

Supplemental Tables

Table S1. CTD profiles of each station. Station corresponds to Maryland Department of the Environment CB central stations. For instance, 4.3 corresponds to MDE station CB4.3C. Depth (m) is estimated from a pressure sensor, assuming every m corresponds to one dB of pressure. Sensor describes the measurement type with units as follows: Oxygen (mg/L), Temperature (°C), Salinity (PSU), Fluorescence (mg/m³), PAR (umol/m²/s), and pH (unitless). Fluorescence sensors were not calibrated prior to this project, so values should be treated as relative fluorescence.

Table S2. LISST profiles and preliminary calculations. Station as in table S1. Pressure in dB, according to the LISST's built in sensor. Minutes+seconds – relative time measurement. goingdown – 1 if the LISST is descending. size – size bin, as recorded by the instrument. vc – volume concentration. Estimated particle volume in that bin, assuming spherical particles. VolumePerParticle – particle volume of a particle of diameter “size”. number_of_particles – estimated from volume concentration assuming a spherical particle. Value is in particles/L.

Table S3. Estimates of total particle mass, and total particle abundance associated with our nylon filter size fractions. Station as in tables S1 and S2. Size_Class – lower bound of our filtration size class. For instance, 1.2 refers to all particles larger than 1.2 µm and smaller than 5 µm. Depth – is categorical. Sample_depth – the depth at which the measurement was taken. MassperLiter – measurement of particle mass in that size bin (mg/L). Calculated by comparing pre and post weights of a gff that had measured a known volume of water resuspended from a nylon filter.

ParticlesPerL – total number of particles, calculated by summing over all LISST bins within that size range (#/L).

Figure S1. Volume concentration data from the LISST. The particle volume concentration in $\mu\text{L/L/mm}$ (x axis) for all size bins provided by the LISST (y axis), shown only for the surface and bottom depths where particle samples were collected. Points are where the LISST size bins most closely match the sizes of the filters that were used for particle collection.