein, and numerous fine parallel veins. This prominent midvein distinguishes this pondweed from water stargrass. The stipules are firm and free, situated in the leaf axils. Flat-stem pondweed lacks floating leaves. Flat-stem pondweed inhabits a variety of water depths from shallow water to water several meters deep and prefers soft sediment types. Although it produces nut-like fruits, it over winters primarily by rhizomes and winter buds. It can be a locally important food source to fauna, such as waterfowl, muskrat, deer, beaver, and moose. It also provides suitable habitat and food for fish and aquatic invertebrates.

Bass Weed (*Potamogeton amplifolius*. Common Names: Large-leaf Pondweed, Bass Weed, Musky Weed. **Native.**): Bass weed has robust stems that originate from black-scaled rhizomes. The submersed leaves of bass weed are among the broadest in the region. The submersed leaves are arched and slightly folded, attached to stems via stalks, and possess many (25-37 veins). Floating leaves are produced on long stalks (8-30 cm). Stipules are large, free and taper to a sharp point. Flowers, and later in the season fruit are densely packed onto a spike. Bass weed prefers soft sediments in water one to 4 meters deep. This plant is sensitive to increased turbidity and also has difficulty recovering from top-cutting, from such devices as boat propellers and aquatic plant harvesters. As its name implies the broad leaves of this submersed plant provides abundant shade, shelter and foraging opportunities for fish. The high number of nutlets produced per plant make it an excellent waterfowl food source.

Tape-grass (*Vallisneria americana*. Common Names: Wild celery, eel-grass, tape-grass. **Native**.): Tape-grass has long flowing ribbon-like leaves that have a basal arrangement from a creeping rhizome. The leaves can be up to 2 meters long, have a cellophane-like texture, with a prominent center stripe and finely serrated edges. The leaves are mostly submersed, although they can reach the surface allowing the tips to trail. Male and female flowers are produced on separate plants, but reproduction is usually via over wintering rhizomes and tubers. Tape-grass usually inhabits hard substrate bottoms in shallow to deep water. It tolerates a wide variety of water chemistries. Tape-grass is the premiere food source for waterfowl, which greedily consume all parts of the plant. Canvasback ducks (*Aythya valisneria*) enjoy a strong relationship with tape-grass, going so far to alter their migration routes based on tape-grass abundance. Extensive beds of tape-grass are considered good shade, habitat and feeding opportunities for fish.

Robbins Pondweed (*Potamogeton robbinsii*. Common Name: Fern Pondweed. **Native**.). Robbins pondweed has robust stems that emerge from spreading rhizomes. The leaves are strongly ranked creating a fern-like appearance most clearly seen while still submerged. Its distinct closely-spaced fern-like leaves give it a unique appearance among the pondweeds of our region. Each leaf is firm and linear, with a base that wraps around the stem. At the stem it has ear-like lobes fused with a fibrous stipule. No floating leaves are produced. Robbins pondweed thrives in deeper water, and under some circumstances, it can over winter green. Robbins pondweed creates suitable invertebrate habitat, and cover for lie-in-wait predaceous fish, such as pickerel and pike.

Coontail (*Ceratophyllum demersum*. Common Names: coontail, hornwort. **Native.**): Coontail has long trailing stems that lack true roots, although it can become loosely anchored to sediment by modified leaves. The leaves are stiff, and arranged in whorls of 5-12 at each node. Each leaf is forked once or twice, and has teeth along the margins. The whorls of leaves are spaced closer at the end of the stem, creating a raccoon tail appearance. Coontail is tolerant of low light conditions, and since it is not rooted, it can drift into different depth zones. Coontail can

also tolerate cool water and can over winter as a green plant under the ice. Typically, it reproduces via fragmentation. Bushy stems of coontail provide valuable habitat for invertebrates and fish (especially during winter), and the leaves are grazed on by waterfowl.

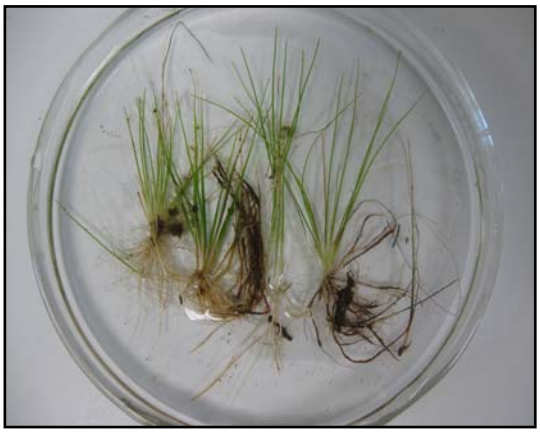
Leafy Pondweed (*Potamogeton foliosus*: Common Name: leafy pondweed. **Native**.): Leafy pondweed has freely branched stems that hold slender submersed leaves that become slightly narrower as they approach the stem. The leaf contains 3-5 veins and often tapers to a point. No floating leaves are produced. It produces early season fruits in tight clusters on short stalks in the leaf axils. These early season fruits are often the first grazed upon by waterfowl during the season. Muskrat, beaver, deer and even moose also graze on the fruit. It inhabits a wide range of habitats, but usually prefers shallow water. It has a high tolerance for eutrophic conditions, allowing it to even colonize secondary water treatment ponds.

Water Marigold (*Bidens beckii*, *=Megalodonata beckii*. Common Name: Water marigold. **Native**.): Water marigold usually only develops submersed leafy structures. Submersed leaves are situated in a whorl on the delicate stem, and have many finely divided leaves. If it does rise out of the water, its emerged leaves have toothy margins attached directly to the stem. It also produces a distinct daisy-like flower on a sturdy stalk. Water marigold prefers soft sediment and clear water, up to three meters deep. It is a classic indicator species, and is often one of the first submersed plants to decline in abundance and distribution when water quality declines. Since it usually doesn't produce flowers, it over winters via rhizomes. The submersed portions of this plant provide shade, shelter and foraging opportunities for fish. When flower structures emerge, it attracts terrestrial flying insects. In New York, water marigold is listed as Threatened on the watch list with a state rank of S3 (Young and Weldy, 2006).

Arrowhead (Submersed Rosette) (*Sagittaria* sp. Common Name: Arrowhead. **Native**.): This plant is the submersed rosette of a species of arrowhead. The submersed rosette lacks both flowers and seeds, so further identification is not possible. Arrowhead has emergent leaves, and usually inhabits shallow waters at pond or lake edges, or along sluggish streams. It can tolerate a wide variety of sediment types and pH ranges. Arrowhead is very suitable for constructed wetland development

due to its tolerance of habitats, and ability to act as a nutrient sink for phosphorous. Typical arrowhead reproduction is via rhizomes and tubers although seed production is possible if conditions are ideal. Arrowhead has high wildlife value, providing high-energy food sources for waterfowl, muskrats and beavers. Arrowhead beds provide suitable shelter and forage opportunities for juvenile fish as well.

Lake Quillwort (*Isoetes lacustris*, = *I. macrospora*. Common Name: Quillwort. **Native**.): Lake quillwort leaves grow from a fleshly, lobed underground stem adorned with forked roots. The green, often firm, leaves are arranged in a rosette, radiating from the base of the plant. Each leaf has a central vein and four longitudinal air chambers visible in cross-section. Spores form inside sacks located on the spoon-like bases of the leaves. Examining the megaspores is required to positively identify quillworts to species. Lake quillwort has pale unspotted spore sacks, and the megaspores have a convoluted network of ridges on their surface. Lake quillwort usually inhabits quiet lake waters ranging from a few centimeters deep to 1 to 3 meters deep. Most species of quillwort prefer low-nutrient, soft water habitats. Quillwort foliage is sometimes consumed by waterfowl. In New York, lake quillwort is considered Rare on the watch list with a state rank of S3 (Young and Weldy, 2006).



Needle Spikerush (*Eleocharis acicularis*.: Common Names: needle spikerush, hairgrass, spikerush. **Native**.): The stems of needle spikerush are usually slender and short (up to 12 cm long), that emerge from tufts of fine spreading rhizomes. Sometimes the stems are topped with a spikelet of a tight spiral of flowers and eventually nutlets. The nutlets widely vary in surface patterns, and this characteristic is needed for identification to species level. Needle spikerush nutlets have a surface detail that appears as a fine ceramic vase, and the body of the nutlet is topped with a tubercule (or cap). Needle spikerush prefers firmer substrates of moist shorelines or into the water up to 2 meters deep, and can tolerate turbid conditions. The leaves provide suitable food for waterfowl, and excellent habitat and shelter for aquatic invertebrates.

White-stem Pondweed (*Potamogeton praelongus*: Common Name: White-stem Pondweed. **Native**). White-stem pondweed has zigzag stems that can extend two to three meters in length, and emerge from a stout rust-spotted rhizome. The submersed leaves are lance to oval shaped and wrap around one third to one half of the stem's diameter. The leaves typically possess three to five strong veins and many (11 to 35) weaker veins. The tip of the leaf is shaped like a boat. Although similar in appearance to clasping-leaf pondweed, the zigzag stems and attachment to the stem are distinguishing characteristics. Flowers and plump fruit are produced on a cylindrical spike. The fruit have a sharp dorsal ridge, unlike that of clasping-leaf pondweed. White-stem pondweed prefers clear lakes and soft sediment types. It can not tolerate turbid conditions (often it's the first plant to die off), and serves as a suitable water quality indicator. The fruit produced by white-stem pondweed is valuable to grazing waterfowl, and portions of the plant are consumed by muskrat, beaver, deer and moose. White-stem pondweed provides valuable food for grazing fish, and excellent habitat for classic lie-in-wait predators such as pickerel and muskellunge.

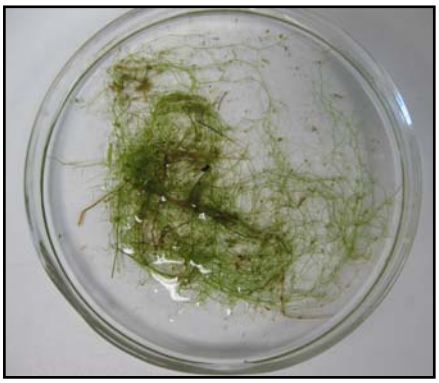
Ribbon-leaf Pondweed (*Potamogeton epihydrus*: Common Name: ribbon-leaf pondweed. **Native.**): Ribbon-leaf pondweed has flattened stems and two types of leaves. The submersed leaves are alternate on the stem, lack a leaf stalk, and are long tape-like in shape. Each leaf, which can reach lengths up to 2 meters long, has a prominent stripe of pale green hollow cells flanking the midvein, and 5 to 13 other veins. Stipules are not fused to the leaf. Floating leaves are egg or ellipse-shaped, and supported by a leaf stalk about as long as the leaf itself. Fruiting stalks are located at the top of the stem and packed with flattened disk-shaped fruits. It is typically found growing in low alkalinity environments, and in a variety of substrates. Seeds are highly sought after by all manner of waterfowl.

Small Pondweed (*Potamogeton pusillus*. Common Name: Small Pondweed. **Native**.): Small pondweed has slender stems and a slight rhizome that branches repeatedly near the ends. Only submersed leaves are produced, and these are linear, attaching directly to the stem of the plant. The leaves have three veins and the mid-vein is usually bordered by several rows of lacunar (hollow) cells. There is usually a pair of raised glands at the base of the leaf attachment. Membranous stipules are wrapped around the stem in early growth, but as the plant ages, these tend to break down and becoming shredded in appearance and free. Flowers and fruits are produced in 1 to 4 whorls on a slender stalk. The fruit is plump with a smooth back and a short hooked beak. Small pondweed can tolerate turbid environments and inhabits shallow zones to a depth of 3 meters. Small pondweed is grazed upon by waterfowl, muskrat, deer, beaver, and even moose. Locally, it can be a very important link in the ecological balance of a lake system. It also provides suitable grazing opportunities and cover for numerous fish.

Water Moss (*Fontinalis* sp. Common Name: water moss. **Native**.): Water mosses are submerged mosses that are attached to rocks, trees, logs, and other hard substrates by false rootlets located at the base of their stems. The stems are dark-green to brown, and about one foot long. The leaves share a similar color as the stems, and are usually ovate with fine-toothed margins. Water moss is utilized by aquatic invertebrates, and as a breeding site for small fish. Water moss rarely reaches nuisance levels.

Benthic Filamentous Algae: Filamentous algae are a chain or series of similar algae cells arranged in an end to end manner. Benthic filamentous algae are attached to a hard substrate, such as logs, rocks, a lake bottom, or even other aquatic plants. When growing in heavy densities, benthic filamentous algae can appear as brown or green mats of vegetation that can reach the surface. When large pieces break off the bottom substrate they become floating filamentous algae patches. Benthic filamentous algae can comprise an entire range of morphologies, but flagellated taxa are far less common.

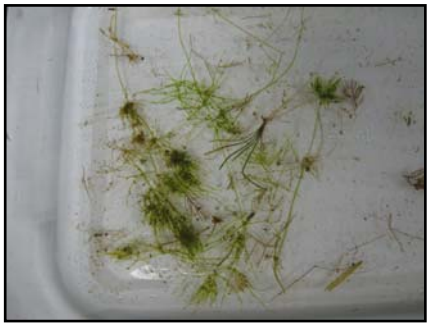
Creeping Bladderwort (*Utricularia gibba*. Common Names: creeping bladderwort, humped bladderwort, cone-spur bladderwort. **Native**.). Creeping bladderwort is a small (usually less than 10 cm long), delicate, free-floating stem. It often forms tangled mats in quiet shallow waters, often associated with bogs, or stranded on soil. It is sometimes mistaken for algae. It has short side braches that fork once or twice, a defining characteristic. Small bladders, used to capture live prey, are situated on these side branches. Small yellow snap-dragon-like flowers are produce on a short stalk. Mats of creeping bladderwort offer limited cover and foraging opportunities for fish.



Variable Pondweed (*Potamogeton gramineus*. Common Names: Variable pondweed, grass-leaved pondweed. **Native**.): Variable pondweed has stems that arise from a sprawling rhizome with numerous branching. Submersed lance-like leaves have 3 to 7 veins, lack a stalk, and slightly taper where they attach to the stem. Floating leaves are shaped like an ellipse, with 11 to 19 veins, and are attached to the stem via a stalk usually longer than the blade. The appearance of variable pondweed depends on where it is growing. This variability, along with its tendency to hybridize with other pondweeds makes it difficult to identify. It prefers hard sediments, and usually inhabits water less than one meter deep. Waterfowl graze on its tubers and fruits, and its dense underwater foliage provides suitable macro-invertebrate and fish habitat.

Vasey's Pondweed (*Potamogeton vaseyi*. Common Names: Water thread pondweed, Vasey's Pondweed. **Native**.): Vasey's pondweed has fine hair-like leaves that range from 2 to 6 cm long and 0.2 to 1 mm wide. It is similar to other varieties of water thread pondweeds (such as *P. diversifolius*). However, the stipules are completely free from the leaves. Vasey's pondweed produces tiny floating leaves which are ellipse-shaped (8 to 15 mm long), and have slender hollow cells between the cells. The seeds are rounded with a slight keel, with an obvious hook-like protrusion at one end. It often produces winter buds on the side branches. Vasey's pondweed prefers quite waters with soft sediment bottoms less than 2 meters deep. Seeds are consumed by waterfowl and mammals alike, and the submersed leaves may be colonized by invertebrates, and foraged upon by fish.

Alpine Pondweed (*Potamogeton alpinus*. Common Names: alpine pondweed, northern pondweed. **Native**.): Alpine pondweed produces both submersed and floating leaves. The submersed leaves can reach 20 cm long and 1 to 2 cm wide, often with a reddish tint. They have rounded tips, usually 7 veins, and are attached directly to the stem. Transitional leaves are also usually present. The floating leaves (which are often absent) are up to 6 cm long and 2.5 cm wide situated on short stalks. The stipules are free from the leaves, up to 3 cm long, and break apart easily. The stems are also usually reddish, and adorned with few branches. Seeds are 3 to 4 mm long with a sharply ridged back and a curved beak. Alpine pondweed prefers shallow cold water lakes and ponds, and its seeds and vegetative parts are grazed upon by waterfowl and other aquatic organisms. In New York, alpine pondweed is considered Threatened on the active inventory list with a state rank of S2 (Young and Weldy, 2006).



Stonewort (*Nitella* sp. Common Names: stonewort, nitella. **Native**.): Stonewort is actually a multi-branched algae that appears as a higher plant. It lacks conductive tissue and roots, using simple anchoring structures called rhizoids. Stem lengths can reach 0.5 meters, and leaves are arranged in whorls. Although similar in appearance to muskgrass (*Chara* sp.), stonewort has smooth stems and branches, and lacks the distinct musky odor. Stonewort inhabits soft sediments in the deeper water of lakes. It can be found as deep as 10 meters. Fish and waterfowl frequently graze on Stonewort.

Watershield (*Brasenia schreberi*. Common Names: common water shield, water target. **Native**.): Watershield is a floating-leaf aquatic plant similar to water lilies. Its stem and leaves are elastic, and are attached to a rooted rhizome that acts as an anchor and source of stored nutrients. The leaf stalks are attached to the middle of the leaf, creating a bull's eye effect, hence its name water target. The leaves are green on the upper surface, and purple underneath. Maroon to purple flowers peak above the water's surface on short, stout stalks. Watershield is usually coated with a clear gelatinous slime on the stem and underside of the leaves. Watershield prefers soft-water lakes and ponds in sediments containing decomposing organic matter. The whole plant is consumed by waterfowl, and the floating leaves provide shade and cover for fish.

White Water Lily (*Nymphaea* sp. Common Name: white water lily, fragrant water lily): White water lily leaf stalks emerge directly from a submerged fleshy rhizome. White water lilies have round floating leaves. Flowering occurs during the summer, and the flowers open during the day, and close during the night. Water lilies typically inhabit quiet water less than two meters deep, such as ponds, shallow lakes and slow-moving streams. The leaves offer shade and protection for fish, and the leaves, stems, and flowers are grazed upon by muskrats, beaver, and sometimes even deer.

Spatterdock (*Nuphar vareigata*. Common Name: yellow pond lily, bullhead pond lily, spatterdock. **Native.**): Yellow water lily leaf stalks emerge directly from a submerged fleshy rhizome. Yellow water lilies have heart-shaped leaves with a prominent notch. Flowering occurs in the summer and, the flowers open during the day and close at night. Water lilies typically inhabit quiet water less than two meters deep, such as ponds, shallow lakes and slow-moving streams. The leaves offer shade and protection for fish, and the leaves, stems, and flowers are grazed upon by muskrats, beaver, and sometimes, even deer.

IV. Discussion

In the Appendix of this report has four sections labeled A through D. Appendix A includes all of the tables of data compiled for this survey. Table #1 contains a summary of all of the data collected during the survey, including sample location, water depth, GPS Coordinates, and macrophyte density data from all weed anchor tosses. Table #2 contains a summary of the aquatic macrophyte distribution and abundance in the main lake organized by macrophyte distribution (number of sites) in descending order. Tables #3 and #4 contain a summary of the macrophyte distribution and abundance in the East and West transects, respectively. Appendix A also contains example pictures of Submersed and Floating Plant densities. Appendix B contains all of the maps depicting the aquatic macrophytes in the main lake. Appendix C contains all of the maps depicting the aquatic macrophytes in the East transect. Appendix D contains all of the maps depicting the aquatic macrophytes in the West transect.

A total of 84 sites were sampled at Eagle Lake during the September 4, 2008 survey. Six more sites at each of the transects (East and West) were also surveyed, bringing the total sites to 96. Twenty eight submersed macrophytes and benthic filamentous algae were observed on that date, in addition to three emergent macrophytes (discussed in section VIII). The dominant macrophyte observed was Eurasian water milfoil, an aggressive exotic

invasive species, and the target of the proposed herbicide application. Three New York State Rare, Threatened or Endangered (RTE) macrophytes were observed during the survey as well. These include alpine pondweed (listed as Threatened on the active inventory list), water marigold (listed as Threatened on the watch list), and lake quillwort (listed as Rare on the watch list).

Submersed macrophytes were collected at 77 (or 92%) of the 84 sample stations surveyed in the main lake. Thirty one of these sites (or 40%) had trace populations of submersed plants, while another 23 sites (or 30%) had sparse density plants. At 14 of the sites (or 18%) surveyed, medium submersed plants were collected, while the remaining 9 sites (or 12%) were dense. The heaviest densities of submersed plants were located along the west shore of the center island, the dense milfoil bed on the sunken island, the cove behind the west island, and along the causeway shoreline. Three more floating aquatic macrophytes rounded out the Eagle Lake aquatic macrophyte community. Floating macrophytes were observed at 40 (or 48%) of the 84 sites surveyed. At 26 of these sites (or 65%), the floating macrophytes were estimated at trace density. The remaining 14 sites (or 35%) were estimated at Sparse density. The sparse density sites were located primarily along the southern shoreline, around the peninsula, in the cove behind the west island, and the small cove to the left of the bridge.

Eurasian water milfoil was the dominant submersed plant observed during the 2008 survey. It was located at 51 sites (or 61%) surveyed. At nearly half of these sites (25, representing 49%) the density was trace. At 9 sites (or 18%) the density was considered sparse, while another 9 sites (again, 18%) were medium density. The remaining sites (8, or 15%) were considered dense. Eurasian water milfoil is scattered throughout Eagle Lake. The heaviest locations are the sunken island in the main basin (with six dense and one medium density location), the mouth of the small cove behind the west island, and the mouth of the small cove to the west of the bridge. Medium dense sites were also located at the tip of the peninsula, the west point of the center island, and along the southern shore southeast of the center island. The picture to the left depicts a stand of Eurasian water milfoil observed at Eagle Lake.

One more map is included in Appendix B, titled “Potential Eurasian Water Milfoil Herbicide Containment Sites”. This map depicts the three sites (red circles) initially identified as potential containment sites before the survey. These sites, all located in the west basin, include the sunken island, the cove behind the west island, and the small cove to the west of the bridge. The sunken island site (sites E1 to E7) clearly has the most dense infestation of Eurasian water milfoil, but would be logistically difficult to contain with a curtain. The site in the cove behind the west island (sites E42 to E45) appears to be the

most suitable site based on density of Eurasian water milfoil, and nearby shore locations to anchor containment curtains. The final site, located in the small cove to the west of the bridge (sites E56 to E60) initially appeared to be a suitable site. Although suitable containment curtain anchor sites are present along the shoreline, the Eurasian water milfoil extends beyond the mouth of the cove, and lake quillwort (Rare) and water marigold (Threatened) were collected deeper in the cove. Thus it's not recommended this site be used for an herbicide containment curtain.

Several smaller patches of Eurasian water milfoil could be managed by installing benthic barriers, or hand pulling. Benthic barrier sites are limited by the presence of underwater snags, and would need to be thoroughly surveyed for such structures before ultimately selected. However, potential benthic barrier sites would be site E33, site E37, site E49, and sites E52 and E53. Hand pulling efforts should focus on the two sites along the southern shore (site E21 and E24), the center island (sites E8 and E13), and the small cove to the west of the bridge (sites E55 through E57) and along the coves northern shoreline.

The second dominant submersed plant observed at Eagle Lake during the 2008 survey was pipewort. It occurred at 45 total sites, which represents 54% of the sites surveyed in the main lake. Thirty six (or 80%) of these sites were at trace density, with the remaining nine sites (or 20%) at sparse density. It should be noted that the morphology of pipewort (as described above in section III) doesn't lend itself to collecting on a weed anchor, thus these densities could be underestimated. Pipewort was located along all shorelines of Eagle Lake, and at most sites in the small cove to the west of the bridge. Four of the sparse sites were located along the southern shore to the east of the peninsula. Two more sites were located behind the west island, with one sparse site situated in the small cove to the west of the bridge. The remaining two sparse sites were located along the north shoreline. Pipewort was observed at other locations throughout the lake, often with flower stalks (many of them several feet long) poking out of the water, as depicted in the picture to the right.

Slender naiad was located at 38 sites (or 45%) surveyed in 2008. Most of these sites (34, or 89%) were at trace density, while the remaining four sites (or 11%) were at sparse density. Slender naiad was scattered about most of the sites surveyed. It typically was located along the southern shore, in the cove behind the west island, and in the cove to the west of the bridge. Two of the sparse sites were located in the cove behind the west island, and the other two were located in the small cove to the west of the bridge.

Common waterweed was located at 34 (or 40%) of the sites surveyed in 2008. Most of these sites (29, or 85%) were at trace density. Four sites (or 12%) were at sparse density, while the remaining site (or 3%) was at medium density. Common waterweed occurred throughout Eagle Lake. The medium density site was located in the small cove to the east of the peninsula. The four sparse sites were spread out, with one at the point of the peninsula, one in the cove behind the west island, one along the north shore of the causeway, and the last was located on the west shoreline of the east basin. Common waterweed was located at four (of the seven sites surveyed) at the sunken island, mixed in with dense Eurasian water milfoil. The picture to the left depicts a close up of a common waterweed whorl of three leaves.

Water stargrass was located at 31 of the sites (or 37%) surveyed in 2008. Typically, water stargrass occurred at trace (29, or 94%) densities. Two sites (6%) were considered sparse density. Water stargrass was found along the southern shoreline, the shoreline of the west island, the small cove to the west of the bridge, and just north of that cove. The sparse locations were located off the west island, and just north of the small cove to the west of the bridge. Water stargrass can be distinguished from pondweeds by the lack of an obvious midvein on the leaves. The picture to the right depicts a water stargrass leaf collected from Eagle Lake.

Muskgrass is a multi-branched algae, but is often included in aquatic macrophyte surveys. Muskgrass was located at 23 (or 27%) of the sites surveyed in 2008. At all but one site (22, or 96%), the density was trace as the muskgrass was mixed in with other macrophytes in a mixed bed of vegetation. The remaining site (4%) was medium density, located in the open water between the west island and the cove behind it.

Flat-stem pondweed was collected at 18 of the sites (or 21%) surveyed in 2008. At 17 (or 94%) of these sites, the density was trace. The remaining site (6%) was sparse, located in the cove behind the west island. Flat-stem pondweed derives its common name from its flattened stem, pictured to the left. Since flat-stem pondweed tends to be a low-growing macrophyte, its abundance could be crowded out by Eurasian water milfoil, or broader-leaved pondweeds, such as bass weed.

Bass weed was also located at 18 of the sites (or 21%) surveyed in 2008. Sixteen (or 89%) of these sites were considered trace density, with the remaining two sites being considered sparse. These sparse sites were located behind the west island, and in the small cove to the west of the bridge. Bass weed seemed to prefer the cove behind the west island, and along the north shore of the causeway. One trace site was located at the sunken island in the east basin, amid the dense stands of Eurasian water milfoil. Isolated other small stands of bass weed were observed while moving between sampling locations. The picture to the right depicts the edge of a stand of bass weed growing in Eagle Lake.

Tapegrass was located at 14 of the sites (or 17%) surveyed in 2008. At 12 of these sites (or 86%) the density was trace. The remaining two sites were considered sparse density. Tapegrass prefers the southern shoreline, especially east of the peninsula, and the northern shore of the small cove west of the bridge. Two sites were located along the eastern part of the northern shoreline that was sampled.

Robbins pondweed was also located at 14 (or 17%) of the sites surveyed in 2008. Much like tapegrass, at 12 of these sites (or 86%) the density was trace, while the remaining two sites were considered sparse density. Robbins pondweed was most common in the cove behind the west island.

Coontail was located at only 10 of the sites (or 12%) surveyed in 2008. Seven of these sites (70%) were at trace density, while three (30%) were at sparse density. The sparse sites were located in the sunken island among the dense stand of Eurasian water milfoil (along with a single trace site), and along the north shoreline of the causeway. The rest of the trace sites were located off the center island (one), at the point of the peninsula (one), in the cove behind the west island (two), and along the north shore of the causeway (two).

Leafy pondweed was found at 9 of the sites (or 11%) surveyed in 2008. All sites were considered trace density. Three sites were located in the cove behind the west island, and another was located along the north shore of the causeway. Three more were situated in the upper reaches of the small cove to the west of the bridge, along with one more site just to the north of the mouth of this cove. The final site was located in the west basin, along the east shore. Most of the leafy pondweed samples were degrading (due to natural die-off at the end of the season) and lacked seeds, making positive identification difficult.

Water marigold is considered a Threatened species in New York. It was found at Eagle Lake at seven sites, representing 8% of the sites surveyed in 2008. All seven of these sites were at trace density. One site was located along the southern shoreline, and three more were located around the west island. One site was situated in the small cove to the west of the bridge, with the remaining two sites located north from that cove, along the shoreline.

All water marigold plants observed during the 2008 survey were completely submersed forms of the plant.

Sagittaria rosette is the submersed rosette form of arrowhead, and emergent macrophyte. These rosettes were located at six of the sites (or 7%) surveyed in 2008. All six sites were at trace density, and located along various shorelines of the lake. One was located on the southern shore of the west island, and one each was located on the north and south shorelines of the causeway. The remaining three locations were located along the northern shoreline of the small cove to the west of bridge.

Lake quillwort is considered a Rare species in New York since it occurs on the Natural Heritage Program watch list. Lake quillwort was located at five sites (6%) in Eagle Lake during the 2008 survey. All sites reported trace density, but similar to pipewort this could be biased based on the delicate morphology of lake quillwort. The sites were located at the northern tip of the west island (one), the small cove to the west of the bridge (three), and along the northern shoreline of the east basin. Identification of this species was confirmed by dissecting the spore sacks and removing megaspores. These megaspores were examined at 100X magnification under a compound microscope to discern a convoluted network of ridges on its outer surface.

Needle spikerush was located five of the sites (or 6%) surveyed in 2008. All five sites were at trace density, and all five were located in the small cove to the west of the bridge. Needle spikerush may be limited in distribution due to its fine delicate stems and rhizomes, which tend to fall off a weed anchor during retrieval.

White-stem pondweed was located at four of the sites (or 4.8%) surveyed during 2008. At three of the sites (or 75%) the density of this robust pondweed was considered trace. The remaining site was sparse density. The sparse site was located in the small cove to the west of the bridge. The three trace sites were located along the north shore (one) and the south shore (two) of the causeway. It should be noted that well-established beds of white-stem pondweed are located in the west basin of Eagle Lake (including in the west transect, see below). However, the 2008 survey focused on the east basin of the lake where white-stem pondweed abundance seems to be limited.

Ribbon-leaf pondweed was located at three of the sites (or 3.6%) surveyed in 2008. Two of these sites (67%) were at trace density, while the last site was at medium density. The medium density site was located in the small cove to the east of the peninsula, among many other native plants. The picture to the right depicts the floating leaves of the medium dense ribbon-leaf pondweed stand, creating a dense mat on the surface. Despite its apparent limited distribution, a few other sites with floating leaves were observed while moving from sampling location to sampling location.

Small pondweed was located at three of the sites (or 3.6%) surveyed in 2008. All three sites were considered to be trace density. One was located at the mouth of the small cove east of the peninsula, one was located in the small cove to the west of the bridge, and the last was located along the southern shore of the causeway. All samples showed some signs of degradation due to the late season, but distinctive seed stalks were located on one of the samples, a distinguishing characteristic between leafy pondweed (see above) and small pondweed.

Watermoss was located at three of the sites (3.6%) surveyed in 2008. All three sites were trace density. Two of the sites were located along the north shore of the east basin, while the last site was located in the small cove to the west of the bridge.

Benthic filamentous algae (typically called BFA) was located at two of the sites (or 2.4%) surveyed in 2008. Both sites were considered trace density, and the benthic algae was attached to other plants. One site was located along the southern shore of the east basin, and the other was located in the small cove west of the bridge.

Creeping bladderwort was collected at two of the sites (2.4%) surveyed in 2008. Both sites were at trace density and located along the northern shoreline of the east basin.

Variable pondweed was located at two of the sites (2.4%) surveyed in 2008. Both sites were at trace density with one being located on the east side of the center island, and the other in the small cove to the east of the peninsula.

Vasey's pondweed was located at a single site (1.2%) during the 2008 survey. The density at this site was trace. The site was located in the small cove to the east of the peninsula. The sample collected was somewhat degraded and lacked seeds and floating leaves, making the identification of this macrophyte questionable. However, stipules were free (unlike *P. diversifolius*, which has fused stipules), and the sample did not key out to leafy pondweed or small pondweed. Since Vasey's pondweed has historically been found at Eagle Lake, the sample collected in 2008 is assumed to be the same.

Stonewort was located at a single site (1.2%) during the 2008 survey. It was located at trace density. The site was located in the open water in the cove behind the west island.

Watershield was the dominant floating macrophyte observed at Eagle Lake during the 2008 survey. It was observed at 16 of the sites (or 19%) surveyed. Nine of the sites (56%) were considered trace density, while seven sites (44%) were considered sparse density. The heaviest cover of watershield (the sparse sites) were located in the small cove to the east of the peninsula (two), on the west shore of the peninsula (one), on the south shore of the causeway (one), in the small cove to the west of the bridge (two), and along the north shore of the east basin (one).

White water lilies were observed at 15 of the sites (or 18%) surveyed in 2008. Eleven sites (73%) were at trace density, while four sites (27%) were at sparse density. White water

lilies occurred along the southern shoreline of the east basin, behind the west island, and in the small cove to the west of the bridge. Five trace sites were also located along both shorelines in the west basin.

Spatterdock was located at a single site (1.2%) during the 2008 survey. This site was at trace density, and was situated in the small cove to the east of the peninsula.

VII. East and West Transect Discussion

East Transect

At the east transect, there was no floating macrophytes observed at any of the six sampling sites. Submersed macrophytes were collected at all six sites, representing 12 different genera. Table #3 is a summary of the aquatic macrophyte distribution in the east transect. Two of these sites (or 33%) were sparse density. Three of the sites (or 50%) were medium density, while the remaining site (or 17%) was considered dense. The beginning of the transect (points ET1 and ET2, located to the east end of the transect) had sparse density macrophytes. The next two points (ET3 and ET4) were medium density. Point ET5 was considered dense overall, while the last point in the transect (ET6) was considered medium overall density.

Eurasian water milfoil was located along all 6 sample locations of the east transect. It was trace at the first two points (ET1 and ET2), before increasing to sparse at the middle points (ET3 and ET4). At point ET5, the Eurasian water milfoil density increased to medium density, although it decreased to sparse density at the last point (ET6).

Muskgrass was collected at 4 sample points (or 67%) along the east transect. It was collected at the first four points (ET1 to ET4), and all sites displayed trace density.

Common waterweed was collected at four sites along the east transect. The sites were scattered along the transect, occurring at points ET1, ET3, ET5 and ET6. All sites displayed trace density.

Flat-stem pondweed was collected at 3 sites along the east transect (or 50% of the sites surveyed along this transect). It occurred at the beginning (site ET1), and the end (sites ET5 and ET6) of the transect. At all sites, it was collected at trace density.

Slender naiad was collected at three sites along the east transect (or 50% of the sites surveyed along the east transect). It occurred at the first site sampled (ET1), and the last sites sampled (ET 5 and ET6) along the east transect. At all sites the slender naiad was collected at trace density.

Stonewort was collected at two sites along the east transect (or 33% of the sites surveyed along the transect). It occurred at the first site sampled (ET1), and the last site sampled (ET6) along the east transect. At both sites stonewort was collected at trace density.

Variable pondweed was also collected at two sites along the east transect. The sites were located at the middle of the transect (sites ET3 and ET4), and both displayed trace density.

Water stargrass was collected at two sites along the east transect (or 33% of the sites surveyed along the transect). It occurred at the first site sampled (ET1), and the last site sampled (ET6) along the east transect. At both sites water stargrass was collected at trace density.

Alpine pondweed was collected at one site along the east transect. It occurred at the first site (ET1) and was collected at trace density. This was the only site where alpine was collected during the entire 2008 survey.

Bass weed was collected at one site along the east transect. It occurred at the last site (ET6) and was collected at trace density.

Coontail was collected at one site along the east transect. It occurred at the first site (ET1) and was collected at trace density.

Creeping bladderwort was collected at one transect along the east transect. It occurred at the last site (ET6), and was collected at trace density.

West Transect

At the west transect, there was no floating macrophytes observed at any of the six sampling sites. Submersed macrophytes were collected at all six sites, representing 10 different genera and benthic filamentous algae. Table #4 is a summary of the aquatic macrophyte distribution in the west transect. Three of these sites (or 50%) were sparse density, while three of the sites (or 50%) were medium density. The sparse density sites were spread out, occurring at points WT7, WT 10, and WT 12. Meanwhile the west transect medium sites were also scattered along the transect, occurring at points WT8, WT9, and WT11.

Eurasian water milfoil was collected at all six west transect sites. It occurred at site WT7 at trace density. At the three last sites on the transect (WT10, WT11, and WT12), the density was considered sparse. The two remaining sites (WT8 and WT9) were considered medium density.

White-stem pondweed was also collected at all six sites along the west transect. It was at trace density at 5 of the sites (or 83%). Only site WT8 had sparse density.

Slender naiad was collected at 4 sites (or 67%) along the west transect. All sites were considered trace density, occurring at WT7, WT10, WT11, and WT12, respectively.

Arrowhead rosettes were collected at 3 sites along the west transect. All three sites were considered trace density, and located at sites WT7, WT8, and WT9.

Leafy pondweed was collected at 2 sites (or 33%) along the west transect. Both sites were at trace density and occurred at WT11 and WT12, respectively.

Muskgrass was collected at 2 sites along the west transect. Both sites were considered trace density, and were located along the second half of the transect. It occurred at sites WT10 and WT12.

Common waterweed was collected at 2 sites (or 33%) along the west transect. Both sites were considered trace density, located at sites WT8 and WT9.

Robbins pondweed was also collected at 2 sites along the west transect. One site (WT7) was considered sparse density, while the other site (WT8) was considered trace density.

Tapegrass was collected at 2 sites along the west transect. Both sites were considered trace density and occurred along the first half of the transect, sites WT7 and WT9, respectively.

Benthic filamentous algae was collected at one site (or 17%) along the west transect. It occurred at site WT7 at trace density.

Water stargrass was collected at 1 site along the west transect. This site was at trace density and was located at WT11.

VIII. Emergent Vegetation

During the survey of submersed vegetation at Eagle Lake notes of emergent vegetation were recorded, since these types of macrophytes rarely ever end up on a sampling anchor. Three genera of emergent plants were observed. A brief summary of each plant is included below, followed by a description of the abundance and distribution of each emergent.

Brown-fruited Rush (*Juncus pelocarpus*): Brown-fruited rush has tufts of green stems connected by horizontal stems of delicate rhizomes. It prefers to inhabit boggy or sandy soils along the shoreline, or in shallow water. It produces numerous brown flowers along one side of the spreading branches. The branched flower stalks can reach 25% of the overall plant height. Seeds mature in beaked capsules by late summer. Brown-fruited rush provides valuable fish spawning habitat, and shoreline stabilization. The seeds are consumed by both waterfowl and mammals.

Pickerelweed (*Pontederia cordata*): Pickerelweed is an emergent macrophyte with broad green leaves adorned with many fine veins. Pickerelweed has a distinct heart-shaped leaf base and a flower spike crammed with blue flowers. It inhabits shallow water, and often forms extensive beds in protected coves and bays of larger bodies of water. The flowering stalk attracts insects, and the seeds are consumed by waterfowl. Underwater structures of the plant provide shelter for fish, and can be an important component of shoreline stabilization against wave action.

Cattail (*Typha* sp.): Cattails are very common freshwater marsh plants. They have pale green sword-like leaves that can reach over a meter in length. The flower is a cylindrical spike that appears to be a hotdog on a stick. It prefers moist soil, or water up to a meter deep. Cattails have an enormous capacity for growth in a wetland, and can reach nuisance densities, crowding out other more desirable species in a few seasons. They do provide suitable nesting habitat for waterfowl, and are consumed by muskrats and geese.

Brown-fruited rush was observed at two locations during the survey. It was located along the shore at the mouth of the small cove to the east of the peninsula (site E28). This cove was very shallow, with a mucky organic bottom, choked with submersed plants, mostly desirable native species. It could described as trace density with trace pickerelweed mixed in. It was also located along the south shoreline just to the east of the causeway (site E53). It also was observed as trace density, again mixed in with trace pickerelweed.

Pickerelweed was observed at six locations during the 2008 survey. Trace pickerelweed was observed along the southern shoreline at site E26. It was also located at trace density at the mouth and in the small cove to the east of the peninsula (sites E28 and E29, respectively). At site E28 it was at trace density, mixed in with the brown-fruited rush. At site E29, it could be considered at sparse density. Pickerelweed was located at two sites along the southern shore to the east of the causeway (sites E52 and E53). Both sites were considered trace density, and at site E53 it was mixed in with brown-fruited rush. The last site was in the cove to the west of the bridge (site E66). This cove could be described as shallow with an organic bottom and containing diverse native submersed plants.

Cattails were observed at two locations in the west basin during the 2008 survey. A trace patch, mixed in with other terrestrial vegetation, was located along the west shore just west of the bridge. The second patch was located along the southern causeway shoreline. This patch was considered sparse to medium density, but it was a thin strip along the water and the steep slope of the causeway.

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Appendix A:
2008 Eagle Lake Tables

Eagle Lake Aquatic Vegetation Survey
September 4, 2008

Table 1

Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation	Total Floating Vegetation	Alpine Pondweed	Bassweed	Benthic Filamentous Algae	Common Waterweed	Coontail	Creeping Bladderwort	Eurasian Watermilfoil	Flatstem Pondweed	Lake Quillwort	Leafy Pondweed	Muskgrass	Needle Spikerush	Pipewort	Ribbonleaf Pondweed	Robbins Pondweed	Sagittaria Rosette	Slender Naiad	Small Pondweed	Spatterdock	Stonewart	Tapegrass	Variable-Leaf Pondweed	Vasey's Pondweed	Water Marigold	Watermoss	Watershield	Water Stargrass	White Stem Pondweed	White Water Lily
E1	6	43.8816830	-73.5802986	A	D 4						T 1		D 4																						
E1	6			B	M 3					T 1	S 2		M 3																						
E1	6			Mean	D 4					T 1	T 1		D 4																						
E2	10	43.8814663	-73.5802417	A	M 3								M 3																						
E2	10			B	D 4								D 4																						
E2	10			Mean	D 4								D 4																						
E3	10	43.8814570	-73.5806072	A	D 4			S 2		S 2	M 3		D 4																						
E3	10			B	D 4								M 3																						
E3	10			Mean	D 4			T 1		T 1	S 2		D 4																						
E4	7	43.8816089	-73.5806864	A	D 4								D 4																						
E4	7			B	D 4					T 1			D 4																						
E4	7			Mean	D 4					T 1			D 4																						
E5	6	43.8818615	-73.5806986	A	D 4								D 4																						
E5	6			B	D 4								D 4																						
E5	6			Mean	D 4								D 4																						
E6	9	43.8819149	-73.5803733	A	D 4								D 4																						
E6	9			B	D 4					S 2	D 4		S 2																						
E6	9			Mean	D 4					T 1	S 2		M 3																						
E7	7	43.8816596	-73.5804601	A	D 4								D 4																						
E7	7			B	D 4								D 4																						
E7	7			Mean	D 4								D 4																						
E8	10	43.8822964	-73.5777167	A	M 3					T 1			M 3	0			0																		
E8	10			B	S 2					0			S 2	T 1			T 1																		
E8	10			Mean	M 3					T 1			M 3	T 1			T 1																		
E9	35	43.8822319	-73.5771997	A	0																														
E9	35			B	0																														
E9	35			Mean	0																														
E10	9	43.8824193	-73.5764600	A	T 1								0	T 1																					
E10	9			B	T 1								T 1	0																					
E10	9			Mean	T 1								T 1	T 1																					
E11	15	43.8827727	-73.5763704	A	0	T 1				0			0	0														0						T 1	
E11	15			B	T 1	0				T 1			T 1	T 1														T 1							0
E11	15			Mean	T 1	T 1				T 1			T 1	T 1														T 1						T 1	
E12	18	43.8830347	-73.5770120	A	0								0																			0		
E12	18			B	T 1								T 1																			T 1		
E12	18			Mean	T 1								T 1																			T 1		
E13	7	43.8826617	-73.5775285	A	T 1						T 1		0						T 1																
E13	7			B	D 4						0		D 4						0																
E13	7			Mean	M 3						T 1		S 2						T 1																
E14	9	43.8859248	-73.5789673	A	T 1	T 1				0				0					T 1							T 1					T 1			
E14	9			B	T 1	0				T 1				T 1					T 1							0					0			
E14	9			Mean	T 1	T 1				T 1				T 1					T 1							T 1					T 1			
E15	5	43.8853243	-73.5796704	A	T 1	S 2				0		0	T 1	0			0		T 1							0					S 2			
E15	5			B	S 2	S 2				T 1		T 1	T 1	T 1			T 1		S 2							T 1					S 2			
E15	5			Mean	S 2	S 2				T 1		T 1	T 1	T 1			T 1		S 2							T 1					S 2			

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Table 1

Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation		Total Floating Vegetation		Alpine Pondweed		Bassweed		Benthic Filamentous Algae		Common Waterweed		Coontail		Creeping Bladderwort		Eurasian Watermilfoil		Flatstem Pondweed		Lake Quillwort		Leafy Pondweed		Muskgrass		Needle Spikerush		Pipewort		Ribbonleaf Pondweed		Robbins Pondweed		Sagittaria Rosette		Slender Naiad		Small Pondweed		Spatterdock		Stonewart		Tapegrass		Variable-Leaf Pondweed		Vasey's Pondweed		Water Marigold		Watermoss		Watershield		Water Stargrass		White Stem Pondweed		White Water Lily	
E16	11	43.8849213	-73.5803030	A	T	1																					T	1				0							0																		
E16	11			B	T	1																					T	1			T	1					T	1																		
E16	11			Mean	T	1																					T	1			T	1					T	1																		
E17	21	43.8846314	-73.5815214	A		0																																																					
E17	21			B		0																																																					
E17	21			Mean		0																																																					
E18	6	43.8846598	-73.5827492	A	T	1					T	1								0	T	1							T	1										0													T	1						
E18	6			B	S	2						0							T	1		0								0									S	2													0						
E18	6			Mean	S	2					T	1							T	1	T	1							T	1									T	1													T	1						
E19	15	43.8844990	-73.5844229	A	T	1																			T	1				0																												
E19	15			B	T	1																				0			T	1			T	1																								
E19	15			Mean	T	1																			T	1			T	1			T	1																								
E20	5	43.8837973	-73.5862478	A	S	2	T	1																							S	2																				0						
E20	5			B	T	1		0																							T	1																			T	1						
E20	5			Mean	S	2	T	1																							S	2																			T	1						
E21	11	43.8804753	-73.5754417	A	S	2						0			T	1						0													S	2			T	1							S	2					T	1				
E21	11			B	M	3					T	1			T	1					M	3														0			T	1								0			T	1				
E21	11			MEAN	M	3					T	1			T	1					M	3													T	1			T	1											T	1				
E22	15	43.8802707	-73.5763924	A		0								0																																												
E22	15			B	T	1							T	1																																												
E22	15			MEAN	T	1							T	1																																												
E23	23	43.8801472	-73.5775390	A	T	1																							T	1																												
E23	23			B		0																								0																												
E23	23			MEAN	T	1																							T	1																												
E24	14	43.8802081	-73.5787454	A	T	1	S	2			T	1									T	1		0							S	2	T	1			T	1																		
E24	14			B	S	2	S	2				0									S	2	S	2							S	2	T	1				0																		
E24	14			MEAN	S	2	S	2			T	1									S	2	T	1							S	2	T	1			T	1																		
E25	3	43.8802209	-73.5798341	A	T	1	T	1																							T	1																												
E25	3			B	S	2	S	2																							S	2																												
E25	3			MEAN	S	2	S	2																							S	2																												
E26	9	43.8798147	-73.5812870	A	T	1	T	1														0							T	1			T	1			T	1											T	1						
E26	9			B	T	1	T	1													T	1								0			T	1																0						
E26	9			MEAN	T	1	T	1													T	1							T	1			T	1			T	1											T	1						
E27	5	43.8797134	-73.5828082	A	T	1	S	2							T	1						0									T	1					T	1									T	1					S	2
E27	5			B	T	1	T	1								0					T	1									T	1					T	1									T	1						0
E27	5			MEAN	T	1	S	2							T	1					T	1									T	1					T	1									T	1					T	1
E28	2	43.8793778	-73.5841140	A	T	1	S	2							T	1															T	1					T	1	T	1									S	2	T	1				0
E28	2			B	S	2	S	2								0															S	2																			S	2			T	1
E28	2			MEAN	S	2	S	2							T	1															S	2					T	1	T	1									S	2	T	1			T	1
E29	1	43.8791868	-73.5847733	A	S	2	S	2							S	2						0									T	1	S	2			T	1			T	1									S	2					S	2
E29	1			B	M	3	S	2							M	3					T	1	T									0	M	3	T	1			0		T	1			T	1	T	1			S	2			T	1
E29	1			MEAN	M	3	S	2							M	3					T	1	T									T	1	M	3	T	1					T	1			T	1	T	1	T	1	S	2			S	2
E30	8	43.8798041	-73.5848505	A	S	2	S	2								0						0							T	1			S	2					T	1													T	1				
E30	8			B	S	2		0							T	1					T	1							T	1							T	1											T	1				
E30	8			MEAN	S	2	T	1							T	1					T	1							T	1			T	1															T	1				

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Table 1

Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation		Total Floating Vegetation		Alpine Pondweed		Bassweed		Benthic Filamentous Algae		Common Waterweed		Coontail		Creeping Bladderwort		Eurasian Watermilfoil		Flatstem Pondweed		Lake Quillwort		Leafy Pondweed		Muskgrass		Needle Spikerush		Pipewort		Ribbonleaf Pondweed		Robbins Pondweed		Saggitaria Rosette		Slender Naiad		Small Pondweed		Spatterdock		Stonewart		Tapegrass		Variable-Leaf Pondweed		Vasey's Pondweed		Water Marigold		Watermoss		Watershield		Water Stargrass		White Stem Pondweed		White Water Lily	
E31	4	43.8801571	-73.5856987	A	S	2	S	2																0							S	2																			T	1				
E31	4			B	S	2	S	2															T	1							S	2																				0				
E31	4			MEAN	S	2	S	2															T	1							S	2																			T	1				
E32	4	43.8804682	-73.5866569	A	T	1	T	1								0					T	1	T	1							T	1					T	1														0				
E32	4			B	T	1	T	1							T	1						0		0							T	1					T	1													T	1				
E32	4			MEAN	T	1	T	1							T	1					T	1	T	1							T	1					T	1													T	1				
E33	5	43.8806065	-73.5876523	A	M	3	T	1				0			T	1		0			M	3		0							T	1					T	1													T	1				
E33	5			B	M	3		0			T	1			S	2	S	2			M	3	S	2								0						0														0				
E33	5			MEAN	M	3	T	1			T	1			S	2	T	1			M	3	T	1							T	1					T	1													T	1				
E34	7	43.8795641	-73.5880697	A	T	1	S	2																							T	1			T	1		0													S	2		0		
E34	7			B	T	1	S	2																							T	1					T	1													S	2	T	1		
E34	7			MEAN	T	1	S	2																							T	1			T	1	T	1													S	2	T	1		
E35	5	43.8786939	-73.5874016	A		0	S	2																							S	2																				0				0
E35	5			B	T	1	S	2																							S	2																			S	2			T	1
E35	5			MEAN	T	1	S	2																							S	2																			T	1			T	1
E36	6	43.8782772	-73.5887909	A		0	S	2																							T	1																							S	2
E36	6			B	T	1	S	2																							T	1																							S	2
E36	6			MEAN	T	1	S	2																							T	1																							S	2
E37	7	43.8773953	-73.5895980	A	S	2												0				0					T	1			T	1					S	2															T	1				
E37	7			B	M	3											S	2			M	3						0				0					T	1													T	1				
E37	7			MEAN	M	3											T	1			S	2					T	1			T	1					S	2													T	1				
E38	9	43.8772790	-73.5905944	A	M	3	T	1							S	2	T	1			T	1	S	2									T	1					S	2											T	1	T	1				
E38	9			B	S	2		0							T	1		0			T	1	T	1										0			T	1													0	T	1				
E38	9			MEAN	M	3	T	1							S	2	T	1			T	1	S	2									T	1					S	2													T	1	T	1				
E39	9	43.8776027	-73.5902151	A	M	3									T	1					T	1					T	1							M	3																				
E39	9			B	T	1										0						0					T	1								0																				
E39	9			MEAN	S	2									T	1					T	1					T	1							S	2																				
E40	9	43.8779669	-73.5897633	A	S	2					S	2											T	1					S	2					T	1	T	1							T	1										
E40	9			B	M	3					T	1												0					M	3					T	1	T	1								0										
E40	9			MEAN	M	3					S	2											T	1					M	3					T	1	T	1							T	1										
E41	11	43.8784518	-73.5889972	A	S	2					T	1			T	1								0			T	1	S	2					T	1																0				
E41	11			B	S	2					T	1				0							T	1			T	1							S	2															T	1				
E41	11			MEAN	S	2					T	1			T	1							T	1			T	1	T	1					S	2															T	1				
E42	7	43.8788126	-73.5883490	A	M	3															M	3							T	1																										
E42	7			B	M	3															M	3								0																										
E42	7			MEAN	M	3															M	3							T	1																										
E43	7	43.8789876	-73.5881927	A	M	3						0									M	3				0										0																				
E43	7			B	S	2					T	1									S	2			T	1											T	1									T	1								
E43	7			MEAN	M	3					T	1									M	3			T	1											T	1									T	1								
E44	7	43.8787918	-73.5880366	A	M	3															M	3											T	1																		0				
E44	7			B	M	3															M	3												0																	T	1				
E44	7			MEAN	M	3															M	3											T	1																	T	1				
E45	6	43.8785359	-73.5882608	A	D	4					S	2			T	1					D	4											T	1			T	1															S	2				
E45	6			B	M	3						0				0					M	3												0				0															0				
E45	6			MEAN	D	4					T	1			T	1					D	4											T	1			T	1															T	1				

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Table 1

Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation		Total Floating Vegetation		Alpine Pondweed		Bassweed		Benthic Filamentous Algae		Common Waterweed		Coontail		Creeping Bladderwort		Eurasian Watermilfoil		Flatstem Pondweed		Lake Quillwort		Leafy Pondweed		Muskgrass		Needle Spikerush		Pipewort		Ribbonleaf Pondweed		Robbins Pondweed		Saggitaria Rosette		Slender Naiad		Small Pondweed		Spatterdock		Stonewart		Tapegrass		Variable-Leaf Pondweed		Vasey's Pondweed		Water Marigold		Watermoss		Watershield		Water Stargrass		White Stem Pondweed		White Water Lily	
E46	11	43.8788991	-73.5889621	A		0																																0																			
E46	11			B	T	1																																1																			
E46	11			MEAN	T	1																																1																			
E47	11	43.8784547	-73.5897832	A	T	1	T	1														0						0					T	1					T	1													0	T	1				
E47	11			B	T	1	T	1													T	1					T	1					T	1					T	1													T	1		0			
E47	11			MEAN	T	1	T	1													T	1					T	1					T	1					T	1													T	1	T	1			
E48	9	43.8778333	-73.5907244	A	T	1	S	2				0																			S	2					0	T	1						T	1							S	2	T	1			
E48	9			B	T	1	T	1			T	1																			T	1			T	1	T	1														0		0			
E48	9			MEAN	T	1	S	2			T	1																			S	2			T	1	T	1							T	1					S	2	T	1			
E49	7	43.8779057	-73.5911122	A	M	3		0							T	1					M	3	T	1								0					T	1															T	1			0
E49	7			B	T	1	T	1								0					T	1		0							T	1						0															0		T	1
E49	7			MEAN	S	2	T	1							T	1					S	2	T	1							T	1					T	1															T	1		T	1
E50	17	43.8786406	-73.5907083	A	S	2	T	1																							T	1					T	1															S	2			
E50	17			B	T	1	T	1																							T	1					T	1															T	1			
E50	17			MEAN	S	2	T	1																							T	1					T	1															S	2			
E51	15	43.8794902	-73.5904116	A	T	1	T	1			T	1			T	1					T	1				0			T	1								0							T	1							T	1			
E51	15			B	T	1		0				0				0						0	T	1			T	0									T	1							0							T	1			
E51	15			MEAN	T	1	T	1			T	1			T	1					T	1	T	1			T	1			T	1					T	1							T	1							T	1			
E52	7	43.8778868	-73.5921885	A	T	1	S	2																				0			T	1				0		0							T	1					S	2	T	1			
E52	7			B	T	1	S	2							T	1											T	1			T	1			T	1		1								0					S	2		0			
E52	7			MEAN	T	1	S	2																			T	1			T	1			T	1		1							T	1					S	2	T	1			
E53	5	43.8777591	-73.5930753	A	S	2	T	1			T	1						0			T	1		0				0			S	2				1															T	1		0		
E53	5			B	M	3		0			T	1					T	1			M	3	T	1			T	1				0				0																0	T	1		
E53	5			MEAN	M	3	T	1			T	1					T	1			S	2	T	1			T	1				0				1															T	1	T	1		
E54	7	43.8775440	-73.5940169	A	M	3					T	1			T	1	S	2			S	2																																					
E54	7			B	S	2						0			S	2	S	2			T	1																																			
E54	7			MEAN	M	3					T	1			S	2	S	2			S	2																																			
E55	10	43.8774724	-73.5943448	A	M	3					T	1					T	1			M	3						0																													
E55	10			B	T	1					T	1						0									T	1																													
E55	10			MEAN	S	2					T	1					T	1			S	2					T	1																													
E56	5	43.8777438	-73.5944903	A	M	3															M	3																																			
E56	5			B	M	3															M	3																																			
E56	5			MEAN	M	3															M	3																																			
E57	6	43.8780511	-73.5946742	A	M	3															M	3																																	T	1			
E57	6			B	M	3															M	3																																	0			
E57	6			MEAN	M	3															M	3																																	T	1			
E58	7	43.8783771	-73.5949091	A	T	1	T	1							T	1					T	1				0					T	1						0															T	1			
E58	7			B	S	2		0								0						0	T	1			T	1									S	2															T	1			
E58	7			MEAN	S	2	T	1							T	1					T	1	T	1			T	1									T	1															T	1			
E59	7	43.8782085	-73.5951645	A	S	2	T	1							T	1					T	1							T	1	T	1				0	S	2								0					T	1	T	1			
E59	7			B	S	2		0							T	1						0							T	1				1	S	2								1						0		0			
E59	7			MEAN	S	2	T	1							T	1					T	1							T	1	T	1			T	1	S	2							T	1					T	1	T	1			
E60	7	43.8778548	-73.5950377	A	S	2																							S	2								0																			
E60	7			B	T	1																								0			T	1			T	1																	
E60	7			MEAN	S	2																							T	1			T	1			T	1																	

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Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation	Total Floating Vegetation	Alpine Pondweed	Bassweed	Benthic Filamentous Algae	Common Waterweed	Coontail	Creeping Bladderwort	Eurasian Watermilfoil	Flatstem Pondweed	Lake Quillwort	Leafy Pondweed	Muskgrass	Needle Spikerush	Pipewort	Ribbonleaf Pondweed	Robbins Pondweed	Sagittaria Rosette	Slender Naiad	Small Pondweed	Spatterdock	Stonewart	Tapegrass	Variable-Leaf Pondweed	Vasey's Pondweed	Water Marigold	Watermoss	Watershield	Water Stargrass	White Stem Pondweed	White Water Lily
E61	7	43.8774918	-73.5948191	A	T 1			T 1		T 1					T 1		0	T 1	T 1				T 1										T 1		
E61	7			B	S 2			T 1		0					0		S 2	0	0				0										0		
E61	7			MEAN	S 2			T 1		T 1					T 1		T 1	T 1	T 1				T 1										T 1		
E62	5	43.8773982	-73.5951536	A	T 1	T 1			T 1										T 1				T 1										T 1		
E62	5			B	0	0			0										0				0										0		
E62	5			MEAN	T 1	T 1			T 1										T 1				T 1										T 1		
E63	7	43.8777271	-73.5953816	A	T 1					T 1					T 1			T 1	T 1											T 1					
E63	7			B	T 1					0					T 1			0	T 1											0					
E63	7			MEAN	T 1					T 1					T 1			T 1	T 1											T 1					
E64	5	43.8779678	-73.5955554	A	S 2	T 1		S 2					0				T 1		T 1		T 1	0	S 2				T 1					T 1		T 1
E64	5			B	S 2	T 1		T 1					T 1				0		T 1		T 1	T 1	S 2				S 2					T 1		0
E64	5			MEAN		0		S 2					T 1				T 1		T 1		T 1	T 1	S 2				S 2					T 1		T 1
E65	3	43.8778551	-73.5957800	A	S 2	S 2				0			0			T 1		0	S 2		0		0				S 2				S 2	0	S 2	S 2
E65	3			B	S 2	S 2				T 1			T 1			0		T 1	T 1		T 1		S 2				T 1				T 1	T 1	S 2	S 2
E65	3			MEAN	S 2	S 2				T 1			T 1			T 1		T 1	S 2		T 1		T 1				S 2				S 2	T 1	S 2	S 2
E66	2	43.8777064	-73.5959799	A	T 1	S 2				T 1						0	0	0	T 1			T 1	T 1							T 1	S 2			S 2
E66	2			B	T 1	T 1				0						T 1	T 1	T 1	T 1			0	0							T 1	T 1			T 1
E66	2			MEAN	T 1	S 2				T 1						T 1	T 1	T 1	T 1			T 1	T 1							T 1	S 2			S 2
E67	2	43.8774268	-73.5957750	A	T 1	T 1							0			T 1								0							T 1			
E67	2			B	T 1	T 1							T 1			T 1			0					T 1							T 1			
E67	2			MEAN	T 1	T 1							T 1			T 1			T 1					T 1							T 1			
E68	8	43.8787347	-73.5949386	A	T 1	T 1				T 1			T 1			0	T 1		T 1				0					0		T 1		T 1		
E68	8			B	S 2	T 1				T 1			0			T 1	0		T 1				T 1				T 1			0		S 2		
E68	8			MEAN	S 2	T 1				T 1			T 1			T 1	T 1		T 1				T 1				T 1			T 1		S 2		
E69	8	43.8793934	-73.5951507	A	S 2			S 2		0			T 1										T 1									0		
E69	8			B	S 2			0		T 1			S 2										0									T 1		
E69	8			MEAN	S 2			T 1		T 1			S 2										T 1									T 1		
E70	9	43.8801840	-73.5949559	A	S 2			T 1		T 1			T 1	T 1								0	T 1							T 1		0		
E70	9			B	S 2			0		S 2			S 2	0							S 2		0							0		T 1		
E70	9			MEAN	S 2			T 1		S 2			S 2	T 1							T 1		T 1							T 1		T 1		
E71	18	43.8809249	-73.5942830	A	0	T 1							0						T 1															
E71	18			B	T 1	0							T 1						0															
E71	18			MEAN	T 1	T 1							T 1						T 1															
E72	24	43.8812775	-73.5932585	A	0								0																					
E72	24			B	T 1								T 1																					
E72	24			MEAN	T 1								T 1																					
E73	12	43.8818989	-73.5918832	A	0	T 1													T 1												T 1			
E73	12			B	T 1	0													T 1												0			
E73	12			MEAN	T 1	T 1													T 1												T 1			
E74	5	43.8771368	-73.5943084	A	S 2	T 1				S 2			T 1	T 1					T 1		T 1	0	T 1								0		T 1	T 1
E74	5			B	T 1	T 1				0			T 1	0					T 1		0	T 1	T 1								T 1		T 1	T 1
E74	5			MEAN	S 2	T 1				T 1			T 1	T 1					T 1		T 1	T 1	T 1								T 1		T 1	T 1
E75	22	43.8764537	-73.5944982	A	0																													
E75	22			B	0																													
E75	22			MEAN	0																													

Eagle Lake Aquatic Vegetation Survey
September 4, 2008

Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation	Total Floating Vegetation	Alpine Pondweed	Bassweed	Benthic Filamentous Algae	Common Waterweed	Coontail	Creeping Bladderwort	Eurasian Watermilfoil	Flatstem Pondweed	Lake Quillwort	Leafy Pondweed	Muskgrass	Needle Spikerush	Pipewort	Ribbonleaf Pondweed	Robbins Pondweed	Saggitaria Rosette	Slender Naiad	Small Pondweed	Spatterdock	Stonewart	Tapegrass	Variable-Leaf Pondweed	Vasey's Pondweed	Water Marigold	Watermoss	Watershield	Water Stargrass	White Stem Pondweed	White Water Lily
E76	23	43.8758811	-73.5953001	A	0																														
E76	23			B	0																														
E76	23			MEAN	0																														
E77	20	43.8756477	-73.5959823	A	T 1	T 1							T 1						T 1																T 1
E77	20			B	0	T 1							0						0																T 1
E77	20			MEAN	T 1	T 1							T 1						T 1																T 1
E78	19	43.8754085	-73.5971317	A	T 1								T 1																						
E78	19			B	0								0																						
E78	19			MEAN	T 1								T 1																						
E79	14	43.8773458	-73.5934502	A	0																														
E79	14			B	0																														
E79	14			MEAN	0																														
E80	8	43.8772419	-73.5925726	A	M 3	T 1				0			M 3	T 1							0			0			T 1							0	T 1
E80	8			B	D 4	T 1				S 2			D 4	T 1							T 1			T 1			S 2						T 1	T 1
E80	8			MEAN	D 4	T 1				T 1			D 4	T 1							T 1			T 1			S 2						T 1	T 1
E81	9	43.8765183	-73.5921416	A	T 1	T 1													T 1															T 1
E81	9			B	T 1	0													T 1															0
E81	9			MEAN	T 1	T 1													T 1															T 1
E82	6	43.8758016	-73.5920918	A	T 1											0	0		0				T 1											
E82	6			B	T 1											T 1	T 1		T 1				T 1											
E82	6			MEAN	T 1											T 1	T 1		T 1				T 1											
E83	24	43.8751459	-73.5929145	A	0																														
E83	24			B	0																														
E83	24			MEAN	0																														
E84	5	43.8745233	-73.5934808	A	T 1	T 1											0		T 1				0											0
E84	5			B	T 1	T 1											T 1		0				T 1											T 1
E84	5			MEAN	T 1	T 1											T 1		T 1				T 1											T 1
ET1	9	43.8856407	-73.5667983	A	S 2		T 1			T 1	T 1		T 1	T 1			0						T 1			0						T 1		
ET1	9			B	S 2		T 1			0	T 1		T 1	0			T 1						0			T 1						0		
ET1	9			MEAN	S 2		T 1			T 1	T 1		T 1	T 1			T 1						T 1			T 1						T 1		
ET2	9	43.8856400	-73.5666910	A	S 2								S 2				0																	
ET2	9			B	S 2								0				S 2																	
ET2	9			MEAN	S 2								T 1				T 1																	
ET3	8	43.8856420	-73.5667170	A	M 3	M 3				T 1			M 3				0											0						
ET3	8			B	S 2	0				0			0				S 2											T 1						
ET3	8			MEAN	S 3	S 2				T 1			S 2				T 1											T 1						
ET4	8	43.8856420	-73.5667450	A	M 3								M 3															0						
ET4	8			B	S 2								0				S 2											T 1						
ET4	8			MEAN	S 3								S 2				T 1											T 1						
ET5	7	43.8856410	-73.5667720	A	M 3					0			M 3	0									T 1											
ET5	7			B	D 4					T 1			M 3	S 2									0											
ET5	7			MEAN	D 4					T 1			M 3	T 1									T 1											
ET6	9	43.8856407	-73.5667983	A	M 3			0		0		0	M 3	0									0			0						0		
ET6	9			B	S 2			T 1		T 1		T 1	T 1	T 1									T 1			T 1						T 1		
ET6	9			MEAN	M 3			T 1		T 1		T 1	S 2	T 1									T 1			T 1						T 1		

Eagle Lake Aquatic Vegetation Survey
September 4, 2008

Table 1

Sample Point	Water Depth (ft)	Latitude	Longitude	Sample Number	Total Submersed Vegetation		Total Floating Vegetation		Alpine Pondweed		Bassweed		Benthic Filamentous Algae		Common Waterweed		Coontail		Creeping Bladderwort		Eurasian Watermilfoil		Flatstem Pondweed		Lake Quillwort		Leafy Pondweed		Muskgrass		Needle Spikerush		Pipewort		Ribbonleaf Pondweed		Robbins Pondweed		Sagittaria Rosette		Slender Naiad		Small Pondweed		Spatterdock		Stonewart		Tapegrass		Variable-Leaf Pondweed		Vasey's Pondweed		Water Marigold		Watermoss		Watershield		Water Stargrass		White Stem Pondweed		White Water Lily	
WT7	16	43.8734281	-73.5935311	A	S	2							T	1								0													S	2		0		0								0														0		
WT7	16			B	T	1															T	1													0	T	1	T	1							T	1											T	1		
WT7	16			MEAN	S	2															T	1													S	1	T	1	T	1							T	1											T	1		
WT8	15	43.8734210	-73.5935080	A	M	3										0					S	2													S	2	T	1																					M	3		
WT8	15			B	M	3									T	1					M	3														0		0																						0		
WT8	15			MEAN	M	3									T	1					M	3													T	1	T	1																					S	2		
WT9	7	43.8733940	-73.5934860	A	S	2									T	1					S	2															T	1									T	1											S	2		
WT9	7			B	M	3										0					M	3																0																						0		
WT9	7			MEAN	M	3									T	1					M	3															T	1									T	1											T	1		
WT10	6	43.8733690	-73.5934470	A	S	2															T	1					S	2											T	1																			T	1		
WT10	6			B	S	2															S	2						0										0																					T	1		
WT10	6			MEAN	S	2															S	2					T	1										T	1																					T	1		
WT11	5	43.8733470	-73.5934470	A	S	2															S	2			T	1												0																			0												
WT11	5			B	M	3															S	2				0											T	1															T	1	S	2												
WT11	5			MEAN	M	3															S	2			T	1											T	1															T	1	T	1												
WT12	9	43.8733230	-73.5934190	A	S	2															S	2				0		0										0																						0		
WT12	9			B	T	1															T	1			T	1	T	1										1																					T	1		
WT12	9			MEAN	S	2															S	2			T	1	T	1										T	1																					T	1		

Eagle Lake Aquatic Macrophyte Distribution
September 4, 2008

Table # 2

Aquatic Macrophyte	Total Abundance		Trace Abundance		Sparse Abundance		Medium Abundance		Dense Abundance	
Total Sites: 84	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**
Total Submersed Vegetation	77	92%	31	40%	23	30%	14	18%	9	12%
Eurasian Water Milfoil	51	61%	25	49%	9	18%	9	18%	8	15%
Pipewort	45	54%	36	80%	9	20%				
Slender Naiad	38	45%	34	89%	4	11%				
Common Waterweed	34	40%	29	85%	4	12%	1	3%		
Water Stargrass	31	37%	29	94%	2	6%				
Muskgrass	23	27%	22	96%			1	4%		
Flat-stem Pondweed	18	21%	17	94%	1	6%				
Bass Weed	18	21%	16	89	2	11%				
Tapegrass	14	17%	12	86%	2	14%				
Robbins Pondweed	14	17%	12	86%	2	14%				
Coontail	10	12%	7	70%	3	30%				
Leafy Pondweed	9	11%	9	100%						
Water Marigold	7	8%	7	100%						
Sagittaria (rosette)	6	7%	6	100%						
Lake Quillwort	5	6%	5	100%						
Needle Spikerush	5	6%	5	100%						
White-stem Pondweed	4	4.8%	3	75%	1	25%				
Ribbon-leaf Pondweed	3	3.6%	2	67%			1	33%		
Small Pondweed	3	3.6%	3	100%						
Watermoss	3	3.6%	3	100%						
Benthic Filamentous Algae	2	2.4%	2	100%						
Creeping Bladderwort	2	2.4%	2	100%						
Variable Pondweed	2	2.4%	2	100%						
Vasey's Pondweed	1	1.2%	1	100%						
Stonewort	1	1.2%	1	100%						
Total Floating Vegetation	40	48%	26	65%	14	35%				
Watershield	16	19%	9	56%	7	44%				
White Water Lily	15	18%	11	73%	4	27%				
Spatterdock	1	1.2%	1	100%						

Eagle Lake Aquatic Macrophyte Distribution
September 4, 2008
East Transect

Table # 3

Aquatic Macrophyte	Total Abundance		Trace Abundance		Sparse Abundance		Medium Abundance		Dense Abundance	
Total Sites: 6	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**
Total Submersed Vegetation	6	100%			2	33%	3	50%	1	17%
Eurasian Water Milfoil	6	100%	2	33%	3	50%	1	17%		
Muskgrass	4	67%	4	100%						
Common Waterweed	4	67%	4	100%						
Flat-stem Pondweed	3	50%	3	100%						
Slender Naiad	3	50%	3	100%						
Stonewort	2	33%	2	100%						
Variable Pondweed	2	33%	2	100%						
Water Stargrass	2	33%	2	100%						
Alpine Pondweed	1	17%	1	100%						
Bass Weed	1	17%	1	100%						
Coontail	1	17%	1	100%						
Creeping Bladderwort	1	17%	1	100%						

Eagle Lake Aquatic Macrophyte Distribution
September 4, 2008
West Transect

Table # 4

Aquatic Macrophyte	Total Abundance		Trace Abundance		Sparse Abundance		Medium Abundance		Dense Abundance	
Total Sites: 6	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**	**Sites**	**%**
Total Submersed Vegetation	6	100%			3	50%	3	50%		
Eurasian Water Milfoil	6	100%	1	17%	3	50%	2	33%		
White-stem Pondweed	6	100%	5	83%	1	17%				
Slender Naiad	4	67%	4	100%						
Sagittaria (rosette)	3	50%	3	100%						
Common Waterweed	2	33%	2	100%						
Leafy Pondweed	2	33%	2	100%						
Muskgrass	2	33%	2	100%						
Robbins Pondweed	2	33%	1	50%	1	50%				
Tapegrass	2	33%	2	100%						
Benthic Filamentous Algae	1	17%	1	100%						
Water Stargrass	1	17%	1	100%						

Floating Aquatic Plant Density

Trace

Medium

Sparse

Dense

Allied Biological

Submersed Aquatic Plant Density

Trace

Medium

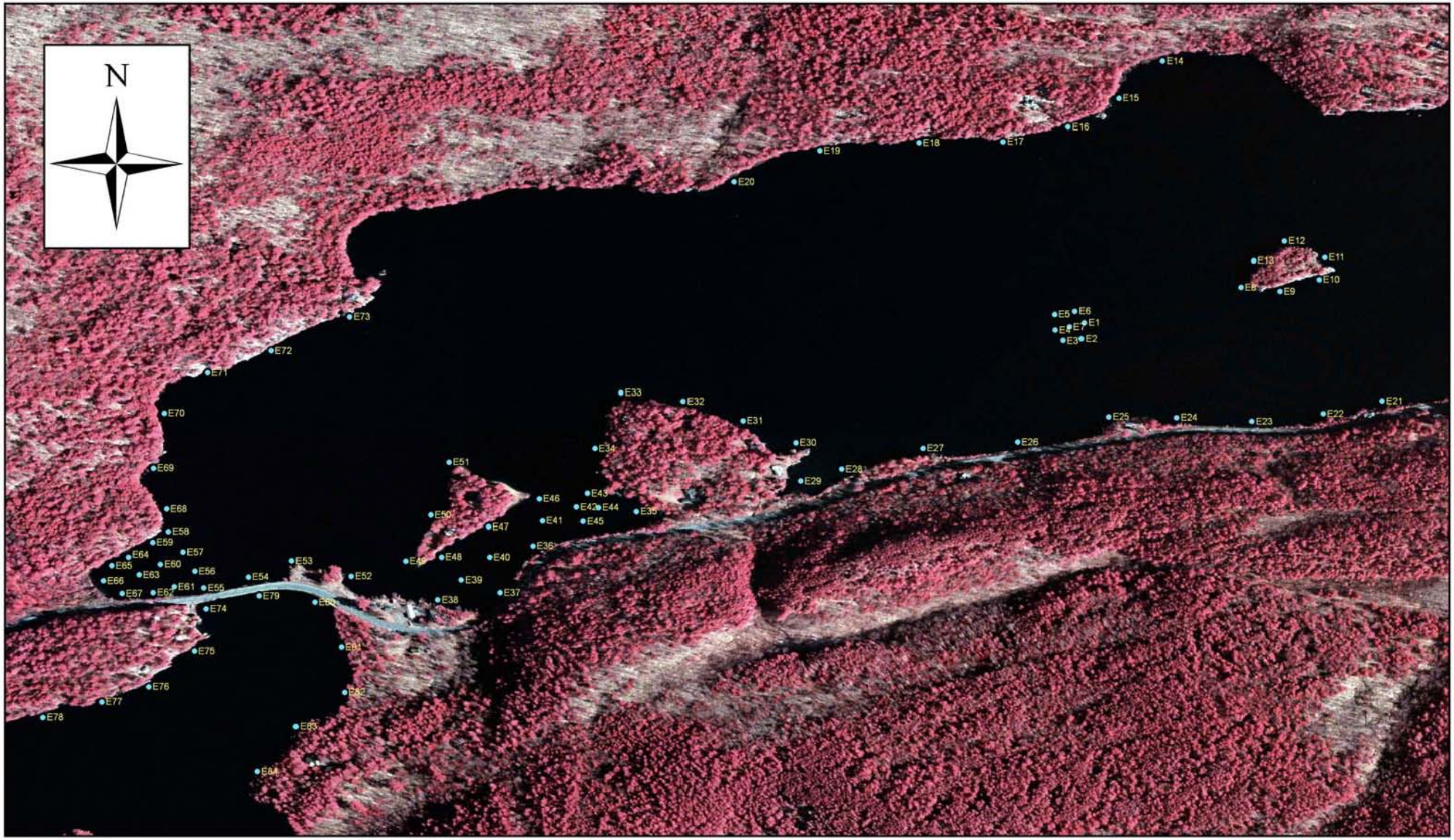
Sparse

Dense

Allied Biological

Appendix B:
2008 Eagle Lake Maps

Sample Locations
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



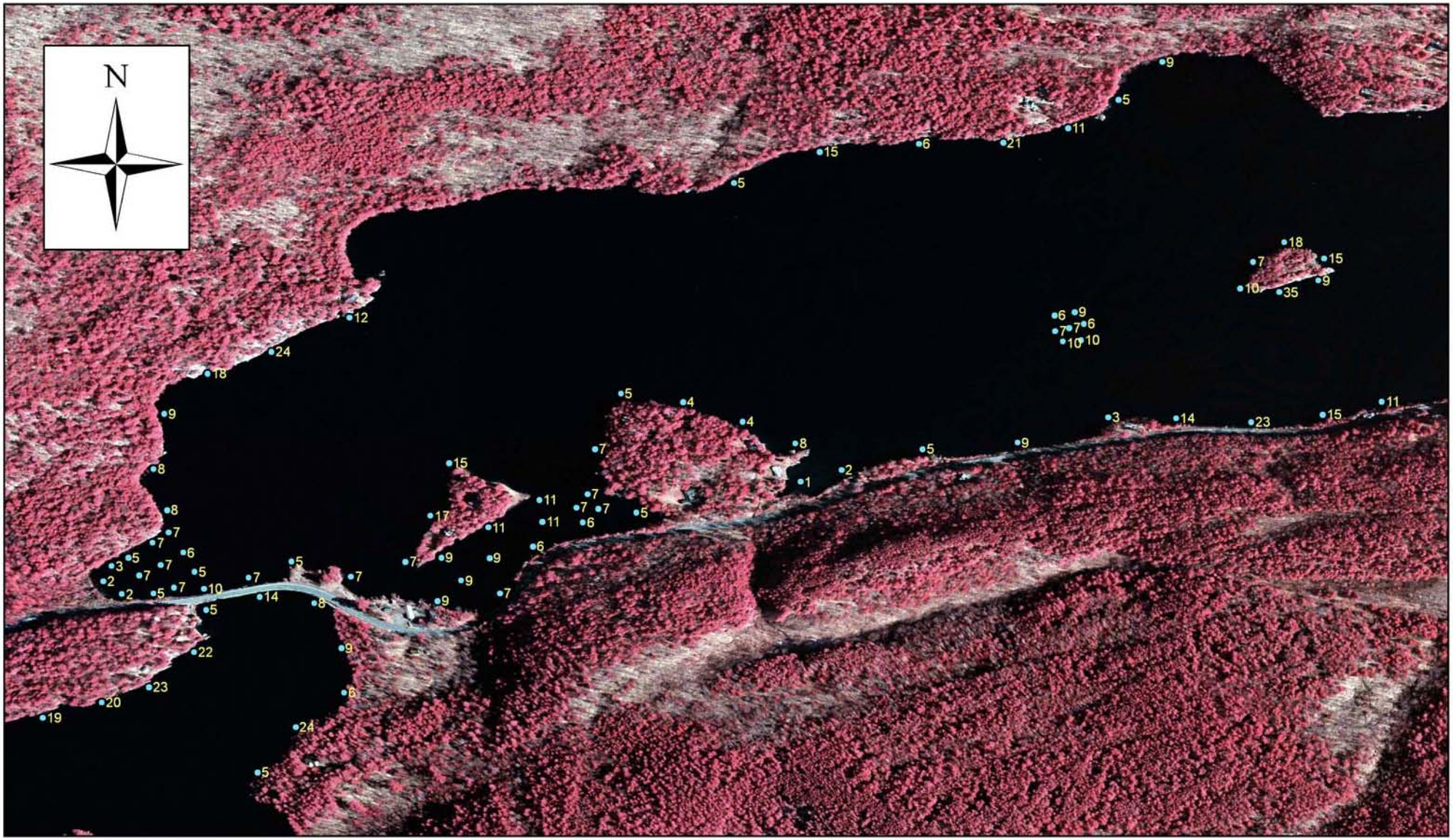
Legend

- = Sample Point

0 250 500 1,000 1,500 2,000 Feet

Allied Biological

Sample Location Water Depth
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



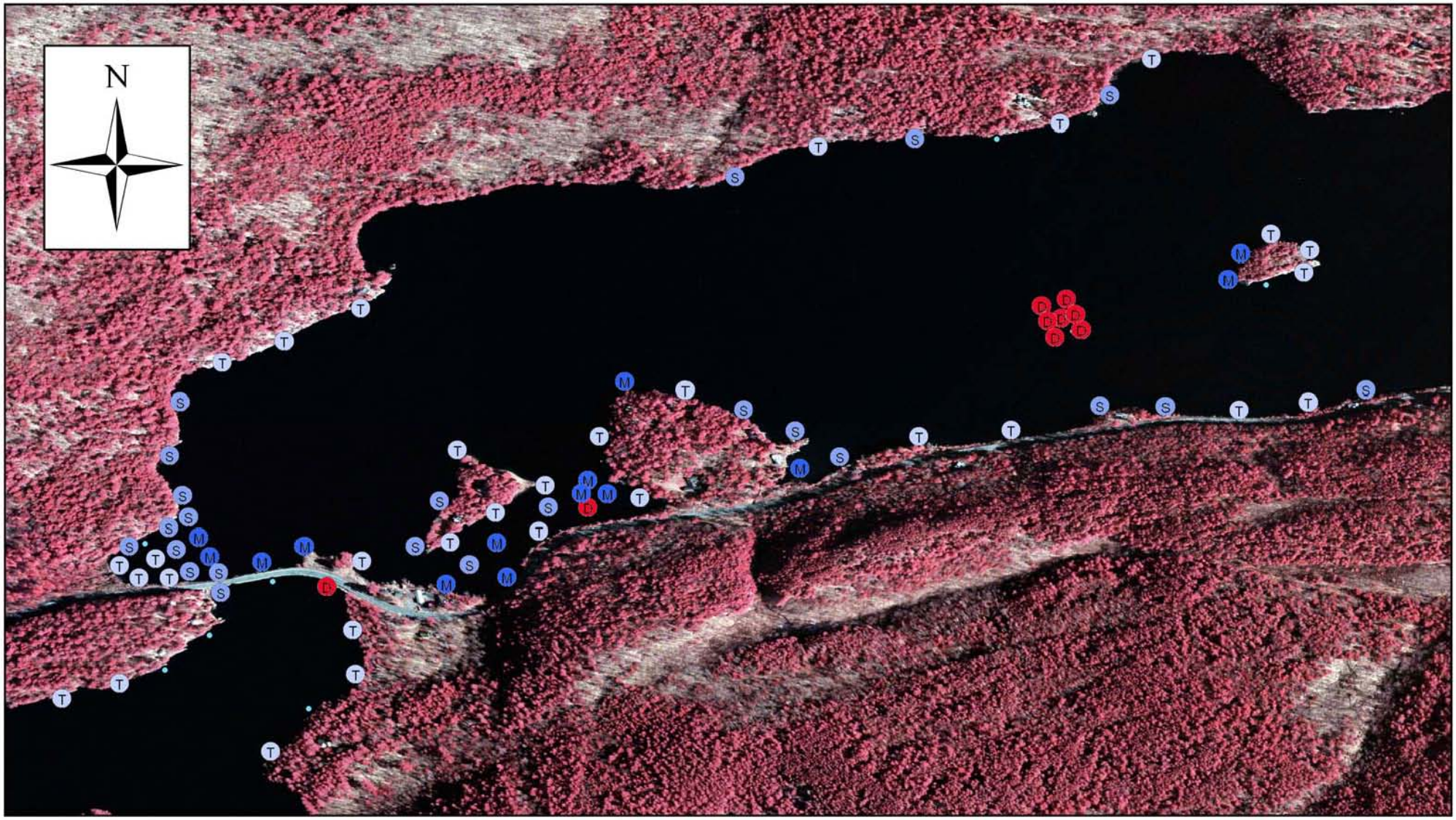
Legend

○ = Water Depth (in feet)

0 250 500 1,000 1,500 2,000 Feet

Allied Biological

Total Submersed Vegetation Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



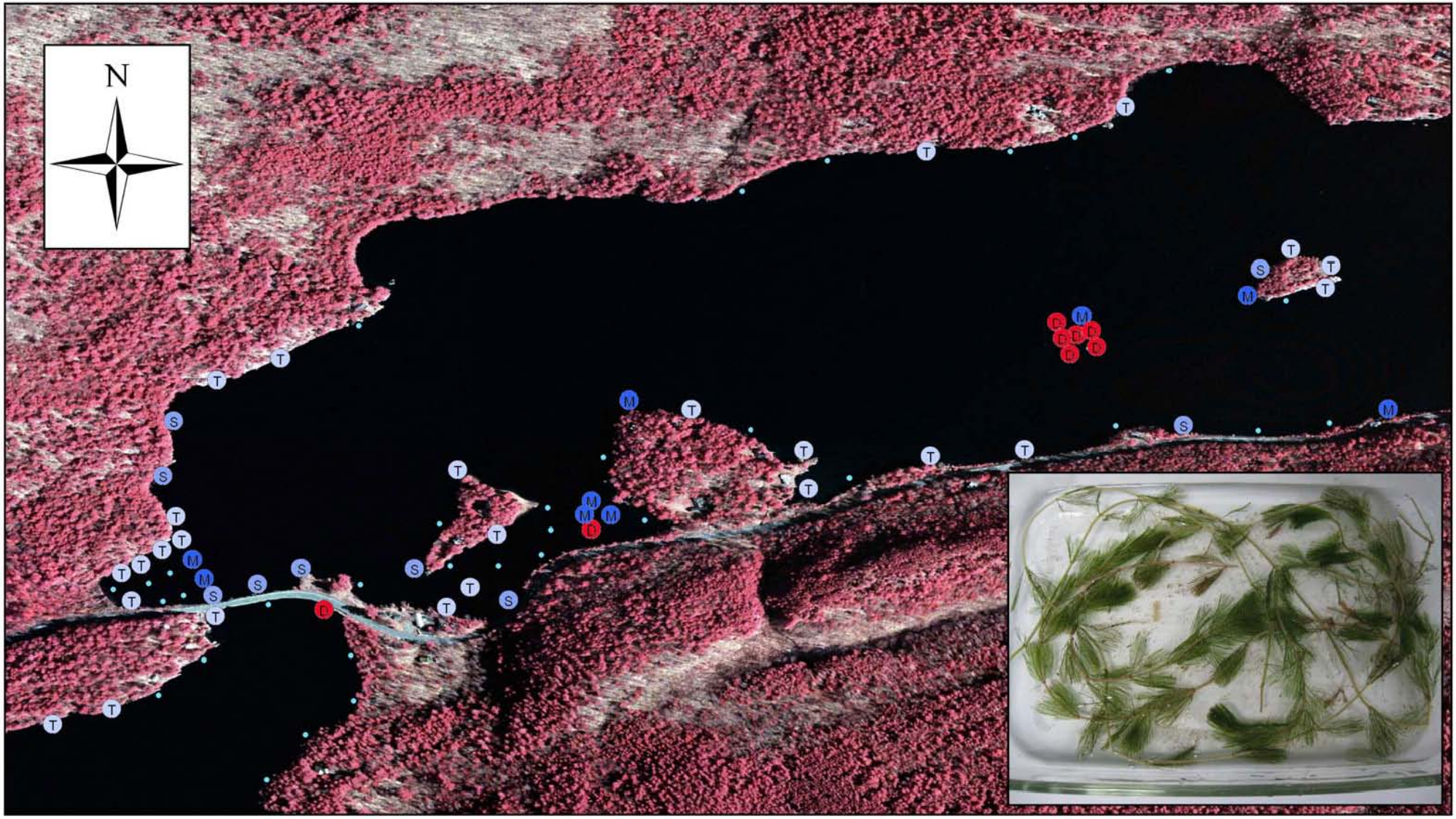
Legend

o = No Plants
T = Trace Plants
S = Sparse Plants
M = Medium Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Eurasian Water Milfoil (*Myriophyllum spicatum*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



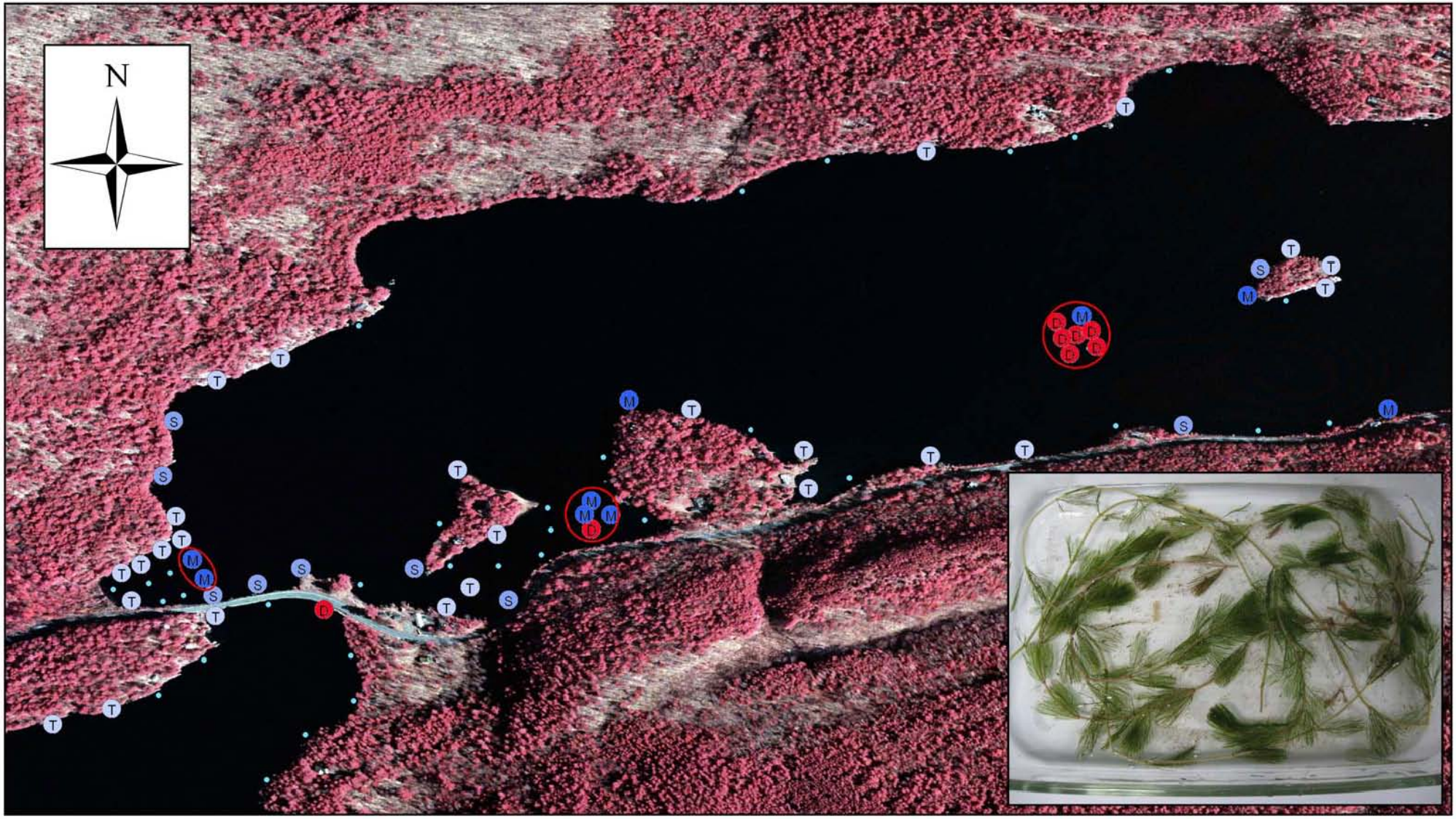
Legend

o = No Plants
T = Trace Plants
S = Sparse Plants
M = Medium Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Potential Eurasian Water Milfoil Herbicide Containment Sites
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

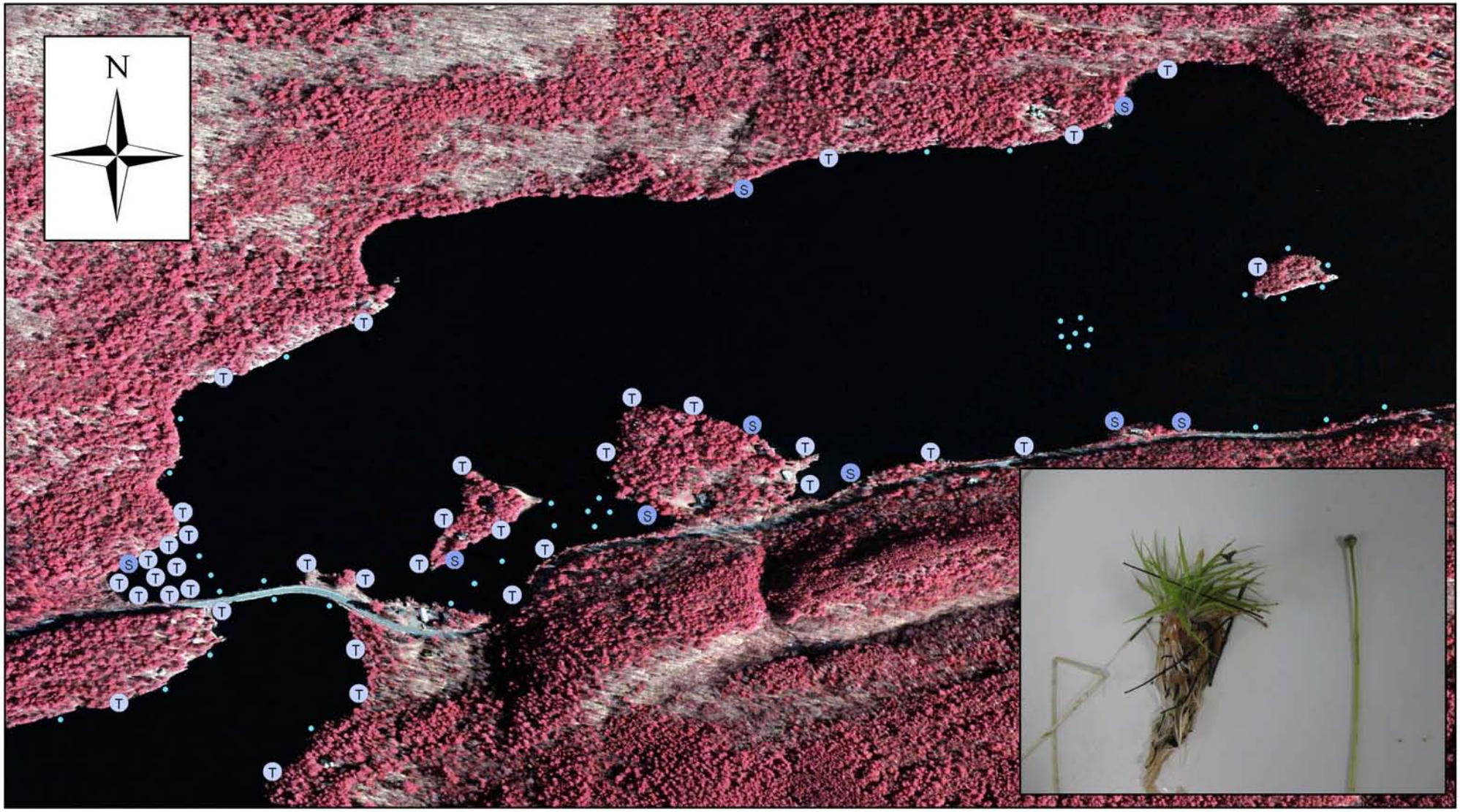
= Potential Containment Site

o = No Plants
T = Trace Plants
S = Sparse Plants
M = Medium Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000 Feet

Allied Biological

Pipewort (*Eriocaulon aquaticum*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



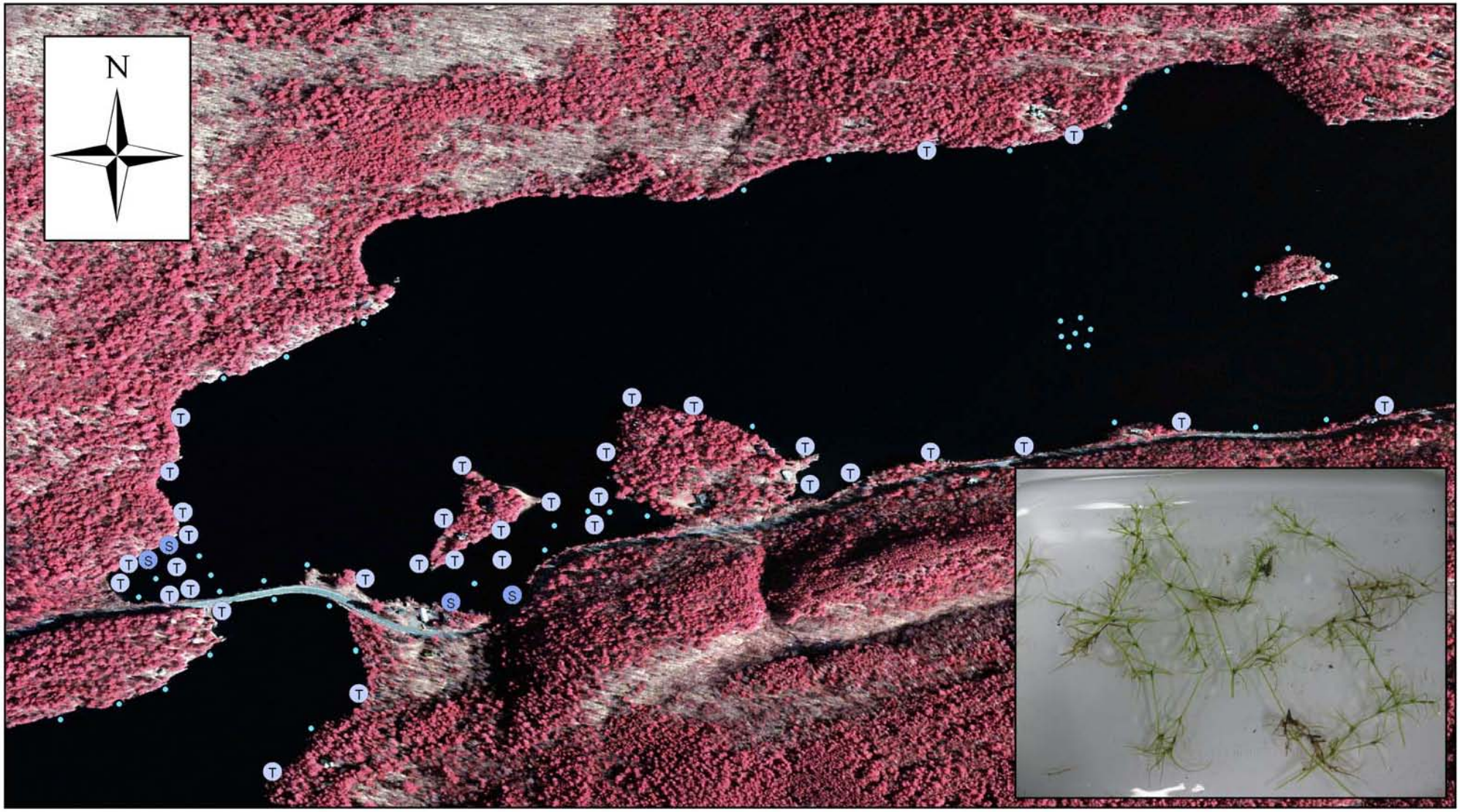
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Slender Naiad (*Najas flexilis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



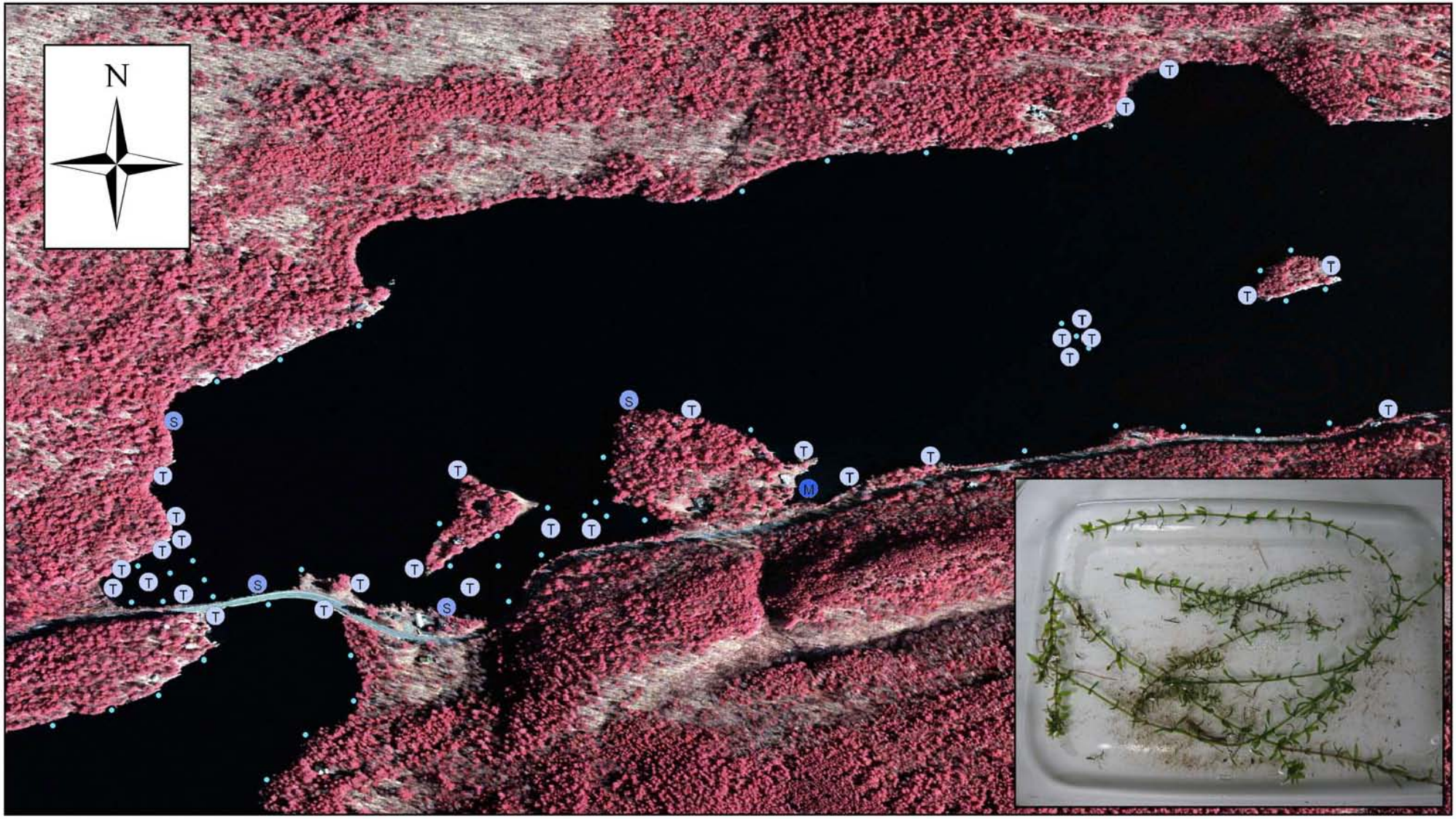
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Common Waterweed (*Elodea canadensis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Water Stargrass (*Zosterella dubia*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008

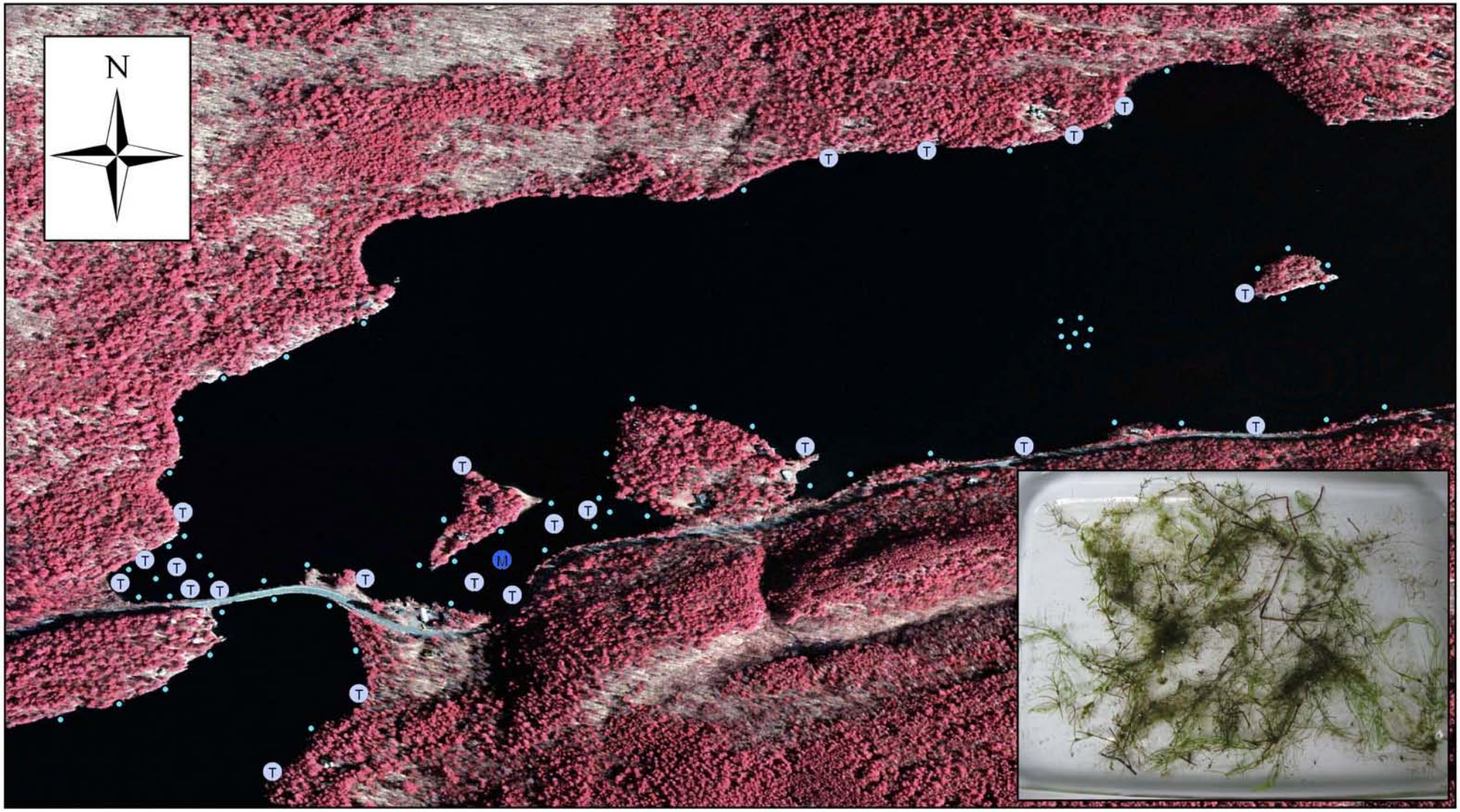
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Muskgrass (*Chara* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



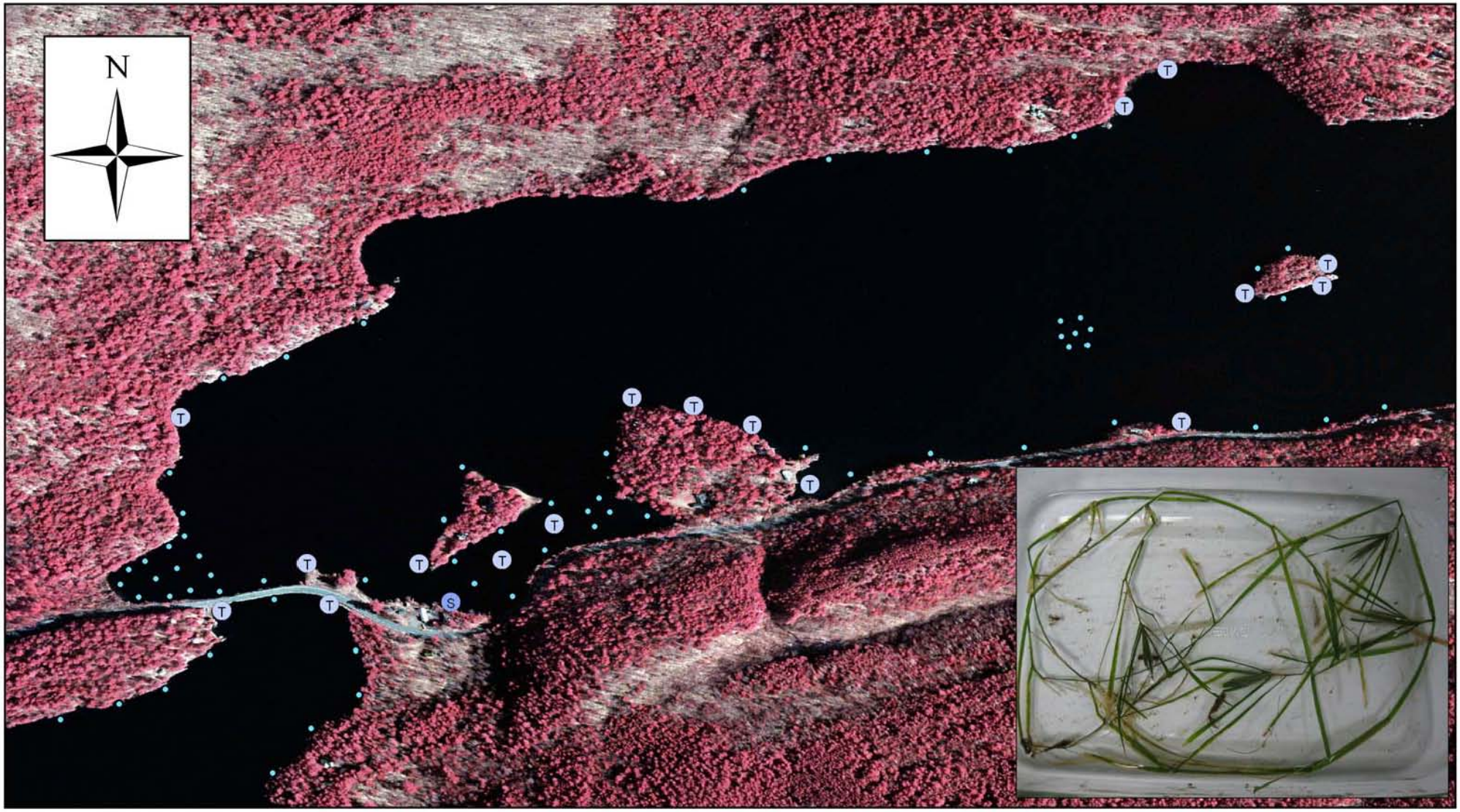
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Flat-stem Pondweed (*Potamogeton zosteriformis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



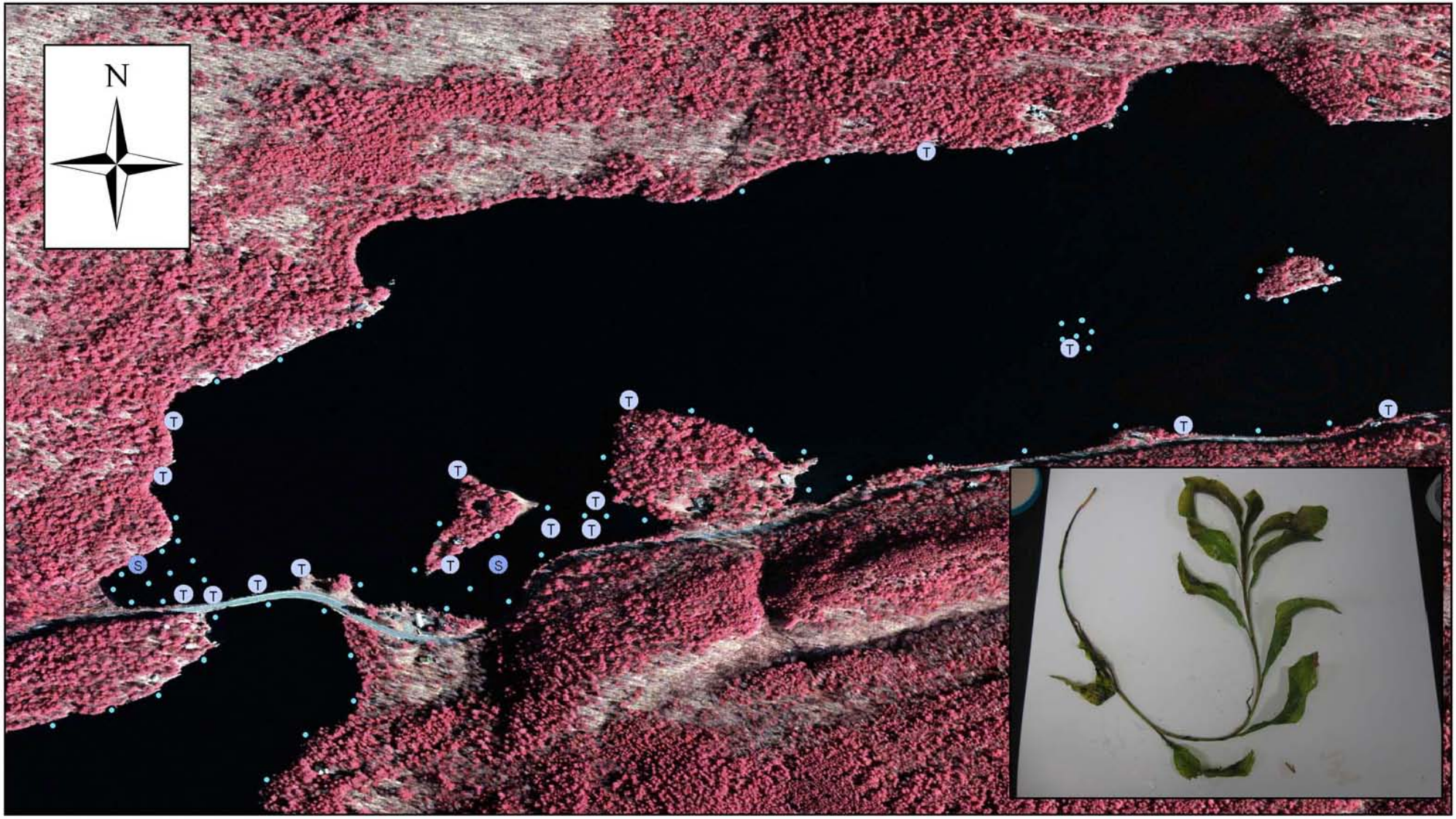
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Bass Weed (*Potamogeton amplifolius*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



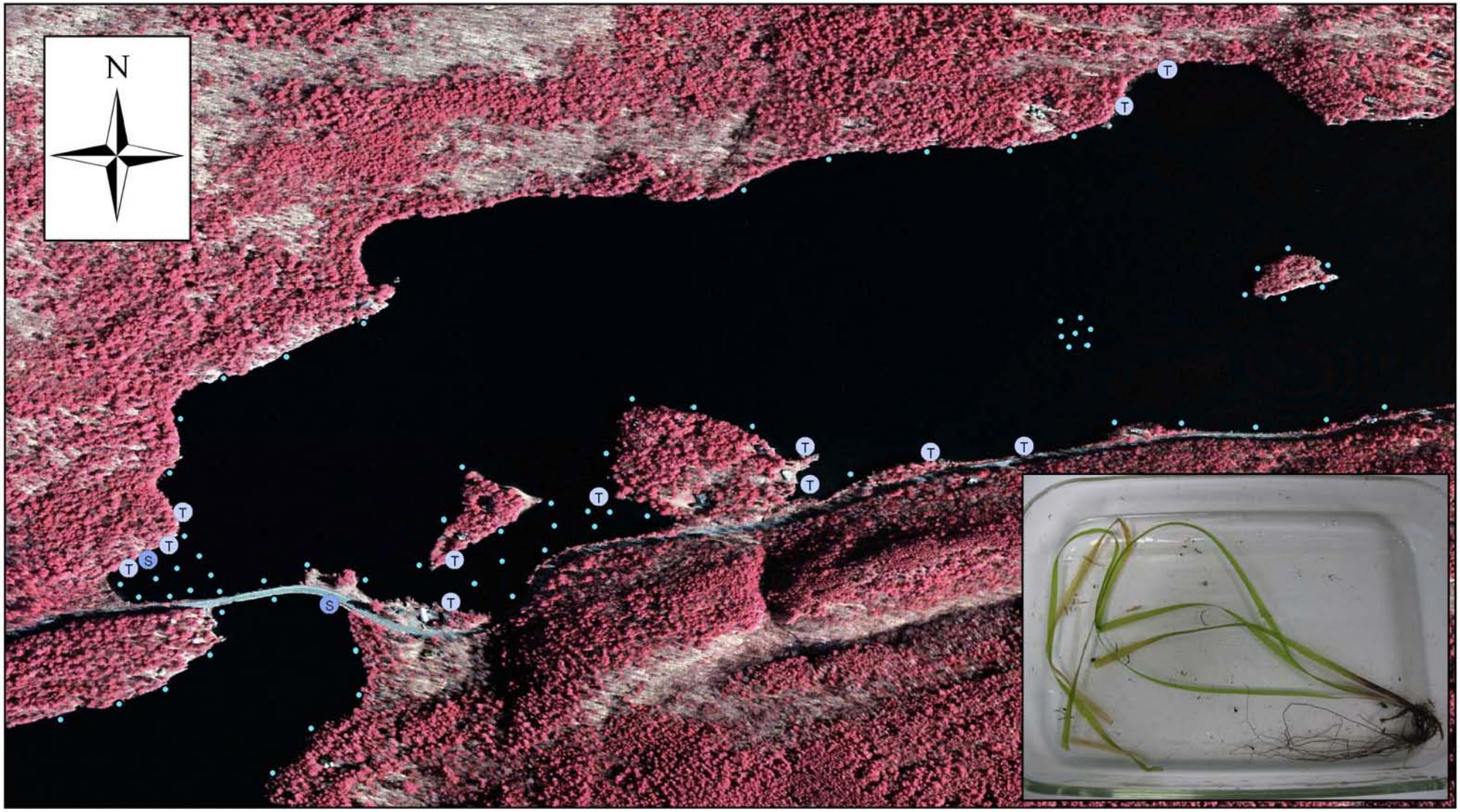
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Tapegrass (*Vallisneria americana*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 255 510 1,020 1,530 2,040
Feet

Allied Biological

Robbins Pondweed (*Potamogeton robbinsii*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008

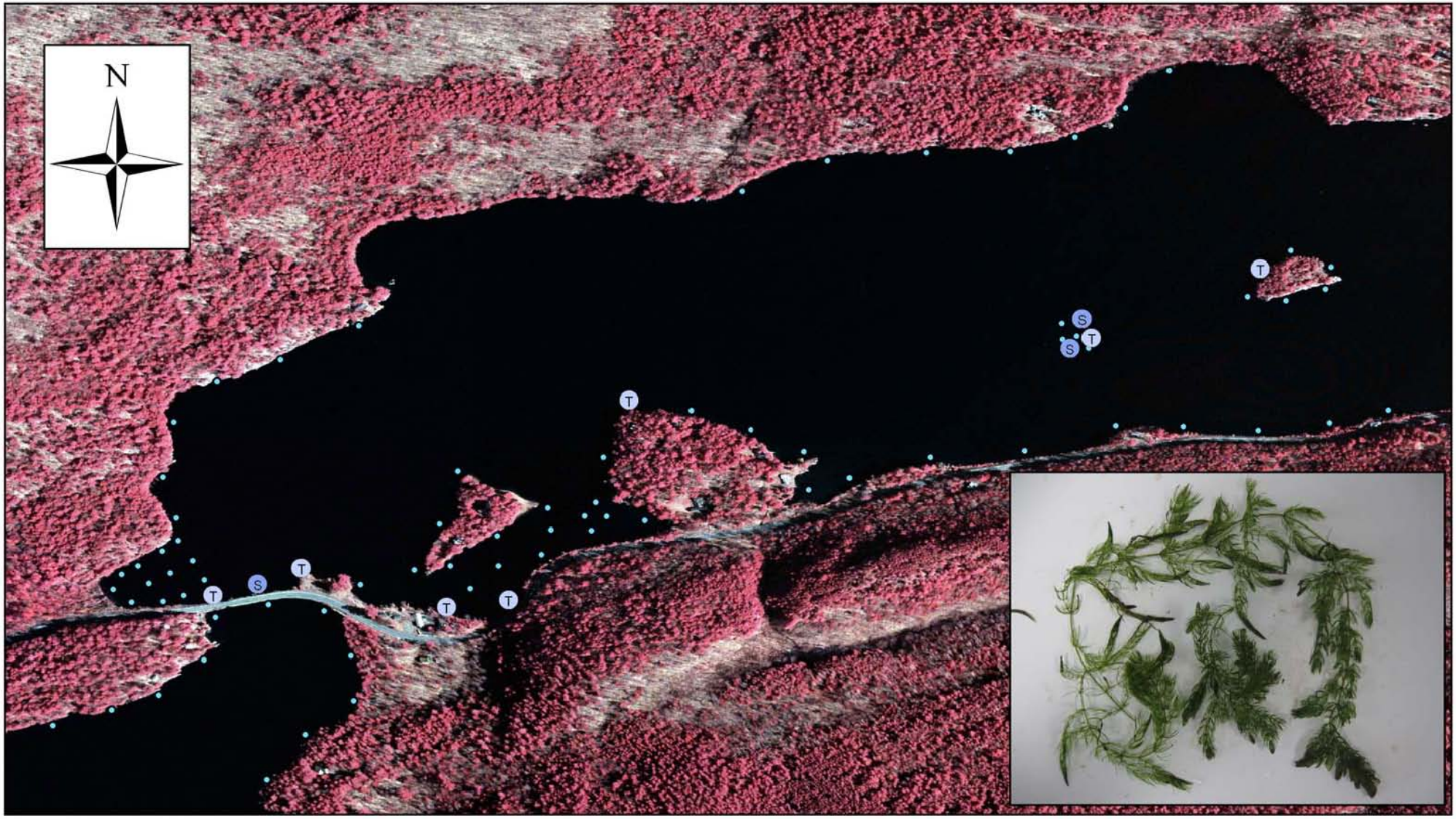
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Coontail (*Ceratophyllum demersum*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



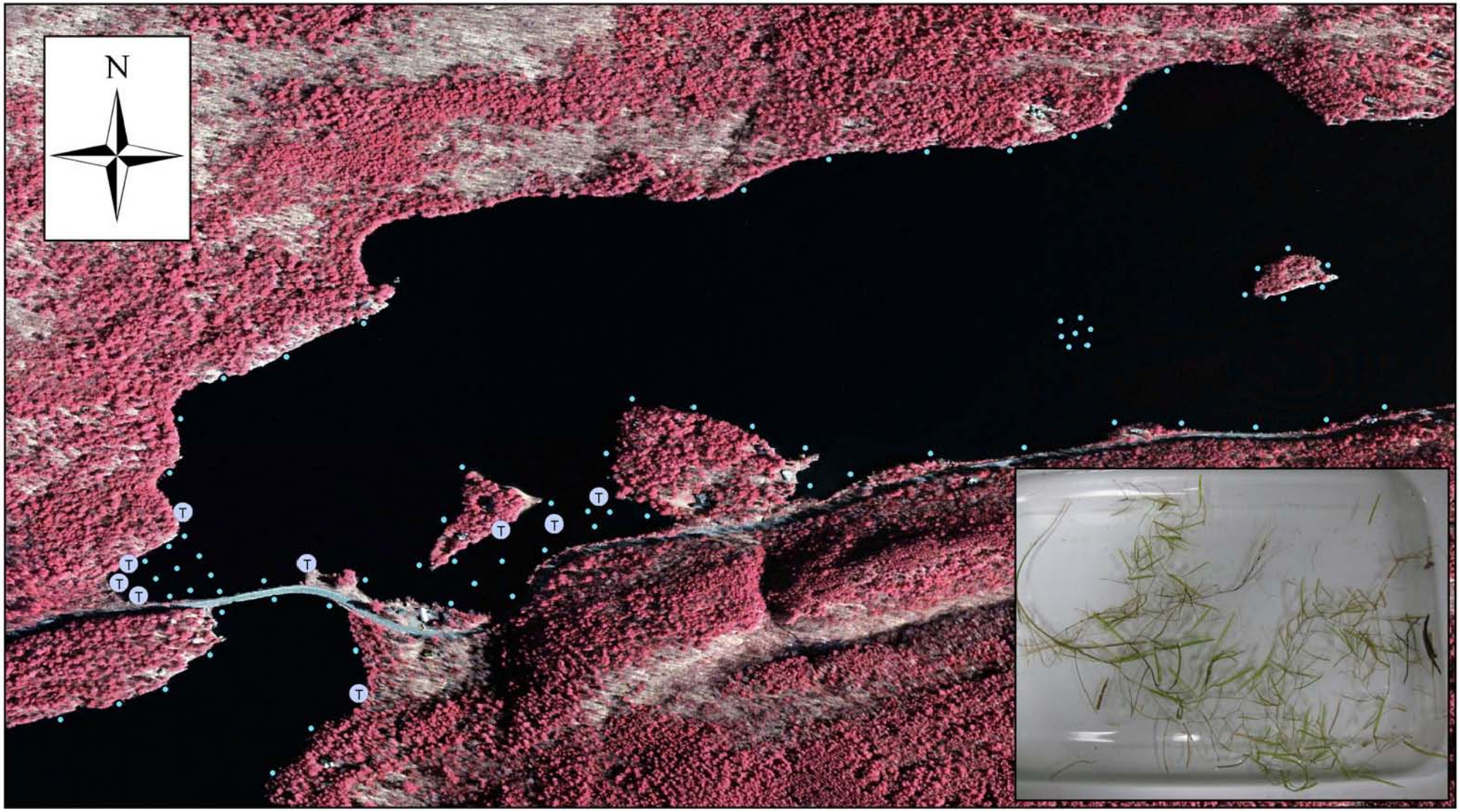
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Leafy Pondweed (*Potamogeton foliosus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



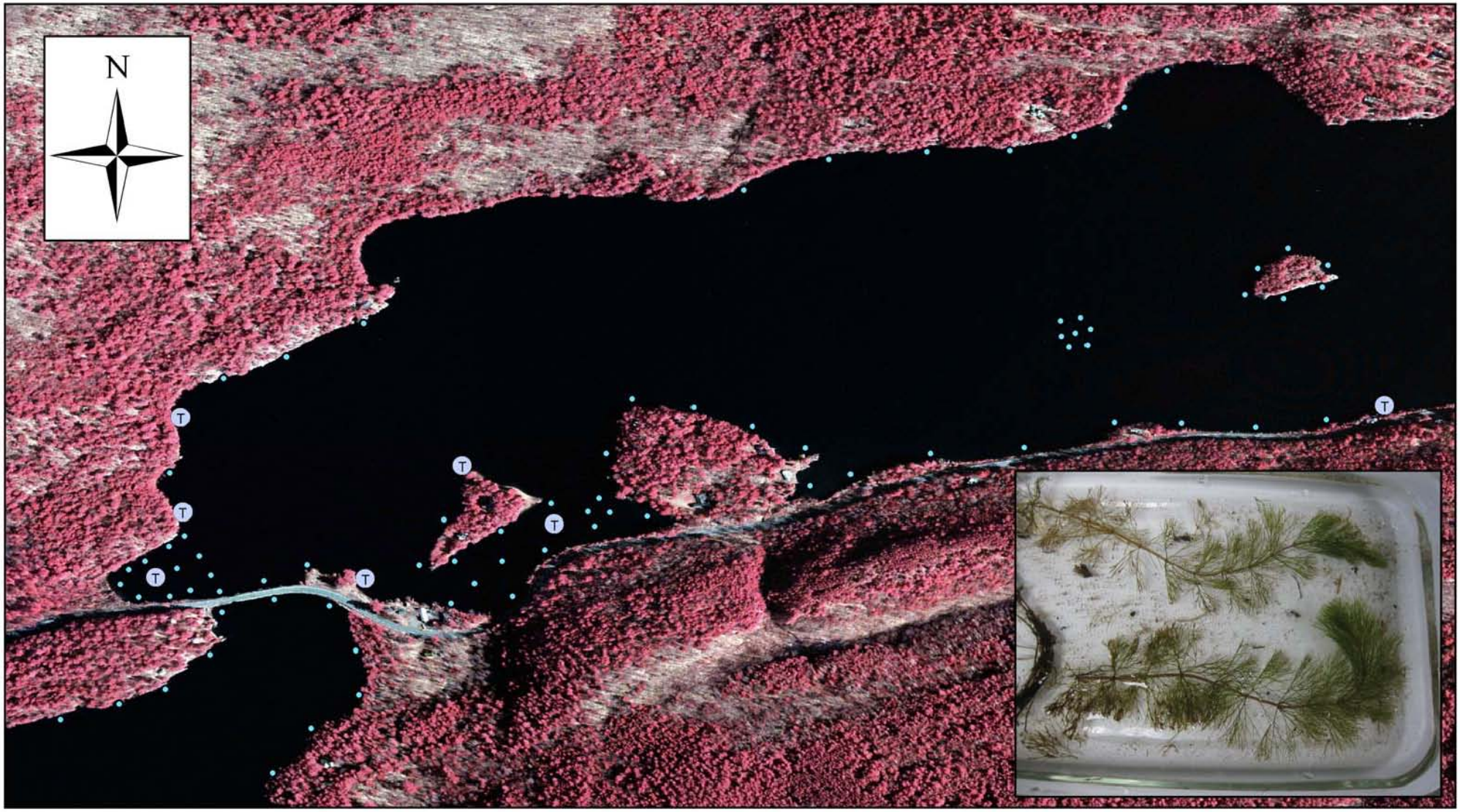
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Water Marigold (*Bidens beckii*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Sagittaria rosette (*Sagittaria* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008

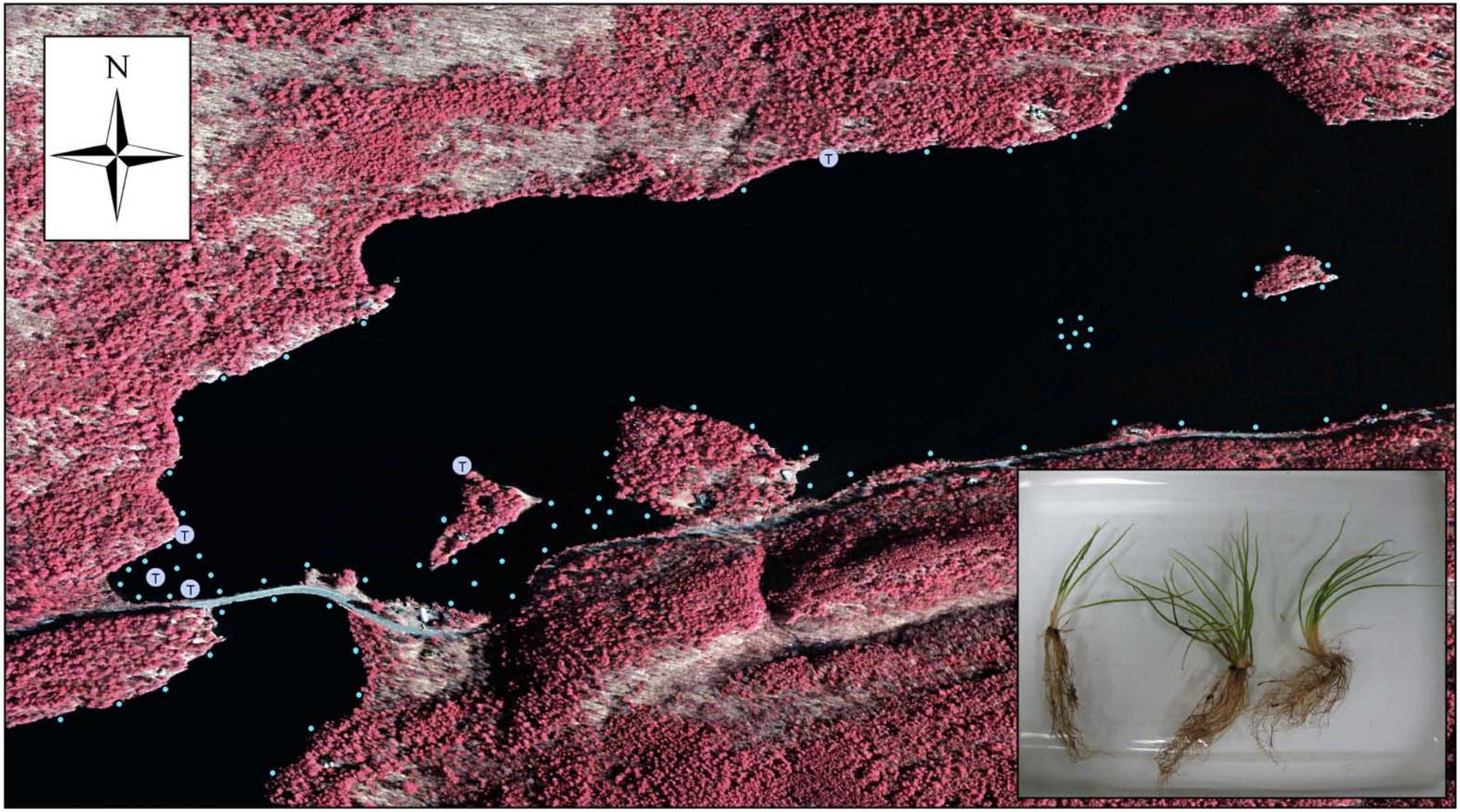
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Lake Quillwort (*Isoetes lacustris*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



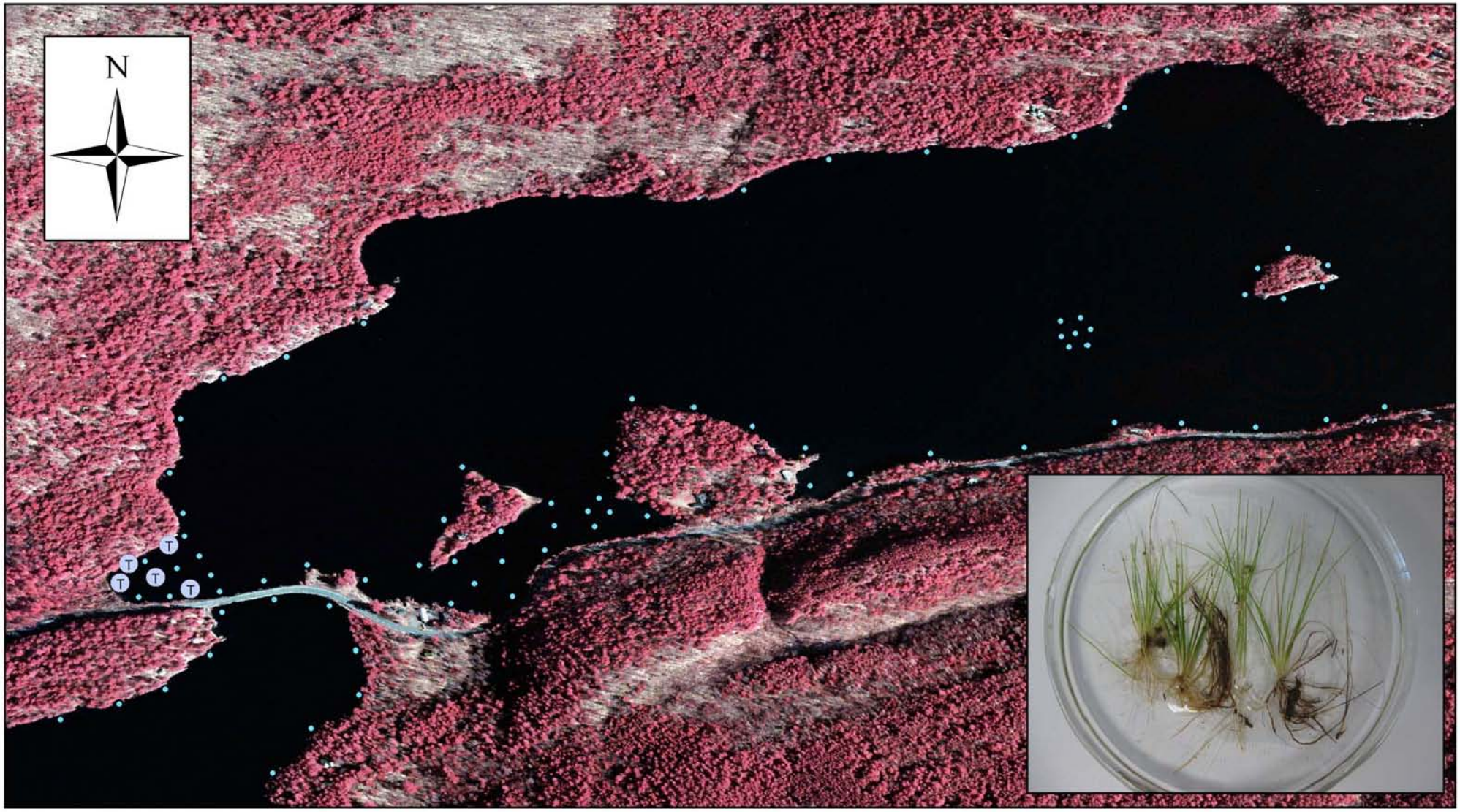
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Needle Spikerush (*Eleocharis acicularis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



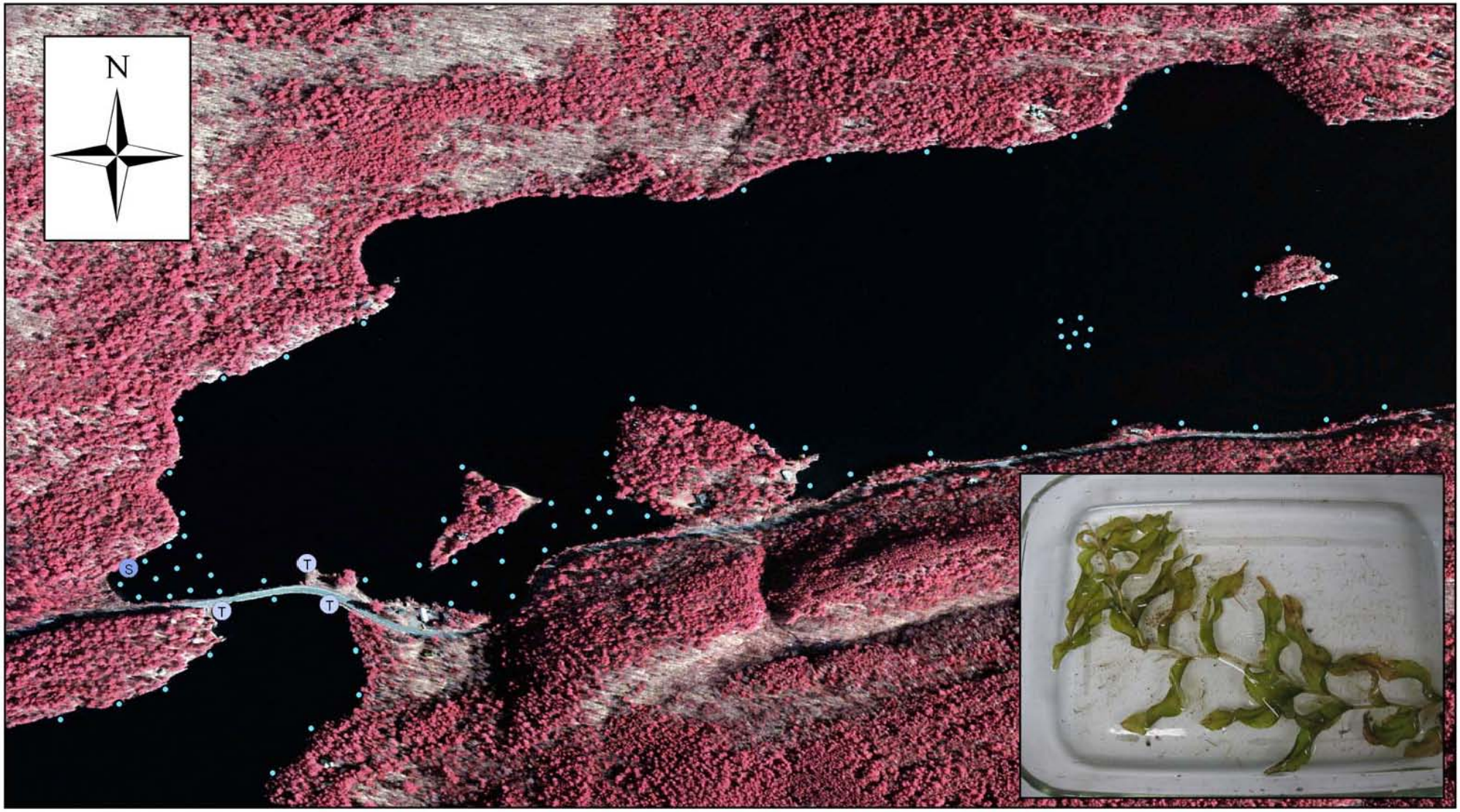
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

White-stem Pondweed (*Potamogeton praelongus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



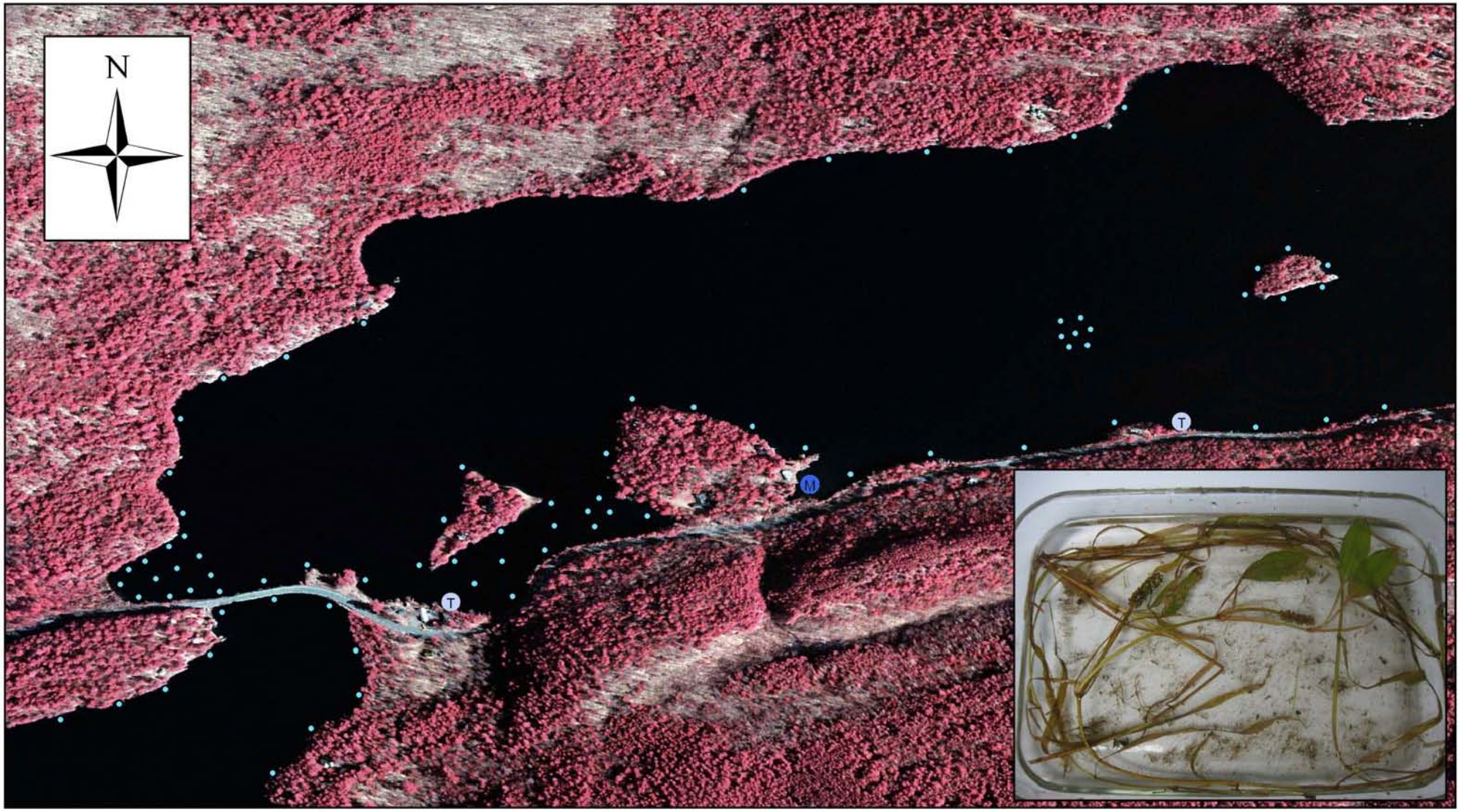
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Ribbon-leaf Pondweed (*Potamogeton epihydrus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



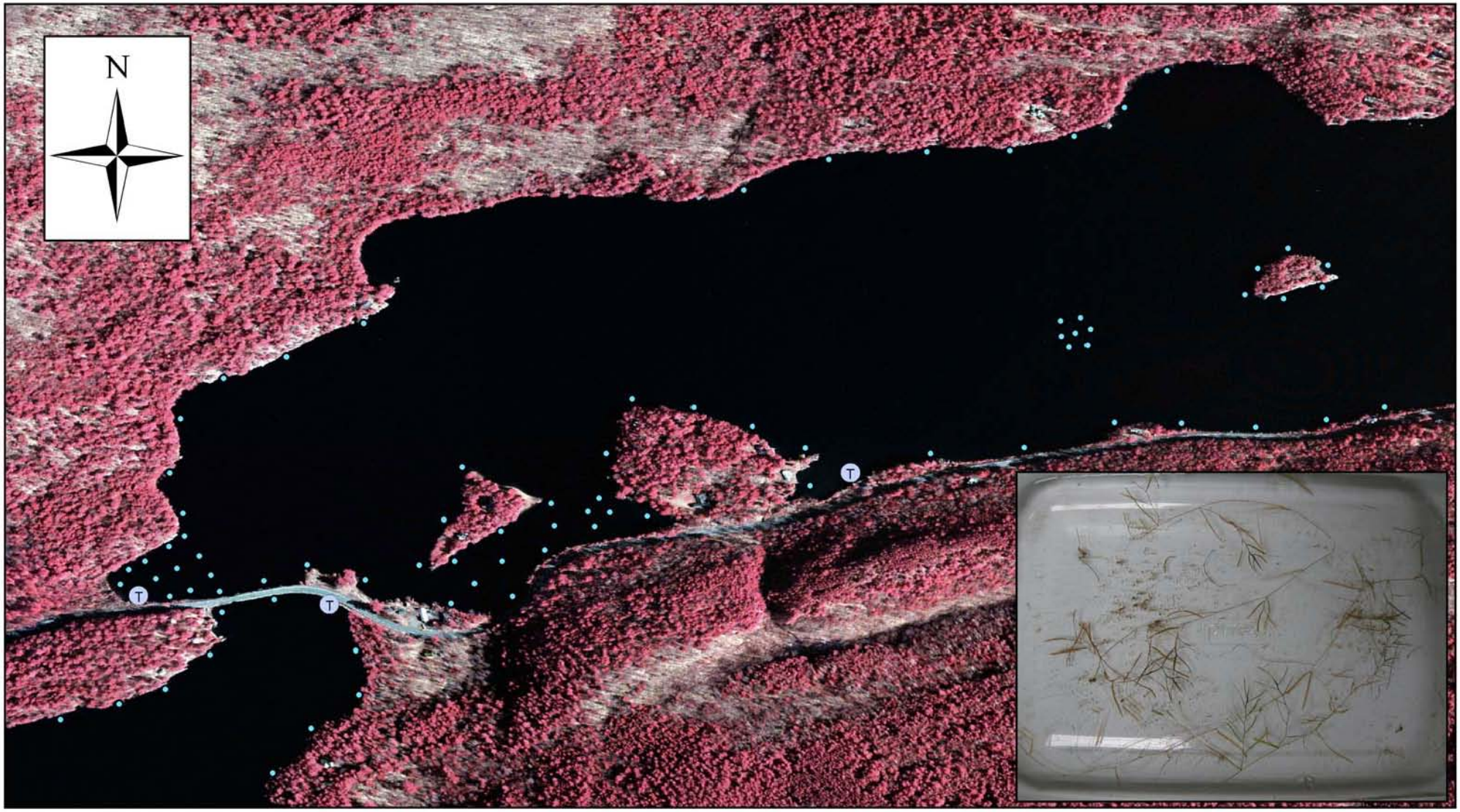
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Small Pondweed (*Potamogeton pusillus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



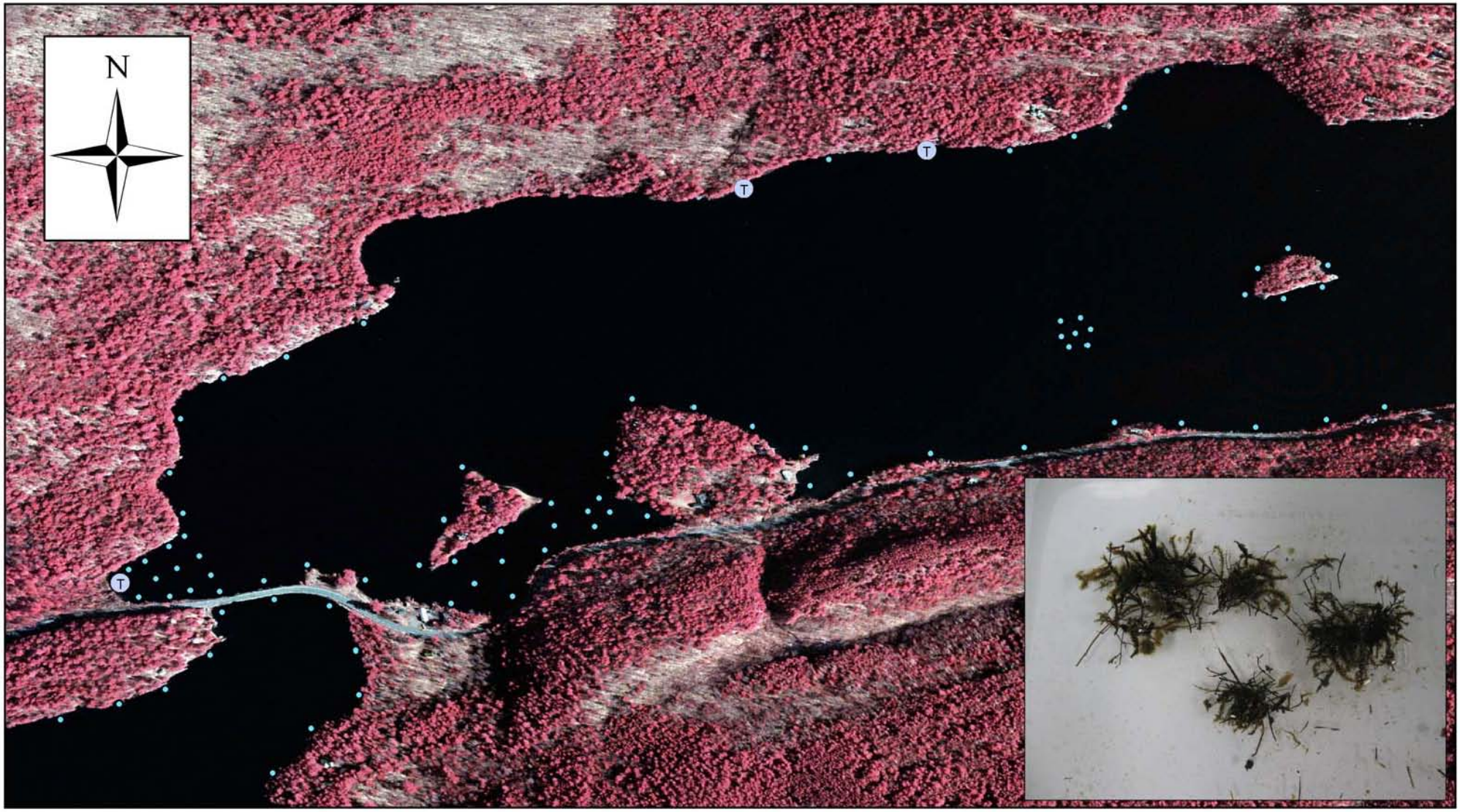
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Watermoss (*Fontinalis* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



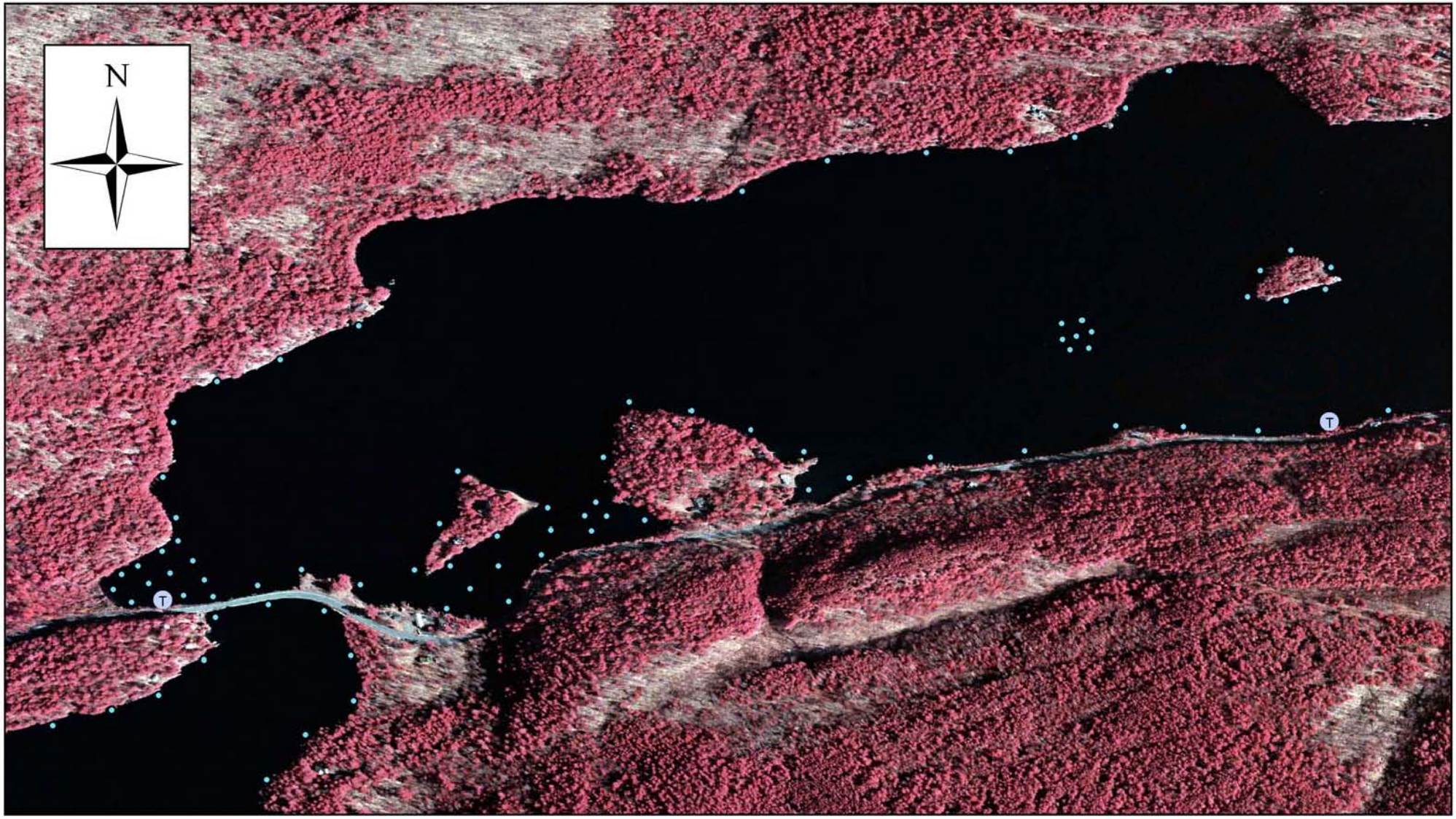
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Benthic Filamentous Algae Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



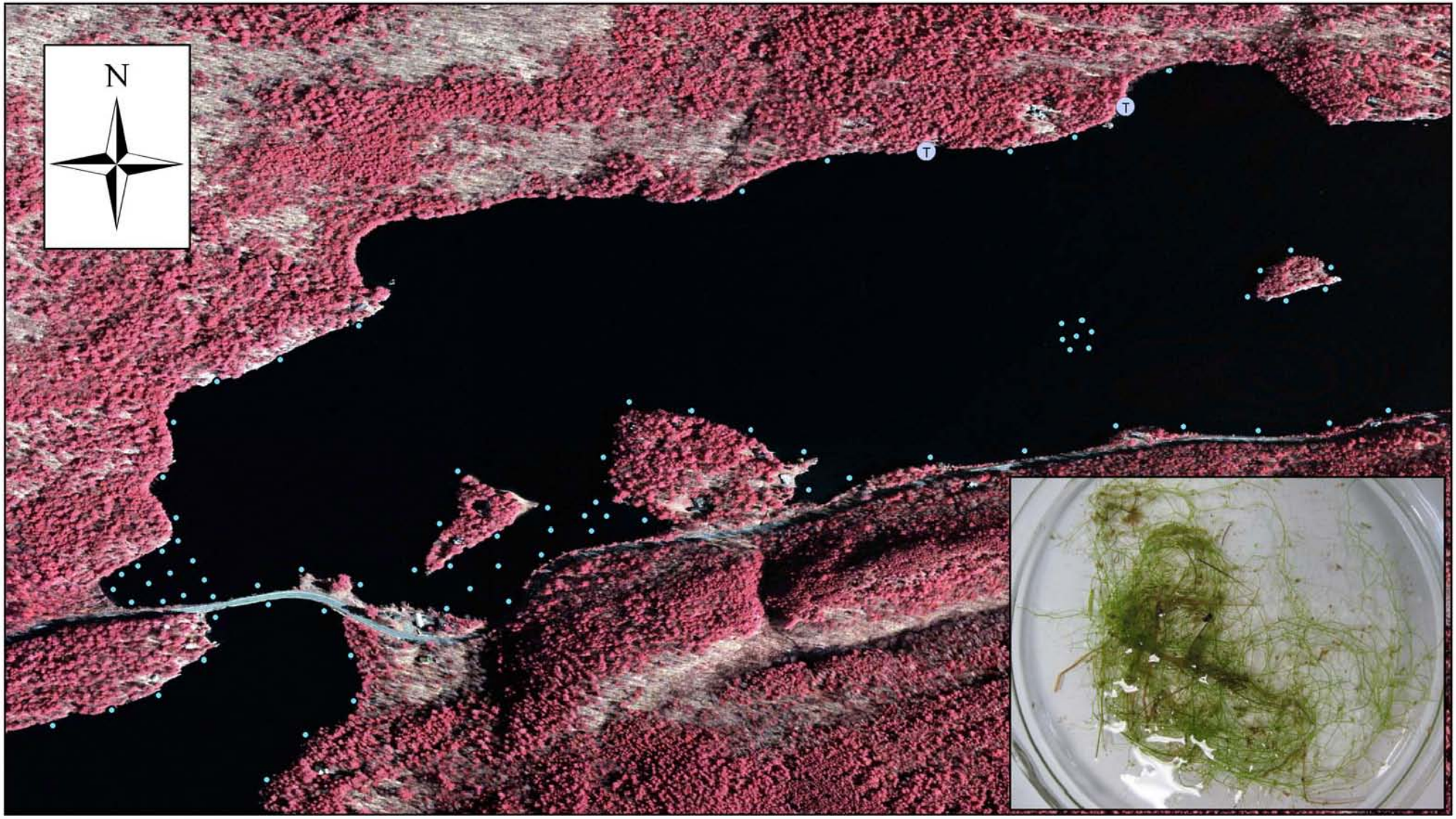
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Creeping Bladderwort (*Utricularia gibba*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Variable Pondweed (*Potamogeton gramineus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008

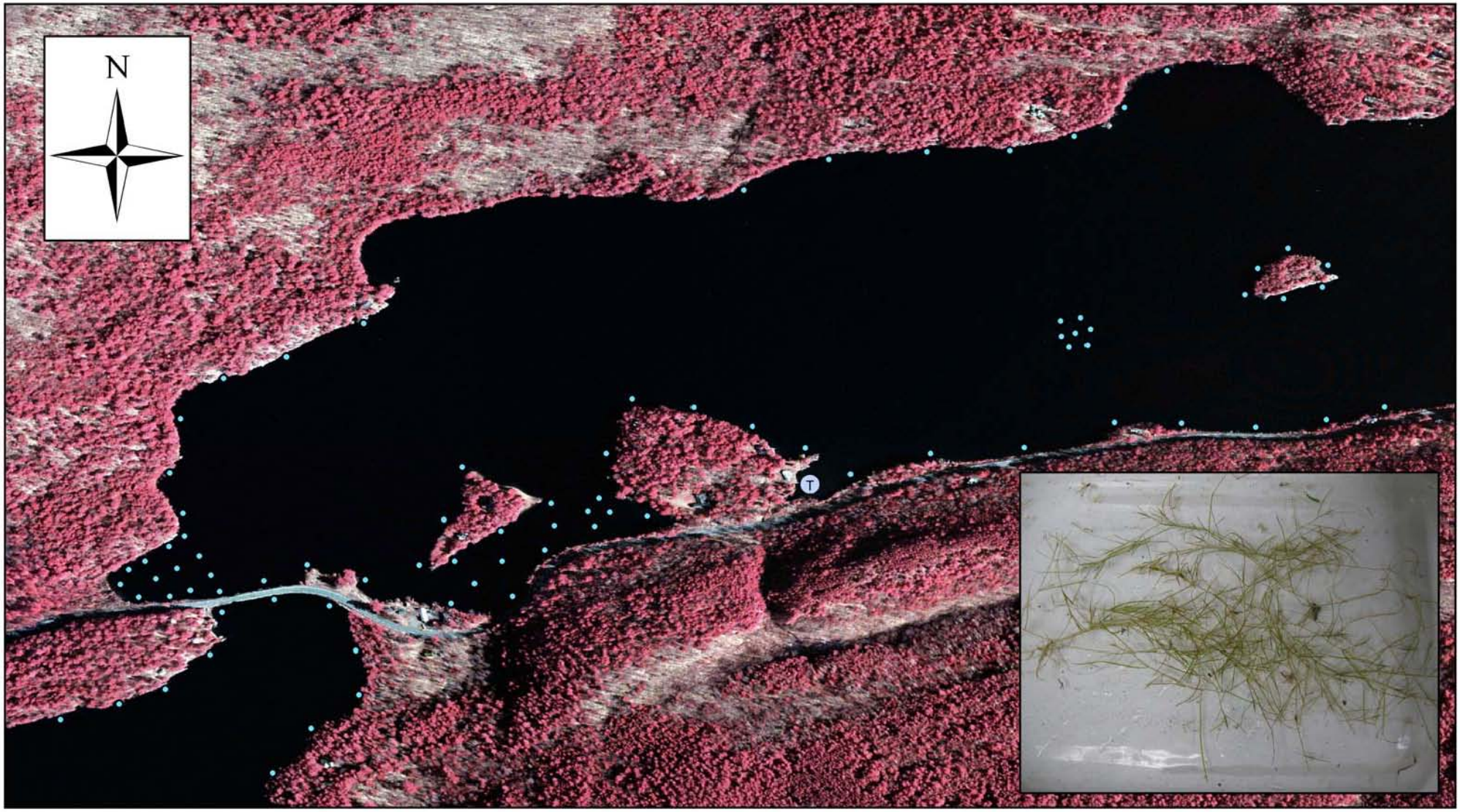
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Vasey's Pondweed (*Potamogeton vaseyi*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



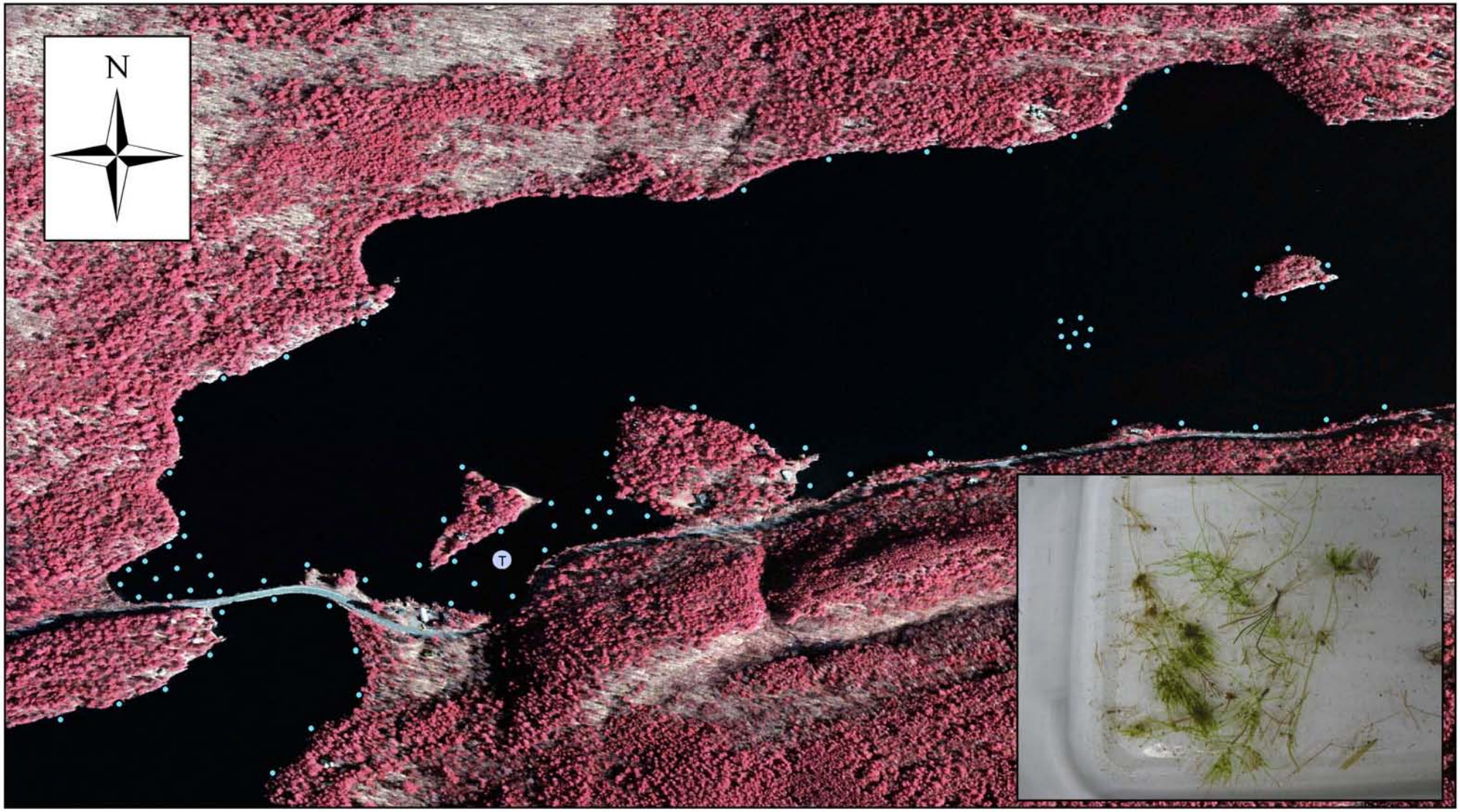
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Stonewort (*Nitella* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



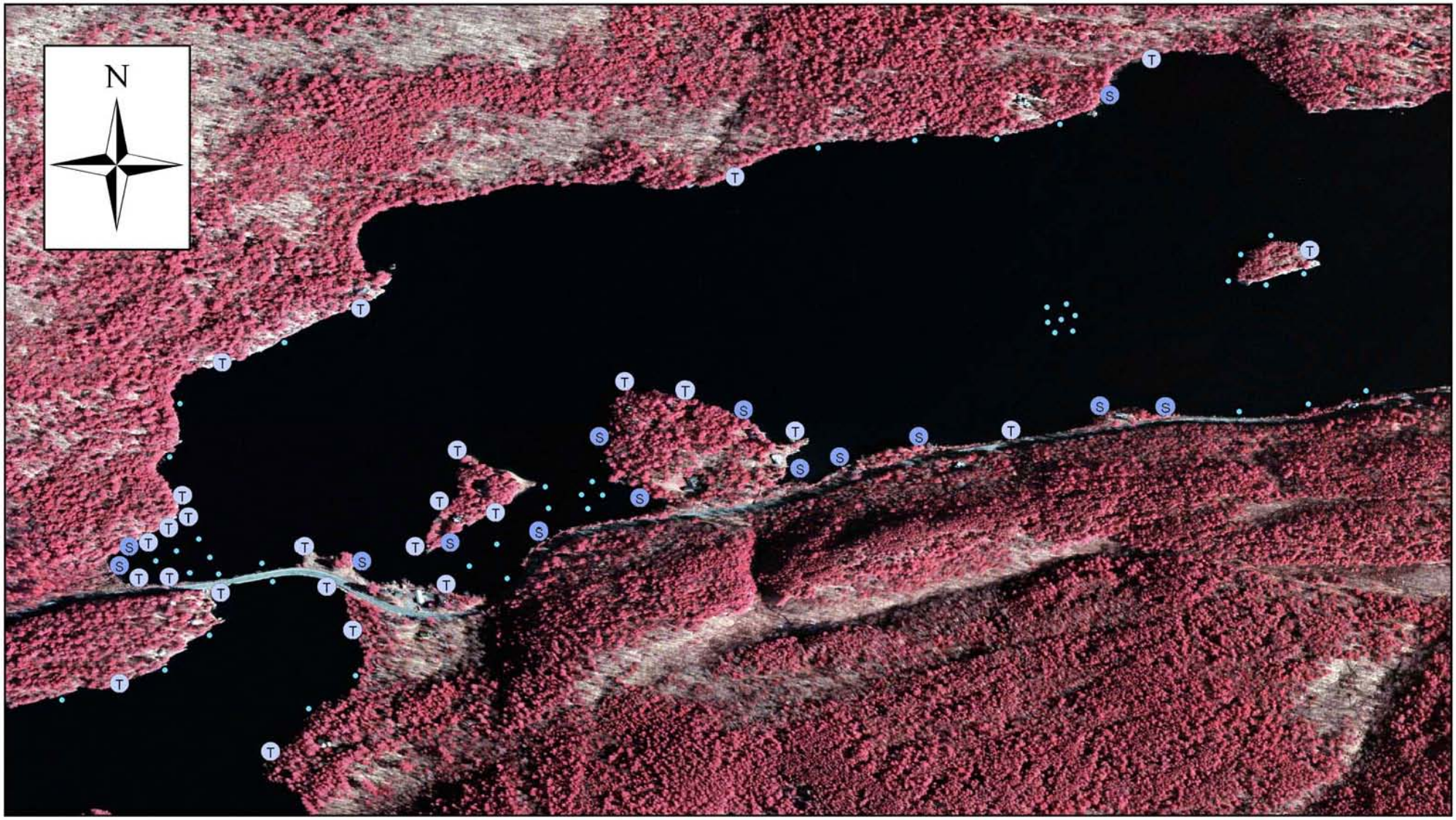
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Total Floating Vegetation Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



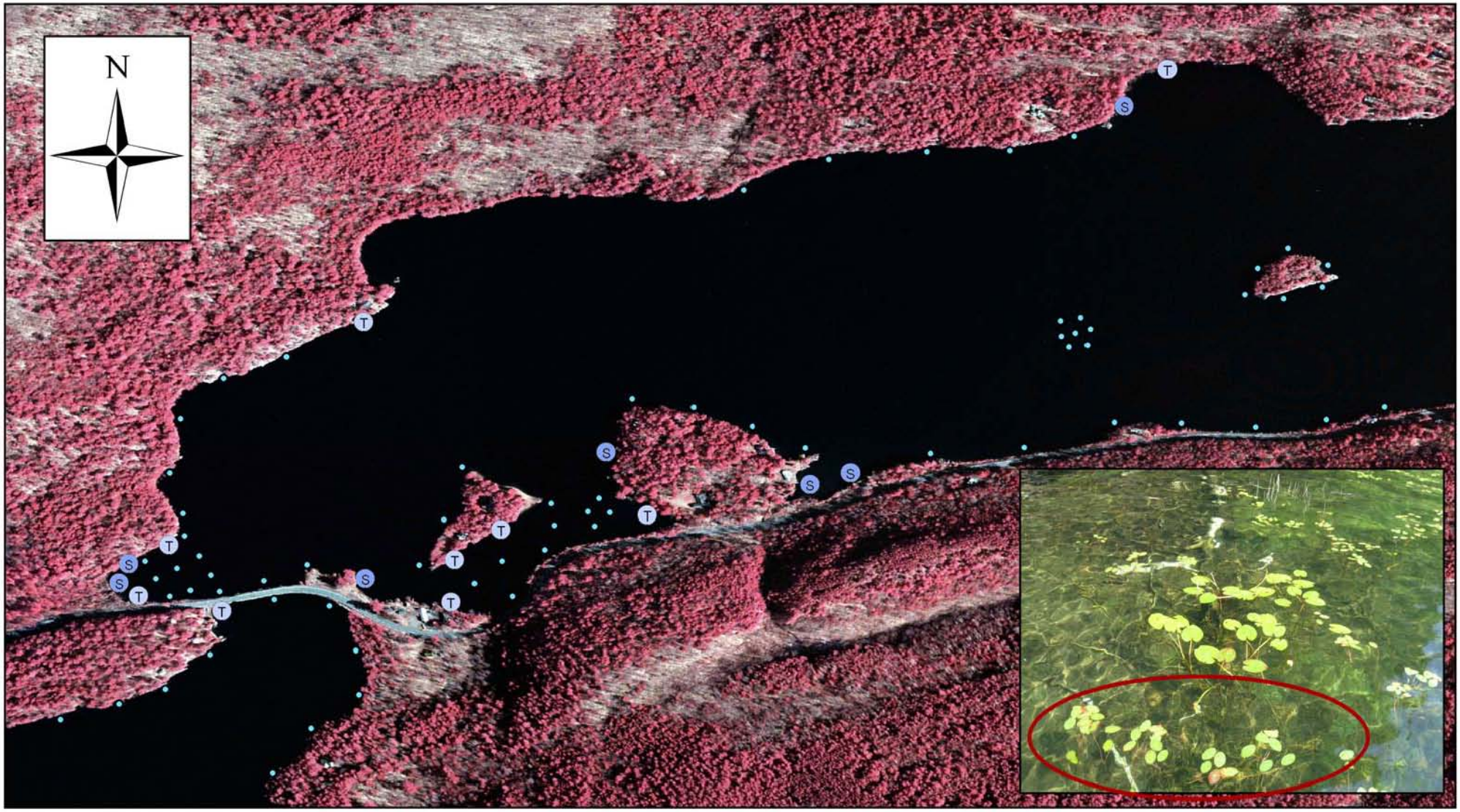
Legend

o = No Plants
T = Trace Plants
S = Sparse Plants
M = Medium Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Watershield (*Brasenia schreberi*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



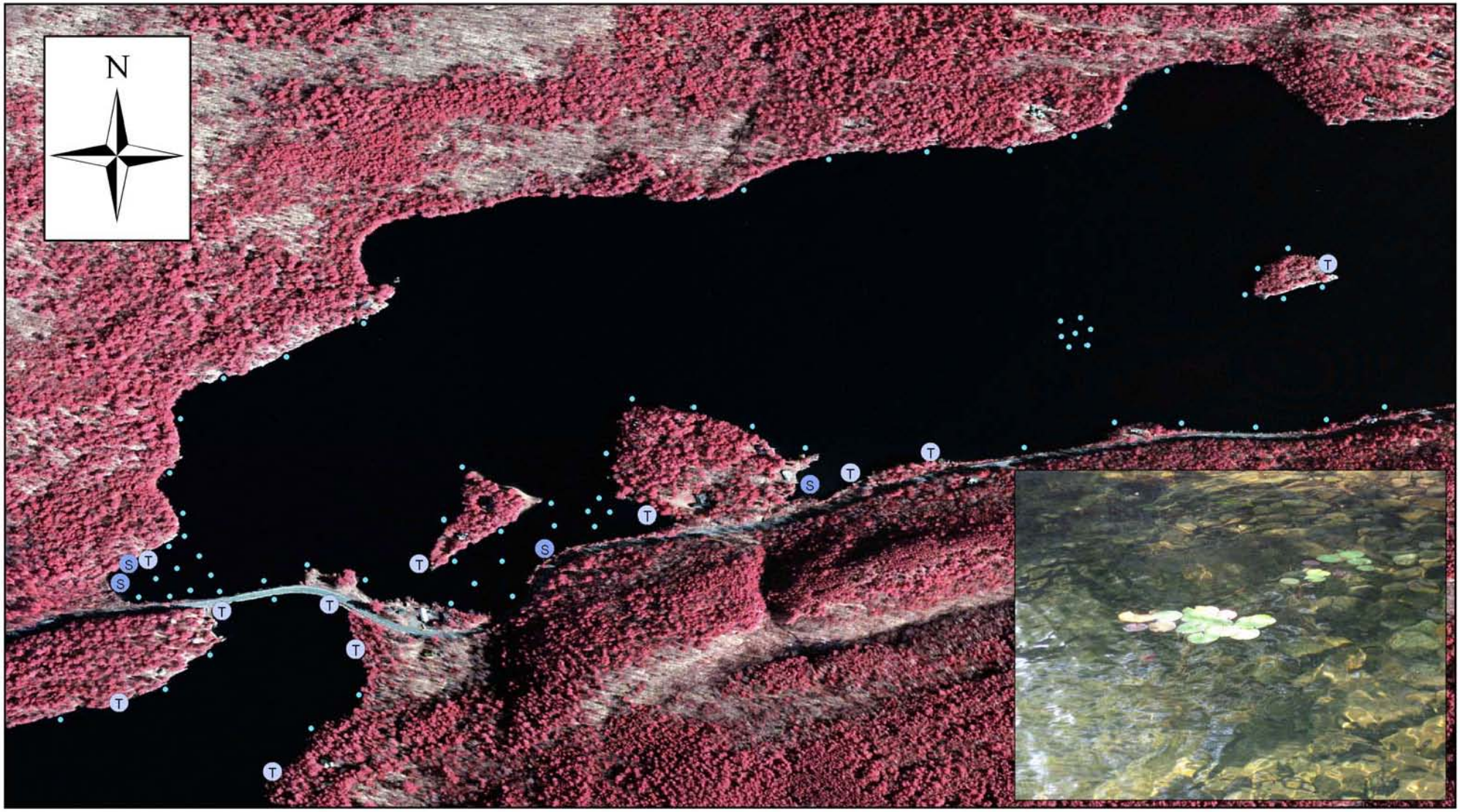
Legend

o = No Plants
T = Trace Plants
S = Sparse Plants
M = Medium Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

White Water Lily (*Nymphaea odorata*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



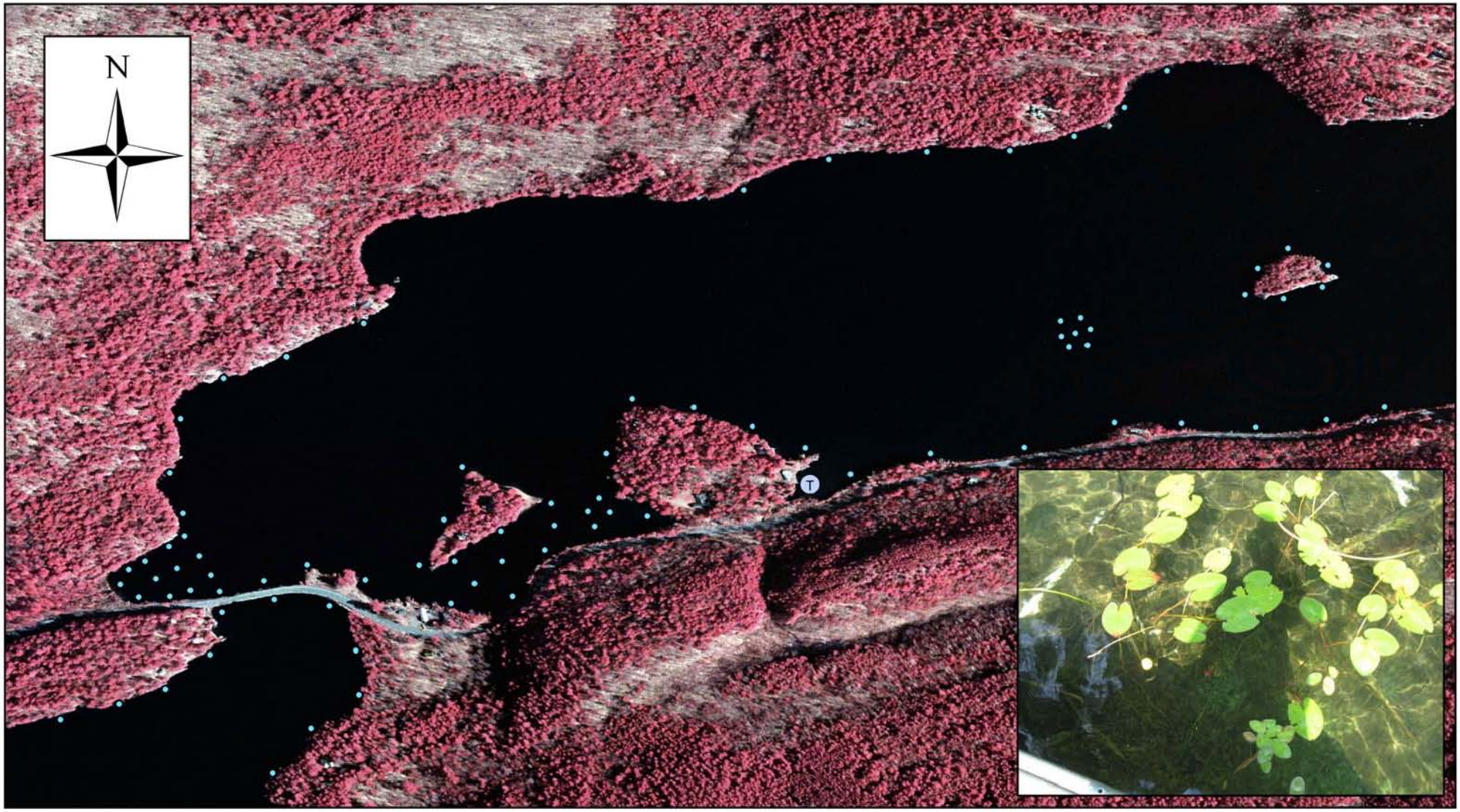
Legend

o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Spatterdock (*Nuphar variegata*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

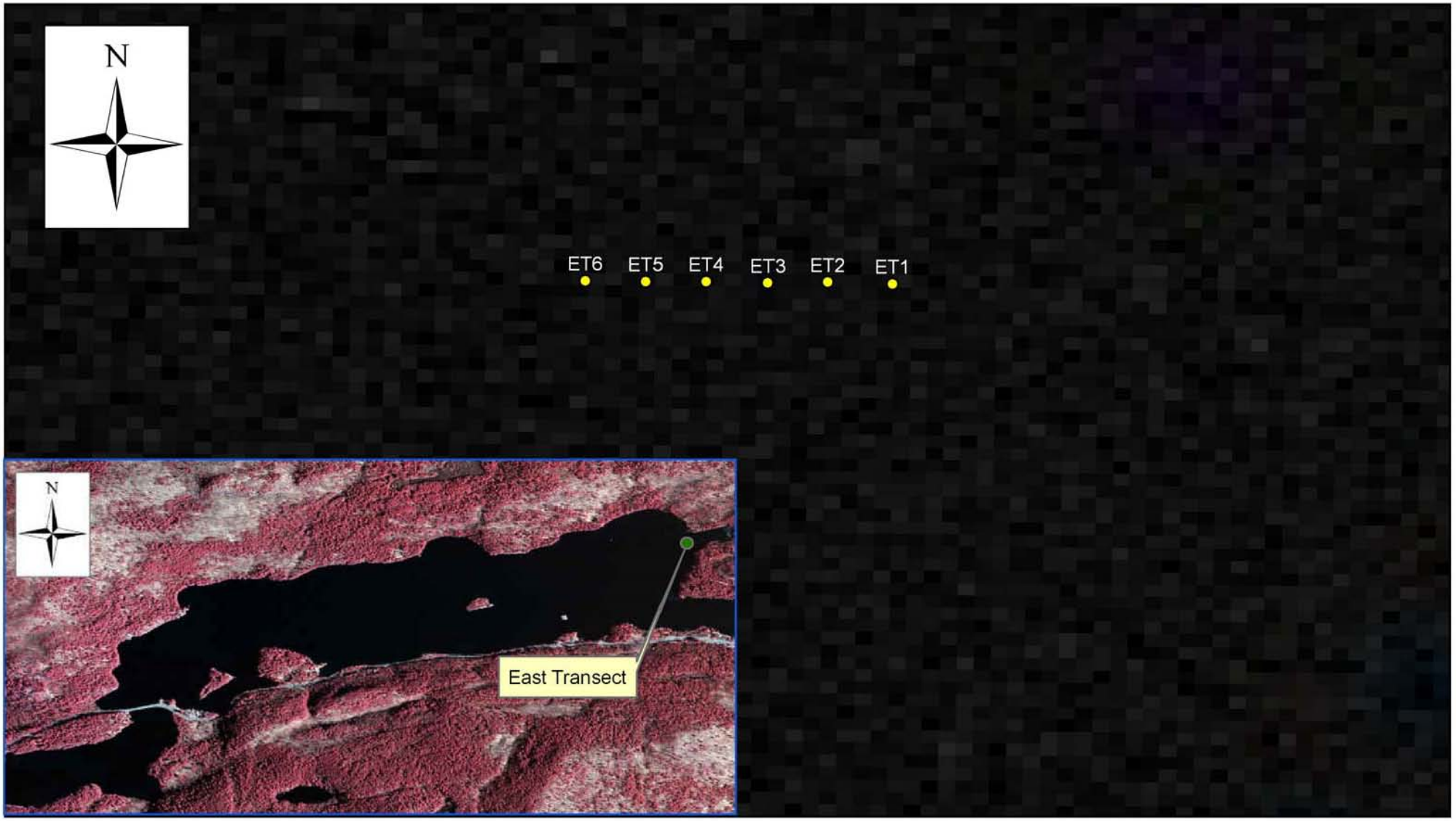
o = No Plants
T = Trace Plants
M = Medium Plants
S = Sparse Plants
D = Dense Plants

0 250 500 1,000 1,500 2,000
Feet

Allied Biological

Appendix C:
2008 East Transect Maps

East Transect Sample Locations
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



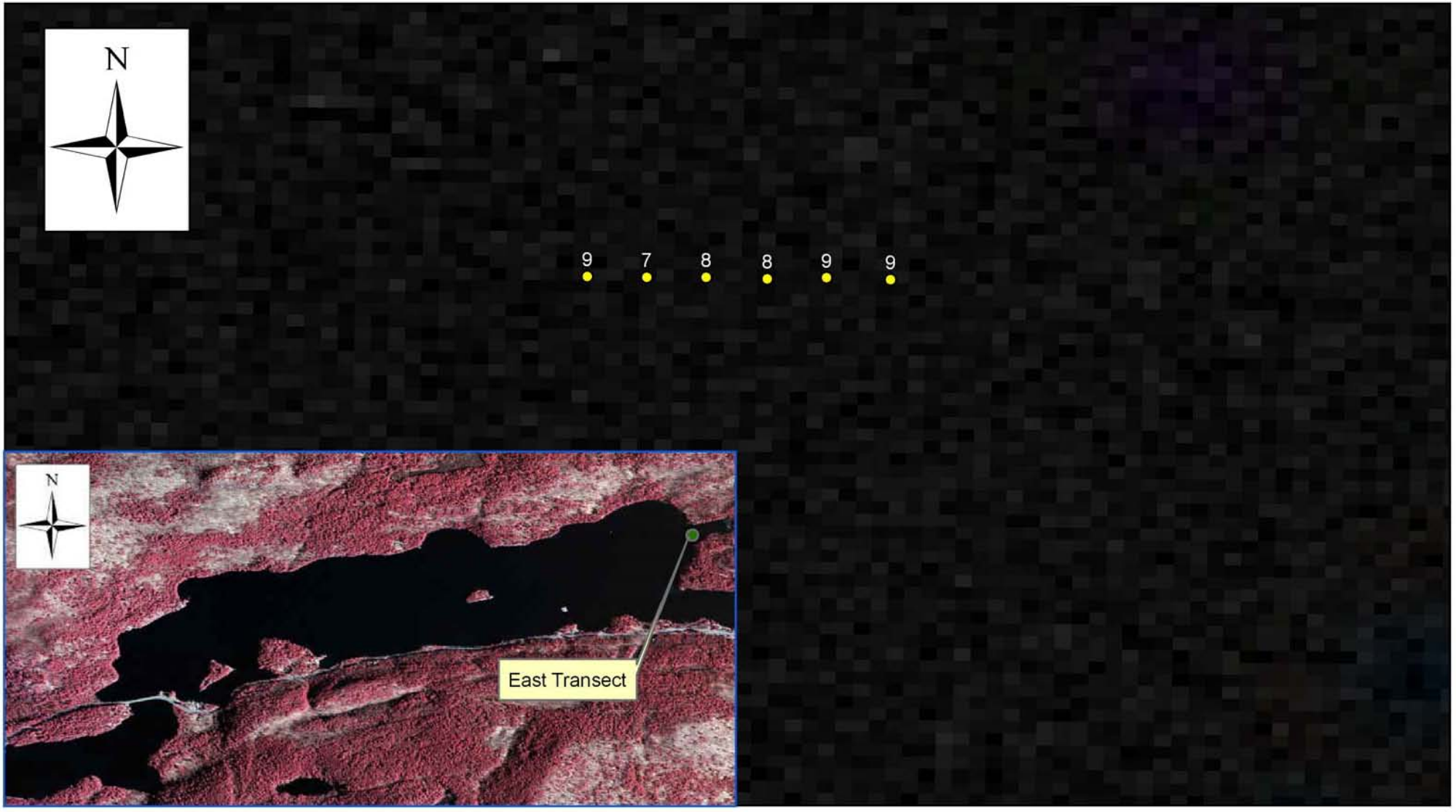
Legend

○ = Sample Point

0 5 10 20 30 40
Feet

Allied Biological

East Transect Sample Location Water Depth
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



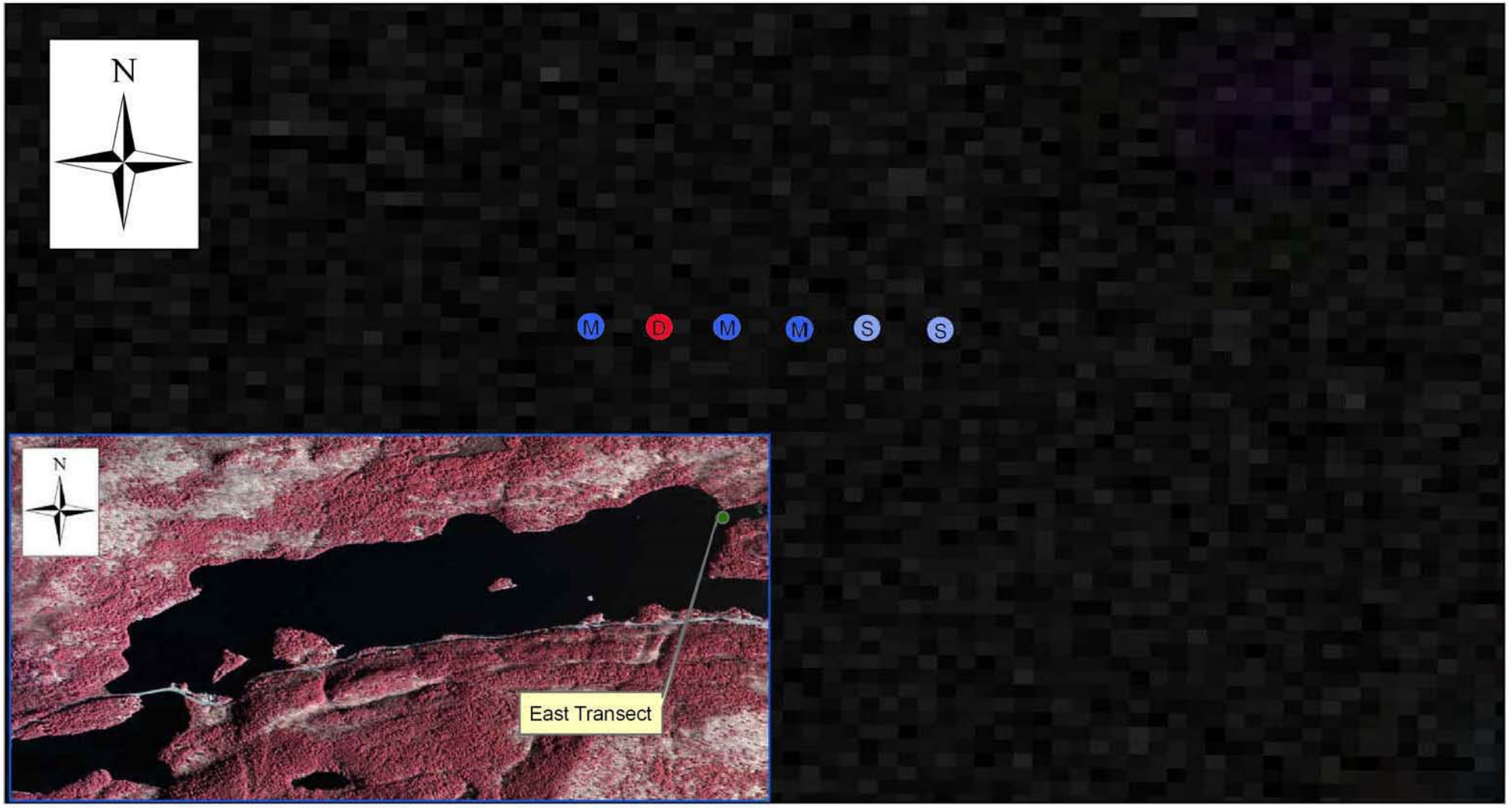
Legend

○ = Water Depth (feet)

0 5 10 20 30 40
Feet

Allied Biological

East Transect Total Submersed Vegetation
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



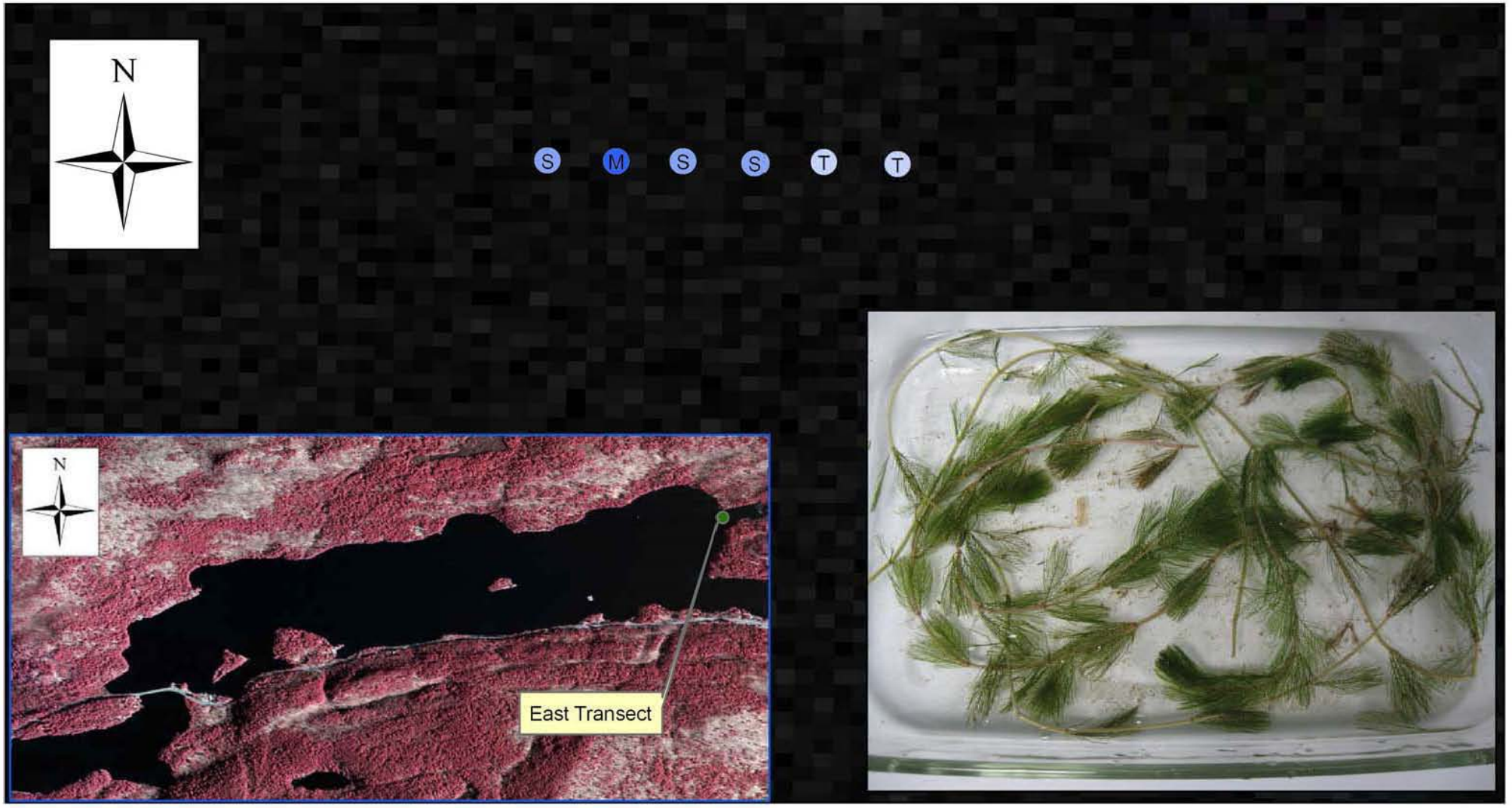
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Eurasian Water Milfoil (*Myriophyllum spicatum*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



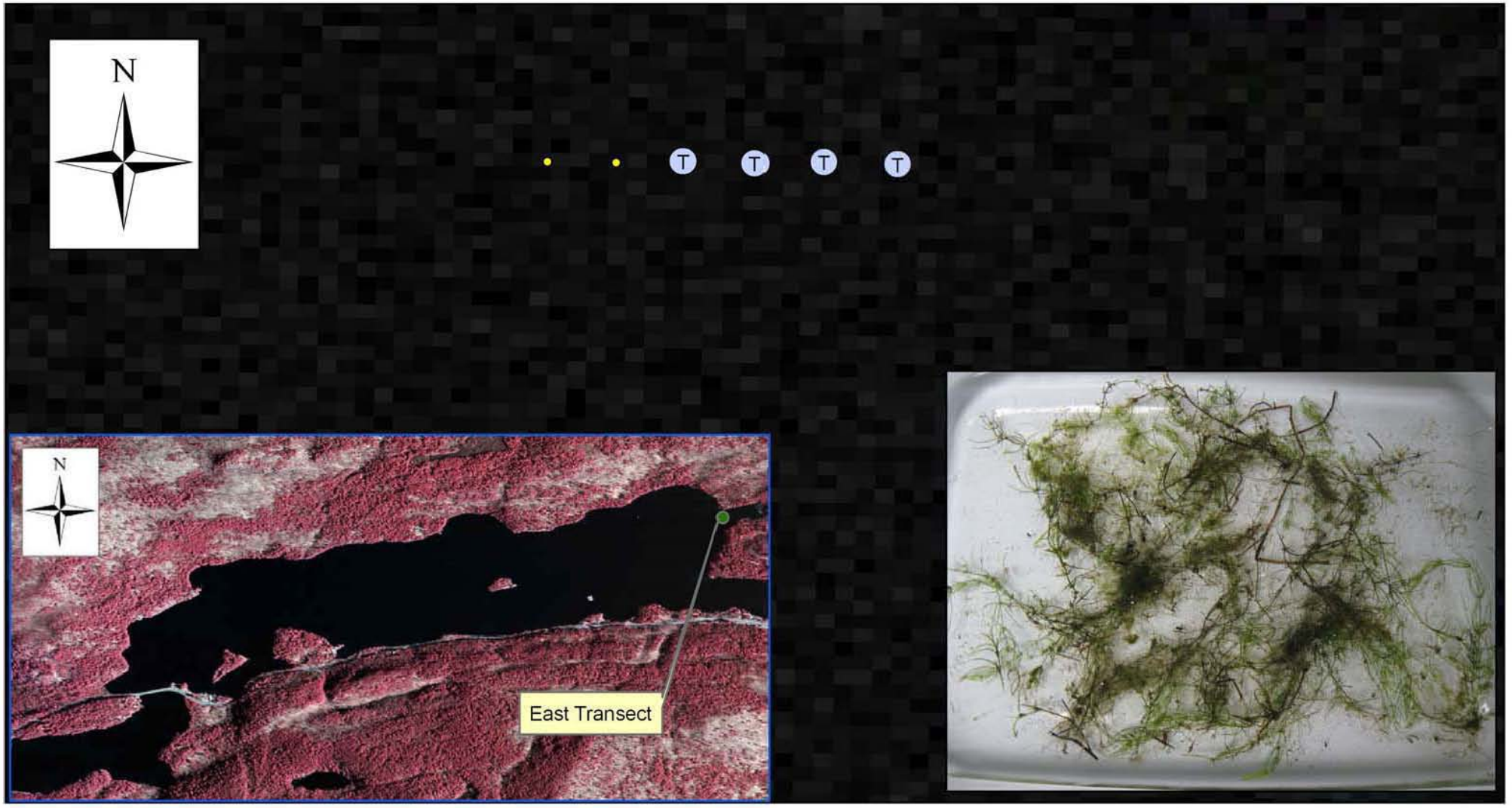
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Muskgrass (*Chara* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



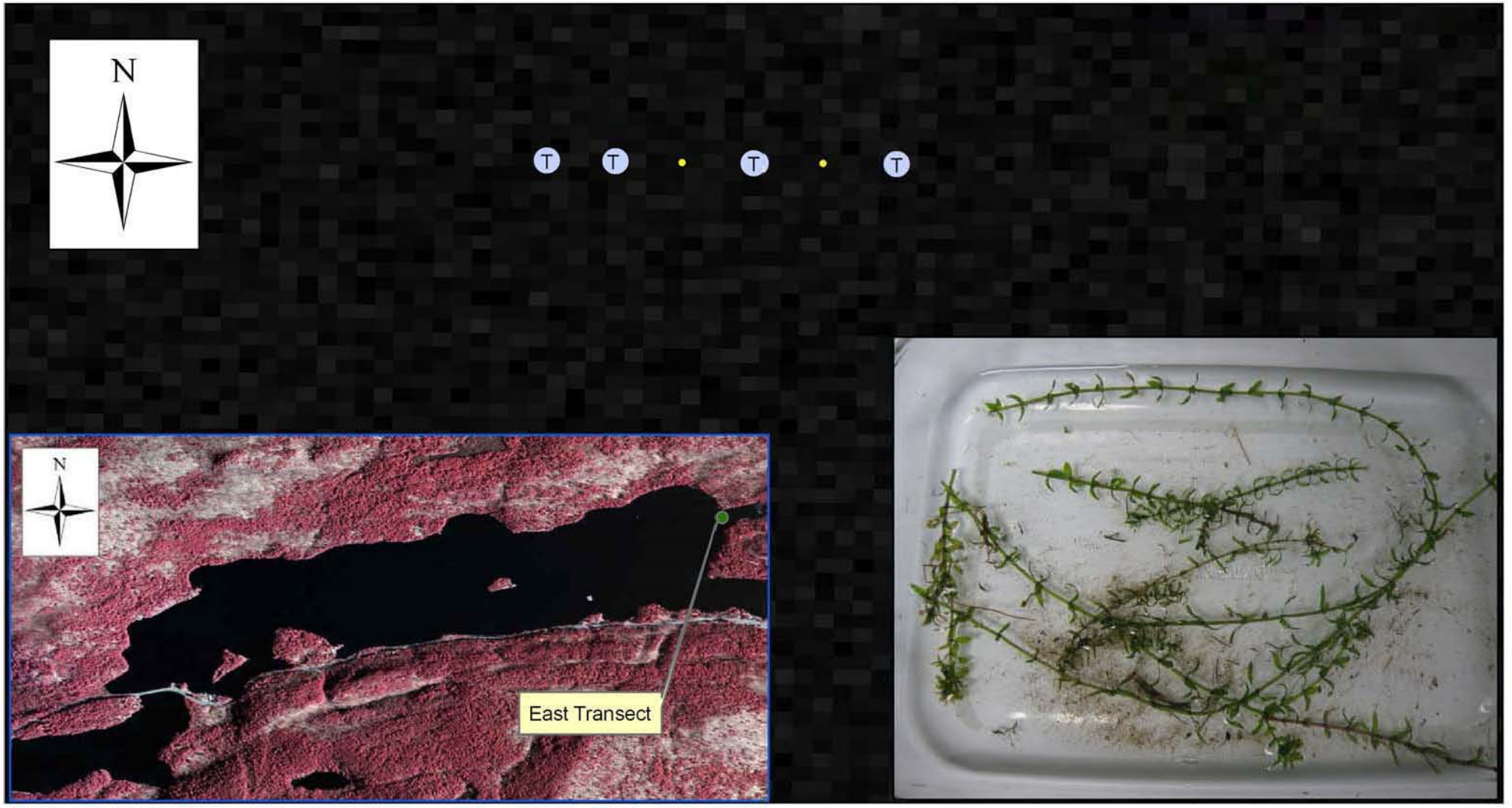
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Common Waterweed (*Elodea canadensis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



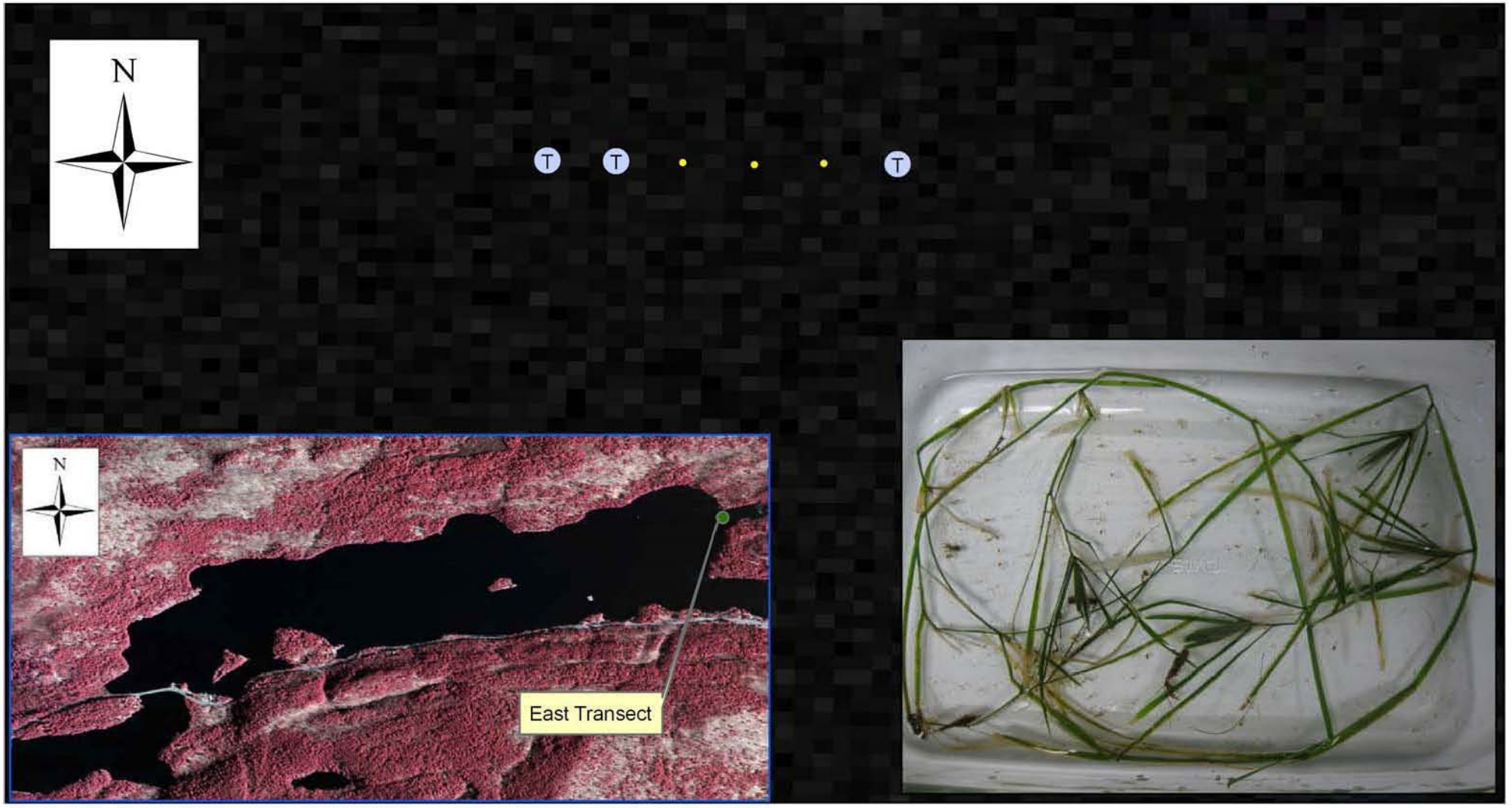
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Flat-stem Pondweed (*Potamogeton zosteriformis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



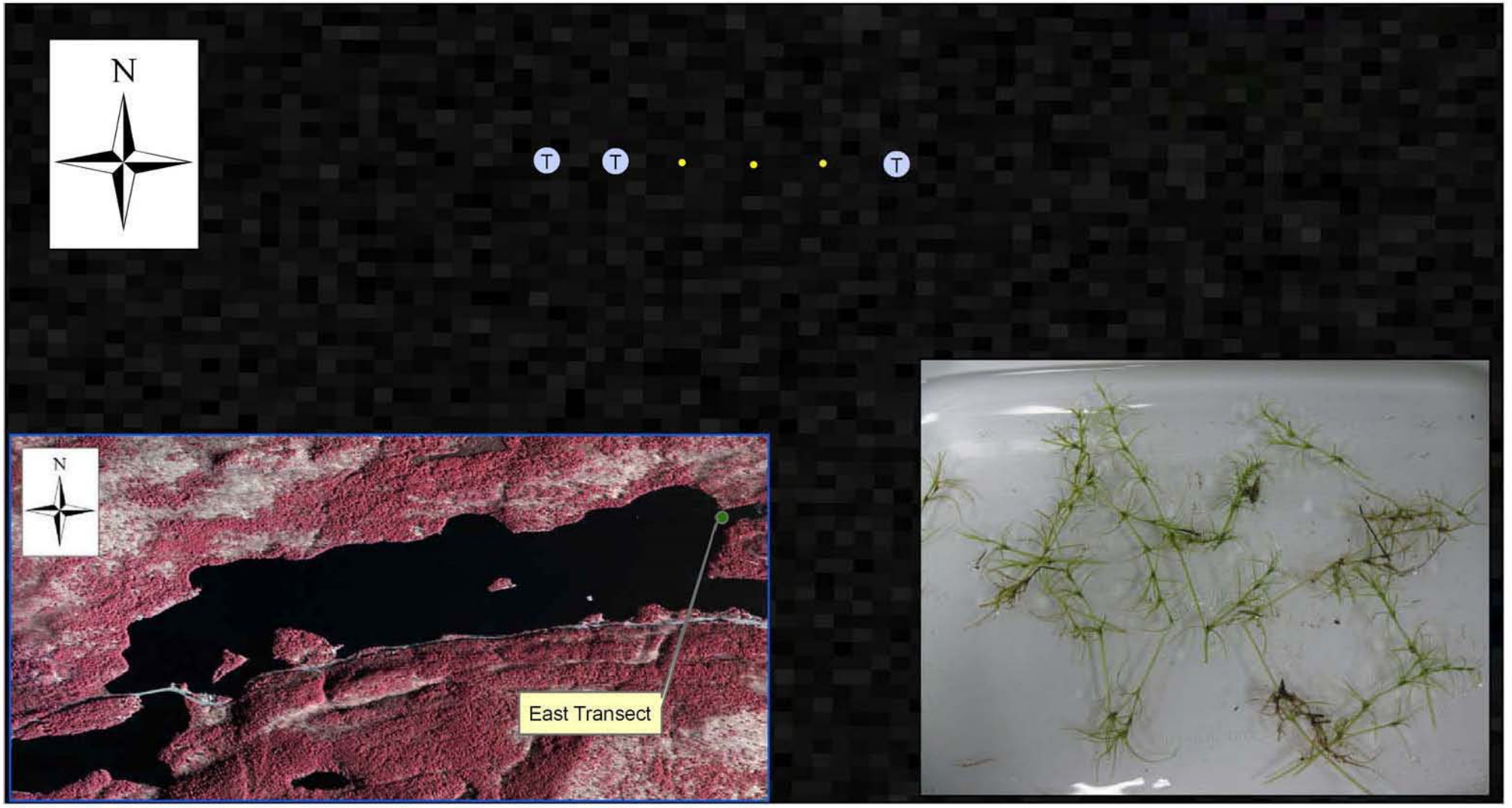
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Slender Naiad (*Najas flexilis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



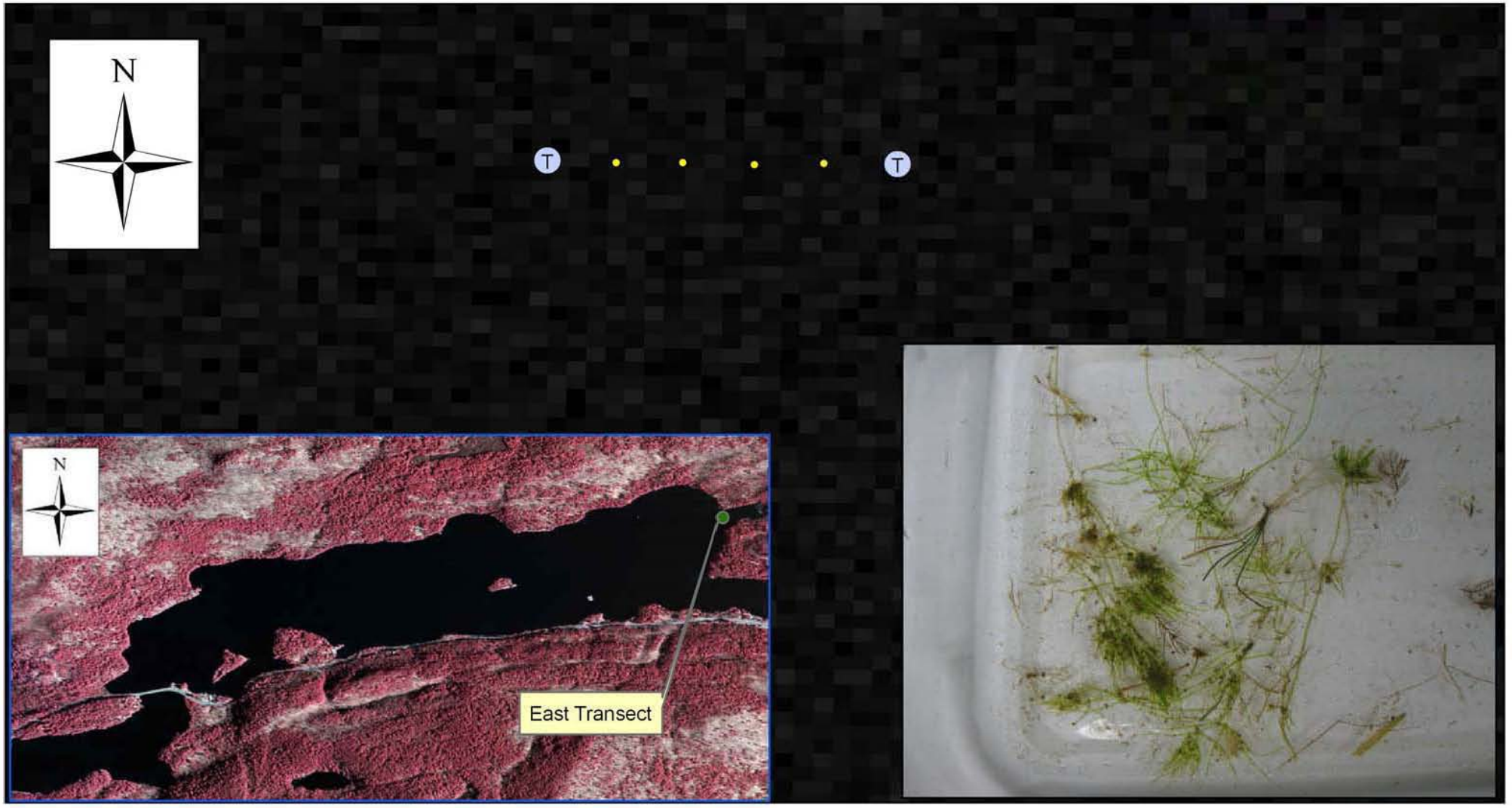
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Stonewort (*Nitella* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



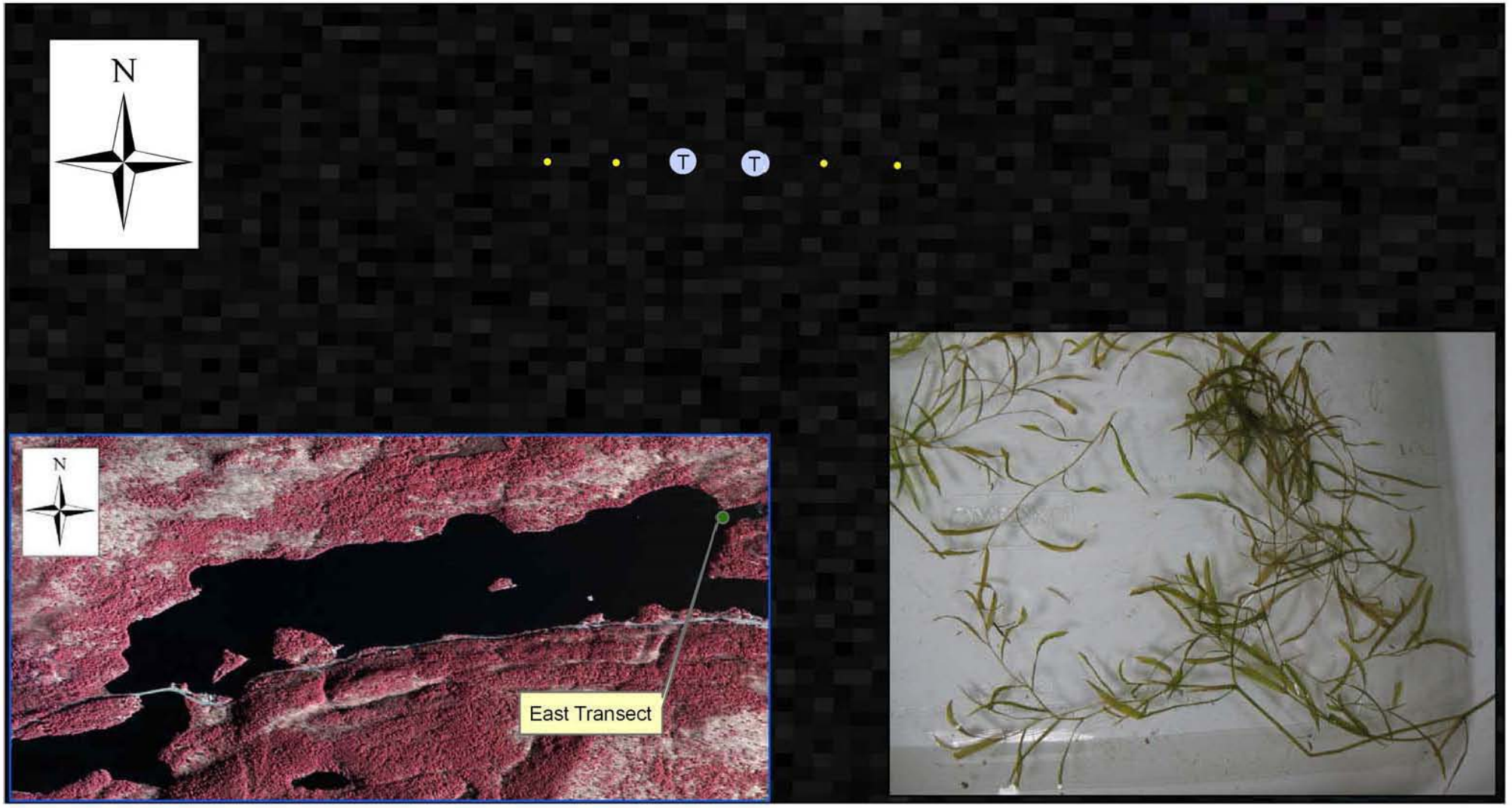
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Variable Pondweed (*Potamogeton gramineus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



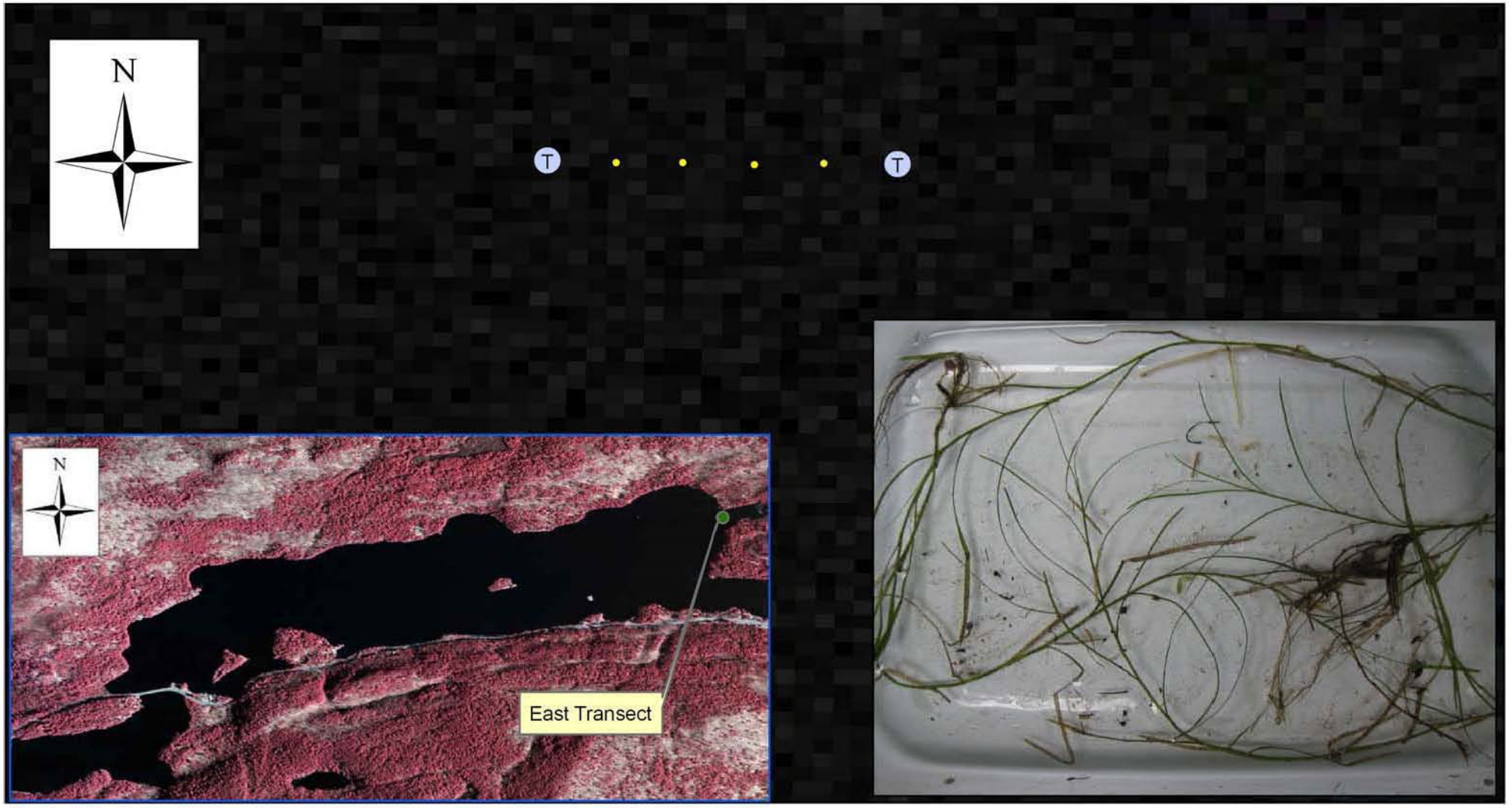
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Water Stargrass (*Zosterella dubia*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



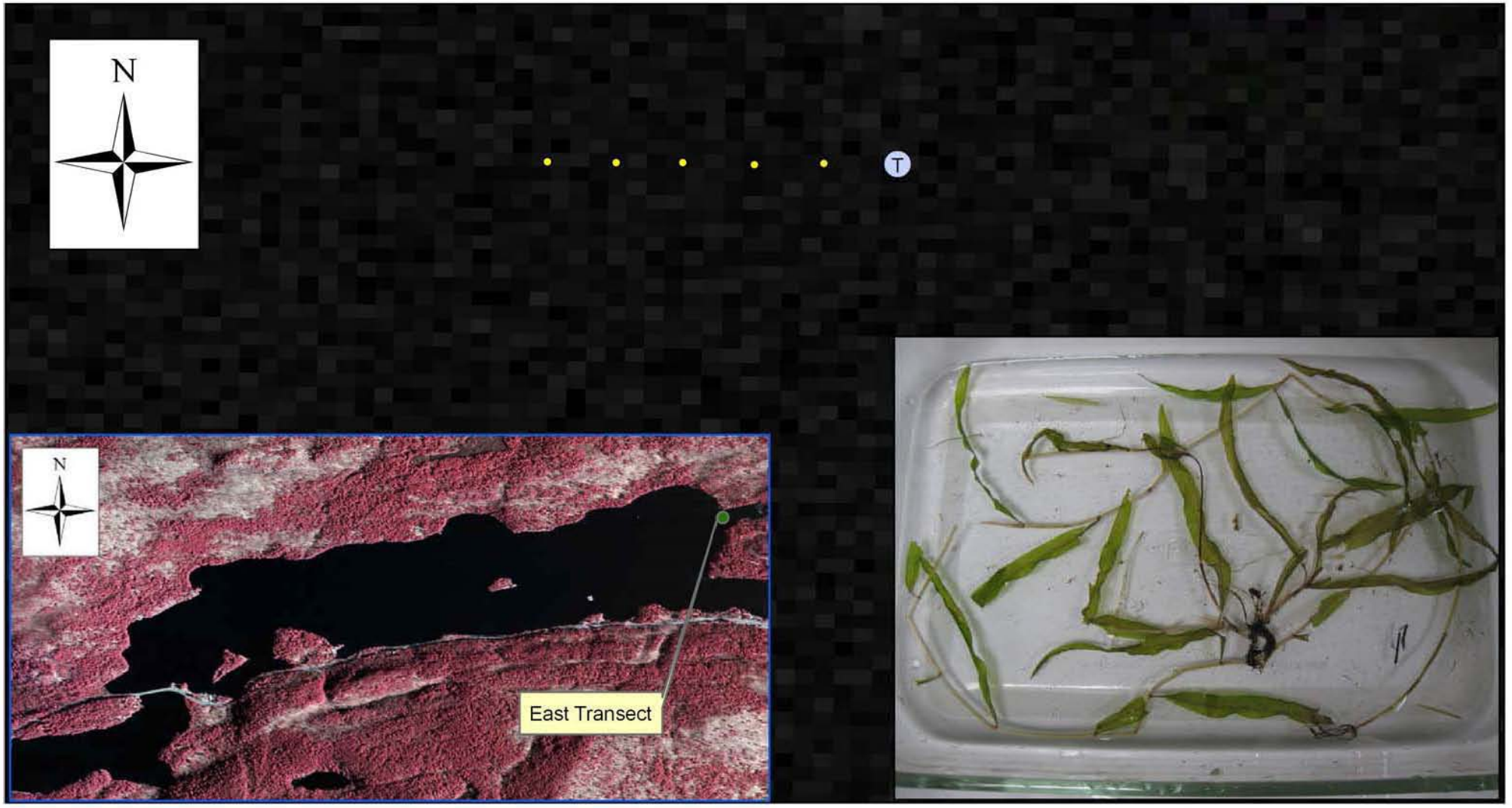
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Alpine Pondweed (*Potamogeton alpinus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



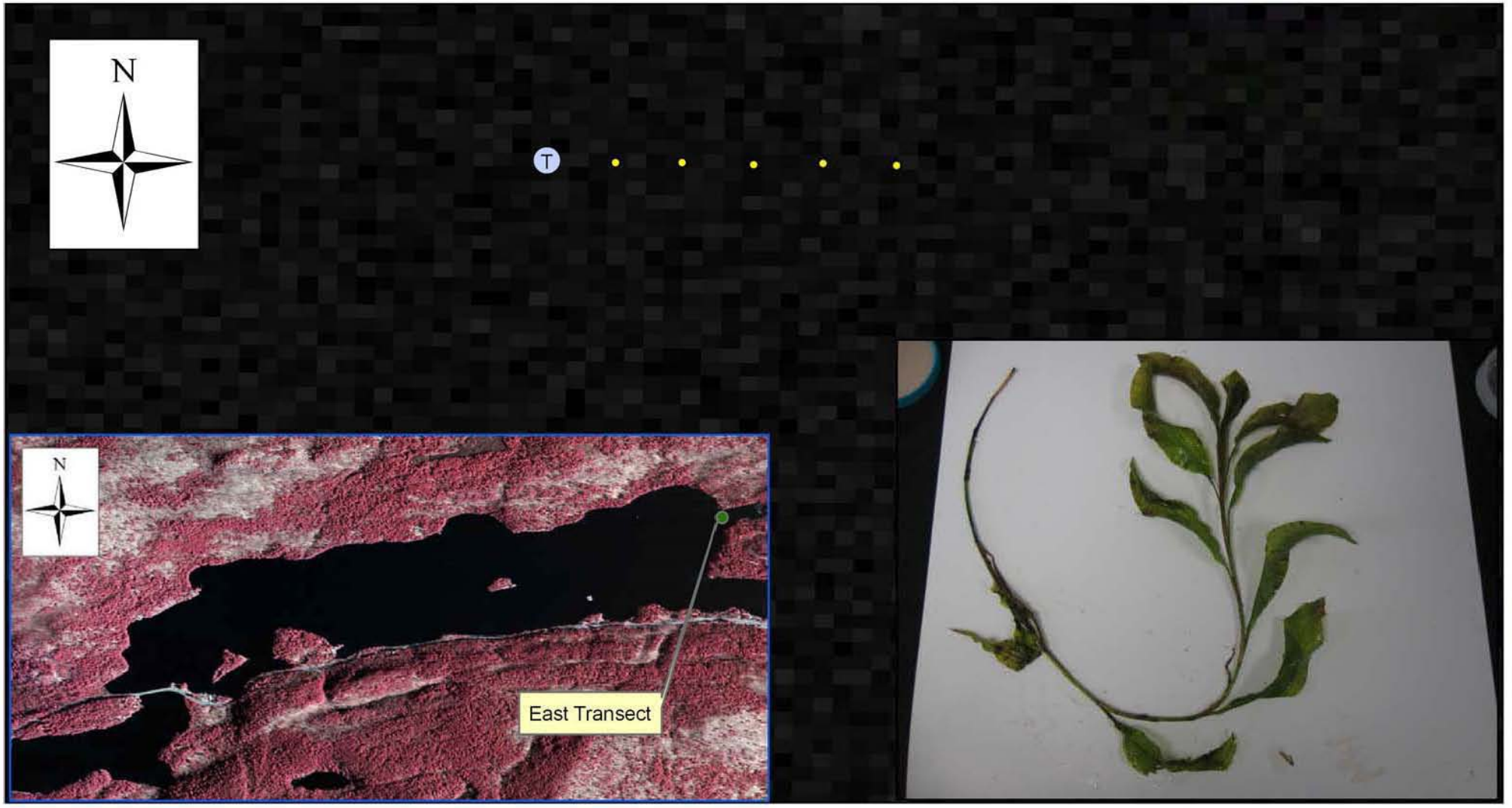
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Bass Weed (*Potamogeton amplifolius*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



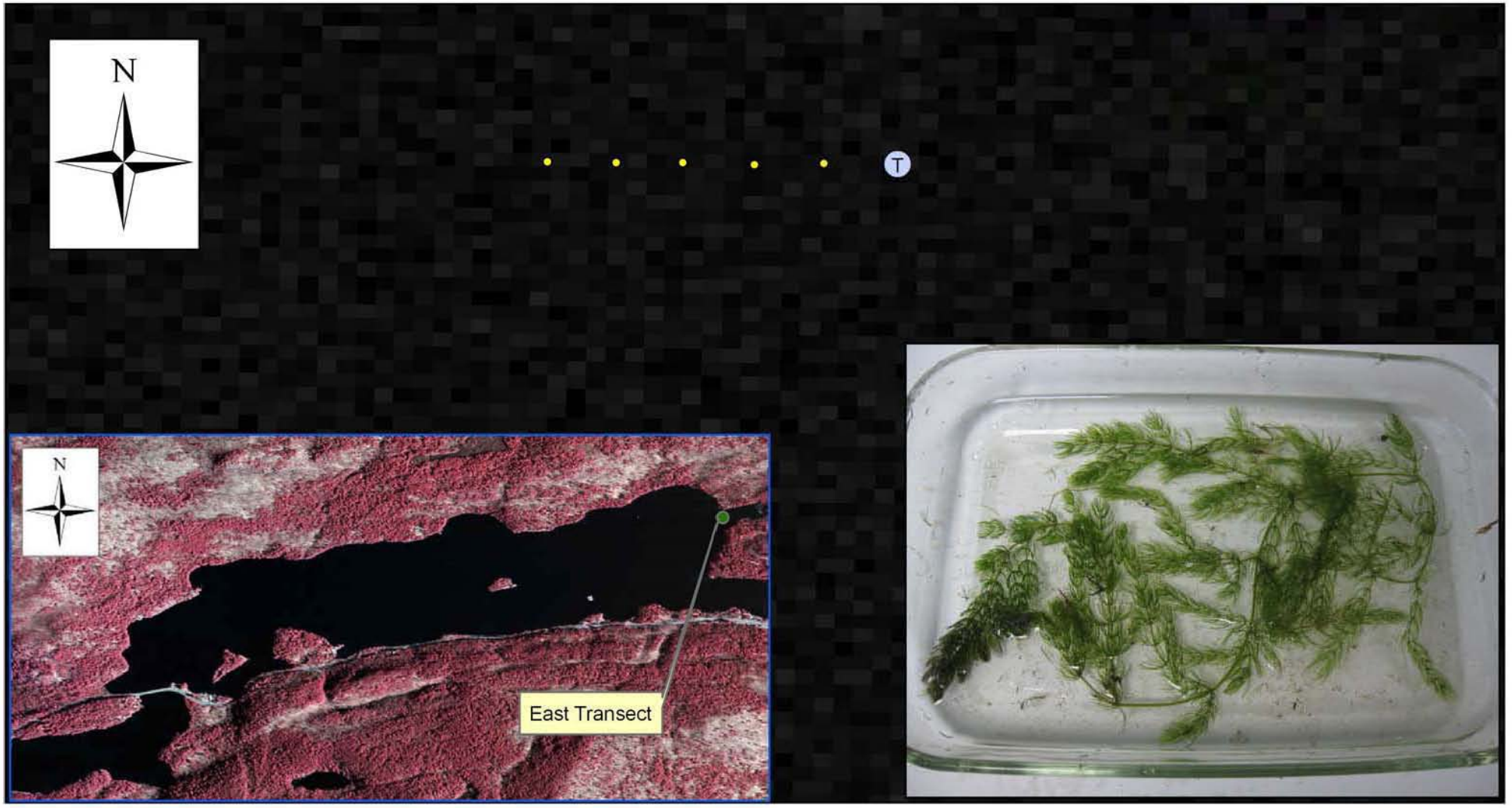
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Coontail (*Ceratophyllum demersum*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



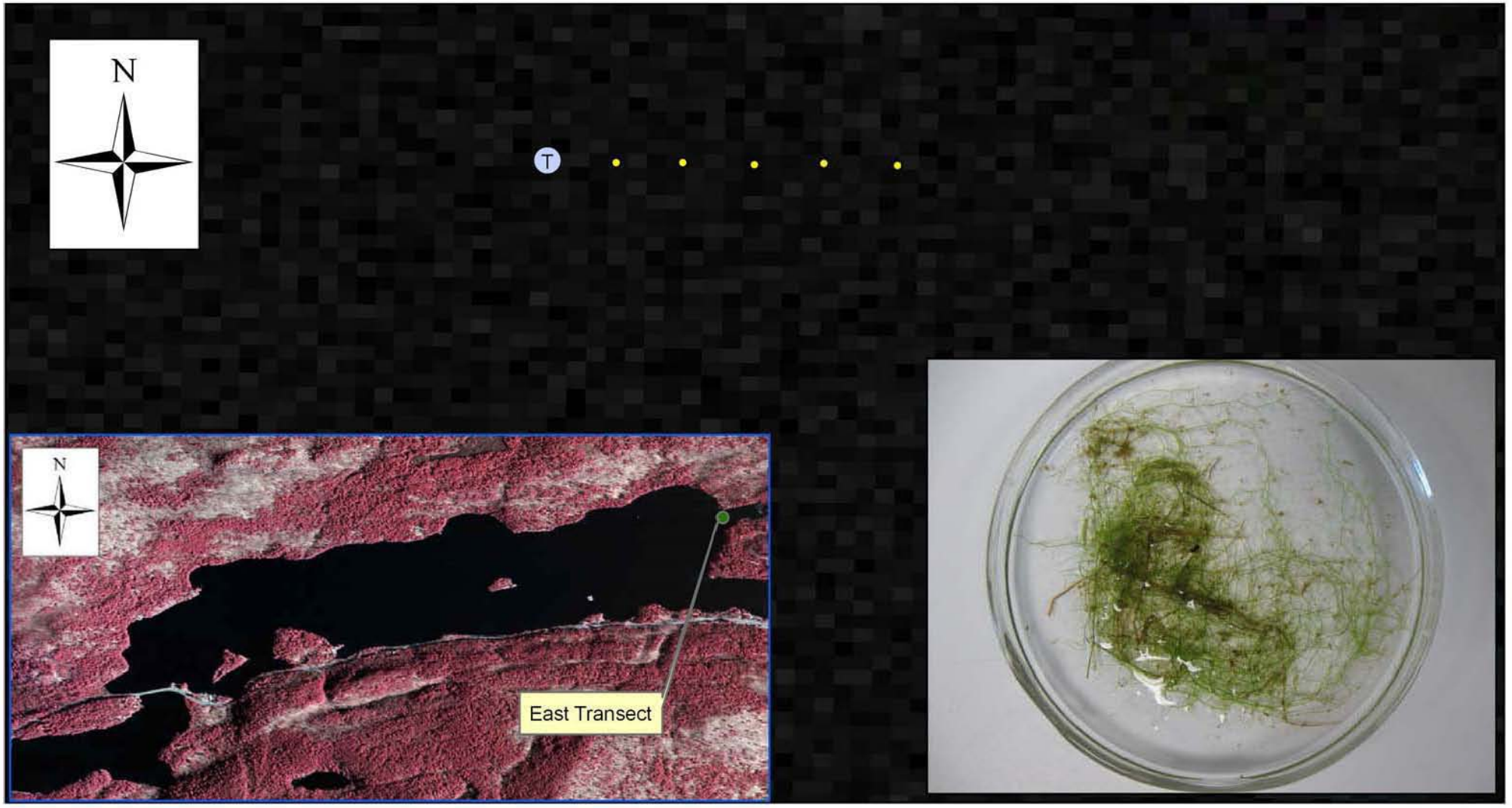
Legend

- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

East Transect Creeping Bladderwort (*Utricularia gibba*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

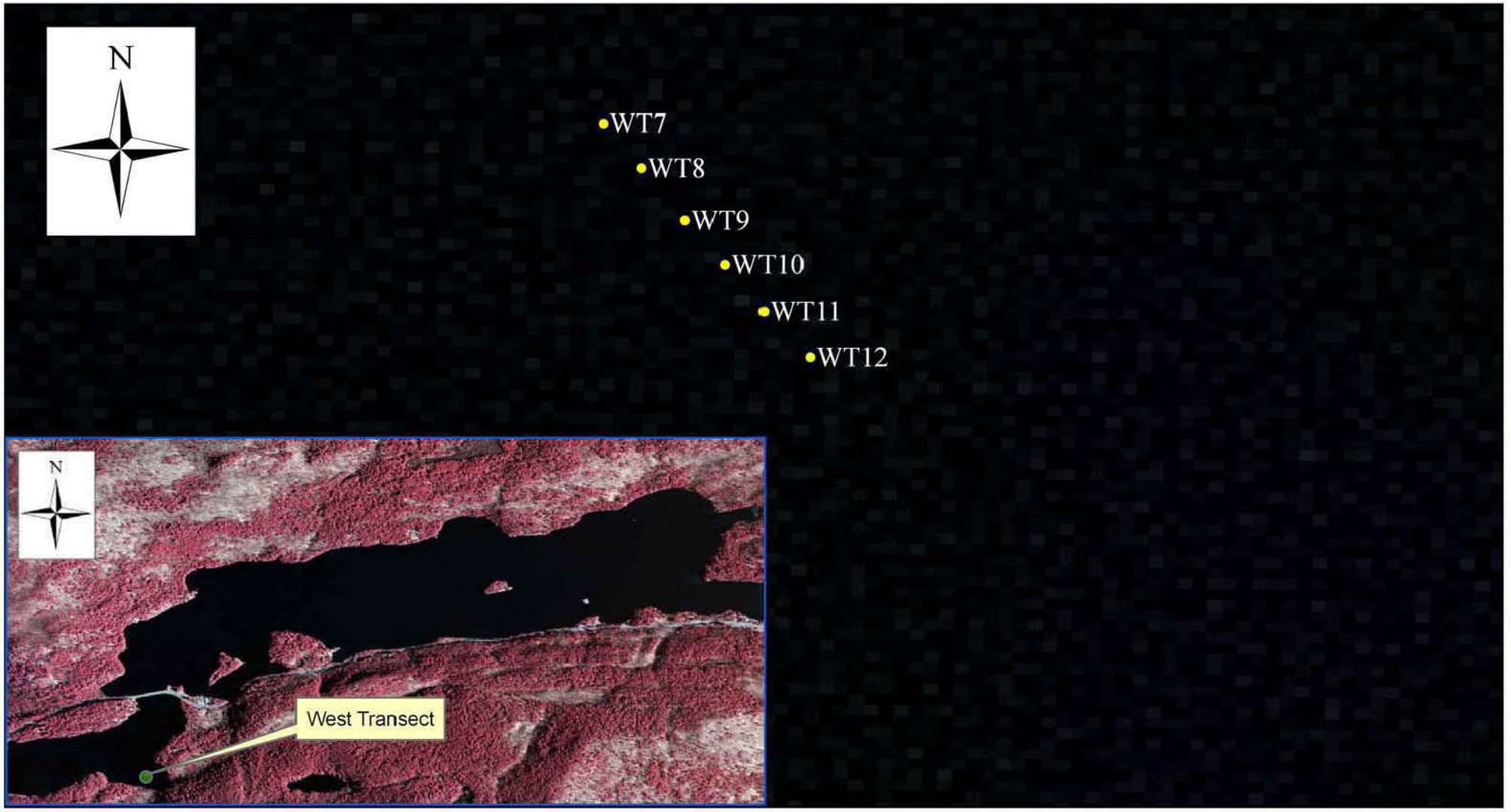
- ○ = No Plants
- T = Trace Plants
- M = Medium Plants
- S = Sparse Plants
- D = Dense Plants

0 5 10 20 30 40 Feet

Allied Biological

Appendix D:
2008 West Transect Maps

West Transect Sample Locations
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



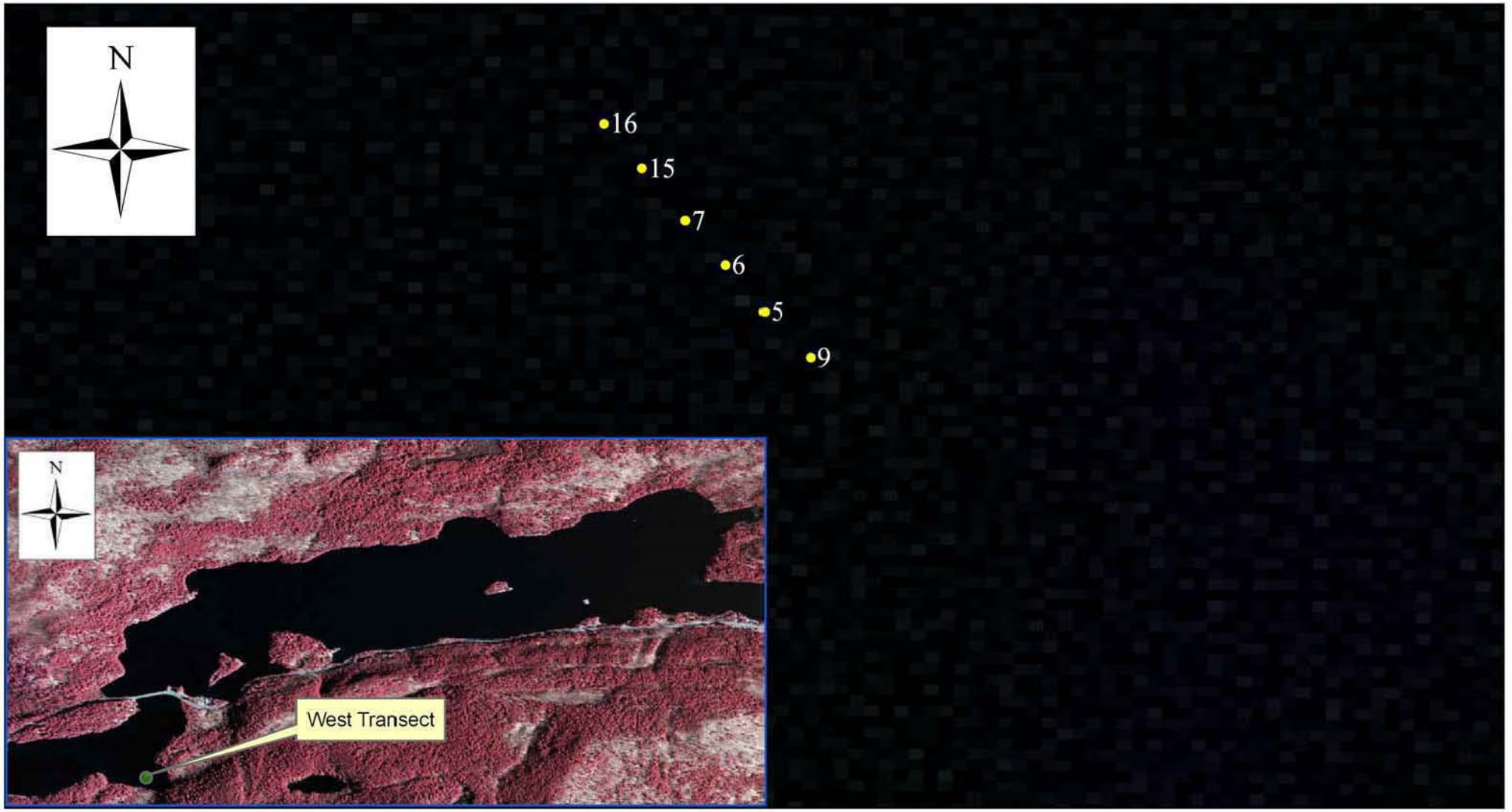
Legend

○ = Sample Location

0 5 10 20 30 40
Feet

Allied Biological

West Transect Sample Location Water Depth
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



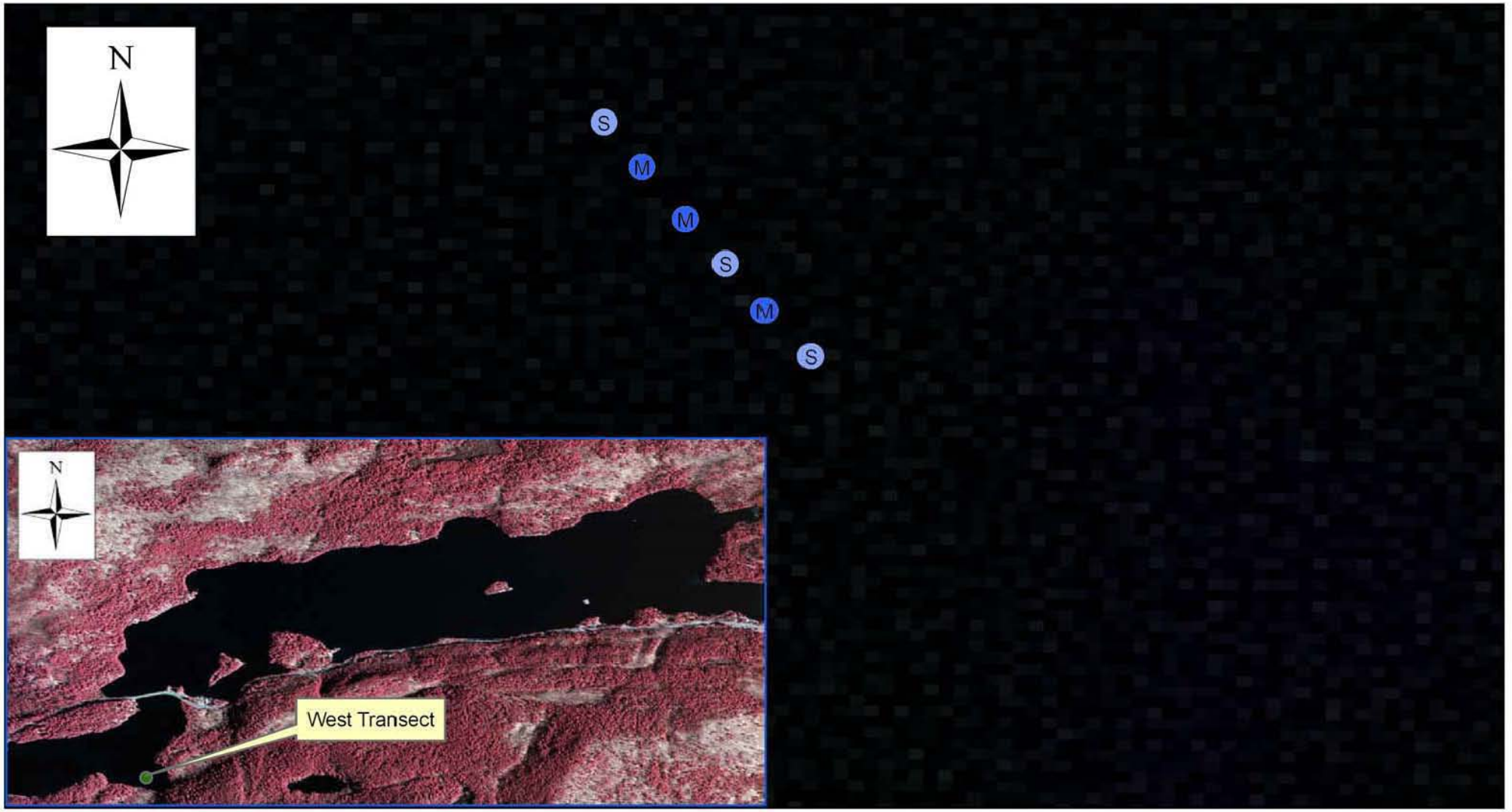
Legend

= Water Depth (feet)

0 5 10 20 30 40
Feet

Allied Biological

West Transect Total Submersed Vegetation Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



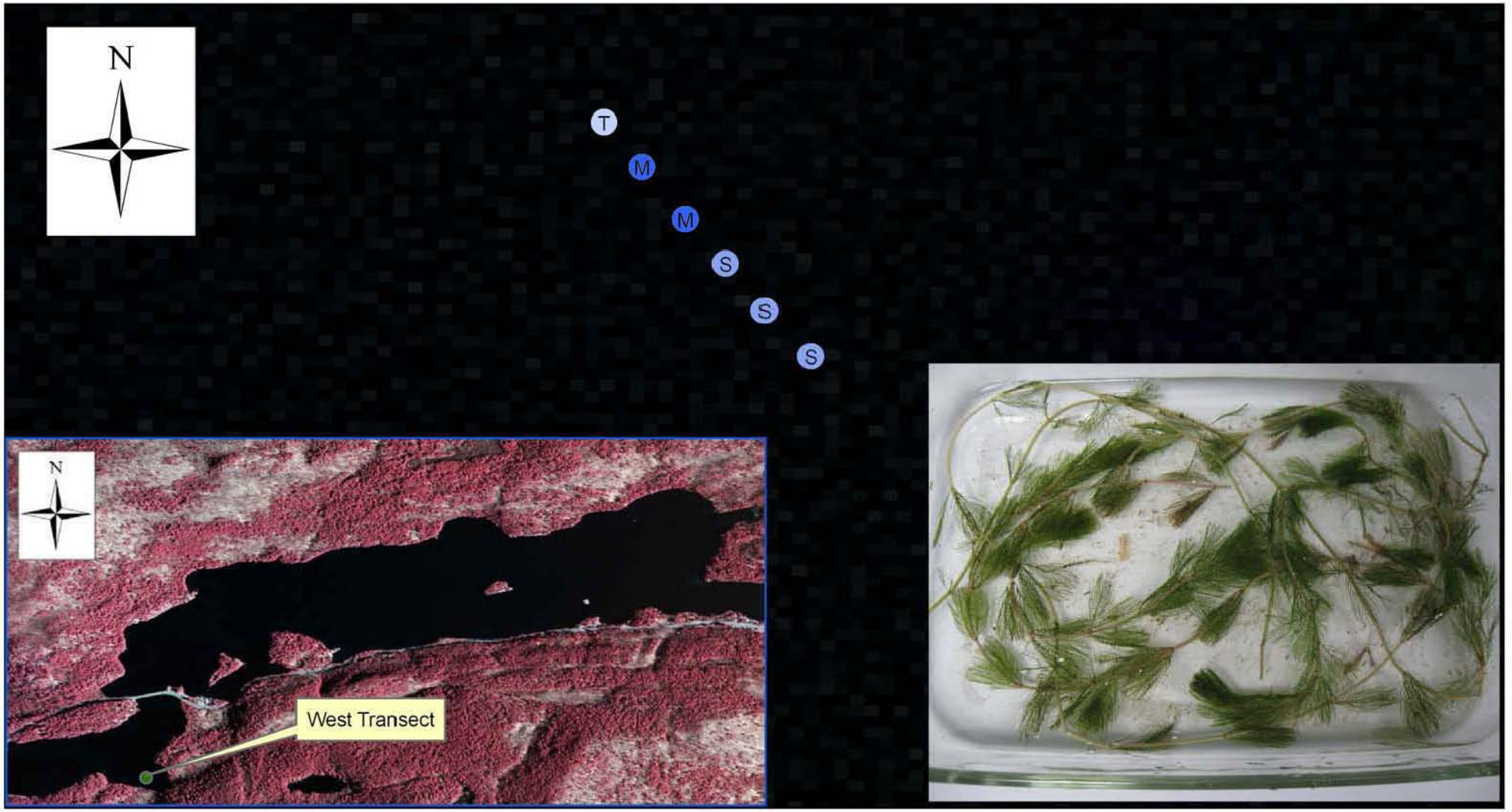
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Eurasian Water Milfoil (*Myriophyllum spicatum*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



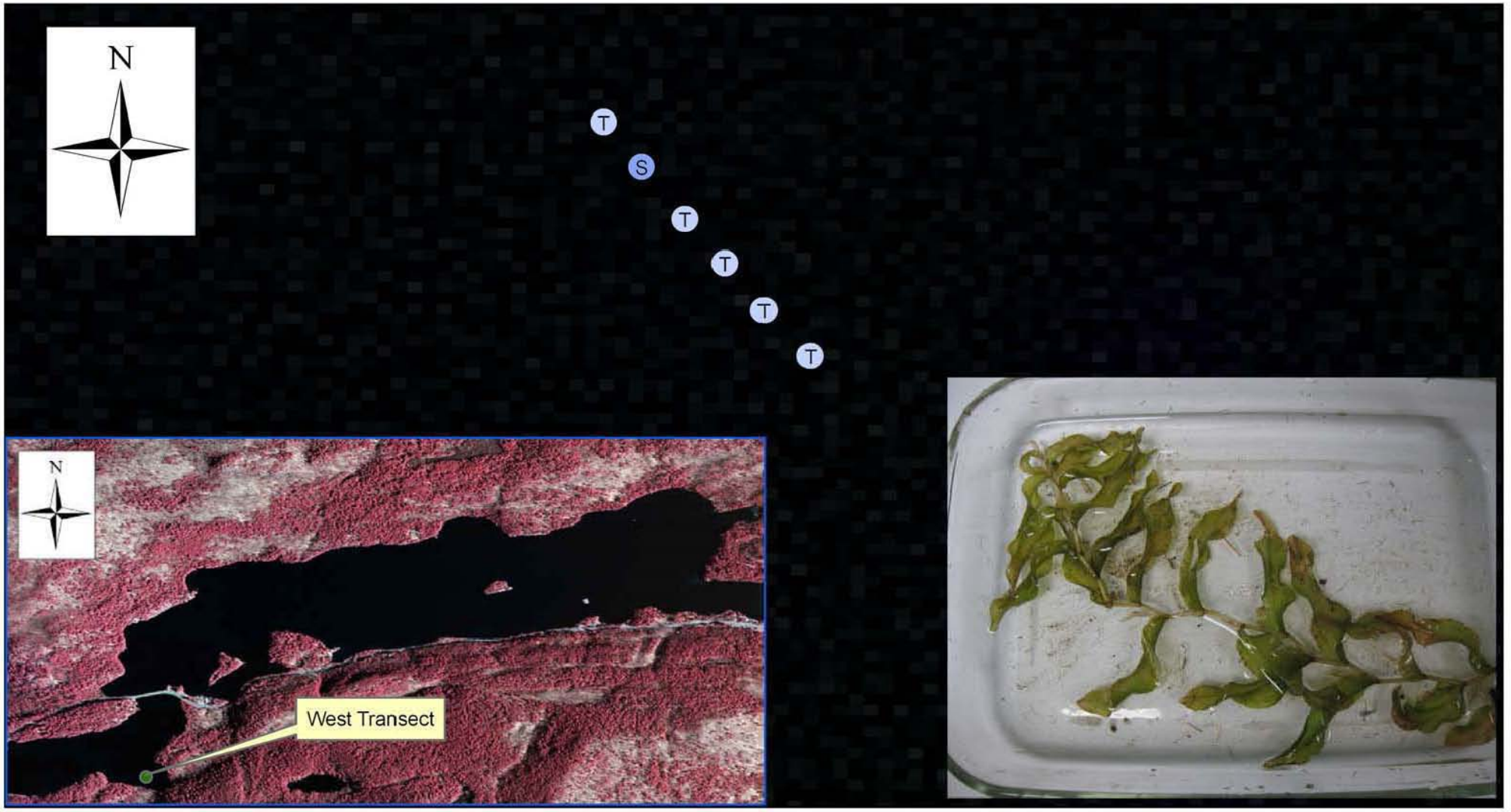
Legend

○ = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect White-stem Pondweed (*Potamogeton praelongus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



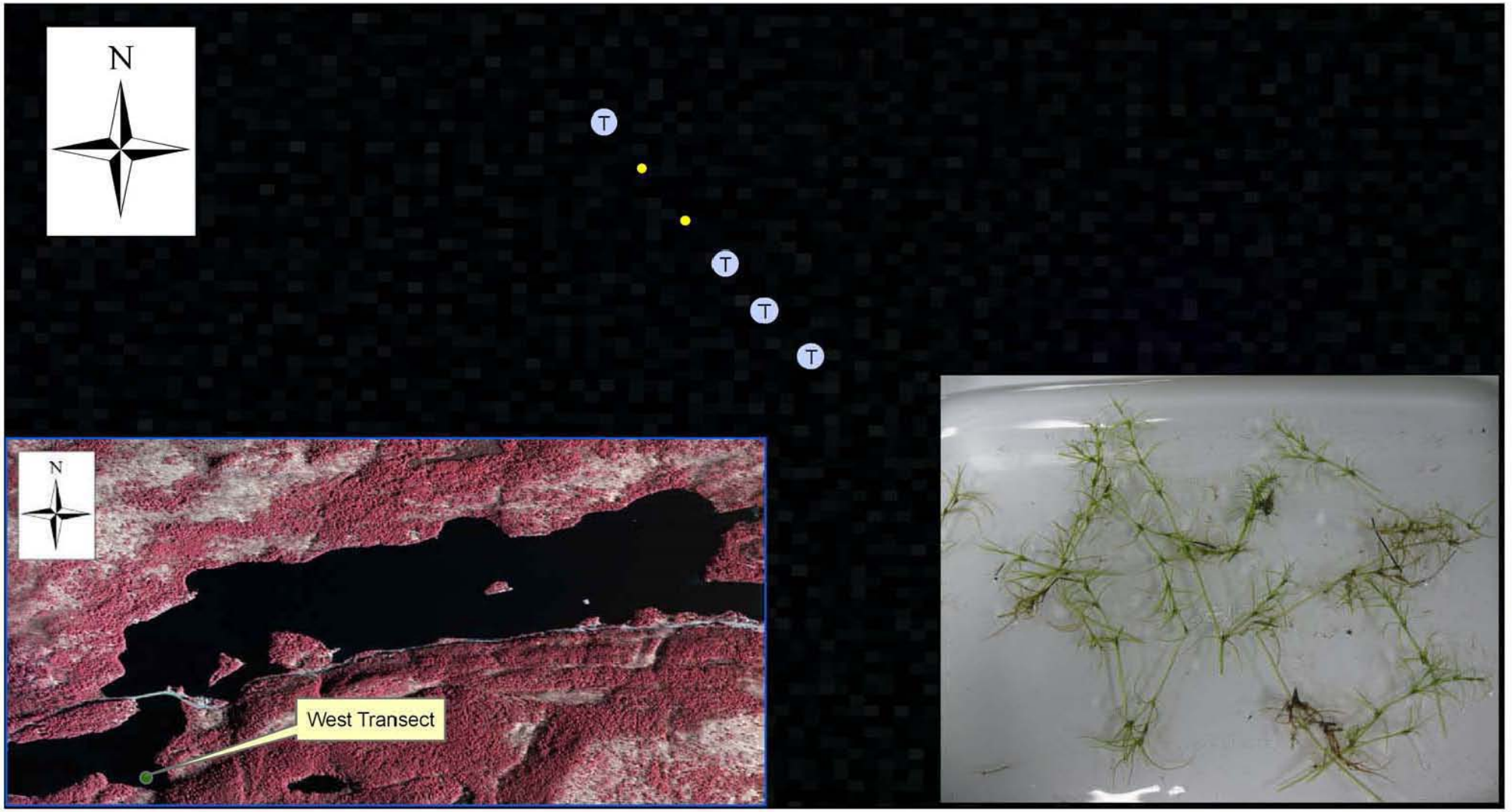
Legend

○ = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Slender Naiad (*Najas flexilis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



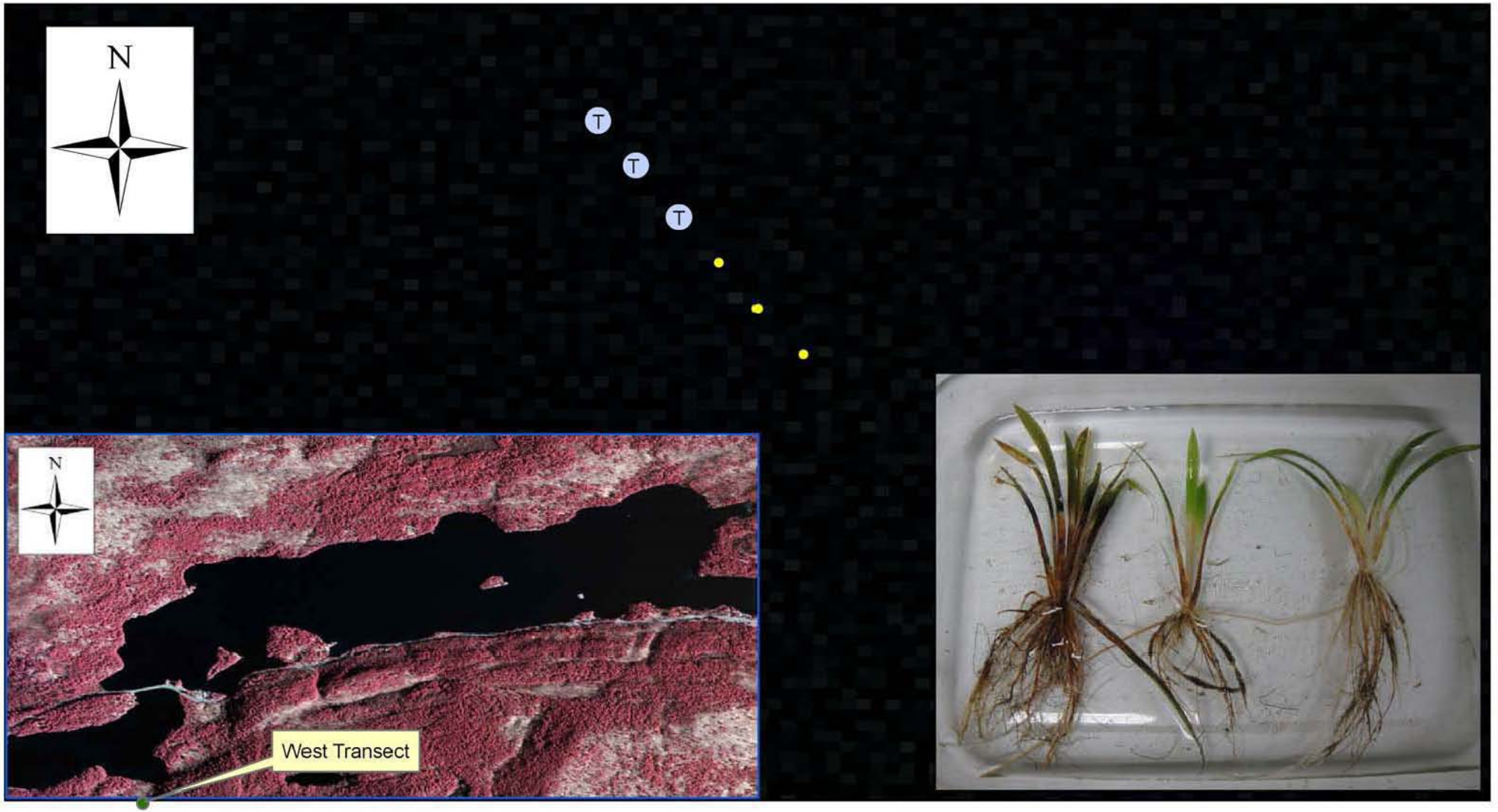
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Arrowhead rosette (*Sagittaria* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



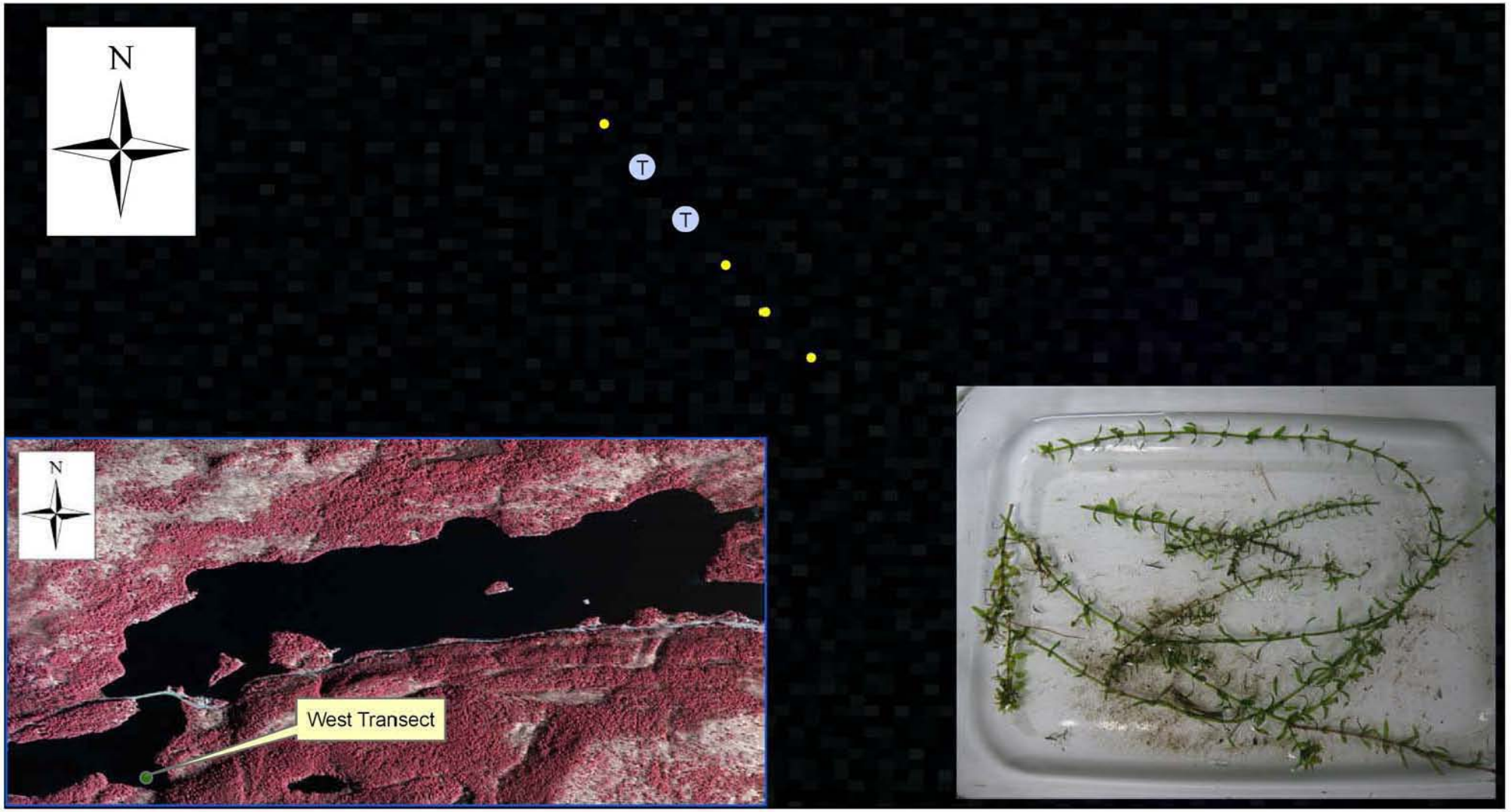
Legend

○ = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Common Waterweed (*Elodea canadensis*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



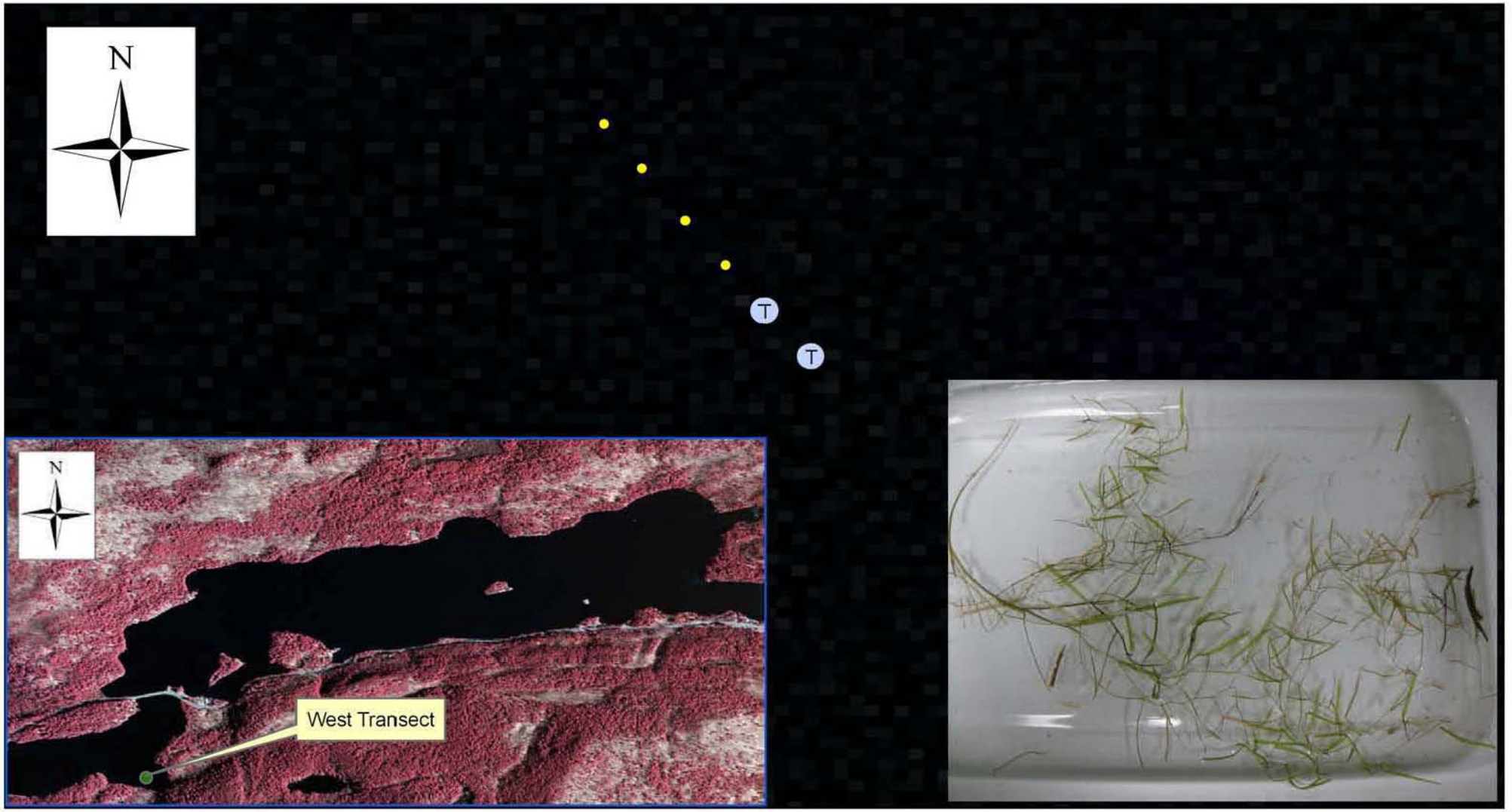
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Leafy Pondweed (*Potamogeton foliosus*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



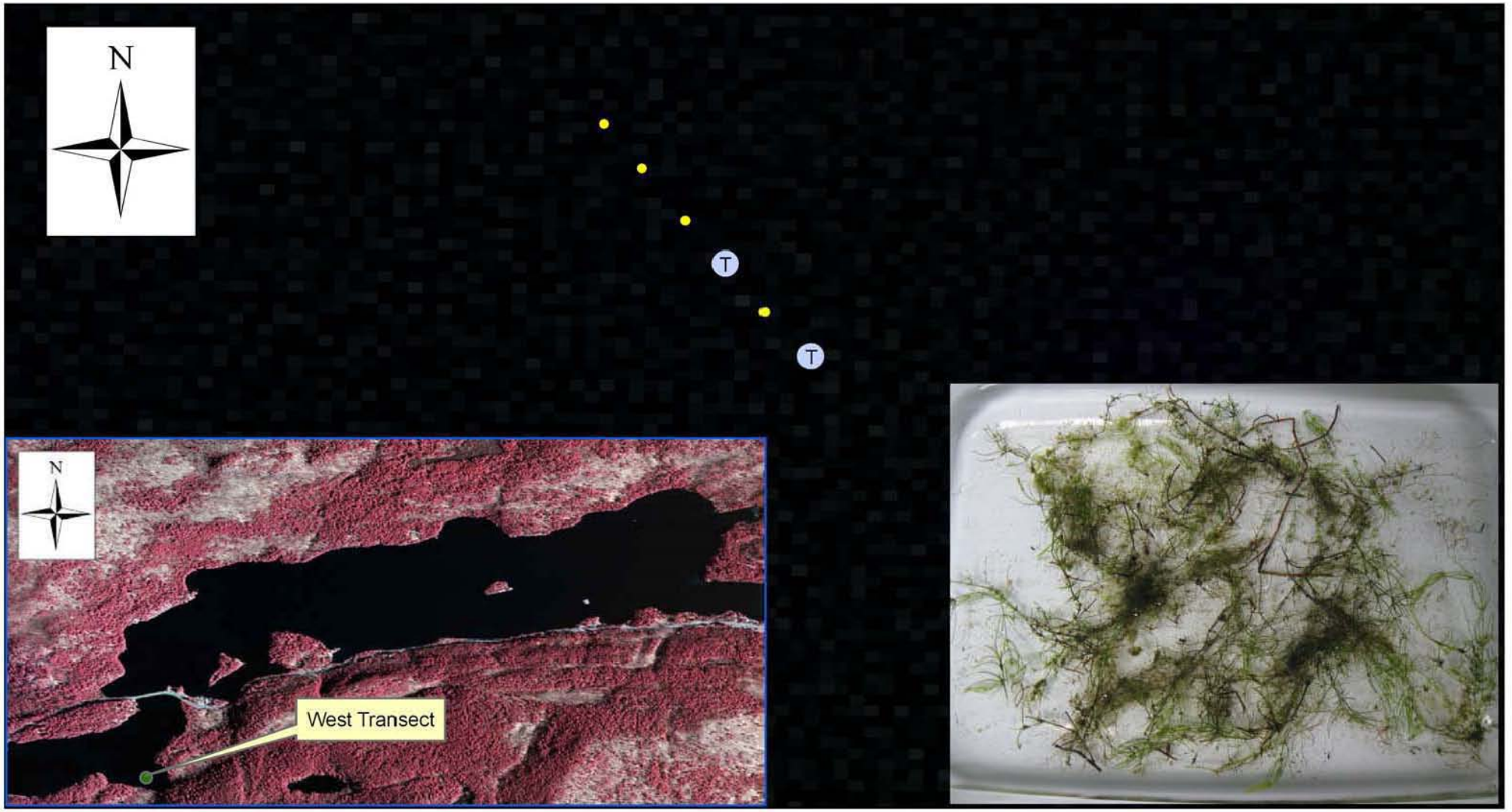
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Muskgrass (*Chara* sp.) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



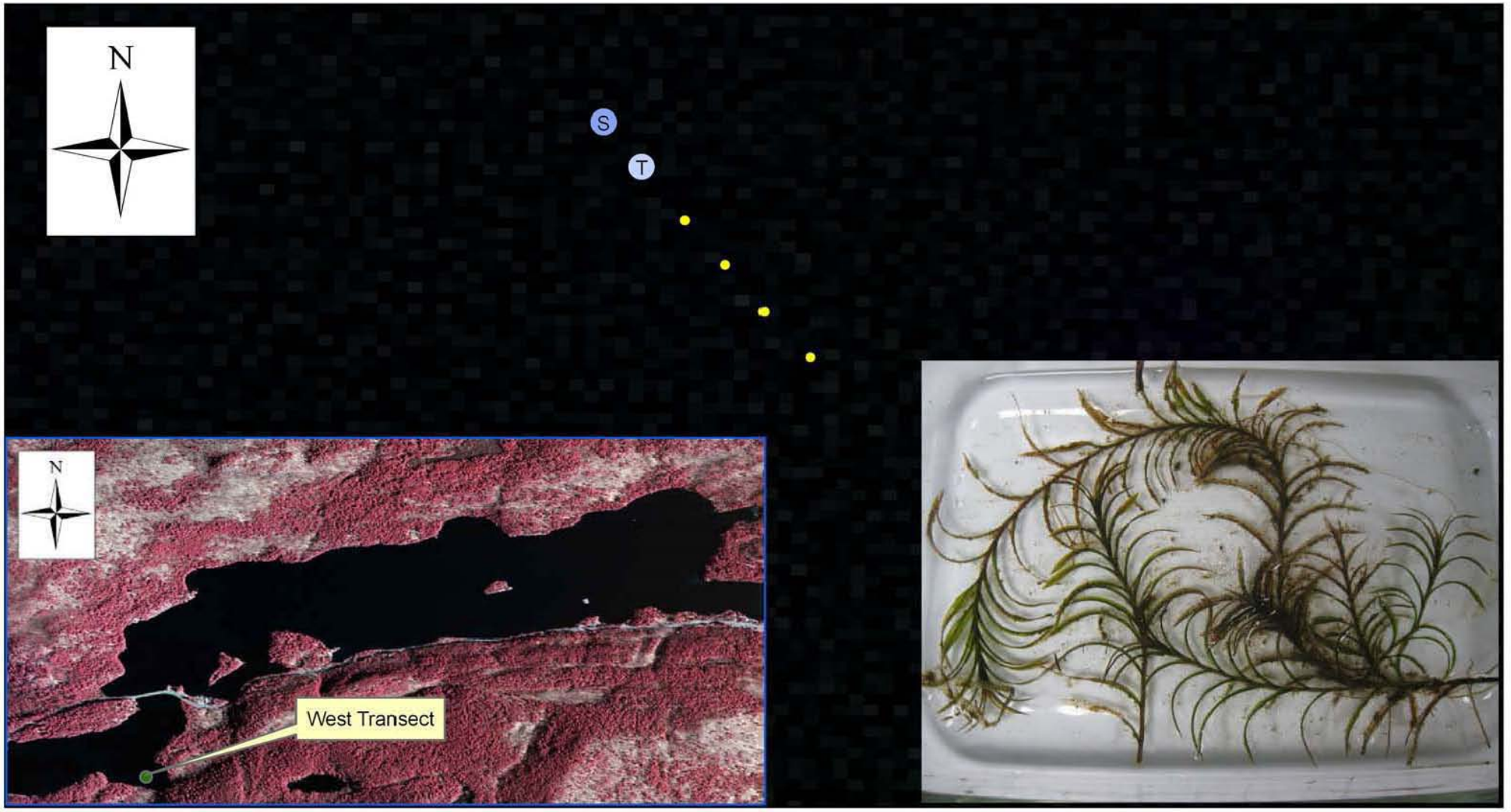
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Robbins Pondweed (*Potamogeton robbinsii*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



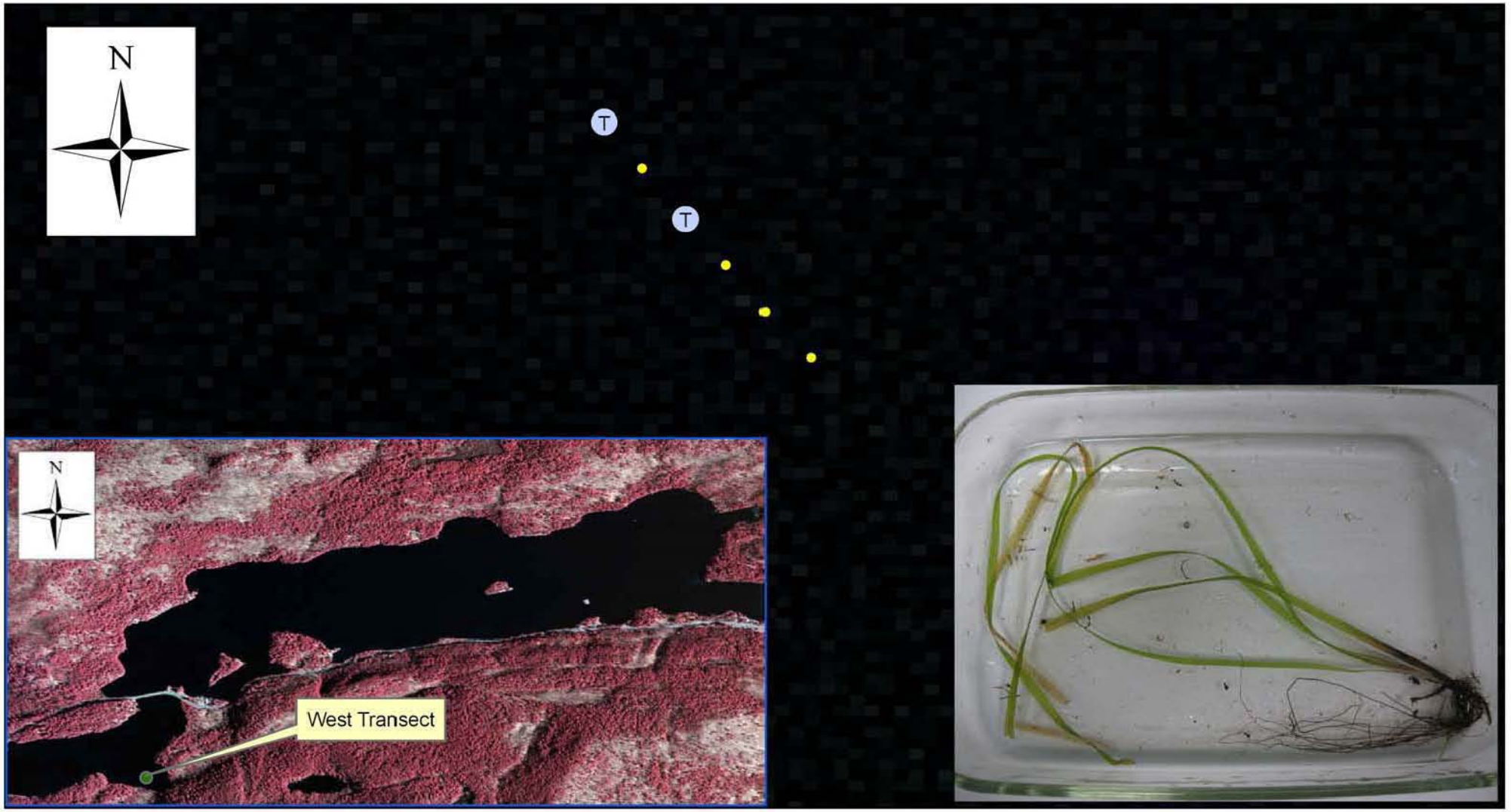
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Tapegrass (*Vallisneria americana*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



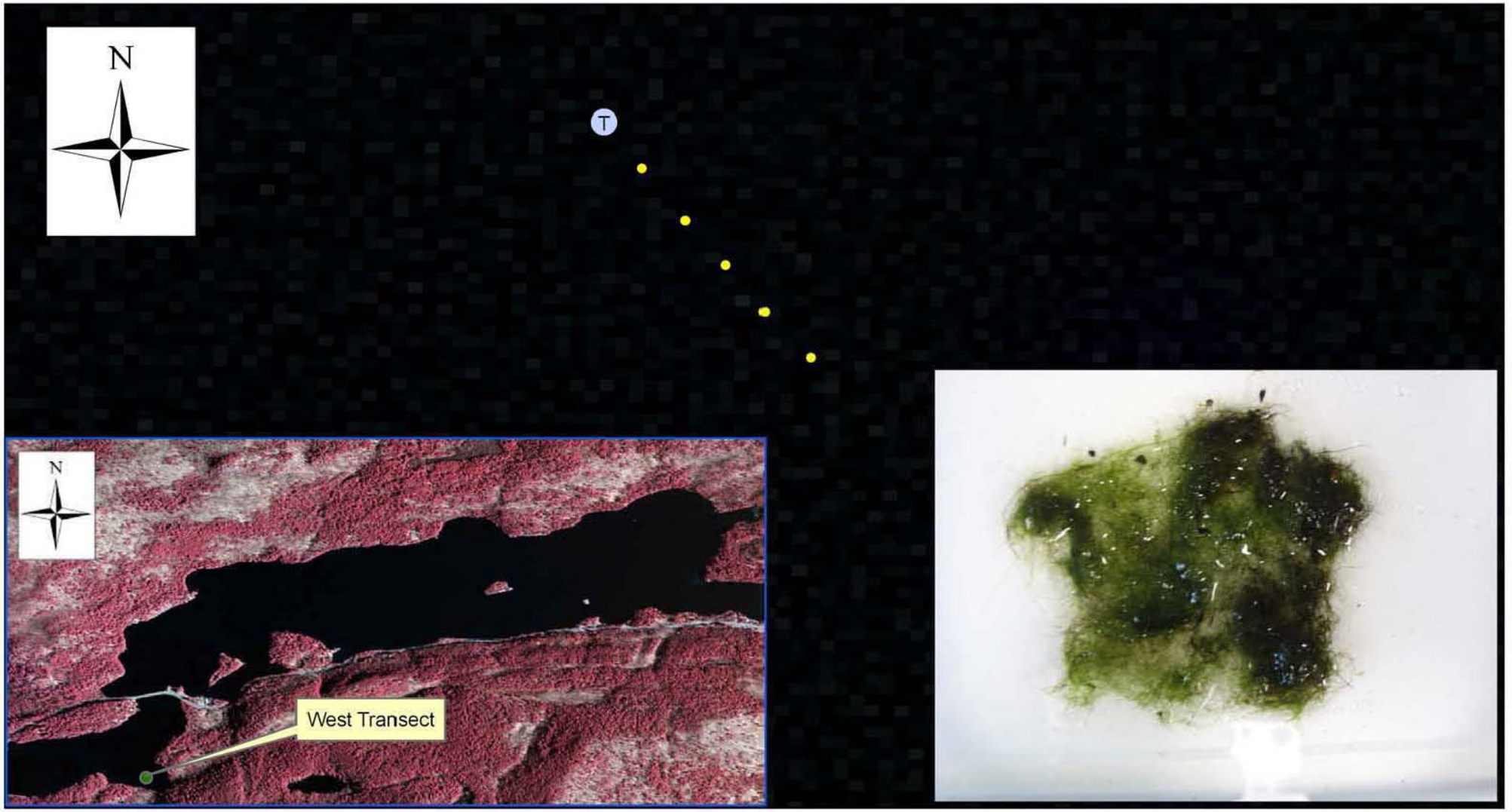
Legend

○ = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Benthic Filamentous Algae Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



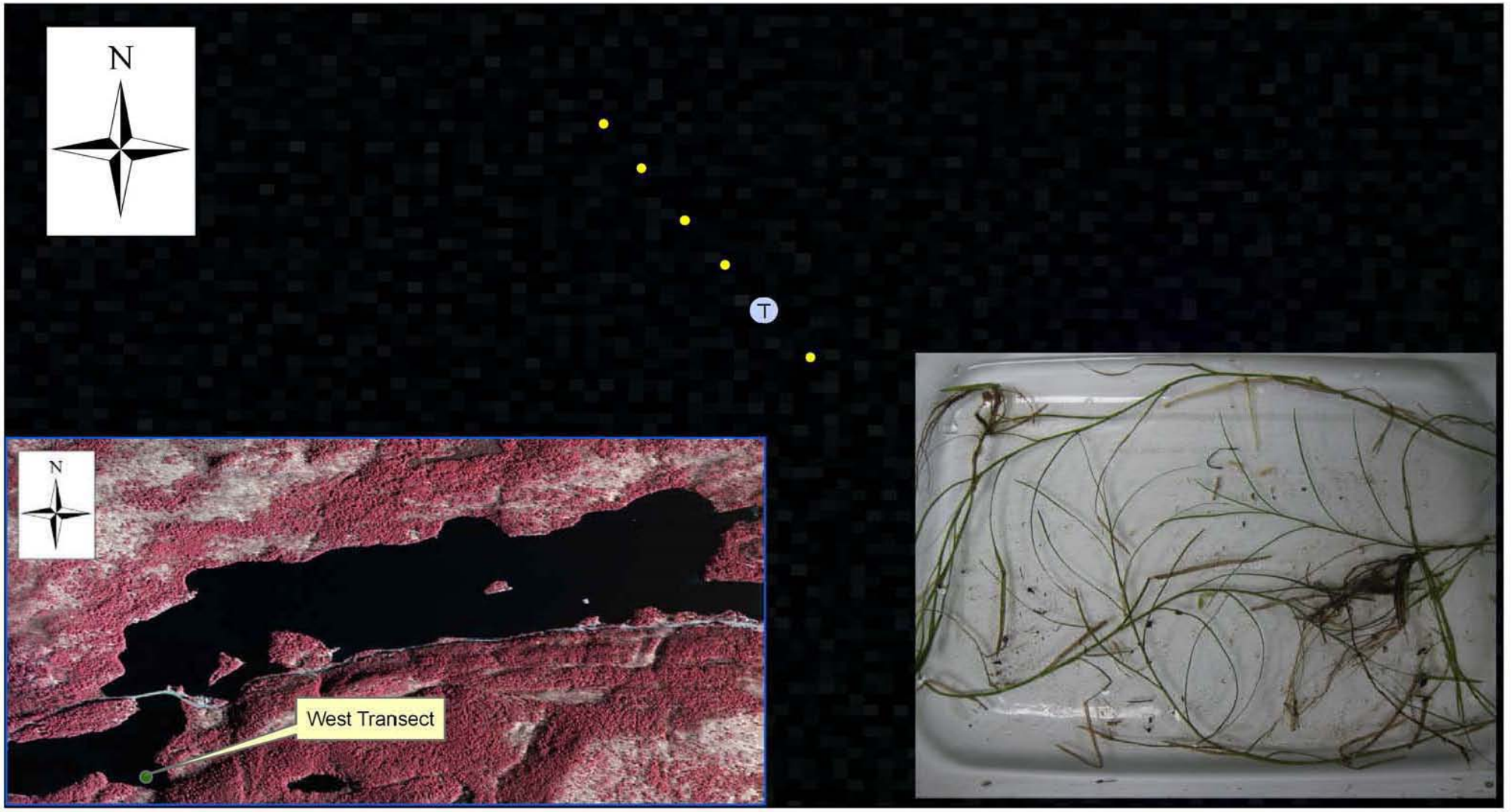
Legend

O = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological

West Transect Water Stargrass (*Zosterella dubia*) Distribution
Eagle Lake Aquatic Vegetation Survey
September 4, 2008



Legend

○ = No Plants
T = Trace Plants M = Medium Plants
S = Sparse Plants D = Dense Plants

0 5 10 20 30 40
Feet

Allied Biological