Near-shore total phosphorus concentrations varied among the 23 sampling locations, and among dates, during the 2020 sampling season (Figures 1 – 3). Most nearshore total phosphorus concentrations remained below the 10 micrograms per liter threshold that is considered sufficient to stimulate short-term algal blooms (Figures 1 and 2). The 2020 near-shore total phosphorus concentrations were generally higher in the more embayed near-shore Kooaukee Island (S-40) and Site S-001 where the total phosphorus concentrations commonly exceed 10 micrograms per liter. The Skier Cove (S-090) total phosphorus concentrations were also elevated above 10 micrograms per liter through August. On the other hand, the least embayed sites, such as S-60 and S-70, have consistently exhibited some of the lower total phosphorus concentrations documented among the near-shore sampling locations and were once again among the lowest phosphorus concentrations documented during the 2020 sampling season. Future sampling should continue to emphasize monthly sampling at each sampling location that will better assess the variability among sites and that will continue to screen for potential problem areas around Bow Lake. Early season samples, collected in April/early May, are also encouraged to help characterize the Bow Lake nutrient concentrations that are associated with the heavy spring runoff/snowmelt period.

Figure 1. Bow Lake Nearshore Total Phosphorus Inter-comparison (2020)

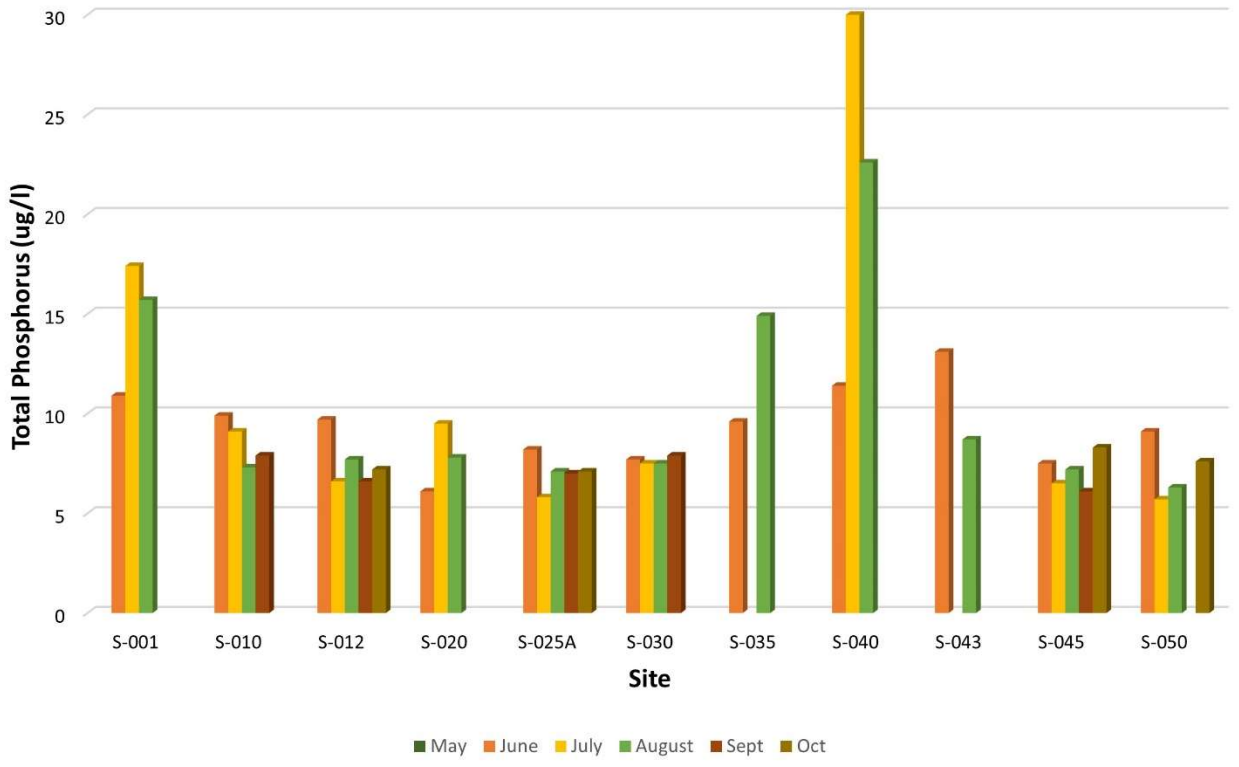


Figure 2. Bow Lake Nearshore Total Phosphorus Inter-comparison (2020)

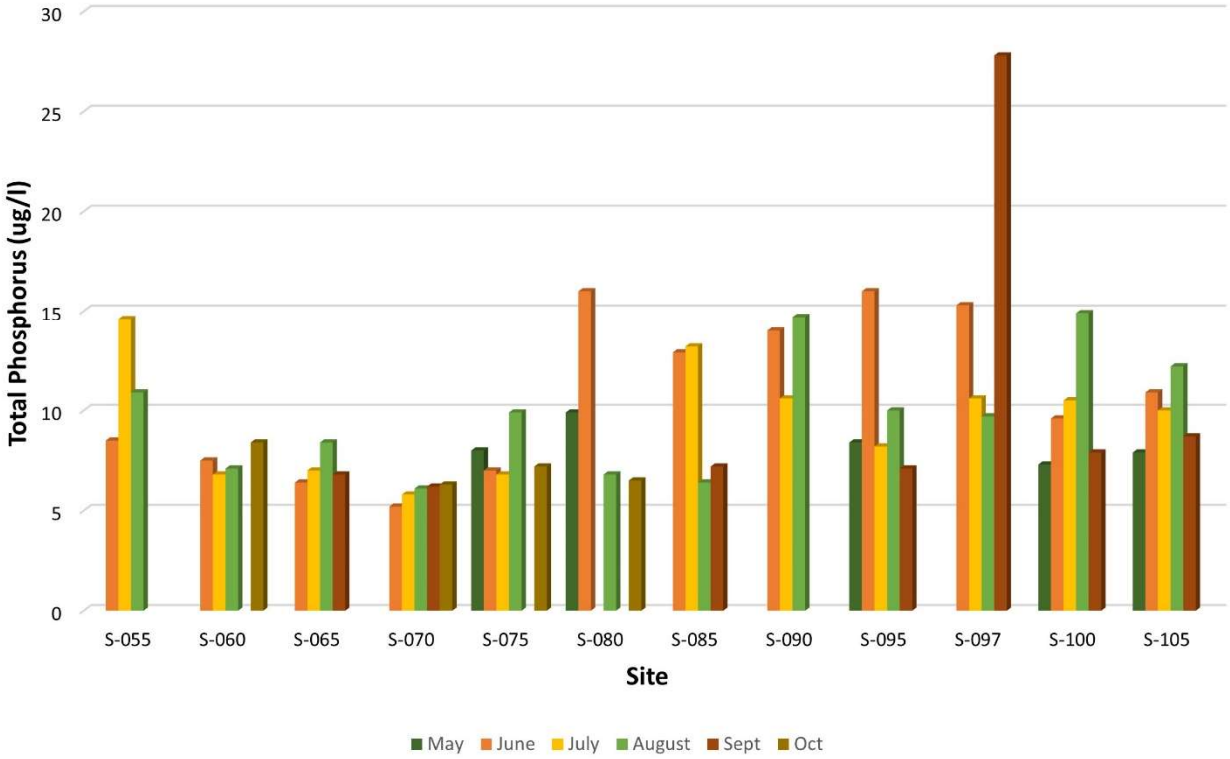
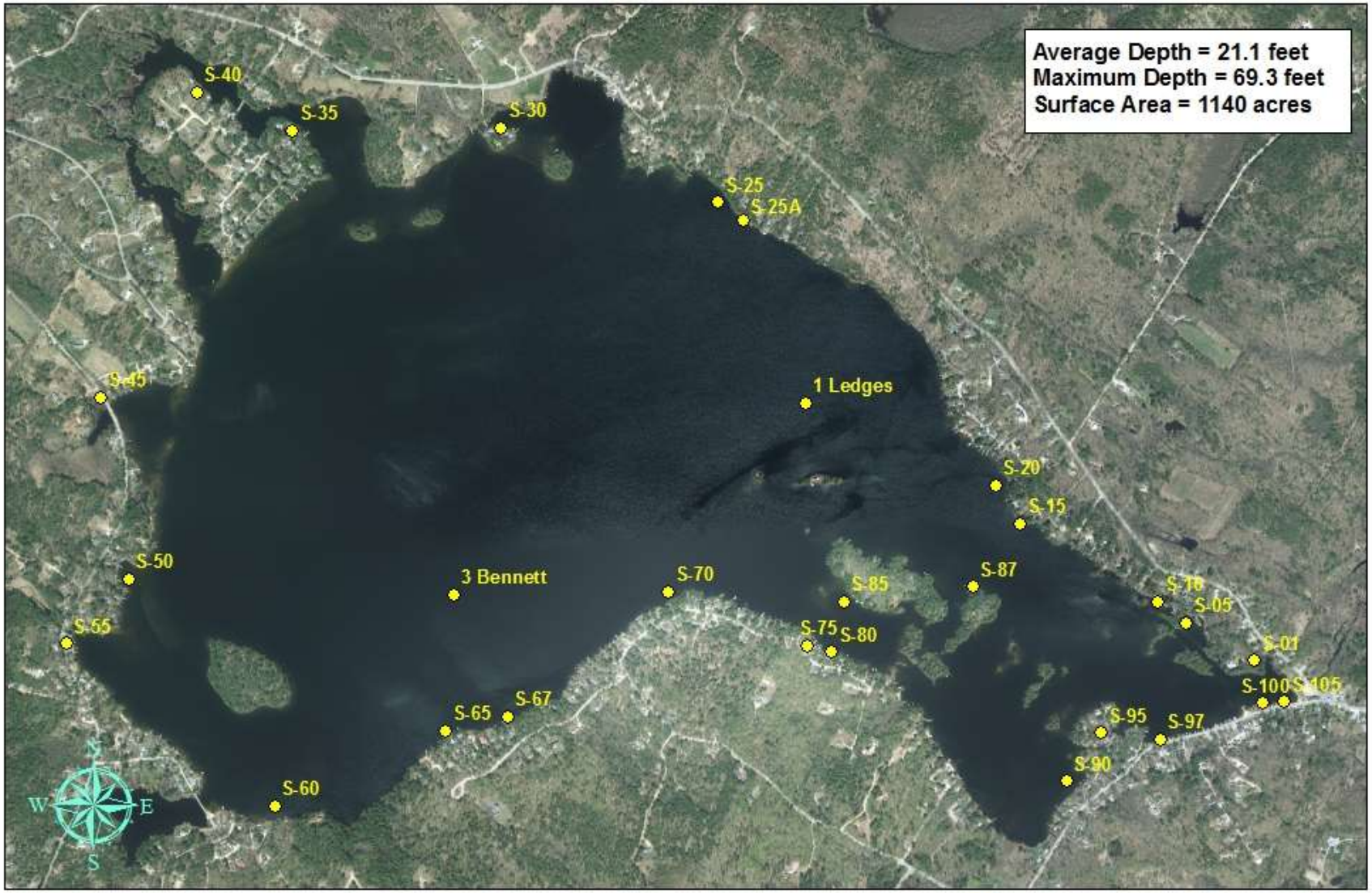


Figure 3. Bow Lake

Strafford & Northwood, NH

2020 deep water and nearshore sampling sites



Miles

0 0.2 0.4 0.6 0.8

Aerial Orthophoto Source: NH GRANIT

Site location GPS coordinates collected by the UNH Center for Freshwater Biology

NH Extension