

Materials List for:

# Laboratory-determined Phosphorus Flux from Lake Sediments as a Measure of Internal Phosphorus Loading

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## Materials

Name	Company	Catalog Number	Comments
Multiparameter sonde	YSI	YSI 6600	The key parameters of interest are temperature and dissolved oxygen, although other measurements may be desired depending on the goals of the study. The other major manufacturer of multiparameter sondes is Hach (Hydrolab).
Niskin bottle	General Oceanics	101005	A Van Dorn bottle can also be used.
Carboys, 10 L	Nalgene	DS2213-0020	Available from many laboratory supply companies, including Fisher Scientific and VWR.
Piston corer	N/A	N/A	Details on construction materials given in Fisher <i>et al.</i> <sup>20</sup>
Vice grips	N/A	N/A	
Duct tape	N/A	N/A	
Vertical rack for holding core tubes	N/A	N/A	Custom fabricated onsite.
Environmental growth chamber	Powers Scientific, Inc.	DS70SD	
Compressed air with regulator	N/A	N/A	Use lab air supply or purchase from local gas supply company.
Buffered N <sub>2</sub> gas with regulator	N/A	N/A	Purchase from local gas supply company.
Parker Parflex Series E (instrument grade) polyethylene tubing; 1/4 in o.d., 0.04 in wall, 0.170 in i.d.	Parker	E-43-B-0100	Tubing (from gas to chamber)
PEEK Capillary tubing; 1/16 in o.d., 1/32 in i.d.	Fisher Scientific	3050412	Tubing (from manifold to cores)
Union tee	Parker	164C-4	
Union tee nut	Parker	61C-4	
Nylon tubing; 1/4 in o.d., 3/16 in i.d.	US Plastics	58042	
Ferrule, front and back; 1/4 in	Swagelock	B-400-Set	
Brass nut; 1/4 in	Swagelock	B-402-1	
Brass medium-flow meterings valve; 1/4 in	Swagelock	B-4MG	
Once-piece short finger tight fittings; 1/16 in	Alltech	32070	Half of the sampling port
Female 10-32 to female luer; 1/4 in	Alltech	20132	Half of the sampling port
Ferrule, front and back; 1/16 in	Swagelock	B-100-Set	
Brass nut fittings; 1/16 in	Swagelock	B-102-1	
Tube fitting reducer; 1/16 in x 1/4 in	Swagelock	B-100-R-4	

PTFE tubing; 1/16 in o.d., 0.040 in i.d.	Grace Davison Discovery Sciences	2106982	
Low-pressure PTFE tubing; 1/8 in o.d., 0.1 in i.d.	Fisher Scientific	AT3134	Tubing from sampling port into core
AirTite all-plastic Norm-Ject syringes, 50 ml (60 ml) Luer slip (eccentric), Sterile	Fisher Scientific	14-817-35	
Wheaton HDPE liquid scintillation vials, 20 ml, Poly-Seal cone liner	Fisher Scientific	03-341-72D	
Nylon Syringe Filter; 30 mm diameter, 0.45 µm	Fisher Scientific	03-391-1A	
Masterflex peristaltic pump, model 755490	Cole Parmer	A-77910-20	
Pall Filterite filter housing, model T911257000	Pall Corporation	SCO 10UP	
Graver QMC 1-10NPCS filter; 10 in, 1.0 µm	Flowtech Corp	N/A	
Graver Watertec 0.2-10NPCS filter; 10 in, 0.2 µm	Flowtech Corp	N/A	