Notes on the flora and fauna of Goey Pond, Otsego County, NY

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INTRODUCTION

Goey Pond (latitude: 42° 37.52'; longitude: 074° 58.46'), a small lake in the Town of Hartwick, Otsego County, New York, was visited by one or both authors on at least ten occasions over the warm months of 1998. It is dimictic, and has a maximum observed depth of 16.5 m (54 ft). The maximum seasonal variation in water depth was two meters. No year-round residences, and less than six seasonal homes, were found in the small watershed feeding the lake. There were a number of fishermen and a smaller number of motorcyclists and horseback riders observed making use of the lake and its perimeter, particularly on weekends and holidays. Other articles in this annual report describe the lake's morphology (Lord, 1999) and limnology (Cronk, 1999).

METHODS

Observations recorded herein were made while walking around the lake, boating its surface in a johnboat, free diving and SCUBA diving. Notes of observations were regularly made throughout the summer, often before leaving the site. Samples of macrophytes were brought back to the BFS for definitive identification using Fassett (1957).

Additionally, zooplankton were captured with a length of garden hose, weighted on the lower end with a line attached, and dropped through the water column to within 20 cm of the bottom. The line was then brought back up into the boat capturing a composite sample of water and plankton. While this technique was aimed primarily at capturing phytoplankton, the zooplankton were also represented. Samples were subsequently brought back to the BFS where zooplankton were viewed with dissecting microscopes and identified using Pennak (1953).

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RESULTS

We observed the following submerged macrophytes:

- *Nuphar variegatum*  
  Bullhead lily (with petioles to 2 m in length);  
- *Nitella flexilis*  
  Stonewort (from 9.5 m to less than 2 m in depth with a mat at 7 m greater than 0.6 m thick);  
- *Drepanoclados* sp.  
  Leafy liverwort moss (covering submerged trees and rocks, particularly on the western edges of the lake);  
- *Potamogeton epihydrus*  
  Leafy pondweed;  
- *Isoletes* sp.  
  Quillwort.

Common zooplankters found were:

- *Daphnia* spp.  
  Cladocera (large, red);  
- *Chaoborus* sp.  
  Phantom midges.

Common benthic crustacean found was:

Decapoda  
Crayfish.

Forest canopy bordering the lake was dominated by:

- *Tsuga canadensis*  
  Eastern hemlock (found dead underwater to depths of 5 m);  
- *Querus* spp.  
  Oaks;  
- *Acer* spp.  
  Maples;  
- *Betula* spp.  
  Birches.

Vertebrates observed to be in the area:

- *Micropterus dolomieu*  
  Small mouth bass;  
- *Lepomis* spp.  
  Sunfishes;  
- *Pomoxis* sp.  
  Crappy;  
- *Esox* sp.  
  Pickerel;  
- *Notophthalmus viridescens viridescens*  
  Red spotted newts;  
- *Ardea herodias*  
  Great blue heron;  
- *Corvus brachyrhynchos*  
  Crow;  
- *Meleagris gallopavo*  
  Turkey;  
- *Castor canadensis*  
  Beaver;  
- *Tamias* sp.  
  Chipmunk;  
- *Sciurus carolinensis*  
  Grey squirrel;  
- *Procyon lotor*  
  Raccoon.
DISCUSSION

Only the submerged aquatic macrophytes were inventoried in any systematic fashion. The other plants and animals listed were noted because they caught the attention of the authors while involved with other tasks. Obviously, much work remains to exhaustively inventory the fauna and flora of the Goey Pond watershed.

There are none of the aggressive alien plants (e.g., Eurasian milfoil or crispy pondweed) present that cause so many problems in lakes in the northern tier of the States and Canada. There are sizeable populations of large crustacean zooplankters cropping planktonic algae as fast as they grow, maintaining water clarity.

*Nitella flexilis* was the most obvious submergent macrophyte of the five species we encountered, although the *Drepanocladius* sp. was dominant along the steep western slopes of the basin. This mix of aquatic plants is unique and should be protected.

By far the most common vertebrate encountered in the water was the common newt. These salamanders maneuver around all through the stonewort and flee from approaching divers indicating some fear of predation contrary to the generally accepted belief that the color of their spots warns predators of their indelibility.

The red color of the *Daphnia* spp. encountered was assumed to be from ingesting purple sulfur metabolizing bacteria found in the profundal zone of the lake.

The authors only generally know the history of Goey Pond. Three families own the watershed. Mr. David Gladstone of Henreitta owns most. His wife's family owned the land since before the turn of the century. Mrs. Gladstone relates that the land was never farmed although it has been lumbered regularly. The lake appears to have been expanded considerably by a ~4 m high dam at its south end which was presumably built at about the time the village of Milford started using the lake for its water supply. The old pipes are still noticeable in the southern end of the lake and as they feed through the dam. This also appears to account for the trees found to depths of 5 m. Milford stopped using the lake's waters in the late 1980's or early 1990's. No homes or camps are within 200' of the lake.

This entire watershed is unique and near pristine meriting protection and further study.

REFERENCES


Lord, P. H. 1999. New lake mapping technologies evaluated on Goey Pond. SUNY


