

See <http://www.oyster-restoration.org/suppliers-and-sources/>

See <http://www.oyster-restoration.org/> for updates regularly

Methods, Suppliers and Sources For Field/Lab Supplies, Hardware For Monitoring, Stats, Restoration Sampling, Aquaculture, Etc.

DISCLAIMER: The links to commercial sites are in no way an endorsement of any vendor's products or services. The materials included here may include inaccuracies or typographical errors. We do not warrant or make any representations regarding the use or the results of the use of the any of the materials on this site in terms of their correctness, accuracy, reliability, or otherwise. We do not warrant that the items contained on this website may be uninterrupted or error free, that any defects will be corrected. We make no representations about the suitability of the materials contained on this website for any purpose. We disclaim all warranties and conditions with regard to the materials, including all implied warranties and conditions of merchantability, fitness for a particular purpose, title and non-infringement.

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General Info Sites, Third Party for Many Instruments Later On In Listing, Sampling Handbooks, Harvesting, and Other Manuals

Section 1

Alliance for Coastal Technologies (ACT), <http://www.act-us.info/>, +1.410.326.7385, One Williams St., Solomons, MD, 20688, Email: info@act-us.info, ACT is a partnership of research institutions, resource managers, and private sector companies dedicated to fostering the development and adoption of effective and reliable sensors and platforms for use in coastal, freshwater and ocean environments. Do all manner of sensor evaluations, run workshops, have a searchable database, also ocean observing systems. Dr. Mario Tamburri, Exec. Dir., tamburri@umces.edu.

Baggett, L.P., S.P. Powers, R.D. Brumbaugh, L.D Coen, B. DeAngelis, J. Greene, B. Hancock, S. Morlock, B. Allen, D. Breitburg, D. Bushek, J.H. Grabowski, R. Grizzle, T. Grosholz, M. La Peyre, M. Luckenbach, K. McGraw, M.F. Piehler, S. Westby, and P.S.E. zu Ermgassen, 2015. **Setting guidelines for evaluating performance of oyster habitat restoration**. Restoration Ecology 23:737–745. Coyer, J.A., D. Stellar and J.D. Witman, 2011. The Underwater Catalog: A Guide to Methods in Underwater Research, 3rd Edition, 122pp. order through Shoals Marine Lab, http://www.sml.cornell.edu/sml_research_publications.html, shoals-lab-east@cornell.edu

<http://www.aquaculturesuppliers.org/>, Aquaculture Suppliers Association

FL Sea Grant, <http://shellfish.ifas.ufl.edu/suppliers.html> lists compiled as informational handouts to interested persons for FL.

FL Sea Grant, 2013 Clam Bag Suppliers, thread fabric, etc.
<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2013%20Clam%20Bag%20Suppliers.pdf>

National Research Council (NRC), 2016. Effective Monitoring to Evaluate Ecological Restoration in the Gulf of Mexico. Committee on Effective Approaches for Monitoring and Assessing Gulf of Mexico Restoration Activities, National Academies Press, Washington, D.C., 265pp. preprint, see <http://www.nap.edu/read/23476/chapter/1> DOI: 10.17226/23476, ISBN: 978-0-309-44037-0

<http://www.offshoremariaculture.com/>, Offshore Mariculture 2012

<http://www.maritimeindustries.org/Marine-science-technology>, Marine science & technology

<http://bellsouthpwp.net/b/b/bbaclask/associations.html>, Directory of aquaculture related associations and trade organizations

<http://pcsga.net/about-pcsga/join-pcsga/> Pacific Coast Shellfish Growers Association

<http://www.subseauk.com/>, Voice of the UK subsea industry, <http://www.subseauk.com/10/subsea-uk-directory>

<http://www.mmf-uk.org/>, Marine Measurement Forum

<http://www.shellfish.org/>, National Shellfisheries Association

<http://www.sml.cornell.edu/forms/uw.cat.03.pdf>, The Underwater Catalog: A Guide to Methods in Underwater Research, Coyer, Steller, and Witman, May 2003

http://www.seabird.com/other_manufacturers/thirdparty.htm, Descriptions and links on this page are provided as a convenient information source to our customers of Sea-Bird

<http://www.seapoint.com/thirdparty.htm>, Seapoint sensors are easily interfaced with a wide variety of third party equipment.

<http://oceanexplorer.noaa.gov/technology/tools/tools.html> Observation Tools, **specifics below**

http://oceanexplorer.noaa.gov/technology/tools/sonde_ctd/sondectd.html Sonde and CTD overviews,

http://oceanexplorer.noaa.gov/technology/tools/acoust_doppler/acoust_doppler.html Acoustic Doppler Current Profiler (ADCP)

<http://oceanexplorer.noaa.gov/technology/tools/clodcards/clodcards.html>. Clod Cards, related

<http://oceanexplorer.noaa.gov/technology/tools/mapping/mapping.html> Mapping, GIS

<http://oceanexplorer.noaa.gov/technology/tools/acoustics/acoustics.html>, Technologies for Ocean Acoustic Monitoring

<http://oceanexplorer.noaa.gov/technology/tools/drifters/drifters.html>, Drifters

<http://oceanexplorer.noaa.gov/technology/tools/rawl/rawl.html> Trawls overview

http://www.enviroscan.com/html/marine_search__survey__marine.html Nice overviews of mapping techniques

Oyster Reef Restoration, http://en.wikipedia.org/wiki/Oyster_Reef_Restoration

<http://public.tableausoftware.com/views/GulfofMexicoOysterReefRestorationValueChain/GulfCoastOysterReefRestoration?:embed=y> **Interactive Visualization of the U.S. Reef Restoration Value Chain.**

This online tool shows the economic impact of restoring Gulf US coastal oyster reefs. Specifically, what types of businesses are required to bring an oyster reef restoration project from its conception to final completion. The map shows the geographic dispersion of firms, and is color coded to indicate in which segment of the value chain – from planning and design through assembly and installation – each firm operates.

Ecoshape. Working with Nature in the Netherlands, While native oyster restoration is still in its infancy throughout Europe, the value of oyster habitat has not escaped attention. A pilot project in The Netherlands was undertaken to assess the value of non-native *Crassostrea gigas* reefs in coastal protection. While the final results of this project in the Wadden Sea are yet to be

published, the preliminary findings were promising. The native European oyster *Ostrea edulis* has been functionally extinct in the Wadden Sea for a number of decades, while *C. gigas* has been increasing in abundance since the 1980s.

<http://www.aqua.stir.ac.uk/public/shellfish2011/presentations/walles.pdf>, see also <http://library.wur.nl/WebQuery/wurpubs/lang/420622> for more info

Coastal Environments, Inc. and ReefBLKSM, <http://www.coastalenv.com/> and <http://www.reefblk.com/>, 1260 Main St., Baton Rouge, LA 70802, 225.383.7455 ext. 111, Email: mgagliano@coastalenv.com, president of Company, Mark Gagliano. This system was recently developed and used in the Gulf of Mexico initially for use with oyster shell filled “reef panels” designed for a broad range of engineering applications in estuarine areas. Erosion control structures, canal plugs and water control structures can be built that not only are functional, but also enhance the environment. The rebar/shell structures become “living reefs”. The ReefBLKSM technique can be used to rapidly construct reef-like structures along long stretches. This patented system was developed with the support of a team of experienced scientists (TNC, USGS, and others) and it has been proven through successful installation in coastal waters.

Matrix New World Engineering, Inc., <http://www.matrixnewworld.com/>, 1521 Concord Pike Suite 301, Wilmington, DE, 19803, O. 302.824.7074; C. 302.598.7553, contact: Lawrence Malizzi, Email: lmalizzi@matrixnewworld.com.

ReefBLKSM, <http://www.reefblk.com/>, 1260 Main St., Baton Rouge, LA 70802, 225.383.7455 ext. 111, Email: mgagliano@coastalenv.com, president of Company, Mark Gagliano. ReefBLKSM is a system for using living oyster reef panels as components of structures designed for a broad range of engineering applications in estuarine areas. Erosion control structures, canal plugs and water control structures can be built that not only are functional, but also enhance the environment. The structures themselves become living reefs that provide a habitat for a large variety of fish. The reefs produce shell that washes on shore to form beaches. The combination of shell beaches and reef fish then form a prime habitat for shore birds. The ReefBLKSM technique results in more rapid formation of reefs than through natural reef formation. The reefs enhance aquatic and avian habitat diversity, recreational and commercial fisheries productivity, and provide a natural management tool for combating coastal erosion. The process has potential applications anywhere oyster will grow, along the shores of lakes and bays, around islands, and along the banks of streams and canals. The ReefBLKSM system is patented. It was developed with the support of a team of experienced scientists and it has been proven through successful installation in coastal waters.

List of statistical packages, see http://en.wikipedia.org/wiki/List_of_statistical_packages, see also other section

TNC Oyster Reef Restoration, <http://www.behance.net/gallery/TNC-Oyster-Reef-restoration/3979955>, The Nature Conservancy asked them to create an interactive infographic to educate people on the importance of oyster reef restoration. Here animated a 3-d model of a typical shoreline. Then the animation shows the process of shoreline deterioration when natural oyster reefs die and are lost and what one can do to strengthen them.

Websites for Random Numbers, Spatial Analyses, Geovisualization, Stats, Graphics, Conversion Factors, Rounding, etc.

Section 2

Proprietary and open-source statistical packages summarized with links, statistical add-ons, and comparisons of programs, http://en.wikipedia.org/wiki/List_of_statistical_packages and http://en.wikipedia.org/wiki/Comparison_of_statistical_packages

BMDP, <http://www.statsols.com/>, <http://www.statistical-solutions-software.com/>, <http://www.statistical-solutions-software.com/bmdp-statistical-software/bmdp/>, <http://www.statsols.com/bmdp-statistical-software-in-cutting-edge-research/>, Statistical Solutions, Stonehill Corporate Center, Suite 104, 999 Broadway, Saugus MA, 01906, 800.262.1171, BMDP is used by researchers, businesses and academic institutions as a statistical analysis software package. One of the oldies (with SAS, SPSS), from mainframe computers, developed at UCLA originally, BMDP provides in-depth functionality for ANOVAs, regression, nonparametric analysis, times series, etc. high resolution graphics facilitate communicating results and having the ability to study the impact of outliers, skewed distributions, unequal variances, etc. BMDP has a well known Survival Analysis procedure. Student, academic and other licensing options.

GenStat, <http://www.vsn.co.uk/software/genstat>, VSN International Ltd., 5 The Waterhouse, Waterhouse St., Hemel Hempstead, HP1 1ES UK, +44(0)1442 450230, E-mail: inquiry@vsni.co.uk, GenStat is a complete package that can manage and illustrate data, summarize and compare, model relationships, design investigations and analyze your data from ANOVAs to the most complex REML. It was conceived and developed at the Rothamsted Experimental Station (RRES). Current version is 17.

GeoDA, see <http://en.wikipedia.org/wiki/GeoDA>, Email: geodacenter@asu.edu, OpenGeoDa is the cross-platform, open source version of Legacy GeoDa, GeoDa has powerful capabilities to perform spatial analysis, multivariate exploratory data analysis, and global and local **spatial autocorrelation**. It also performs basic **linear regression**. As for spatial models, both the **spatial lag model** and the **spatial error model**, both estimated by **maximum likelihood**. GeoDa also is capable of producing histograms, box plots, Scatter plots to conduct simple exploratory analyses of the data. See <https://geodacenter.asu.edu/software/downloads>, current version 1.4.0.

GraphPad Software, <http://www.graphpad.com/>, GraphPad Software, Inc., 2236 Avenida de la Playa, La Jolla, CA, 92037, 858.454.5577, Email: sales@graphpad.com, GraphPad Prism[®] Ver. 6, combines basic stats, statistical comparisons including non-parametric tests, regression, correlation, comprehensive curve fitting (nonlinear regression), and scientific graphing and data organization. Student, academic and other licensing.

JMP and SAS/STAT[®] (SAS, Inc.), SAS Institute Inc., 100 SAS Campus Dr., Cary, NC, 27513-2414, also regional offices, 800.727.0025, Email request form: <http://www.sas.com/reg/standard/corp/gendetail>, Base SAS provides a scalable, integrated software environment specially designed for data access, transformation and reporting, see http://en.wikipedia.org/wiki/SAS_Institute for history. SAS 9.3 current version. One of the oldies (with BMDP, SPSS), from mainframe computers, provides in-depth Procedures for

ANOVAs, GLM, regression, nonparametric analysis, multivariate, times series, and graphical output, etc. Generally too expensive except for academic site licensing.

JMP (SAS Campus Dr., Building T, Cary, NC, 27513, 877.594.6567 academic pricing) is often used in Stat classes for exploratory data analysis and modeling as it's desktop is interactive and easy to use. JMP presents the results of analysis both graphically and numerically. Graphs in JMP are linked to each other and to the data, which makes it easier to see trends, outliers and other data patterns. It also allows access to SAS/ETS[®] procedures. It is not purchased annually as license, rather is bought as a package and is more affordable. Current release is JMP 10.

Mathematica, Wolfram Research Co., <http://www.wolfram.com/> and <http://www.wolfram.com/mathematica/?source=nav>, <http://www.wolfram.com/products/>, elementary and special mathematical function libraries, Phone: 800.965.3726; Headquarters, 100 Trade Center Dr., Champaign, IL 61820-7237, Version 10 current version, 20 years of use make it widespread computational platform for modeling, stats, graphics and visualization of data, etc.

Mathsisfun.com, <http://www.mathsisfun.com/numbers/rounding-methods.html> critical to consistently round numbers same way by all in project.

MathWave Technologies, for Excel, <http://www.mathwave.com/articles/random-numbers-excel-worksheets.html>, 3830 Valley Center Dr. Suite 705-294, San Diego, CA, 92130, Email: support@mathwave.com, 866.312.7733, how to generate random numbers in excel worksheets, the standard Excel installation provides only a basic support for statistical functions, limiting the range of applications to very simple simulations. The standard Excel RAND function can be used to generate random numbers from the Uniform distribution. However, in Excel 2002 and earlier versions, this function should not be used with large simulation models. In addition, in Excel 2003 there is a bug causing the RAND function to return negative numbers, so you should make sure you have an appropriate hotfix package installed that solves the problem. *EasyFit*, Academic License, \$99/user.

MATLAB (MathWorks), <http://www.mathworks.com/products/matlab/>, high-level language and interactive environment for numerical computation, visualization, and programming. You can analyze data, develop algorithms, and create models and applications. The language, tools, and built-in math functions allow for faster results than with spreadsheets or traditional programming languages. Also allows for many data analyses and curve fitting/smoothing, image analyses, built-in graphics for visualizing data and tools for creating custom 2- and 3-D plots, math functions for linear algebra, statistics, Fourier analysis, filtering, optimization, numerical integration, and solving differential equations. Often used by oceanographers and other scientists that are modeling flows, etc. There are many existing apps and algorithms free for use with program. See <http://www.mathworks.com/products/datasheets/pdf/matlab.pdf> for an overview. Available student, academic and other purchasing options.

Minitab, Inc., <http://www.minitab.com/en-US/Products/>, Quality Plaza, 1829 Pine Hall Rd., State College PA 16801-3008, 814.238.3280, E-mail: sales@minitab.com, current version is Minitab 16. Has simple interface, clear guidelines (decision trees) for selecting the correct stat with assumptions, sample sizes, etc., built-in generated interpretations to better understand results of analyses, available student, academic and other purchasing options, Version 17 current version.

The R Project for Statistical Computing, <http://www.r-project.org/>, R is a free language and environment for statistical computing and graphics. It is an integrated suite of software facilities for data manipulation, calculation and graphical display. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To [download R](#), just choose your preferred [CRAN mirror](#). R provides a wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time-series analysis, classification, clustering, etc.) and graphical techniques, and is highly extensible [Latest release of R was 3.2.0](#). "Masked Marvel", April 3, 2013. See <http://developer.r-project.org/TechDocs/> for technical papers and <http://cran.stat.ucla.edu/> for manuals.

Random Number Generator, <http://www.randomnumbergenerator.com/>, Email: randomnumbergenerator@trafficnames.com, this utility generates random numbers, and is completely free to use! The numbers could be used for games, choosing lottery numbers or any other purpose. Whenever you want to generate a new set of numbers, simply click 'More random numbers'.

RandomNumbers.info, <http://www.randomnumbers.info/>, Email: randomnumbers@unige.ch, Website collaboration between the University of Geneva and IDQ (formerly id Quantique). It allows for downloading of true random numbers generated using a quantum random number generator. Users can specify the length of the random number sequence and their upper boundary. The Scientific and Parallel Group of the Computer Science Department, University of Geneva developed this server/client application for scientists to be able to download random numbers directly into C, C+, Fortran or Java codes for simulations.

Random.Org, <http://www.random.org/>, Randomness and Integrity Services Ltd., Unit 20, 2 Waterloo Rd., Dublin 4, Ireland, 353(0)1.896.1765, Email: contact@random.org, offers true random numbers to anyone on the Internet, generate passwords, sequences of numbers, some stats, etc. For specific info contact Dr. Mads Haahr, School of Computer Science and Statistics, Trinity College, Dublin 2, Ireland, Mads.Haahr@cs.tcd.ie

Primer (or Plymouth Routines in Multivariate Ecological Research), is a collection of specialist routines for analyzing species or sample abundance (biomass). PRIMER-E Ltd., 3 Meadow View Luton, Ivybridge, PL21 9RH, U.K. (see <http://www.primer-e.com/>). Phone: +44 (0)1752 837121, Email: primer@primer-e.com. It is primarily used in the scientific community for ecological and environmental studies. A further unique feature of PRIMER as of the current version (post-6) is the ability to calculate biodiversity indices based on the taxonomic distinctness or relatedness of the species making up a quantitative sample or species list, indices whose statistical properties are robust to variations in sampling effort. ANOSIM and SIMPER as well known in ecological literature and are used to summarize species composition and environmental variable patterns, permutation-based hypothesis testing (ANOSIM), an analogue of univariate ANOVA which tests for differences between groups of (multivariate) samples from different times, locations, experimental treatments etc. Current version Primer 7 and PERMANOVA+ add-on. One interesting note is that Primer workshops are given around the globe where participants bring their own datasets to use and explore during the training.

SYSTAT Software, <http://www.sigmaplot.com/contact/>, Systat, Mymstat, SigmaPlot, PeakFit, SigmaScan, TableCurve 3D. 2107 North First Street, Suite 360, San Jose, CA 95131 USA.

Phone: 800-797-7401, 408-452-9020; Email: info-usa@systat.com, Support: techsupport@systat.com, Technical Support Phone: 1-408-452-9010.

General Information for Specimen Prep, TEM, SEM, etc.

Section 3

Anonymous, Preparing samples for the electron microscope, see

<http://www.sciencelearn.org.nz/Contexts/Exploring-with-Microscopes/Looking-Closer/Preparing-samples-for-the-electron-microscope> videos and overview.

Dunn School Bioimaging Facility, SEM overview of a JEOL SEM,

<http://web.path.ox.ac.uk/~bioimaging/ElectronMicroscopes/SEM.html> and

<http://web.path.ox.ac.uk/~bioimaging/ElectronMicroscopes/TEM.html> TEM overview of a FEI TEM.

École Polytechnique Fédérale de Lausanne (EPFL), Interdisciplinary Centre for Electron Microscopy, Sample Preparation, see <http://cime.epfl.ch/sample-preparation>

Mukhopadhyay, S.M., 2003. Sample preparation for microscopic and spectroscopic characterization of solid surfaces and films, Chapter 9, In: Sample Preparation Techniques in Analytical Chemistry, Somenath Mitra, Ed., John Wiley & Sons, Inc., NY, Pp.377- 411. See http://www.spectroscopynow.com/userfiles/sepspec/file/specNOW/Tutorials/sample_prep_mitra_377-412.pdf

Shellfish Restoration/Living Shorelines Comprehensive Sites (many more see Oyster Workgroup Website for updates, etc.)

Section 4

<http://www.oyster-restoration.org/> Shellfish restoration, mapping, living shorelines info, etc.

http://www.nmfs.noaa.gov/habitat/restoration/restorationatlas/recovery_map.html NOAA Atlas

http://www.nmfs.noaa.gov/aquaculture/policy/shellfish_initiative_homepage.html

<http://www.habitat.noaa.gov/restoration/restorationatlas/index.html>

<http://www.habitat.noaa.gov/about/habitat/habitatlocator.html>

<http://cues.rutgers.edu/benthic/>

Interactive Visualization of the U.S. Reef Restoration Value Chain.

<http://public.tableausoftware.com/views/GulfofMexicoOysterReefRestorationValueChain/GulfCoastOysterReefRestoration?:embed=y>. This online tool shows the economic impact of restoring Gulf US coastal oyster reefs. Specifically, what types of businesses are required to bring an oyster reef restoration project from its conception to final completion. The map shows the geographic dispersion of firms, and is color coded to indicate in which segment of the value chain – from planning and design through assembly and installation – each firm operates.

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<http://www.aqua.stir.ac.uk/public/shellfish2011/presentations/walles.pdf>, see also

<http://library.wur.nl/WebQuery/wurpubs/lang/420622> for more info

ReefBLKSM, <http://www.reefblk.com/>, 1260 Main St., Baton Rouge, LA 70802, 225.383.7455 ext.

111, Email: mgagliano@coastalenv.com, president of Company, Mark Gagliano. ReefBLKSM is a system for using living oyster reef panels as components of structures designed for a broad range of engineering applications in estuarine areas. Erosion control structures, canal plugs and water control structures can be built that not only are functional, but also enhance the environment. The structures themselves become living reefs that provide a habitat for a large variety of fish. The reefs produce shell that washes on shore to form beaches. The combination of shell beaches and reef fish then form a prime habitat for shore birds. The ReefBLKSM technique results in more rapid formation of reefs than through natural reef formation. The reefs enhance aquatic and avian habitat diversity, recreational and commercial fisheries productivity, and provide a natural management tool for combating coastal erosion. The process has potential applications anywhere oyster will grow, along the shores of lakes and bays, around islands, and along the banks of streams and canals. The ReefBLKSM system is patented. It was developed with the support of a

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Advanced Erosion Control Technology, Materials, Oysters, Marsh, Restoration/Living Shoreline Projects (Groins, Seawalls, etc.), Reef Mapping

Section 5

ACF Environmental, <http://www.acfenvironmental.com/aboutACF.html>, is the leading supplier of innovative geosynthetic solutions, Charleston Warehouse. 165 Royle Rd., Ladson, SC 29456, 843.873.0254, 800.448.3636, Brandon Shaw Email: bshaw@acfenvironmental.com, cell 843.729.2797, erosion and stabilization, pavement preservation, geotextiles and geogrids, porous pavements, used with oyster shell already, <http://www.acfenvironmental.com/rtank.html>, R-TankH stormwater detention, infiltration, and recycling systems provide underground storage of stormwater, http://www.acfenvironmental.com/PDFs/GeoBlock/Geoblock_Intro_1spp.pdf, Geoblocks,

Alcoa Geosystems (Alcoa Geoweb[®]), www.alcoa-geo.com, Slope and shoreline protection, P.O. Box 2399, 670 North Perkins St., Appleton, WI, 54912-2399, 920-738.1707, Email: info@alcoa-geo.com, http://test.d21wr.com/slope_protection_overview%2029.pdf, cellular confinement, etc.

Allied Hardscapes, Oyster Castles[®], Allied Concrete, Corporate Information, 1000 Harris Street, Charlottesville, VA 22903, Phone: (434) 296-7181, Fax: (434) 220-4846, Email: alliedsales@allied-concrete.com, see <http://www.alliedconcrete.com/materials/oyster-castles/> for more info. Conservation groups and agencies that have used Oyster Castles[®] include: The Nature Conservancy in multiple states, The US Army Corps of Engineers, The Massachusetts Audubon, Aerostar Environmental, The Coastal Conservation Association, National Estuarine Research Reserve System Science Collaborative, SCDNR, and many others.

Ben Meadows, Inc., <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Cedar Marina (Frank Gulia), 86 Bostwick Ave., Bridgeport, CT 06605, 203.335.6262, Email: cedarmarina@optonline.net, marine contractor, move shell and other materials in NE US.

Coast & Harbor Engineering, Inc., Matt Campbell, PE, Coastal Engineer, 512.342.9716, Email: matt@coastharboreng.com, www.coastharboreng.com.
<http://lacoast.gov/new/Projects/Info.aspx?num=la-08>

Coastal Environments, Inc. and ReefBLKSM, <http://www.coastalenv.com/> and <http://www.reefblk.com/>, 1260 Main St., Baton Rouge, LA 70802, 225.383.7455 ext. 111, Email: mgagliano@coastalenv.com, president of Company, Mark Gagliano. This system was recently developed and used in the Gulf of Mexico initially for use with oyster shell filled “reef panels” designed for a broad range of engineering applications in estuarine areas. Erosion control structures, canal plugs and water control structures can be built that not only are functional, but also enhance the environment. The rebar/shell structures become “living reefs”. The ReefBLKSM technique can be used to rapidly construct reef-like structures along long stretches. This patented system was developed with the support of a team of experienced

scientists (TNC, USGS, and others) and it has been proven through successful installation in coastal waters.

City of Gulf Breeze's Deadman's Island Restoration Project, <http://www.deadmansisland.org/>, see also <http://www.deadmansisland.org/app/download/6571394404/Deadmans+Island2012.pdf>, Heather Reed, Project Manager and President, Ecological Consulting Services, Inc., Pensacola, FL, 32506, <http://www.ecoconsultingservices.com/>, 850.417.7008, Inc., Email: hreed@ecoconsultingservices.com, <http://www.deadmansisland.org/contact/>, used ReefBLKs and Ecodiscs, see <http://www.deadmansisland.org/photos/>, <http://www.youtube.com/watch?v=CmH1GDZgRws> video, <http://www.deadmansisland.org/photos/reefblk/>, <http://www.deadmansisland.org/photos/>,

Continental Shelf Associates, Inc. (CSA), <http://www.conshelf.com/>, 8502 SW Kansas Ave., Stuart, FL 34997, 772.219.3000, Email: csa@conshelf.com, regional offices around US and elsewhere. Specializes in the ocean industry by applying science, information, and technology in support of the offshore, coastal, and underwater markets around the world.

DelStar Technologies, Inc., www.delstarinc.com, 601 Industrial Dr., Middletown, DE, 19709; 220 East Saint Elmo Rd., Austin, TX, 78745, 800.521.6713 (302.378.8888) (Casandra Rosetti, 800.531.5112 x1151), Email: crossetti@Delstarinc.com, manufacturers of Naltex® Duronet® Meshes, Naltex oriented mesh ¾" bags used for shellfish culturing, and in erosion control applications, etc., see <http://www.delstarinc.com/pdf/DelStar-Outdoor-Products.pdf>, <http://www.delstarinc.com/pdf/DelStar-Outdoor-Products.pdf>, <http://delstartech.thomasnet.com/item/naltex/duronet-industrial-mesh-2/1142?&bc=100|1002|3001024>,

Enviroscan, Inc., <http://www.enviroscan.com/index.html>, 1051 Columbia Ave., Lancaster, PA, 17603, 717.396.8922, Email: email@enviroscan.com, specializes exclusively in nonintrusive, nondestructive geophysics, mapping underground, underwater, or otherwise hidden objects or features, http://www.enviroscan.com/html/marine_search___survey___marine.html services include hydrographic, side-scan sonar, multibeam, sub-bottom sonar profiling, etc.

FGCU's Oyster Reef Restoration Project, <http://www.fgcu.edu/CAS/OysterResearch/>, The Coastal Watershed Institute (CWI) at FGCU and their partners in the community-based restoration of oyster reefs. Located in the lower Charlotte Harbor estuary, and estuaries of the Ten Thousand Islands in the Western Everglades, oyster reefs have been created in the Caloosahatchee River / lower San Carlos Bay, Estero Bay (Lee County), and Henderson Creek (Collier County), see also <http://www.fgcu.edu/CAS/OysterResearch/reefbuilding.html> and <http://www.fgcu.edu/CAS/OysterResearch/recycling.html> shell recycling.

US Fabrics, Inc. (supplier of Geo-Syn, Geo-Web, Cellular confinement systems), 3904 Virginia Avenue, Cincinnati, OH 45227, Phone: 1-800-518-2290, Fax: 513-271-4420; Email: info@usfabricsinc.com. See also: http://www.usfabricsinc.com/products/geotextiles?ex=eep549-5pxuxg-0&gclid=CljEo_SE_8kCFU4WHwod7cYPZA, US Fabrics offers a full line of geotextile products. Suppliers to geotextile distributors, contractors, geotechnical engineers and homeowners. For case studies see <http://www.usfabricsinc.com/casestudies>.

Gulf Saver Bags (Geotextile plant bags), <http://www.wlf.louisiana.gov/category/news/gulfsaver-bags>. Gulf Saver Bags are a package of native marsh grasses with its own supply of natural

nutrients and oil eating micro-organisms combined to support, feed and protect the new growth of marsh grasses in areas of need. The bag is composed of biodegradable burlap and weighs 20 lbs. when ready to be deployed. They can be placed by hand from small boats minimizing shoreline disturbance, cost, especially at shallow sites. Used in U.S. by folks in the Gulf of Mexico, see <http://www.commongroundrelief.org/gulfsaverinitiative>, <http://www.ekosystemspartners.org/pdf/REF.GSS.SpartinaCost.analysis.commercial.pdf>, https://www.estuaries.org/pdf/2012posters/Carrere_RAE_2012_poster.pdf, <http://www.restoretheearth.org/our-impact/case-studies>.

Hesco USA, <http://www.hesco-usa.com/> (gabion-type systems), 985.345.7332, 47152 Conrad E. Anderson Drive, Hammond, LA 70401, also HESCO Bastion, Inc., 843.637.3409, 2821 Azalea Dr., Charleston, SC, 29405, in LA contact is Dennis Barkemeyer, HESCO Bastion, Inc., also speak to Jeff DeQuattro regarding use in Gulf.

Industrial Netting, Inc. (formerly InterNet), square and oriented plastic mesh, 800.328.8456 (763.496.6355), email: info@industrialnetting.net, 7681 Setzler Parkway, North Minneapolis, MN 55445-1883, http://www.industrialnetting.com/plastic_mesh.htm, <http://www.industrialnetting.com/aquaculture.htm>, extruded or expanded mesh, cage or sheets or tubes for shell deployment generally.

International Erosion Control System (IECS), <http://www.internationalerosioncontrolsystems.com/>, 22253 Hoskins Line, Rodney, Ontario, Canada N0L 2C0, 1.800.821.7462, Email: charliechase@iecsusa.com, see for CABLE CONCRETE®, <http://www.iecsusa.com/>, <http://www.internationalerosioncontrolsystems.com/cableconcrete.html>

Invisible Structures, Inc., <http://www.invisiblestructures.com/>, 1600 Jackson St., Suite 310, Golden, CO 80401, 800-233-1522 or 303-233-8282, Email: kc@invisiblestructures.com (e.g., FL), search by state, http://www.invisiblestructures.com/sales_support.html of erosion control blankets, geotextiles, manufacturer of all sorts of pervious service materials, detention, retention, etc.

Ken's Booming and Boat Service, Inc., <http://www.kensmarineservice.com/>, 116 East 22nd St., Bayonne, NJ, 07002, 201.437.3141, Email: booming@kensmarine.net, contact is: Gadi Zofi, move shell in NY, NJ area and deploy at restoration sites.

L & M Supply Co., <http://landmsupplyco.com/index.html>, 1800 Springhead Church Rd., P.O. Box 640, Willacoochee, GA, 31650-0640, 800.948.7870, Email: info@landmsupplyco.com, see <http://www.landmsupplyco.com/ErosionControlBlankets.html>, a leading manufacturer of erosion control blankets, geotextiles, coir logs and wattles, silt control, etc. Tenax geogrids (degradeable), hog rings, pliers, plastic fencing, wood stakes, sod staples, filter/dewatering bags and more.

M&W Livestock, storage area is in SE Mass (West Wareham). Email (Wayne): shellsrus@cox.net. They can acquire and store shell as much as a year ahead of time but need notice. Chat with Ray Konisky, he sends a deposit a year in advance for shell the next year so one has seasoned shell ready. As of 5/2013, latest cost in NH was \$1200/30 yd³ truckload delivered. A NY/NJ delivery might be closer to \$3000/load given the distance and time to delivery.

Millers Launch, <http://www.millerslaunch.com/>, Miller's Launch, Pier 7 ½, Staten Island, NY 10301, 718.727.7303, contact Sven VanBatavia (VP), Email: Sven@millerslaunch.com, tugs, barges, cranes, spill equipment, etc.

R. H. Moore & Associates, Inc., <http://www.rhmooreassociates.com/>, 7834 Depot Lane, Tampa, FL 33637, 813.988.0200, Email: info@rhmooreassociates.com, example of soil stabilization and erosion control company; sell many brands of geotextiles and erosion control materials from FL warehouse. See <http://www.rhmooreassociates.com/products.html> for ideas and links to product manufacturers.

National Stone, Sand & Gravel Association Buyers' Guide, <http://nssga.officialbuyersguide.net/>, way to locate the products and services for aggregate professionals.

Nylon Net Co., www.nylonnet.com/, 800.238.7529, PO Box 592, Memphis, TN 38107, email: nylonnet@nylonnet.com, mesh distributor, netting for sampling, apparel, fishing gear, field supplies, erosion control, shoreline restoration, http://www.nylonnet.com/merchandise/?top_cat=97&cat_nav=182&cat=182, etc.

Oyster Reef Restoration Project, <http://www.oysterrestoration.com/>, 772.221.1387, Email: info@oysterrestoration.com, habitat restoration projects in Martin and Palm Beach Counties. ORP placed >30 million pounds of cultch (fossil shell, coral or other similar materials) within the St. Lucie Estuary and the Northwest Fork of the Loxahatchee River as part of NOAA's American Recovery and Reinvestment Act (ARRA) of 2009 spending >\$4 million.

Oyster Reef for Shoreline Stabilization, <http://southeastaquatics.net/projects/oyster-reef-for-shoreline-stabilization>, contact Jason Kirkpatrick, MacDill Air Force Base, Tampa Bay FL, Email: jason.kirkpatrick.CTR@macdill.af.mil, see overview, MacDill AFB, Tampa, FL <http://southeastaquatics.net/uploads/project/2003881764a78a6778d7737e78d33a49a3e68d10.pdf>
Note: Phase 1 is already showing positive results. In total, more than 2,400 concrete oyster domes, 36 tons of oyster shells, and 1,700 oyster shell bags are creating over 3,000 feet of oyster reef.

Pinelands Nursery, Inc., <http://www.pinelandsnursery.com/erosion.htm>, Email: sales@pinelandsnursery.com, 609.291.9486323, Island Rd., Columbus, NJ, 08022, see <http://www.pinelandsnursery.com/erosion.htm#coir>, coir logs, etc., used in DE and NJ.

Presto Geosystems®, http://www.prestogeo.com/erosion_control, 670 N Perkins Street, PO Box 2399, Appleton, Wisconsin USA 54912-2399, 800.548.3424 (920.738.1328), cost-saving and eco-friendly soil stabilization and storm-water solutions, manufacturers, porous pavement solutions/systems, green solutions, etc. See ACF above for purchase of these products.

Provincetown Center for Coastal Studies, Seafloor Mapping Program, Mark Borrelli, Ph.D., Coastal Geologist, Associate Scientist, Director, SMP, Hiebert Marine Lab, 5 Holway Ave., Provincetown, MA, 02657, 508.487.3623 x117 (Cell 508.808.9418), Email: mborrelli@coastalstudies.org, see <http://www.coastalstudies.org/what-we-do/land-sea/marine-geology.htm>, and <http://www.coastalstudies.org/what-we-do/land-sea/nearshoremapping.htm> for more info.

Reef Ball Foundation, <http://www.reefball.org/>, is a 501(c) 3 publicly supported non-profit and international environmental NGO working to rehabilitate marine reefs. see

http://en.wikipedia.org/wiki/The_Reef_Ball_Foundation, monitoring info, <http://www.reefball.org/album/virginia/charlottesville/alliedconcrete/jakeseniorproject/monitoring/index.html>, see Reef Innovations, Inc., <http://reefinnovations.com/> also. Excellent images of oysters recruiting onto their diverse units, see <http://www.reefball.org/brochure.htm>.

ReefBLKSM, <http://www.reefblk.com/>, 1260 Main St., Baton Rouge, LA 70802, 225.383.7455 ext. 111, Email: mgagliano@coastalenv.com, president of Company, Mark Gagliano. ReefBLKSM is a system for using living oyster reef panels as components of structures designed for a broad range of engineering applications in estuarine areas. Erosion control structures, canal plugs and water control structures can be built that not only are functional, but also enhance the environment. The structures themselves become living reefs that provide a habitat for a large variety of fish. The reefs produce shell that washes on shore to form beaches. The combination of shell beaches and reef fish then form a prime habitat for shore birds. The ReefBLKSM technique results in more rapid formation of reefs than through natural reef formation. The reefs enhance aquatic and avian habitat diversity, recreational and commercial fisheries productivity, and provide a natural management tool for combating coastal erosion. The process has potential applications anywhere oyster will grow, along the shores of lakes and bays, around islands, and along the banks of streams and canals. The ReefBLKSM system is patented. It was developed with the support of a team of experienced scientists and it has been proven through successful installation in coastal waters.

Reefmaker Artificial Reefs & Marine Ecosystems, Inc., <http://www.reefmaker.net/>, Ecosystems: Estuary - Oyster Reef, Walter Marine, for all artificial reefs and ecosystems in Gulf of Mexico, P.O. Box 998, 22605 Andrews Lane, Orange Beach, AL 36561, 251.979.2200; For all inquiries about ecosystems outside of the Gulf Coast, Pearson Sustainable, 846 Airport Rd., Fall River, MA 02720, 508.675.0594, www.pearsonsustainable.com, one example, ecosystem discs (see mounted on a pedestal can be deployed in any depth for use as an artificial reef (see example in FL, <http://www.deadmansisland.org/>). Walter Marine's Florida limestone artificial reef units were the first reef made from FL material was deployed in 2007. Use mined shells and they developed a patented process to embed the material rock into concrete surface. The patented design provides cave-like habitat for grouper as well as other species and it the tallest artificial reef on the market (@8' tall). The reef structure is a rebar frame with 276' of it inside the 6,000 lb. structure. It has a 10' footprint to prevent settling/scouring and to withstand storm events. The limestone rock increases surface area. See their video section and then "Florida Limestone" for more information.

Reef Innovations, Inc., <http://reefinnovations.com/>, 2415 Michael Rd., St. Cloud, FL 34771, Phone: 407.957.5821, Email: reefballer@aol.com, Reef Innovations Plant, 1126 Central Ave., Sarasota, FL 34236, 941.330.0501, >30 years experience in research, product design, and manufacturing of Reef BallsTM, only contractor licensed to construct and deploy Reef BallsTM world-wide, supplier of all Reef BallTM molds and materials world-wide. Also do "layer cakes", deep cover habitats, reef cube, mangrove planters, juvenile habitats, reef maker units, other modules.

Rolanka, International Inc., <http://www.rolanka.com/gn/index.html>, Leading supplier of geoenvironmental products, see <http://www.rolanka.com/gn/apply-StBaMatRol.html>, RoLanka office warehouse, 155 Andres Dr., Stockbridge, GA, 30281. Phone: 1-800-760-3215. Also in Portland, OR. EcoFabriks options for coir logs/tubes. See

<http://www.rolanka.com/index.asp?sh=welcome>, for shop online site. Erosion control, soil bioengineering products, sediment control products. Jute and coconut coir materials.

C.E. Shepherd Co., Inc., Modular Gabion Systems, <http://www.gabions.net/> and <http://www.ceshepherd.com/>, <http://www.gabions.net/products.html>, 800.324.8282 (713.924.4381), 2221 Canada Dry St. Houston, TX, 77023, Engineering Office, Mobile, Alabama, 251.380.0332, http://www.gabions.net/seawalls_groins.html.

Shoretex Concrete Revetment Systems (Armorflex, Concrete mattresses, materials). <http://www.shoretex.com/>. 5102 Galveston Road, Houston, TX 77017, Phone: 713-641-2727; Fax: 713-641-1112. For general information please Email: info@shoretex.com, for technical support contact Ashly Adams: aadams@shoretex.com or cell: 225-304-3985. Application Ideas include shoreline protection, bridge abutments, slope stabilization, embankments, canals, channels, landfill downshutes, boat ramps, pipeline protection. See <http://www.shoretex.com/gallery-holly.php> and <http://www.shoretex.com/photo-gallery.php> for examples of uses. Mats (articulated blocks) used adjacent to SC Aquarium and NPS facility to stabilize sediments with GeoTextile material and the Shoreblock[®] SD mats for substrate for oyster reef construction.

SMR Aggregates, Inc., <http://smraggregates.com/>, 5875 Quarry Drive, Sarasota, FL, 34240, 941.907.0041, Email: smraggregates@smrranch.com, Mark Avery – sales, shipping and quarry for oyster fossil shell in FL and beyond. Used in various restoration efforts in SW FL and ARRA projects. Used primarily large washed shell from them, \$22/Ton exclusive of delivery. See <http://smraggregates.com/priceList.cfm> pricing, <http://smraggregates.com/aboutUs/faq.cfm> FAQs.

Tenax, Corp., <http://www.tenax.net/>, 4800 East Monument St., Baltimore, MD, 21205, 800.356.8495, Email: <http://www.tenaxus.com/contact.php>, <http://landmsupplyco.com/tenax-geogrids.html>, manufacturers of all manner of geosynthetics, geogrids, plastic nets, fences, screens. <http://www.tenaxus.com/en/agriculture/index.htm> aquaculture portion of site. They no longer make same material see that *LDC et al. used their materials and worked with them to assess changes in material over time*. See other efforts degradable materials, Lynn Hinkle, Regional Sales Manager, 814.627.0030, 5868 Orchard Rd., Huntingdon, PA, 16652, (see <http://www.oyster-restoration.org/oyster-restoration-research-reports/>), and poster at <http://www.oyster-restoration.org/wp-content/uploads/2013/02/BIOMESHposterwasfin.pdf>.

TNC, LA, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/louisiana/oyster-reef-restoration-in-louisiana.xml>, restoring oyster reefs to protect coasts and marshes from erosion and storm surges.

Wayfarer Environmental Technologies, LLC, OysterBreak[™] Shoreline Protection System. <http://www.wayfarertech.com/>, 410.917.7098, email: info@wayfarertech.com, 263 Third Street, Baton Rouge, LA 70801, <http://www.wayfarertech.com/oysterbreak/oyster-reef-building> semi-artificial oyster reefs.

**General Sampling Gear and All Manner of Related Supplies and Equipment:
General Sources and Distributors (incl. cable ties, etc.)**

Section 6

A&H Turf & Specialties, Inc., <http://ahturf.com/store/index.php?route=common/home> , 468 South Moore Lane, Billings, MT, 59101, 800.548.6323, Email: customerservice@ahturf.com, all manner of hardware (SS), fastening, joining, pipes, adhesives, tapes, tubing, fittings, sealing, flow, weatherstripping, landscaping, storage, filtering, lighting, etc. (see <http://ahturf.com/store/index.php?route=information/cats>)

Alliance for Coastal Technologies (ACT), <http://www.act-us.info/>, 410.326.7385, One Williams St., Solomons, MD, 20688, Email: info@act-us.info, ACT is a partnership of research institutions, resource managers, and private sector companies dedicated to fostering the development and adoption of effective and reliable sensors and platforms for use in coastal, freshwater and ocean environments. Do all manner of sensor evaluations, run workshops, have a searchable database. Dr. Mario Tamburri, Exec. Dir., tamburri@umces.edu.

APS (Annapolis Performance Sailing), <http://www.apsltd.com/>, store 104 Severn Avenue, Annapolis, MD, 21403, 800-729-9767, International: +1 (410) 268-3676, Fax: (410) 268-0527, Email: sail@apsltd.com. Hardware, marine apparel, electronics, navigation, tools, rigging, etc.

Ben Meadows, Inc., <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Bioquip Products, Inc., <http://www.bioquip.com/>, 2321 Gladwick St., Rancho Dominguez, CA 90220, 310.667.8800, Email: bqcustserv@bioquip.com, research, bee tags, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, and lab/field supplies, teaching/science ed., books, insect curating supplies, etc.

Carolina Biological Supply Co., <http://www.carolina.com/>, 2700 York Road, Burlington, NC 27215-3398, 800.334.5551, email: , teaching/science ed., teaching level instruments, microscopes, displays, physics, preserved specimens, living organisms, most soup to nuts.

Cole-Parmer North America, www.coleparmer.com, 800.323.4340, email: info@coleparmer.com, http://www.coleparmer.com/Category/Sieves/2869/SortBy=6_Page=1_Class=40551_AppliedFilters=2000013799, 625 East Bunker Court Vernon Hills, IL 60061, water purification, comprehensive line of sieves and other sieve-related products.

A. Daigger & Company, <http://www.daigger.com/>, 620 Lakeview Parkway, Vernon Hills, IL 60061, 800.621.7193, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Emedco, <http://www.emedco.com/>, P.O. Box 369, Buffalo, NY, 14240, 866.222.4743, Email: customerservice@emedco.com, all types of graphics, portable magnetic signs, plastic and metal

signs, banners, decals, ID tags, predesigned signs and made to order, poles (many options), hardware for signs onto poles, <http://www.emedco.com/signs/sign-posts-stanchions-accessories/sign-posts.html>, galv. U-channel (4-12', tapered end drives into the ground without digging a hole for easy, one-person installation), closed-profile composite posts, types of poles for long-term intertidal and shoreline marking, etc.

Fisher Scientific, Inc. (Thermo Fisher Scientific family), <http://www.fishersci.com/ecom/servlet/home?storeId=10652>, 300 Industry Dr., Pittsburg, PA, 15275, 800.766.7000 (Web Support, 877.885.2081) research, laboratory testing and life science research, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Forestry Suppliers, Inc., <http://www.forestry-suppliers.com/>, 205 West Rankin Street, P.O. Box 8397, Jackson, MS 39284-8397, 800.752.8460 (Sales: 800.647.5368, Tech. Support, 800.430.5566), teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, GPS, mapping, surveying, field notebooks, equipment and instrumentation, marking, numbering, WQ meters, safety, etc.

GardnerBender, www.gardnerbender.com, N85 W12545 Westbrook Crossing, Menomonee Falls, WI 53051, 1-800-624-4320, Bonnie Schulz, Business Development Associate, 1-800-624-4320, bonnie.schulz@powerprodllc.com. Eco-Ties made of recycled nylon, cable looms, heat shrink tubing, tools, cable wraps, clamps, LED cameras for inspection. Sperry Instruments, Ancor, Marinco brands also.

Waterproofpaper.com, <http://www.waterproofpaper.com/waterproof-field-book.html> , GeoShops.com, 1040 Eberly Way, Suite 150, Lemont Furnace, PA 15456. 724.438.3940, Email: sales@waterproofpaper.com , all manner of waterproof papers, field notebooks, waterproof pens, storage clipboards, *Rite in Rain* supplies, waterproof cases, backpacks, etc., <http://www.waterproofpaper.com/selecting-waterproof-paper.shtml> brands to use for field work given needs.

Globe Scientific, <http://www.globescientific.com/>, 610 Winters Ave., Paramus, NJ, 07652, (800) 394-4562, Email: mail@globescientific.com, research, laboratory testing and life science research, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

GPSCity.com, <http://www.gpscocity.com/>, 6847 S. Eastern Ave, #104, Las Vegas, NV, 89119, 866.477.2489, Email: sales@gpscocity.com, sell Garmin, Lowrance, Magellan, Tom Tom, GoPro, cameras, maps, mounts, etc.

Grainger, Inc. (also LSS), <https://www.grainger.com/>, 1.800.323.0620, offices all over world, <https://www.grainger.com/Grainger/wvg/branchSearchRender.shtml>, everything from batteries to hardware, fastening, sawing, cutting, safety, tools, organizing, glues, finishes, lighting, cleaning supplies, electrical, machinery, office supplies, plumbing, welding, repairs, PVC, plastics, test instruments, safety, woodworking, etc. get a catalog, <https://jacksongroup.grainger.com/CatalogRequest/ExternalRequest.aspx>

Macalaster Bicknell, <http://www.mbcoc.com/products/>, 78 Rebesch Dr., North Haven, CT, 06473, 855.622.2425, Email: info@macbick.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, request a catalog, <http://www.mbcoc.com/product-catalog>.

McMaster-Carr, <http://www.mcmaster.com/#>, 6100 Fulton Industrial Blvd. SW Atlanta, GA 30336-2853 (mail P.O. Box 740100, Atlanta, GA 30374-0100), 404.346.7000, Email: atl.sales@mcmaster.com, all manner of hardware (SS), fastening, joining, pipes, adhesives, tapes, tubing, fittings, sealing, flow, weatherstripping, filtering, lighting, electrical, machining, sawing, cutting, safety, material handling, suspending, tools, measuring, furniture, storage, plumbing, marking, engraving, office supplies, signs, and so much more.

Midland Scientific, Inc., <http://www.midlandsci.com/default.aspx?page=category>, Omaha, 1202 South 11th Street Omaha, NE, 68108-3611, 800.642.5263, Contact via email: http://www.midlandsci.com/default.aspx?Page=customer&file=customer/miscne/customerpages/contact_us.html, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Mopec, <http://www.mopec.com/index.php>, 21750 Coolidge Hwy., Oak Park, MI, 48237, 800.362.8491, Email: info@mopec.com, all manner of pathology, histology, mortuary, necropsy, laboratory equipment and supplies, hoods, dissecting instruments, carts, lab tables, custom work, design, construction, manufacturing.

Nylon Net Co., www.nylonnet.com/, 800.238.7529, PO Box 592, Memphis, TN 38107, email : nylonnet@nylonnet.com, mesh distributor, netting for sampling, apparel, fishing gear, field supplies, erosion control, shoreline restoration, http://www.nylonnet.com/merchandise/?top_cat=97&cat_nav=182&cat=182, etc.

OpticsPlanet, Inc. (Labplanet), <http://www.labplanet.com/>, 3150 Commercial Ave., Northbrook, Illinois 60062, 800.504.7309, Email: sales@labplanet.com, research, laboratory testing and life science research, glassware, eye ware, sports, police, hunting, optics, tactical, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts

Pentair Aquatic Eco-Systems, Inc., <http://www.aquaticceco.com/>, 877.347.4788 (407.886.3939), Email: AES@aquaticceco.com, 2395 Apopka Blvd., Apopka, FL 32703, square mesh rolls for shell bags (rolls 5/8" or 3/4" x 100s feet), square mesh rolls for shell bags (rolls 5/8" or 3/4" x 100s feet)<http://www.aquaticceco.com/subcategories/1332/Plastic-Mesh-Screening>

RainWriter.com, <http://www.rainwriter.com/>, 866-763-4763, Email: customerservice@rainwriter.com, all manner of waterproof papers, field notebooks, waterproof pens, *Rite in Rain* source, UW paper, covers for notebooks, etc.

Rite in Rain, Inc. (J.L. Darling Corp.), <http://www.riteintherain.com/>, 2614 Pacific Hwy East, Tacoma, WA 98424-1017, 253-922-5000, Email: dealers@RiteintheRain.com, all manner of waterproof papers, field notebooks, waterproof pens, the *Rite in Rain* manufacturer, UW paper,

covers for notebooks, to request special items or other, archival papers,
<http://www.riteintherain.com/static.asp?htmltemplate=contact.html>.

Sciencelab.com, Inc., <http://www.sciencelab.com/>, 14025 Smith Rd. Houston, TX, 77396, 800.901.7247, Email: sales@sciencelab.com, <http://www.sciencelab.com/page/S/CTGY/20312>, chemicals, laboratory equipment and science educational products include a range of categories including physics, biology, earth science, chemicals, laboratory glassware, chemistry, microscopes and cameras, ecology and environment.

Sea-Gear Corp., <http://www.sea-gear.net/index.html>, 321.728.9116 , 700-B1 S John Rodes Blvd., Melbourne, FL 32904, Email: bobbie@sea-gear.net , <http://www.sea-gear.net/products.html> see plankton nets, frames, mesocosms, trawls, etc.

Sigma-Aldrich, Inc., <http://www.sigmaaldrich.com/sigma-aldrich/home.html>, P.O. Box 14508, St. Louis, MO, 63178, 800.325.3010, <http://www.sigmaaldrich.com/customer-service/email-for-service.html>, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, see catalogs, see <http://www.sigmaaldrich.com/site-level/literature-request.html>.

The Lab Depot, Inc., <http://www.labdepotinc.com/>, 469 Lumpkin Campground Rd. S. Dawsonville GA 30534, 1.800.733.2522, Email: info@labdepotinc.com, research, laboratory supplies, testing and life science research, equipment and instrumentation, water purification, chemicals and lab/field supplies, chemicals, teaching/science ed., soup to nuts.

United States Plastic Corp., <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217 , email: usp@usplastic.com, sell all plastic, from buckets, trays, photo trays (sorting), fittings, Rubbermaid, tubing, labware, bottles, bags, cable ties, sheet plastics, tanks, etc.

VWR, Inc., , <https://us.vwr.com/>, International, 800.932.5000, email Tech. Supp.: technicalproductSupportNA@vwr.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, furniture, lab tables/tops, specialty printers, related software, balances, hoods, cryogenic, storage organizers, chemicals, lab/field supplies, teaching/science ed., soup to nuts, see catalog, see https://us.vwr.com/store/content/externalContentPage.jsp?path=/en_US/the_vwr_catalog_2009_2011.jsp

Wildlife Control Supplies Co., <http://www.wildlifecontrolsupplies.com/>, P.O. Box 538, East Granby, CT 06026, 877.684.7262, Email: sales@wildlifecontrolsupplies.com, teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, copper mesh & stainless steel fill fabric, marking, numbering, wildlife control, baits, safety, small animal capture, etc.

Wildlife Supply Company, <http://www.wildco.com/home.php>, 800.799.8301 (904.225.9889), Email: goto@wildco.com, 75 Gene Lasserre Blvd., Yulee, FL 32097. All manner of water, soil, sediment, limnology samplers and other gear, equipment and instrumentation, plankton nets, teaching/science ed., sampling, workup, etc., for terrestrial and aquatic needs, custom work, <http://www.wildco.com/Nitex-Bolting-Cloth-Nitex-100A-m.html>

**Specialty Sources for Bulbs, Batteries, Epoxies, Dissecting Tools, Paper for
Sample Labels, Marking and Numbering Animals and Experiments, etc.**
(sample of many vendors)

Section 7

- 1000bulbs.com**, <http://www.1000bulbs.com/>, 2140 Merritt Dr., Garland, TX 75031, 800.624.4488, Email info form: <http://www.1000bulbs.com/pages/Contact-Us.html>, 7 a.m. to 6 p.m. CST hours of operation, all manner of bulbs, fixtures, growlights, hydroponics, batteries, LEDs, ballasts, electrical, etc.
- A. Daigger & Company**, <http://www.daigger.com/>, 620 Lakeview Parkway, Vernon Hills, IL 60061, 800.621.7193, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts., see <http://www.daigger.com/store/nalgene-polypaper-laboratory-notebooks16815/15172> for Nalgene PolyPaper
- ALL FIX Epoxy Putty, Cir-Cut**, <http://www.allfixepoxy.com/servlet/StoreFront>, 4315 N 4th St., Philadelphia, PA, 19140, 215.324.1000, the two-part all purpose epoxy putty repair material. Repairs pools, ponds, tanks, underwater repairs, etc. Reasonably priced in pints to quarts to pounds, used at SC Aquarium.
- Australian Entomological Supplies Pty. Ltd.**, <http://www.entosupplies.com.au/>, Kay St, Murwillumbah NSW 2484, Australia, 61.2.8205.7002, manufacturers, distributors, and exporters of quality entomological equipment and books. Have field equipment, laboratory supplies, insect pins, labeling supplies, counters,
- BatteryWarehouse Direct.com**, <http://www.batterywarehousedirect.com/>, 25001 Williamsridge Ln., Guilford, IN, 47022, (877)207-3400. wholesale battery supplier, Duracell, Procell, Sony, Panasonic, and Energizer, among others, shipping only \$4.95!!
- Ben Meadows., Inc.**, <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- Bioquip Products, Inc.**, <http://www.bioquip.com/>, 2321 Gladwick St., Rancho Dominguez, CA 90220, 310.667.8800, Email: bqcustserv@bioquip.com, research, **bee tags** (see <http://www.bioquip.com/Search/DispProduct.asp?pid=1172>), laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, and lab/field supplies, teaching/science ed., books, insect curating supplies, etc.
- BulbAmerica (eBulb, Inc.)**, <http://www.bulbamerica.com/light-bulbs.html>, 425 Greenpoint Ave., Brooklyn, NY 11222, 888.505.2111, Email: info@bulbamerica.com, all manner of bulbs, fixtures, tools, wiring devices, meters, testers, PVC cements, wire management, batteries, LEDs, ballasts, electrical, etc.

- Carolina Biological Supply Co.**, <http://www.carolina.com/>, 2700 York Road, Burlington, NC 27215-3398, 800.334.5551, Email: customer_service@carolina.com, teaching/science ed., teaching level instruments, microscopes, displays, physics, preserved specimens, living organisms, most soup to nuts.
- Cole-Parmer North America**, www.coleparmer.com, 800.323.4340, email: info@coleparmer.com, http://www.coleparmer.com/Category/Sieves/2869/SortBy=6_Page=1_Class=40551_AppliedFilters=2000013799, 625 East Bunker Court Vernon Hills, IL 60061, water purification, comprehensive line of sieves and other sieve-related products.
- Capitol Scientific, Inc.**, <http://www.capitolscientific.com/>, 2500 Rutland Dr., Austin, TX 78758, 800.580-1167, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts, see catalog.
- DR Instruments, Inc./Dissekt Rite**, <http://www.drinstruments.com/>, 10705 S. Roberts Rd., PMB65, Palos Hills, IL 60465, 888.599.3442, Email: sales@drinstruments.com, lab and life science research materials, glassware, furniture, healthcare, tables, water purification, balances, instrumentation, microscopes, chemicals and lab/field supplies, whiteboards, teaching/science ed., etc.
- Fisher Scientific, Inc.** (Thermo Fisher Scientific family), <http://www.fishersci.com/ecommerce/servlet/home?storeId=10652>, 300 Industry Dr., Pittsburg, PA, 15275, 800.766.7000 (Web Support, 877.885.2081) research, laboratory testing and life science research, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- Forestry Suppliers, Inc.**, <http://www.forestry-suppliers.com/>, 205 West Rankin Street, P.O. Box 8397, Jackson, MS 39284-8397, 800.752.8460 (Sales: 800.647.5368, Tech. Support, 800.430.5566), teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, GPS, mapping, surveying, field notebooks, equipment and instrumentation, marking, numbering, WQ meters, safety, etc.
- Globe Scientific**, <http://www.globescientific.com/>, 610 Winters Ave., Paramus, NJ, 07652, (800) 394-4562, Email: mail@globescientific.com, research, laboratory testing and life science research, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- Hunt Optics & Imaging, Inc.**, <http://www.hoi-inc.com/>, 490 Lowries Run Rd., Pittsburgh, PA, 15237, 888-222-8799 ext. 836, (call Orders: 800.448.3929), Olympus dealer in FL, Alex Velong service person very knowledgeable.
- James Town Distributors**, www.JamestownDistributors.com, 800.497.0010, 17 Peckham Dr., Bristol, R.I., 02809, all things for boats, boating, electronics, epoxies and adhesives, paint, maintenance, stainless steel hardware, tools, fishing gear, fasteners, engines, boating supplies, foul weather gear, boots, videos how to, etc. Contact: http://www.jamestowndistributors.com/userportal/contact_us_form.do for Pettit Splash Zone

Compound Kit see

http://www.jamestowndistributors.com/userportal/show_product.do?pid=6766&nobot_crawl.

Kop-Coat (Pettit), Kop-Coat Marine Group, 36 Pine St., Rockaway, NJ, 07866, 800.221.4466, Email: marine@kop-coat.com, West Marine usually has it at many stores, see .

Lenox Instrument Co., <http://lenoxinst.com/borescope-products.html?gclid=CJKI-8O23rQCFQWnnQodwEcAdw>, Lenox Instrument Co., 265 Andrews Rd., Trevoise, PA, 19053, 800-356-1104, Email: sales@lenoxinst.com, borescopes, fiberscopes, videoscopes, accessories, etc.

Light Bulb Emporium, LLC, <http://lightbulbemporium.com>, 81 Pension Rd., Unit 112, Englishtown, NJ, 07726, 888.777.0649, Email: customerservice@lightbulbemporium.com, All manner of bulbs, fixtures, projector bulbs, hydroponics, batteries, LEDs, ballasts, electrical, etc.

Macalaster Bicknell, <http://www.mbcoc.com/products/>, 78 Rebesch Dr., North Haven, CT, 06473, 855.622.2425, Email: info@macbick.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, tritration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, request a catalog, <http://www.mbcoc.com/product-catalog>.

Midland Scientific, Inc., <http://www.midlandsci.com/default.aspx?page=category>, Omaha, 1202 South 11th Street Omaha, NE, 68108-3611, 800.642.5263, Contact via email: http://www.midlandsci.com/default.aspx?Page=customer&file=customer/miscne/customerpages/contact_us.html, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Mopec, <http://www.mopec.com/index.php>, 21750 Coolidge Hwy., Oak Park, MI, 48237, 800.362.8491, Email: info@mopec.com, all manner of pathology, histology, mortuary, necropsy, laboratory equipment and supplies, hoods, dissecting instruments, carts, lab tables, custom work, design, construction, manufacturing.

OpticsPlanet, Inc. (Labplanet), <http://www.labplanet.com/>, 3150 Commercial Ave., Northbrook, Illinois 60062, 800.504.7309, Email: sales@labplanet.com, research, laboratory testing and life science research, glassware, eye ware, sports, police, hunting, optics, tactical, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts

Permalite Plastics, Inc., <http://www.permaliteplastics.com/>, 3121 E Ana Street, Rancho Dominguez, CA, 90221, 310. 669-9492, Email: permalite@sbcglobal.net, **Heavy Duty Sea Goin' Poxxy Putty**. <http://www.downwindmarine.com/Epoxy-Putty-Kits-Heavy-Duty-Sea-Goin-Poxxy-Putty-p-90890476.html> retailers, they make an epoxy that has been used by many marine ecologists for rocky shore and other attachments, cures UW, not toxic when hard, see many papers that have used it.

Sciencelab.com, Inc., <http://www.sciencelab.com/>, 14025 Smith Rd. Houston, TX, 77396, 800.901.7247, Email: sales@sciencelab.com, <http://www.sciencelab.com/page/S/CTGY/20312>, **chemicals**, **laboratory equipment** and **science educational** products include a range of categories

including physics, biology, earth science, chemicals, laboratory glassware, chemistry, microscopes and cameras, ecology and environment.

Sigma-Aldrich, Inc., <http://www.sigmaaldrich.com/sigma-aldrich/home.html>, P.O. Box 14508, St. Louis, MO, 63178, 800.325.3010, <http://www.sigmaaldrich.com/customer-service/email-for-service.html>, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, see catalogs, see <http://www.sigmaaldrich.com/site-level/literature-request.html>.

Splash Zone, Pettit Splash Zone Compound Kit, <http://www.pettitpaint.com/product.asp?id=191>, Kop-Coat Marine Group, 36 Pine St., Rockaway, N.J., 07866, 800.221-4466, The Splash Zone kit is Pettit's emergency repair solution. Utilizing Splash Zone Compound A-788 is a two-part 100%, solid epoxy that applies like putty. It seals, fills, patches or builds metals, wood, concrete, fiberglass and steel. It can be used to repair boat hulls, buoys, seawalls and docks, etc. The “duct tape of the marine world” comes in quarts to gallons, Pettit Emergency Repair Kit epoxy cures to an extremely hard coating which is abrasion and impact resistant. The Pettit Emergency Repair Kit can repair aluminum, galvanized steel, fiberglass, steel, concrete and wood, both above and below the waterline. For marine use only, not intended for use in the home. MSDS at http://www.jamestowndistributors.com/userportal/pdfs/MSDS/Pettit/A788_MSDS_PartA_B.pdf, West Marine as well as James Town Distributors <http://www.jamestowndistributors.com/userportal/main.do>, 800.497.0010, 17 Peckham Dr., Bristol, R.I., 02809, sells it.

Taylor Precision Products, <http://www.taylorusa.com/>, 2220 Entrada del Sol, Suite A., Las Cruces, NM 88001, 866.843.3905, Email: info@taylorusa.com, scales, thermometers, timers, weather stations, rain gauges, thermometers, hygrometers, minimum/maximum thermometers, etc.

Ted Pella, Inc., <http://www.tedpella.com/>, P.O. Box 492477, Redding, CA 96049-2477, 800.237.3526, Email: sales@tedpella.com, histology supplies, dissection tools (high quality scalpels, tweezers, forceps, probes, tonges, surgical loupes, bone saws, etc.), SEM and TEM (related materials and instruments), histology, slide warmers, gauges, slide boxes, vacuum pumps, microtomes, desiccators, etc.

The Lab Depot, Inc., <http://www.labdepotinc.com/>, 469 Lumpkin Campground Rd. S. Dawsonville GA 30534, 1.800.733.2522, Email: info@labdepotinc.com, research, laboratory supplies, testing and life science research, equipment and instrumentation, water purification, chemicals and lab/field supplies, chemicals, teaching/science ed., soup to nuts.

Thermo Scientific, (Thermo Fisher Scientific family), Nalgene PolyPaper laboratory and field notebooks, paper, etc.

United States Plastic Corp., <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217, email: usp@usplastic.com, sell all plastics, PolyPaper, from buckets, trays, photo trays (sorting), fittings, Rubbermaid, tubing, labware, bottles, bags, cable ties, sheet plastics, tanks, etc.

Vermont Optechs, Inc., <http://www.scopeshop.com/>, P.O. Box 69, Charlotte, VT 05445, 802.425.2040, new and used Zeiss, Leitz, Wild, Nikon and Olympus and parts, repairs, etc.

VWR, Inc., , <https://us.vwr.com/>, International, 800.932.5000, email Tech. Supp.: technicalproductSupportNA@vwr.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, furniture, lab tables/tops, specialty printers, related software, balances, hoods, cryogenic, storage organizers, chemicals, lab/field supplies, teaching/science ed., soup to nuts, see catalog, see https://us.vwr.com/store/content/externalContentPage.jsp?path=/en_US/the_vwr_catalog_2009_2011.jsp

Wildlife Supply Company, <http://www.wildco.com/home.php>, 800.799.8301 (904.225.9889), Email: goto@wildco.com, 75 Gene Lasserre Blvd., Yulee, FL 32097. All manner of water, soil, sediment samplers and other gear, plankton nets, teaching, sampling, workup, etc., for terrestrial and aquatic needs, custom work, <http://www.wildco.com/Nitex-Bolting-Cloth-Nitex-100A-m.html>.

Wire Markers Plus.Com, <http://www.wiremarkersplus.com/>, 22 Riverside Dr., Pembroke, MA, 02359, 800.491.2780, Email: wiremarkers@wiremarkersplus.com , carry all manner of labeling materials including wire markers that can be used to number animals with a dab or superglue over it to keep printed # visible. Have used Panduit preprinted cable label cards (see http://www.wiremarkersplus.com/preprinted_wire_marker_cards.html).

Few Summary Articles

Hagler, J.R., and C.G. Jackson, 2001. Methods for marking insects: current techniques and future prospects. *Ann. Rev. Entomol.* 46:511-43.

Wineriter, S.A. and T.J. Walker, 1984. Insect marking techniques: durability of materials. *Entom. News* 95:117-123.

General Sampling Instruments for Water Quality, Range-Finders, GPS, Digital Caliper System, Sonar, Weather, Light, AUVs, Flow, etc.: General Sources and Distributors

Section 8

- Aanderra (AADI, a Xylem brand), Inc.**, <http://www.aanderaa.com/>, (see specifically <http://www.aadi.no/Default.htm> and <http://www.aadi.no/Default.htm> for aquaculture and environmental research), oceanography, climate research, current meters and profilers, weather stations, subsea observing systems, sensors, data buoys, real-time and logging.
- Adorama.com**, <http://www.adorama.com/>, 2 West 18th St., New York, NY, 10011, store at 42 West 18th St., New York, NY 1001, closed Sat., 800.223.2500, housings, cameras, lenses, video sales, lighting, accessories, see <http://www.adorama.com/catalog.tpl?op=category&cat1=Underwater&term=underwater>
- Advanced Devices, Inc.**, <http://www.adi-service.com/>, 4539 Metropolitan Ct., Frederick, MD 21704, 301.371.5571 (Fax .801.729.0514), Email: adicom@attglobal.net service older Marsh McBirney's models.
- Alliance for Coastal Technologies (ACT)**, <http://www.act-us.info/>, +1.410.326.7385, One Williams St., Solomons, MD, 20688, Email: info@act-us.info, ACT is a partnership of research institutions, resource managers, and private sector companies dedicated to fostering the development and adoption of effective and reliable sensors and platforms for use in coastal, freshwater and ocean environments. Do all manner of sensor evaluations, run workshops, have a searchable database. Dr. Mario Tamburri, Exec. Dir., tamburri@umces.edu.
- Amphibico**, <http://www.amphibico.com/index.html>, Email: info@amphibico.com professional and recreation housing and lights, UW monitors, etc. for all UW filming, <http://www.amphibico.com/store/>
- Aquatec Group**, <http://www.aquatecgroup.com/>, High Street, Hartley Wintney Hampshire, RG27 8NY, UK, +44 (0) 1252.843072, expertise: engineering personnel with extensive expertise in oceanographic and offshore applications. In-house expertise includes: oceanographic instrumentation (suspended sediments), dataloggers, digital signal processing, temperature and pressure measurements, underwater optical instrumentation, suspended sediment, oil leak detection, acoustic characteristics, modems, high frequency acoustics, marine mammal deterrents, underwater sound propagation and acoustic communication, and custom work.
- Aqua-Vu**, <http://www.aquavu.com/>, 34076 County Rd. 3, PO Box 368, Crosslake, MN 56442, 866.755.6303, Email: service@aquavu.com, lower end affordable UW out of the box shallow water systems and separate items.
- AXYS Technologies Inc.**, <http://www.axystechnologies.com/>, AXYS Technologies Inc. 2045 Mills Road Sidney, British Columbia, V8L 5X2, Canada, +1(250) 655-5850 , Email: info@axys.com, any sensors, any telemetry, any environment (slogan), real-time buoys, waves, currents, water level, TRIAXYS™ wave and motion sensors, weather and observing platforms, custom solutions, wind power platforms, weather stations, water quality, and software, see

<http://www.axystechnologies.com/BusinessUnit/AXYSMarineEnvironmentalMonitoring/WaveCurrentWaterLevelMonitoringSolutions.aspx>

Backscatter Underwater Video & Photo, <http://www.backscatter.com/>, 225 Cannery Row, Monterey, CA, 93940, 831.645.1082, west coast headquarters / international shipping, East coast showroom, 16 Manning Street, Suite 104, Derry, NH. 03038. 603.432.1997, Email: sales@backscatter.com, cameras, especially UW, housing, packages, lights, torches, filters, scooters, cords, custom work, etc.

Ben Meadows, Inc., <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, Email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Biospherical Instruments, Inc., <http://www.biospherical.com/>, 5340 Riley St., San Diego, CA, 92110, support: 619.686.1888 extension 127, OSPREy radiometers, UV monitoring networks, profiling radiometers, sensors for PAR, single-channel sensors for use in the laboratory, irradiance, deployment with CTDs, gliders, floats, and meteorological stations, and for many other marine or terrestrial applications, integration with other instruments, real-time or internal-recording, etc.

Campbell Scientific, Inc., <http://www.campbellsci.com/products>, 815 W 1800 N. Logan, UT, 84321-1784, measurement and control products for long-term monitoring, dataloggers and data acquisition, weather, measurement and controls, sensors, power supplies, enclosures, tripods, towers, mounts, air quality and pollution, design and build a custom turbidity sensor for your applications for coastal monitoring, marine weather, oceanography, tsunami sensors, real-time or internal-recording, etc.

see also <http://www.d-a-instruments.com/>, 815 W 1800 N. Logan, UT, 84321-1784, 435.753.2342, Email: info@campbellsci.com, sensors for turbidity and suspended solids, wipers for instruments, temperature and salinity, depth (pressure), etc. also <http://www.d-a-instruments.com/sensors.html> will design and build a custom turbidity sensor for your application.

Capitol Scientific, Inc., <http://www.capitolscientific.com/>, 2500 Rutland Dr., Austin, TX 78758, 800.580-1167, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts, see catalog.

Carolina Biological Supply Co., <http://www.carolina.com/>, 2700 York Road, Burlington, NC 27215-3398, 800.334.5551, Email: customer_service@carolina.com, teaching/science ed., teaching level instruments, microscopes, displays, physics, preserved specimens, living organisms, most soup to nuts.

Cole-Parmer North America, www.coleparmer.com, 800.323.4340, email: info@coleparmer.com, http://www.coleparmer.com/Category/Sieves/2869/SortBy=6_Page=1_Class=40551_AppliedFilters=2000013799, 625 East Bunker Court Vernon Hills, IL 60061, water purification, comprehensive line of sieves and other sieve-related products,

- Daigger & Company**, <http://www.daigger.com/>, 620 Lakeview Parkway, Vernon Hills, IL 60061, 800.621.7193, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- Capitol Scientific, Inc.**, <http://www.capitolscientific.com/>, 2500 Rutland Dr., Austin, TX 78758, 800.580-1167, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts, see catalog.
- DataQ Instruments, Inc.**, <http://www.dataq.com/>, 330.668.1444, 241 Springside Dr., Akron, OH, Email: sales@dataq.com, loggers, data acquisition kits, software, loggers for humidity, voltage, events, temperature, integration with other instruments, repairs, recalibration, etc.
- Dataron Instruments, Inc.**, <http://dataron.com/>, 808.315.5626, sales for Datron dataloggers now through Turner Designs, <http://www.turnerdesigns.com/products/field-fluorometer/databank-handheld-fluorometer-turbidimeter-datalogger>, P.O. Box 6811, 92-8216 Marlin Blvd., Ocean View, Hawaii 96737, Email: rflinders@dataron.com, or Tom Brumett, 877.316.8049 ext. 146, 408.749.0994 ext. 146, sales@turnerdesigns.com; batteries and loggers, integration with many instruments (e.g., Seapoint Sensors), works with Cyclops-7 Sensors also, hours: Monday - Friday 8:00 AM - 5:00 PM Hawaii Time, CEO of Dataron Instruments, Ron Flinders.
- EdgeTech (formerly ORE Offshore)**, <http://www.edgetech.com/edgetech/gallery/category/side-scan-sonar-systems>, Little Brook Rd., West Wareham, MA, 02576, 508.291.0057, Email: info@edgetech.com, all types of acoustic – releases, transponders/receivers, beacons, deck boxes & moorings, USBL multibeacons, motion reference units, bottom profiling, positioning, side-scan (see <http://www.edgetech.com/edgetech/gallery/category/side-scan-sonar-systems>), custom work, etc.
- ESRI, Inc.**, <http://www.esri.com/>, 380 New York St., Redlands, CA, 92373, 909.793.2853 or 800.447.9778, software for all GIS efforts. mapping, geodatabases, etc. Also have a number of courses, and magazines for free to subscribe to. Also local dealers and educational and non-profit discounts.
- Fisher Scientific, Inc.** (Thermo Fisher Scientific family), <http://www.fishersci.com/ecom/servlet/home?storeId=10652>, 300 Industry Dr., Pittsburg, PA, 15275, 800.766.7000 (Web Support, 877.885.2081) research, laboratory testing and life science research, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- Forestry Suppliers, Inc.**, <http://www.forestry-suppliers.com/>, 205 West Rankin Street, P.O. Box 8397, Jackson, MS 39284-8397, 800.752.8460 (Sales: 800.647.5368, Tech. Support, 800.430.5566), teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, GPS, mapping, surveying, field notebooks, equipment and instrumentation, marking, numbering, WQ meters, safety, etc.

- General Oceanics, Inc.**, <http://www.generaloceanics.com/>, 1295 N.W. 163rd Street Miami, Florida, 33169, 305.621-2882, Email: sales@generaloceanics.com, survey vehicles, oil sampling, water sampling and monitoring, plankton nets, flow (mechanical) and electronic current meters, winches, dataloggers and sensors, calibration, air sampling, custom made services.
- Hach Company (also see Sigma and Marsh-McBirney Flow)**, <http://www.hach.com/>, P.O. Box 389, Loveland, CO, 80539-0389, 800.227.4224, instruments, particle counters, samplers, lab and field instruments (WQ meters, turbidometers, titration, specs, colorimeters), flow meters, etc.
- iButtons (Maxim Integrated)**, <http://www.maximintegrated.com/products/ibutton/>, 160 Rio Robles, San Jose, CA, 95134, 408.601.1000, Email: sales-us@maximintegrated.com, iButton devices (sensors) for temperature, light, inertial, etc.
- Idronaut S.r.l.**, <http://www.idronaut.it/cms/view> , +39 039 879656, Via Monte Amiata 10, 20861 Brugherio (MB) Italy, Email: idronaut@idronaut.it, sensors for temperature with PDA, CTDs Monitoring System (metals, nitrate, ORP, pH, temp, DO, Ammonium, etc.), In-Situ Trace Metals CTD, Water Sampling Systems, flow, PCO₂ Analyzers, OCEAN SEVEN 307 CTD digital OEM modules make it easy to interface the full ocean IDRONAUT Conductivity, Temperature and Pressure sensors with 3rd party equipment, BUOY 601 PROFILER lifting system and batteries integrated, calibration.
- InterOcean systems, Inc.**, <http://www.interoceansystems.com/>, 3738 Ruffin Road, San Diego, CA 92123, 858.565-8400, Email: sales@interoceansystems.com, for design and manufacture of premier quality oceanographic and environmental equipment and systems. Line includes S4 current meters, CTDs, mooring systems, buoys, wave and tide gauges, meteorological/oceanographic (metoc) buoys, acoustic releases, pingers, winches and marine handling systems, hydrophones, and remote oil spill detection and sampling gear, real-time or internal-recording.
- L-3 Klein Associates, Inc.**, <http://www.l-3klein.com/>, 3 Communications Klein Associates, Inc., 11 Klein Dr., Salem, NH, 03079, 603.893.6131, Email: Klein.Mail@L-3com.com, side-scan, bathymetry/sonar, software, surveillance/security, etc. The cadillac of side-scan sonars.
- Kongsberg Maritime**, www.km.kongsberg.com, Kirkegårdsveien 45, NO-3616 Kongsberg, Norway+47 32 28 50 00; N. Amer. Rep., 261 Brownlow Ave., Dartmouth, B3B 2B6, Nova Scotia, Canada, +1 902 468 2268, E-mail: km.sales.halifax@kongsberg.com, AUVs such as the UW and hi-res cameras, sensors, sonar, Nav, REMUS and HUGIN AUVs, etc.
- Macalaster Bicknell**, <http://www.mbcoc.com/products/>, 78 Rebeschi Dr., North Haven, CT, 06473, 855.622.2425, Email: info@macbick.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, request a catalog, <http://www.mbcoc.com/product-catalog>.
- Marsh-McBirney (Sigma also)**, <http://www.hachflow.com/>, P.O. Box 389, Loveland, CO 80539-0389, 800.368.2723, Email: hachflowsales@hach.com, electromagnetic flow meters, portable (Flo-Tote) and permanent flow measurements, data management, etc.
- Midland Scientific, Inc.**, <http://www.midlandsci.com/default.aspx?page=category>, Omaha, 1202 South 11th Street Omaha, NE, 68108-3611, 800.642.5263, Contact via email: <http://www.midlandsci.com/default.aspx?Page=customer&file=customer/miscne/customerpages/>

[contact_us.html](#), specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Mozaik Trading Inc., <http://www.housingcamera.com/>, WhatcomState Bank Bldg., Suite 3170, 435 Martin St., Blaine, WA, 98230, 888.318.3550 (or 360.529.0990), Email: contact@housingcamera.com, cameras, especially UW, housing, packages, lights, torches, filters, cords, custom work, etc.

Onset Computer Corporation, Inc., <http://www.onsetcomp.com/products>, PO Box 3450, Pocasset, MA 02559-3450, 1.800.564.4377, Email: customer_service@onsetcomp.com, products include wired and logging wireless sensors, software, temperature, humidity, conductivity/salinity, depth (water level), weather, RH, air velocity, water flow, CO₂, current, voltage, light intensity, DO, PAR, rainfall, barometric pressure, solar radiation, soil moisture, leaf wetness, etc.

OpticsPlanet, Inc. (Labplanet), <http://www.labplanet.com/>, 3150 Commercial Ave., Northbrook, Illinois 60062, 800.504.7309, Email: sales@labplanet.com, research, laboratory testing and life science research, glassware, eye ware, sports, police, hunting, optics, tactical, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Opti-Logic Corp., www.opti-logic.com, 201 Montclair St., Tullahoma, TN, 37388, 770.587.5128, Email: sales@opti-logic.com, rangefinders made in US. Rangefinders of all kind, good to work with manufacturer.

Quester Tangent Corp. (QTC), <http://www.sidescan.us/>, <http://www.sidescan.us/seabed-classification/>, Email info: <http://www.sidescan.us/contact-information/online-form/>, 6582 Bryn Rd., Saanichton, BC, V8M 1X6, Canada, 250.656.6677, Email: info@questertangent.com, QTC provides products and services for acoustic bottom classification efforts using single and LiDAR, swath classification, and relevant classification software. They worked with us at a remote sensing workshop (see site <http://www.oyster-restoration.org/workshops-meetings-related-to-oyster-restoration/>, and related report, <http://www.oyster-restoration.org/wp-content/uploads/2013/02/Bottom-Classification-in-Very-Shallow-Water-by-High-Speed-Data-Acq..pdf>).

RBR, Ltd., <http://www.rbr-global.com/>, 95 Hines Road Unit 5, Kanata, Ontario, K2K 2M5, Canada, +1.613.599.8900, RBR develops and sells submersible dataloggers, recorders, sondes, controllers and sensors for water quality measurements. Log from one to 24 channels as a CTD, sensors include: conductivity, pressure, temperature, pH, ORP (RedOx), fluorescence, PAR, turbidity (OBS, TSS), and dissolved oxygen. Single or multi-parameter (sensor) recorders. Specialty loggers are available with specific sensors for harsh environments or unique applications like measuring tides and waves. Common core and operating software. All environments.

Remote Ocean Systems (ROS), Inc., <http://www.rosys.com/oceanographic/>, 5618 Copley Dr., San Diego, CA 92111, 1.858.565.8500, Email: sales@rosys.com; support: support@rosys.com design, development and manufacture of reliable underwater light and camera systems .

SAIV A/S, Sensors & Systems, <http://www.saivas.no/index.asp> , Nygardsviken 1, 5164 Laksevag, Norway, +47.56.11.30.66, Email: info@saivas.com. Makers of CTDs, STDs, TD, tide recorders, sound velocity loggers, auto profiling buoy, software. Example, sea water conductivity, salinity, temperature, depth (pressure), sound velocity and water density in one CTD/STD.

Satlantic, LP, <http://satlantic.com/>, Richmond Terminal- Pier 9, 3481 North Marginal Rd., Halifax NS B3K 5X8, CANADA, 1.902.492.4780, Email: info@satlantic.com, systems include ocean acidification (SeaFET), nutrient sensors, radiometers, pH, fluorometers, integrated observing systems (<http://sea-birdscientific.com/>) LOBO (Land/Ocean Biogeochemical Observatory), nitrate (ISUS, SUNA), integrated power and logging (STOR-X) and real-time capabilities, submersible FIRE systems for measuring photosynthetic organisms, etc.

Sea-Bird Scientific, Inc., <http://sea-birdscientific.com/> **Sea-Bird Electronics**, **WET Labs**, and **Satlantic** have recently combined to form **Sea-Bird Scientific** integrated companies now.

Sea-Bird (SBE), Inc., <http://www.seabird.com/>, DO sensors, thermosalinographs, temp, conductivity, and salinity separate sensors, specialized submersible pumps, profiling CTDs, recorders, pHs sensors, cables, batteries, wave and tide, tsunami pressure sensors, depth, carousels for integration of above, power, etc.

Seapoint Sensors, Inc., <http://www.seapoint.com/index.htm>, 142B Front Street, Exeter, NH, 03833, 603.642.4921, Email: seapoint@seapoint.com; *in situ* fluorometers for chlorophyll, fluorescein, rhodamine and UV and detection of crude oil, turbidity, Zebra-Tech Hydrowipers and including oil-tolerant CTD, dissolved oxygen sensor, integrate with Sea-Point optical sensors, see <http://www.seapoint.com/products.htm>

Sea Viewer Underwater Video Systems, www.seaviewer.com, 212 N. 39th St., Suite 333, Tampa, FL 33605, 888.575.7547, GSA scheduling, Email: website@seaviewer.com http://www.seaviewer.com/underwater_video_cameras_sea_drop_standard_system.html, underwater video and cameras, color and B&W with kits available, lights, cabling, DVRs, priced right, used by myself and others at UNH,

Sigma-Aldrich, Inc., <http://www.sigmaaldrich.com/sigma-aldrich/home.html>, P.O. Box 14508, St. Louis, MO, 63178, 800.325.3010, <http://www.sigmaaldrich.com/customer-service/email-for-service.html>, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, tritration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, see catalogs, see <http://www.sigmaaldrich.com/site-level/literature-request.html>

SonTek, Inc. (Xylem brand), <http://www.sontek.com/>, 9940 Summers Ridge Road | San Diego, CA, 92121-3091, +1.858.546.8327, Email: inquiry@sontek.com, high-resolution doppler current meters for use on detailed studies of 3D velocity in lab and field. Water current profiling ADVs, CTDs, flow meters, 2 and 3d, ADCPs, lab ADVs, software, shallow to deep deployments, compasses, depth, etc., easily integrated with YSI's products easily.

L.S. Starrett Comp., Inc., <http://www.starrett.com/>, 978.249.3551, 121 Crescent St., Athol, MA 01331-1915, Email: see <http://info.starrett.com/customer-service>. Wireless Data Collection, with hub that uses usb (and end nodes) very small transmitters that attach to each calipers. Pays for itself in short timeframe. See <http://www.starrett.com/docs/data-sheets/datasure---bulletin-570-578.pdf?Status=Master> for an overview of the system. I have personally (LDC) used this system

with software and their wonderful calipers; it's amazingly easy with Panasonic ToughBook and Starrett DataSure router system and software options. The system used a dedicated frequency (@916 MHz) ISM Band. See video at <http://www.starrett.com/metrology/product-detail/Precision-Measuring-Tools/Precision-Hand-Tools/Slide-Calipers/Electronic-Calipers/798B-6~150#Videos>. The calipers were the 798B-6/150 Electronic Caliper, Stainless Steel, SPC Output, 0.01mm (.0005") resolution, and 0-150mm (or 6") measuring range. Its caliper induction type system and inch/millimeter metric conversion makes it ideal for field work around saltwater, gritty environments assuming one is careful and not sloppy with potential 'contaminants'. These inductive calipers and End Nodes use small batteries for each. End Nodes use a CR2032 (3-Volt battery, (>1 year battery life under normal use). When buying from local dealer there are academic discounts for the system. Starrett has excellent technical service based on personal experience.

StarFish Seabed Imaging Systems, Ltd., <http://www.starfishsonar.com/technology/sidescan-sonar.htm>, Peregrine Rd., Westhill Business Park, Westhill, Aberdeen, AB32 6JL, U.K., + 44 (0)1224 746979, Email: info@starfishsonar.com, high resolution side-scan sonars with three-fin, hydrodynamic designs.

Star-Oddi, <http://www.star-oddi.com/>, Skeidaras 12, 210 Gardabaer, Iceland, +354.533.60.60, Email: star-oddi@star-oddi.com, fish tagging & data logging with data storage tags, CTDs, temp sensors, depth (pressure), Conductivity (salinity), 3D tilt, pitch and roll, magnetic, light, telemetry, fish acoustic transmitters, in amazingly small packages.

Teledyne Benthos, <http://www.benthos.com/>, 49 Edgerton Drive, North Falmouth, MA 02556, +1.508.563.1000, Email: benthos@teledyne.com, makers of locators, acoustic modems, flotation, ROVs, hydrophones, acoustic releases, etc. Also Smart Modem Acoustic Release Technology (SMART underwater communications/release), Geophysical Survey Systems (Side Scan Sonar Imaging Systems) see <http://www.benthos.com/seafloor-bottom-mapping-survey-sonar-product-comparison.asp>, see <http://www.rdinstruments.com/citadel.aspx>, RDI Citadel products, Email: rdisales@teledyne.com.

The Lab Depot, Inc., <http://www.labdepotinc.com/>, 469 Lumpkin Campground Rd. S. Dawsonville GA 30534, 1.800.733.2522, Email: info@labdepotinc.com, research, laboratory supplies, testing and life science research, equipment and instrumentation, water purification, chemicals and lab/field supplies, chemicals, etc.

Trimble Navigation Ltd., <http://www.trimble.com/>, 935 Stewart Dr., Sunnyvale, CA, 94085-3642, all manner of positioning, GPS, mapping, surveying, integrated lasers, global navigation satellite systems (GNSS), optics, mapping, imaging, inertial, stations, 3-d laser surveying, etc. GSA pricing, local reps by location, <http://dealerlocator.trimble.com/>, one of the brands to consider for survey or mapping grade equipment for integration with ArcGIS (ESRI) products.

Turner Designs, Inc., <http://www.turnerdesigns.com/>, 845 W. Maude Avenue, Sunnyvale, CA 94085, 877.316.8049 (408.749.0994), Email: sales@turnerdesigns.com, they supply lab and field fluorimeters, calibration standards, turbidity, *in situ* fluorimeters, dyes, water quality monitoring, discrete, inline and and continuous flow sampling/monitoring, active fluorescence, optical, coliform, CDOM, DOM, FDOM, ammonium, chlorophyll a, inexpensive benchtop fluorometer (10AU, Trilogy, etc.), ballast water compliance monitoring, alkaline phosphate, cyanobacteria

(phycobiliproteins), dye tracing, etc. Sales for Datron dataloggers now, <http://www.turnerdesigns.com/products/field-fluorometer/databank-handheld-fluorometer-turbidimeter-datalogger> works with Cyclops-7 Sensors also.

Valeport Ltd., <http://www.valeport.co.uk/>, St. Peter's Quay, Totnes, Devon, TQ9 5EW, UK, +44(0)1.803.869292 Fax: +44(0)1803 869293, Email: sales@valeport.co.uk, oceanographic, hydrographic and hydrometric, instrumentation.

WASSP Ltd., <http://wassp.com/>, 65 Gaunt St, Westhaven, Auckland, 1010, NZ, (+64) 9 373 5595, Email: greg@wassp.com, multibeam sonars for hydrographic surveying, etc. GPS compass, roll, pitch and heading, and sound speed inputs interfaceable for seafloor-profiling accuracy, transducers, software, etc.

Xylem (XYL), <http://www.xylem.com/en-us/Pages/default.aspx>, is a leading global water technology provider, the company is in more than 150 countries. Launched in 2011 from the spinoff of the water-related businesses of ITT Corporation, Xylem is headquartered in White Plains, N.Y., with 2010 annual revenues of \$3.2 billion and 12,000 employees worldwide. Own Jabsco, Rule, Aanderra, SonTek, YSI, among others <http://www.xylem.com/en-us/brands/Pages/default.aspx>.

YSI, Inc. (Xylem brand, also AMJ, Environmental), <http://www.ysi.com/index.php>, 1700/1725 Brannum Lane, Yellow Springs, OH, 45387, 800.765.4974, email: environmental@ysi.com, developer and manufacturer of sensors, instruments, software, and data collection platforms for environmental water quality monitoring and testing, Ecomapper AUV, lab and field instruments, aquaculture systems, loggers, buoys, floats, towed UW vehicles, UW sampling systems, etc.

See also <http://www.ysisystems.com/>; **YSI Lifesciences, Inc.**, <http://www.ysilifesciences.com/>, 800.659.8895, Email: support@ysi.com.

VWR, Inc., <https://us.vwr.com/>, International, 800.932.5000, email Tech. Supp.: technicalproductSupportNA@vwr.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, furniture, lab tables/tops, specialty printers, related software, balances, hoods, cryogenic, storage organizers, chemicals, lab/field supplies, teaching/science ed., soup to nuts, see catalog, see https://us.vwr.com/store/content/externalContentPage.jsp?path=/en_US/the_vwr_catalog_2009_2011.jsp

Water Buoy, <http://www.apsltd.com/water-buoy-1kg-auto-inflate-lift-w-light.html>, Water Buoy - 1kg Auto Inflate Lift w/Light, current price \$16.45. WaterBuoy Inflatable Key Ring is quite strong and will lift items up to 2.2 lbs. (1kg) of dry weight. The trigger mechanism activates the device after only seconds of submersion in normal temperatures. This means that instruments won't drift too far or sink too far before they resurface. See video on YouTube, <https://www.youtube.com/watch?v=yRmjvRMKbh4&feature=youtu.be>

Wet-Labs, <http://www.wetlabs.com/>, 620 Applegate St., Philomath, OR, 97370-0518, 541.929.5650 Email: info@wetlabs.com, nutrient sensors, WQM (biochemical WQ: DO, Chl *a*, turbidity, CDOM, depth, salinity, temperature, other logged data), Autonomus Moored Profiler (AMP) submersible vertically profiling platform; phosphate sensor, HAB monitoring, wipers, chlorophyll and CDOM fluorescence and red backscattering, remote sensing and particle

dynamics, environmental ,monitoring, buoys, profilers, underway systems, towed vehicles, AV, AP, observing systems with other entities, oil in water, aquaculture, .

Zebra-Tech, Ltd., <http://www.zebra-tech.co.nz/>, 0064.3.548.0468, P.O. Box 1668, Nelson, New Zealand, 175 Cross Quay, Nelson 7010, New Zealand, Email: sales@zebra-tech.co.nz, wipers for other sensors, optical DO, underwater groundwater seep detection and seep sampling equipment, <http://www.zebra-tech.co.nz/UW-Calipers> UW calipers, cool if work.

Plastic, Cotton & Metal Mesh Screening Cloth (for cages, etc.): Manufacturers or Distributors

(Square and diamond, many applications. Pliable, durable semi-rigid polyethylene or polypropylene for indoor or outdoor use (some contain UV stabilizers, all generally non-toxic, many colors)

Section 9

ACF Environmental, <http://www.acfenvironmental.com/aboutACF.html>, is the leading supplier of innovative geosynthetic solutions, Charleston Warehouse. 165 Royle Rd., Ladson, SC 29456, 843.873.0254, 800.448.3636, Brandon Shaw's Email: bshaw@acfenvironmental.com, cell 843.729.2797, erosion and stabilization, pavement preservation, geotextiles and geogrids, porous pavements, used with oyster shell already, <http://www.acfenvironmental.com/rtank.html>, R-TankH stormwater detention, infiltration, and recycling systems provide underground storage of stormwater, http://www.acfenvironmental.com/PDFs/GeoBlock/Geoblock_Intro_1spp.pdf, Geoblocks,

Atlantic Aquaculture Supply, Inc., <http://www.atlanticaquaculture.com/>, 800.442. 8727 (401.247.1661), email: Atlantic@atlanticaquaculture.com, 100D Elm Street, Warren, RI 02885, <http://www.atlanticaquaculture.com/Catalog.htm> online catalog, 5/8" oyster setting bag material, comes in 1,000' or 2,000' rolls used in TNC AL efforts.

Beaufort Marine Supply, 888.216.4031 (843.525.1611), 105 Savannah Hwy., Beaufort, SC 29906. primary contact: Scott Lettich, Supplier of crab traps, wire mesh used for crab traps, trawls, nylon webbing, rope, twine, foul-weather gear, and limited boating supplies.

Ben Meadows, Inc., <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Brooks Trap Mill, <http://www.brookstrapmill.com/>, 800.426.4526, 211 Beachwood St., Thomaston, ME 04861. Cages for remote setting and the NH Oyster Conservationist Program, cages/condos for oyster aquaculture.

Charleston's Rigging/Carolina Rigging, <http://www.charlestonsrigging.com/index.html>, 1304 Meeting St., Charleston, SC 29405, 800-742-6703, Email: webinfo@charlestonsrigging.com, <http://www.charlestonsrigging.com/contact-info.html>, See link for locations in Charleston, SC, Columbia, SC, and Augusta, GA, supplier of all manner of rigging (cable, wire, rope), shackles, oil absorbants, winches, marine hardware, chain hoists, spreaders, anti-fouling paints, etc. Also provide services such as fabricating boat lift harnesses.

DelStar Technologies, Inc., www.delstarinc.com, 601 Industrial Dr., Middletown, DE, 19709; 220 East Saint Elmo Rd., Austin, TX, 78745, 800.521.6713 (302.378.8888) (Casandra Rosetti, 800.531.5112 x1151), Email: crossetti@Delstarinc.com, manufacturers of Naltex[®] Duronet[®] Meshes, Naltex oriented mesh 3/4" bags used for shellfish culturing, and in erosion control applications, etc., see <http://www.delstarinc.com/pdf/DelStar-Outdoor-Products.pdf>, <http://www.delstarinc.com/pdf/DelStar-Outdoor-Products.pdf>, <http://delstartech.thomasnet.com/item/naltex/duronet-industrial-mesh-2/1142?&bc=100|1002|3001024>.

Eastfields Farms, email: eastfields@rivnet.net 804.725.3948, PO Box 275, Eastfields Farms, off Rt. 623, Mathews, VA, 23109, large 50-2000' rolls of oriented ¾" diamond mesh bag material for grow-out bags and also for bagging shell for restoration, see examples at <http://www.oyster-restoration.org/>

Fisher Scientific, Inc., <http://www.fishersci.com/ecom/servlet/home?storeId=10652>, 300 Industry Dr., Pittsburg, PA, 15275, 800.766.7000 (Web Support, 877.885.2081) research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

FL Sea Grant, 2013 Clam Bag Suppliers, thread fabric, etc.

<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2013%20Clam%20Bag%20Suppliers.pdf>

Friendship Trap Company, <http://www.friendshiptrap.com/>, email: info@friendshiptrap.com, 207.354.2545, (800.451.1200), 570 Cushing Rd., Friendship, ME, 04547, handle all sorts of tools, twine, buoys, floats, commercial fishing supplies, clothing rope, fasteners, mesh, etc.

Fukui North America (division of Bishop Aquatic Technologies, Inc.),

<http://www.fukuina.com/index.htm>, PO Box 669, 110-B Bonnechere St.W., Eganville, Ontario K0J 1T0, CANADA, 613.432.3173, Email: christineh@fukuina.com, see <http://www.fukuina.com/shellfish/oysters.htm> for all sorts of spat setting materials such as chinese hats and other aquaculture supplies, etc. Processing machines, fencing, netting, packaging, traps. Also have man-made bio-reactors for large areas and high microbial activity for filtering. Bio-Cord is a simple cord covered with countless rings of thread, made of polymers such as polypropylene, vinylon, polyvinylidene-chloride, binylon or nylon-polyester.

Industrial Netting, Inc. (formerly InterNet), square and oriented plastic mesh, 800.328.8456 (763.496.6355), email: info@industrialnetting.net, 7681 Setzler Parkway North Minneapolis, MN 55445-1883, http://www.industrialnetting.com/plastic_mesh.htm, <http://www.industrialnetting.com/aquaculture.htm>, extruded or expanded mesh, cage or sheets or tubes for shell deployment generally.

Ketcham Supply, Corp., <http://www.lobstering.com/>, 111 Myrtle St., New Bedford, MA, 02740, 508 997 4787, ask for Bob or Myron, Email: info@lobstering.com, lobster and other traps and tools for trap building or repair, vinyl-clad galvanized wire mesh in rolls or panels, architectural mesh (for security screening, fencing, barriers, dividers), aquaculture supplies such as oyster bags, vinyl-coated wire mesh (incl. new 4½" aquamarine oyster mesh), rack and tray systems, distributor for the Oyster-Gro® system, clips, snaps, galvanized anchoring augers, marine grade vinyl coated wire mesh supplied as full rolls, or flattened pre-cut kits, also do custom work.

Memphis Net & Twine Co., Inc., 888-674-7638 (901.458.2656), email: fishinfo@memphisnet.net, P.O. Box 80331, Memphis, TN 38108-0331, <http://www.memphisnet.net/>, http://www.memphisnet.net/category/netting_plastic_aqua, mesh distributor, netting for sampling, field supplies, etc.

Mussock International, Ltd., <http://www.mussock.co.nz/>, T: +64.3.3386.474 (F: +64.3.3386.475), Email: andy@mussock.co.nz, PO Box 3278, Christchurch, NZ, Demo of mussel sock machine, <http://www.mussock.co.nz/index.php?page=view-demo>

- Nylon Net Co.**, www.nylonnet.com/, 800.238.7529, PO Box 592, Memphis, TN 38107, email : nylonnet@nylonnet.com, mesh distributor, netting for sampling, apparel, fishing gear, field supplies, erosion control, shoreline restoration, http://www.nylonnet.com/merchandise/?top_cat=97&cat_nav=182&cat=182, etc.
- Pentair Aquatic Eco-Systems, Inc.**, <http://www.aquaticeco.com/>, 877.347.4788 (407.886.3939), Email: AES@aquaticeco.com, 2395 Apopka Blvd., Apopka, FL 32703, square mesh rolls for shell bags (rolls 5/8" or 3/4" x 100s feet), square mesh rolls for shell bags (rolls 5/8" or 3/4" x 100s feet)<http://www.aquaticeco.com/subcategories/1332/Plastic-Mesh-Screening>, <http://search.aquaticeco.com/index?D=mesh&Nty=1&N=0&Dk=0&Ntt=mesh>, mesh distributor, field supplies, water quality, lab equipment, mesh, plumbing, etc.
- C.E. Shepherd Co., Inc.**, <http://www.ceshepherd.com/>, 800.324.6733 (713. 924.4300), email: sales@ceshepherd.com, 2221 Canada Dry St. Houston, TX, 77023, http://www.ceshepherd.com/aquaculture_mesh.html, floating pens and cages, http://www.ceshepherd.com/wire_mesh.html, PVC powder coated and galvanized, or stainless steel, welded and twisted wire mesh, stainless steel mesh for cage applications where zinc galv. not suitable, 12-20 ga galv. or plastic-coated (See http://www.ceshepherd.com/pdf/Shepherd_Mesh_Aquaculture.pdf)
- Tenax, Corp.**, <http://www.tenax.net/>, 4800 East Monument St., Baltimore, MD, 21205, 800.356.8495, Email: <http://www.tenax.com/contact.php>, <http://landmsupplyco.com/tenax-geogrids.html>, manufacturers of all manner of geosynthetics, geogrids, plastic nets, fences, screens. *LDC used their materials and worked with them to assess changes in material over time.* See other efforts degradable materials (see <http://www.oyster-restoration.org/oyster-restoration-research-reports/>), and poster at <http://www.oyster-restoration.org/wp-content/uploads/2013/02/BIOMESHposterwasfin.pdf>.
- United States Plastic Corp.**, <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217 , email: usp@usplastic.com, sell all plastic, from buckets, trays, photo trays (sorting), fittings, Rubbermaid, tubing, labware, bottles, bags, cable ties, sheet plastics, tanks, etc.
- Wildlife Supply Company**, <http://www.wildco.com/home.php>, 800.799.8301 (904.225.9889), Email: goto@wildco.com, 75 Gene Lasserre Blvd., Yulee, FL 32097. All manner of water, soil, sediment samplers and other gear, plankton nets, teaching, sampling, workup, etc., for terrestrial and aquatic needs, custom work, <http://www.wildco.com/Nitex-Bolting-Cloth-Nitex-100A-m.html>

Fish Nets, Seine Nets, Gill Nets, Fish Baskets, Trammel Nets, Cast Nets, Mollusc Sampling/Harvesting, Trawls, Rope/Twine, Markers

Section 10

- Atlantic Aquaculture Supply, Inc.**, <http://www.atlanticaquaculture.com/>, 800.442. 8727 (401.247.1661), email: Atlantic@atlanticaquaculture.com, 100D Elm Street, Warren, RI 02885, <http://www.atlanticaquaculture.com/Catalog.htm>, online catalog, <http://www.atlanticaquaculture.com/Rigid%20netting.htm> rigid polyethylene mesh supplier (square and diamond shapes)
- Atlantic & Gulf Fishing Supply**, www.atagulf.com, 800.327.6167, 7000 N.W. 74th Ave., Miami, FL 33166, Email: sales@atagulf.com, rope, floats, netting, netting materials, wire, insulated containers, rainwear, crab trap materials.
- Beaufort Marine Supply**, 888.216.4031 (843.525.1611), 105 Savannah Hwy., Beaufort, SC 29906. Primary contact: Scott Lettich, Supplier of crab traps, wire mesh used for crab traps, trawls, nylon webbing, rope, twine, foul-weather gear, and limited boating supplies.
- Ben Meadows, Inc.**, <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- Brunson Net & Supply, Inc.** <http://www.brunsonnet.com/>, 17778 Hwy. 98 West, Foley, AL, 36535, 1.800.211.0518, Email: info@brunsonnet.com; commercial and recreational fishing and marine supplies mesh distributor, netting for sampling, foul weather gear, gill nets, seines, cast nets, field supplies, shrimp trawls, trot lines, doors, rope, twine, cookware, buoys, floats, knives, hardware, http://www.brunsonnet.com/PDFs/CATALOG_MARINE_2012.pdf catalog location.
- Carolina Biological Supply Co.**, <http://www.carolina.com/>, 2700 York Road, Burlington, NC 27215-3398, 800.334.5551, email: , teaching/science ed., teaching level instruments, microscopes, displays, physics, preserved specimens, living organisms, most soup to nuts.
- Charleston's Rigging/Carolina Rigging**, <http://www.charlestonsrigging.com/contact-info.html>, see link for locations in Charleston, SC, Columbia, SC, and Augusta, GA, supplier of all manner of rigging: cable, wire, rope, shackles, etc. Also provide services such as fabricating boat lift harnesses, etc.
- Clamming.com**, <http://www.clamming.com/> see, 100 Hoods Lane, Marblehead, MA 01915, 1-800-522-7682, see <http://www.clamming.com/mm5/merchant.mvc?Screen=SFNT>, Email: info@clamming.com, All types of shellfishing products, clamming gear, rakes, etc.
- Clamout Equipment Co., LLC**, <http://www.clamout.com>, 4654 New Holland Road, Mohnton, PA 19540-8487, 1-877-999-CLAM, Email: info@clamout.com, catalog at <http://www.clamout.com/>, clamming/oyster knives, hand tools, bags, nets, rakes, gloves, gauges, baskets and float rings, etc.
- Fisheries Supply Co.**, <http://www.fisherliessupply.com/dinghy-fishing-and-trailer/fishing-and-crabbing-gear/clamming-gear>, 1900 N Northlake Way, Seattle, WA 98103, 800-426.-6930,

Email: support@fisheriessupply.com, all things marine, including fishing/sampling gear, SS, fasteners, clothing, etc.

FL Sea Grant, 2013 Clam Bag Suppliers, thread fabric, etc.

<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2013%20Clam%20Bag%20Suppliers.pdf>

FL Sea Grant, 2013 Marker (ID tags) sources, etc.

<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2010%20BAG%20TAGS.pdf>

Floy Tags, Inc., <http://www.floytag.com/>, 800.843.1172, 4616 Union Bay Place NE, Seattle, Washington, 98105, email: sales@floytag.com. <http://www.floytag.com/uploads/floycatalog.pdf> catalog, all manner of tags for fish, decapods, tagging guns, custom work, etc.

Friendship Trap Company, <http://www.friendshiptrap.com/>, email: info@friendshiptrap.com, 207.354.2545, (800.451.1200), 570 Cushing Rd., Friendship, ME, 04547, handle all sorts of tools, twine, buoys, floats, commercial fishing supplies, clothing rope, fasteners, mesh, etc.

Fukui North America (division of Bishop Aquatic Technologies, Inc.),

<http://www.fukuina.com/index.htm>, PO Box 669, 110-B Bonnechere St.W., Eganville, Ontario K0J 1T0, CANADA, 613.432.3173, Email: christineh@fukuina.com, see <http://www.fukuina.com/shellfish/oysters.htm> for all sorts of spat setting materials such as chinese hats and other aquaculture supplies, etc. Processing machines, fencing, netting, packaging, traps. Also have man-made bio-reactors for large areas and high microbial activity for filtering. Bio-Cord is a simple cord covered with countless rings of thread, made of polymers such as polypropylene, vinylon, polyvinylidene-chloride, binylon or nylon-polyester.

General Oceanics, Inc., <http://www.generaloceanics.com/>, 1295 N.W. 163rd Street Miami, Florida, 33169, 305.621-2882, Email: sales@generaloceanics.com, survey vehicles, oil sampling, water sampling and monitoring, plankton nets, flow (mechanical) and electronic current meters, winches, dataloggers and sensors, calibration, air sampling, custom made services.

KB White, Co., premier shellfishing equipment, www.kbwhiteco.com, 100 Hoods Lane, Marblehead, MA 01945, 800-522-7682, Email: info@kbwhiteco.com, Catalog at http://kbwhiteco.com/CATALOG_Wholesale_WEB.pdf, all things shellfishing related.

Kellogg Marine Supply, 800.243.9303, 860-434-6002, <http://www.kelloggmarine.com/>,), email: info@kelloggmarine.com, 5 Enterprise Drive, Old Lyme, CT 06371, misc. marine supplies, engines, foul-weather gear, etc.

Maine Clam Gear, <http://maineclamgear.com>, 207-726-4620, 81 US Rte 1, Pembroke, ME 04666, clamming gear.

Memphis Net & Twine Co., Inc., P.O. Box 80331, Memphis, TN 38108-0331, 888-674-7638 (901.458.2656), email: fishinfo@memphisnet.net, <http://www.memphisnet.net/>, http://www.memphisnet.net/category/netting_plastic_aqua, mesh distributor, fish buckets, netting for sampling, field supplies, etc.

Mussock International, Ltd., <http://www.mussock.co.nz/>, T: +64.3.3386.474 (F: +64.3.3386.475), Email: andy@mussock.co.nz, PO Box 3278, Christchurch, NZ, Demo of mussel sock machine, <http://www.mussock.co.nz/index.php?page=view-demo>

New River Nets, Co., <http://www.newrivernets.com/>, 140 Charles Creek Rd., Sneads Ferry, N.C., 28460, Tel: (910) 327-1231, Fax: (910) 327-3136, E-Mail sales@newrivernets.com, see <http://www.newrivernets.com/nrn/shellfish.htm>, plastic and galvanized wire baskets, fish totes, ring floats, knives for clams and oysters,

Nylon Net Co., www.nylonnet.com/, 800.238.7529, PO Box 592, Memphis, TN 38107, Email: nylonnet@nylonnet.com, mesh distributor, netting for sampling, apparel, fishing gear, field supplies, erosion control, shoreline restoration, fish buckets, http://www.nylonnet.com/merchandise/?top_cat=97&cat_nav=182&cat=182, etc.

Pentair Aquatic Eco-Systems, Inc., <http://www.aquaticeco.com/>, 877.347.4788 (407.886.3939), email: AES@aquaticeco.com, 2395 Apopka Blvd., Apopka, FL 32703, fish buckets, <http://search.aquaticeco.com/index?D=mesh&Nty=1&N=0&Dk=0&Ntt=mesh>, mesh distributor, nets, etc.

RazorClams.com, see <http://razorclams.com/index.html>, 26006 Pacific Highway, Ocean Park, WA 98640, Email: service@jackscountrystore.com, info on WA harvesting sites, regs, quality clam digging equipment, clam guns, nets, shovels,

Sea-Gear Corp., <http://www.sea-gear.net/index.html>, 321.728.9116 , 700-B1 S John Rodes Blvd., Melbourne, FL 32904, Email: bobbie@sea-gear.net , <http://www.sea-gear.net/products.html> see plankton nets, frames, mesocosms, trawls, etc.

SNL Corporation, www.snllcorp.com, 800.330.3087, 1112 Main Street, Sebastian, FL. Recreational and Commercial fishing tackle supplier, marine hardware, fish house supplies, etc.

Wanchese Trawl & Supply, www.wanchese.com, 924 Harbor Rd. Wanchese, NC 27981, 252.473.5001; contact Faron Daniels, Manager 48 Water St., Hampton, VA 23663; 757.728.0609; Dallas Daniels, Manager, Email: dallas@wanchese.com, commercial fishing supplies, distributor and manufactures' representatives.

Wildlife Control Supplies Co., <http://www.wildlifecontrolsupplies.com/>, P.O. Box 538, East Granby, CT 06026, 877.684.7262, Email: sales@wildlifecontrolsupplies.com, teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, copper mesh & stainless steel fill fabric, marking, numbering, wildlife control, baits, safety, small animal capture, etc.

Wildlife Supply Company, <http://www.wildco.com/home.php>, 800.799.8301 (904.225.9889), Email: goto@wildco.com, 75 Gene Lasserre Blvd., Yulee, FL 32097. All manner of water, soil, sediment samplers and other gear, plankton nets, teaching, sampling, workup, etc., for terrestrial and aquatic needs, custom work, <http://www.wildco.com/Nitex-Bolting-Cloth-Nitex-100A-m.html>

Printing Brochures, T-Shirts, Signs, Poles, Web Hosting, etc. (skewed to SE US)

Section 11

1&1 Internet Inc., <http://1and1.com>, 1.877.461.2631, 701 Lee Road, Suite 300, Chesterbrook, PA 19087 (use for <http://www.oyster-restoration.org/>), Email: sales@1and1.com. Domains, webhosting, design, servers, emails, etc.

Allegra Printing, <http://allegraprintfortmyers.com/>, (239) 275-5797, 12140 Metro Parkway, Suite C, Fort Myers, FL, 33966, email: leah@allegraftm.com, t-shirts, etc.

Bob's Top End, <http://ww38.bobstopend.org/>, <http://www.bobstopend.com/services.html>, 239.936.8880, Email: btgraphics@live.com, 11,000 Metro Pkwy Ste 10, Fort Myers, FL 33966, t-shirts, decals, etc.

Café Press, Inc., <http://www.cafepress.com/>, 1850 Gateway Drive, Suite 300, San Mateo, CA, 94404, international operations, 877-809-1659, Email: info@cafepress.com, or request information see <http://help.cafepress.com/hc/s-74058960/cmd/kbresource/kb-8210000769937247309/escalate!PAGETYPE>, world's largest selection of artist-designed t-shirts, clothing, accessories, housewares and gifts, design your own t-shirts, mugs, thermos bottles, water bottles, iPad cases, bags, hats, etc., see <http://www.cafepress.com/make/personalized-gifts>

Champion America, <http://www.champion-america.com/>, P.O. Box 3092, Stony Creek, CT, 06405, 877.242.6709, Email: service@champion-america.com, all types of graphics, portable magnetic signs, plastic and metal signs, banners, decals, ID tags, predesigned signs and made to order, poles, hardware for signs onto poles, types of poles for long term intertidal and shoreline marking, <http://www.champion-america.com/posts-and-accessories/sign-posts>, all types of posts, u channel sign posts, <http://www.champion-america.com/posts-and-accessories/sign-posts/u-channel-sign-posts>, fiberglass, etc.

Docucopies.com, <http://www.docucopies.com/>, 877.222.4842, 636 Commerce Dr., Hudson, WI, 54016, located in WI and CA, email: info@docucopies.com, brochures, business cards, marketing materials, color printing, t-shirts, signs, booklets, banners, etc. \$50 minimum order, all orders \$7 setup generally.

Emedco, <http://www.emedco.com/>, P.O. Box 369, Buffalo, NY, 14240, 866.222.4743, Email: customerservice@emedco.com, all types of graphics, portable magnetic signs, plastic and metal signs, banners, decals, ID tags, predesigned signs and made to order, poles (many options), hardware for signs onto poles, <http://www.emedco.com/signs/sign-posts-stanchions-accessories/sign-posts.html>, galv. U-channel (4-12', tapered end drives into the ground without digging a hole for easy, one-person installation), closed-profile composite posts, types of poles for long-term intertidal and shoreline marking, etc.

Fidelity Printing, www.fidelityprinting.com, 3662 Morris Street N., Saint Petersburg, FL, 33713, Bryan Bullock: bryan@fidelityprinting.com, 877.301.1219, Email: info@fidelityprinting.com, web design, printing, QR Codes (Quick Response), used by TBW

FL Sea Grant Shellfish Tags (Dealers, Harvesters, and Wholesale),

<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2010%20Harvesting%20and%20Wholesaler%20Suppliers%20List.pdf>

Godaddy.com, <http://www.godaddy.com/>, 480.505.8877, Domains, webhosting, design, servers, emails, etc.

Innovative Plastics, Inc., <http://www.innovativeplastics.com>, 5502 Buckingham Dr., Huntington Beach, CA, 92649, 800.877.9177, Email: customerservice@plasticfab.com, plastic literature display holders, easels, screen printing, etc. Used their displays in restaurants and other places for community restoration brochures, etc.

Kinkos/FedEx stores (<http://www.fedex.com/office/>) see local stores

Midstate Graphics, www.midstate-graphics.com, 13183 - 38th Street North, Clearwater, FL, 33762, 727.573.2299, Deb Sytsma: dsytsma@midstate-graphics.com for decals, bumper stickers, clings, banners, brochures, business cards, marketing materials, color printing, signs, booklets, banners etc., used by TBW

Schoenau Advertising/Think Tank Studio, <http://www.thinktankstudio.com/>, 626 Lakeview Rd., Suite A, Clearwater, FL, 33756, 727.441.4488, Email: tts@thinktankstudio.com, Angie Shuman: ams@thinktankstudio.com; Also: 91 Rein Rd., Spruce Head, ME, 727.409.3328, E-mail: mus@thinktankstudio.com, for swag/promotional items (clothing, etc.), used by TBW

ULINE, Inc., <http://www.uline.com/Index.aspx>, 12575 Uline Dr., Pleasant Prairie, WI, 53158, 800.295.5510, Email: customer.service@uline.com, plastic literature display holders, etc.

United States Plastic Corp., <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217 , email: usp@usplastic.com, sell all plastics, etc.

Vista Printing, <http://www.vistaprint.com/vp/welcome.aspx?xnav=welcomedback&rd=1>, 95 Hayden Ave., Lexington, MA, 02421, brochures, business cards, color printing, stapled booklets, marketing materials, t-shirts, signs, banners, etc.

USA Traffic Signs, <http://www.usa-traffic-signs.com/>, 33 Miles St., Binghamton, NY 13905, Binghamton, NY, 13905, 800.613.0454, Email: traffic@stny.rr.com, all types of graphics, portable magnetic signs, plastic and metal signs, banners, decals, ID tags, predesigned signs and made to order from tiff or other file, u-channel aluminum and fiberglass with holes, hardware for signs onto poles, types of poles for long term intertidal and shoreline marking, http://www.usa-traffic-signs.com/Posts_s/37.htm, http://www.usa-traffic-signs.com/GSquare8_p/sq82.htm, http://www.usa-traffic-signs.com/Gchannel123_p/up-12g3.htm, U-channel Posts , example, 12' pole galvanized, 3lbs/ft.

Voss Signs, LLC, <http://www.vosssigns.com/>, 112 Fairgrounds Drive, P.O. Box 553, Manlius, NY, 13104-0553, 800.473.0698, (315.682.6418), Email: Sales@VossSigns.com, all types of graphics, portable magnetic signs, used for plastic and metal signs for restoration reefs with info, banners, decals, ID tags, predesigned signs and made to order from tiff or other file, u-channel aluminum and fiberglass (8' Tuff'n Lite 2 composite posts) with holes, wood stakes, hardware for signs onto poles, have used very good results. <http://www.vosssigns.com/Posts.htm>, U-channel and square posts, catalog, <http://www.vosssigns.com/Catalogs.htm>.

Mesh/Rebar (metal mesh/cloth) for Sieves: Manufacturers or Distributors, Fabricators

Section 12

Allied Crawford Steel, located in a number of places around U.S. (e.g., VA, SC), 5211 County Road 304, Taylors, SC 29687, 864.609.5100; 7135 Bryhawke Circle, N. Charleston, SC, 29418, 843-552-6300,

Ben Meadows, Inc., <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Cole-Parmer North America, www.coleparmer.com, 800.323.4340, email: info@coleparmer.com, http://www.coleparmer.com/Category/Sieves/2869/SortBy=6_Page=1_Class=40551_AppliedFilters=2000013799, 625 East Bunker Court Vernon Hills, IL 60061, comprehensive line of sieves and other sieve-related products.

CMC Rebar, Inc., <http://www.cmc.com/en/americas/Pages/home.aspx>, worldwide, Commercial Metals Company, 6565 N. MacArthur Blvd., Suite 800, Irving, TX 75039, one local SW FL, for locations, <http://www.cmc.com/en/americas/Pages/Locations.aspx>, 2665 Prince St., Ft. Myers, FL 33916, 239.337.3480, gotten 3/8" rebar from them bent in right angle or candy cane styles cut to various lengths.

A. Daigger & Company, <http://www.daigger.com/>, 620 Lakeview Parkway, Vernon Hills, IL 60061, 800.621.7193, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Fisher Scientific, Inc., <http://www.fishersci.com/ecom/servlet/home?storeId=10652>, 300 Industry Dr., Pittsburg, PA, 15275, 800.766.7000 (Web Support, 877.885.2081) research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

FL Sea Grant, 2013 Clam Bag Suppliers, thread fabric, etc.
<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2013%20Clam%20Bag%20Suppliers.pdf>

General Oceanics, Inc., <http://www.generaloceanics.com/>, 1295 N.W. 163rd Street Miami, Florida, 33169, 305.621-2882, Email: sales@generaloceanics.com, survey vehicles, oil sampling, water sampling and monitoring, plankton nets, flow (mechanical) and electronic current meters, winches, dataloggers and sensors, calibration, air sampling, custom made services.

Gilson Co., Inc., <http://www.globalgilson.com/index.asp>, 800.444.1508 (740.548.7298), email: customerservice@gilsonco.com, P.O. Box 200, Lewis Center, Ohio, 43035, <http://www.globalgilson.com/selectionguides/sieves.asp>, direct source for ASTM Round Test Sieves, <http://www.globalgilson.com/selectionguides/replacementtrayswirecloth.asp>, premade screen trays, brass or stainless, opening size(s), from 4" to No.635 20µm (L x W), Metal mesh

for large or small sieves (examples), WC- 55 # 10 (2 mm), WC- 55 #8 (1 mm), WC- 55 #35 (500 µm)

Ketcham Supply, Corp., <http://www.lobstering.com/>, 111 Myrtle St., New Bedford, MA, 02740, 508 997 4787, ask for Bob or Myron, Email: info@lobstering.com, lobster and other traps and tools for trap building or repair, vinyl-clad galvanized wire mesh in rolls or panels, architectural mesh (for security screening, fencing, barriers, dividers), aquaculture supplies such as oyster bags, vinyl-coated wire mesh (incl. new 4½" aquamarine oyster mesh), rack and tray systems, distributor for the Oyster-Gro® system, clips, snaps, galvanized anchoring augers, marine grade vinyl coated wire mesh supplied as full rolls, or flattened pre-cut kits, also do custom work.

Industrial Netting, Inc., square, round, slotted or custom, 800.328.8456 (763.496.6355), <http://www.industrialnetting.com/sieves.html>), email: info@industrialnetting.net, 7681 Setzler Parkway North Minneapolis, MN 55445-1883.

McMaster-Carr, <http://www.mcmaster.com/#>, 404.346.7000, 6100 Fulton Industrial Blvd. SW Atlanta, GA 30336-2853 (mail P.O. Box 740100, Atlanta, GA 30374-0100), Email: atl.sales@mcmaster.com , all manner of hardware (SS), fastening (e.g., anchors to attach in corals or rocky shores, Drop-In anchors), joining, pipes, adhesives, tapes, tubing, fittings, sealing, flow, weatherstripping, filtering, lighting, electrical, machining, sawing, cutting, safety, material handling, suspending, tools, measuring, furniture, storage, plumbing, marking, engraving, office supplies, signs, and so much more.

Mussock International, Ltd., <http://www.mussock.co.nz/>, T: +64.3.3386.474 (F: +64.3.3386.475), Email: andy@mussock.co.nz, PO Box 3278, Christchurch, NZ, Demo of mussel sock machine, <http://www.mussock.co.nz/index.php?page=view-demo>

Oney Sheet Metal, Inc., <http://www.oneysheetmetal.com/Home/>, 200 Center Rd., Ft. Myers, FL, 33907, 239.936.3545, Email: rick@oneysheetmetal.com, fabricated large sieves (see other document on methods for more details, sieve material came from Gilsons.

Sea-Gear Corp., <http://www.sea-gear.net/index.html>, 321.728.9116 , 700-B1 S John Rodes Blvd., Melbourne, FL 32904, Email: bobbie@sea-gear.net , <http://www.sea-gear.net/products.html> see plankton nets, frames, mesocosms, trawls, etc.

Sigma-Aldrich, Inc., <http://www.sigmaaldrich.com/sigma-aldrich/home.html>, P.O. Box 14508, St. Louis, MO, 63178, 800.325.3010, <http://www.sigmaaldrich.com/customer-service/email-for-service.html>, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, see catalogs, see <http://www.sigmaaldrich.com/site-level/literature-request.html>

United States Plastic Corp., <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217 , email: usp@usplastic.com, sell all plastic, from buckets, trays, photo trays (sorting), fittings, Rubbermaid, tubing, labware, bottles, bags, cable ties, sheet plastics, tanks, etc.

VWR, Inc., , <https://us.vwr.com/>, International, 800.932.5000, email Tech. Supp.: technicalproductSupportNA@vwr.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to

nuts, see catalog,

https://us.vwr.com/store/content/externalContentPage.jsp?path=/en_US/the_vwr_catalog_2009_2011.jsp

Wildlife Control Supplies Co., <http://www.wildlifecontrolsupplies.com/>, P.O. Box 538, East Granby, CT 06026, 877.684.7262, Email: sales@wildlifecontrolsupplies.com, teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, copper mesh & stainless steel fill fabric, marking, numbering, wildlife control, baits, safety, small animal capture, etc.

Wildlife Supply Company, <http://www.wildco.com/home.php>, 800.799.8301 (904.225.9889), Email: goto@wildco.com, 75 Gene Lasserre Blvd., Yulee, FL 32097. All manner of water, soil, sediment samplers and other gear, plankton nets, teaching, sampling, workup, etc., for terrestrial and aquatic needs, custom work, <http://www.wildco.com/Nitex-Bolting-Cloth-Nitex-100A-m.html>

**Aquaculture, Predator Control, Field and Hatchery Supplies, Hardware (SS),
Filtration, Water Quality, Lab Equipment, etc. (see section 7 also)**

Section 13

1000bulbs.com, <http://www.1000bulbs.com/>, 2140 Merritt Dr., Garland, TX 75031, 800.624.4488, Email info form: <http://www.1000bulbs.com/pages/Contact-Us.html>, 7 a.m. to 6 p.m. CST hours of operation. All manner of bulbs, fixtures, growlights, hydroponics, batteries, LEDs, ballasts, electrical, etc.

A. Daigger & Company, <http://www.daigger.com/>, 620 Lakeview Parkway, Vernon Hills, IL 60061, 800.621.7193, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts, see catalog.

Aquaculture Vendors, <http://seagrant.uconn.edu/whatwedo/aquaculture/vendors.php>

Aquaculture Education, <http://seagrant.uconn.edu/whatwedo/aquaculture/educators.php>

Atlantic Aquaculture Supply, Inc., <http://www.atlanticaquaculture.com/>, 800.442. 8727 (401.247.1661), email: Atlantic@atlanticaquaculture.com, 100D Elm Street, Warren, RI 02885, <http://www.atlanticaquaculture.com/Catalog.htm> online catalog, bags used in TNC AL efforts.

Ben Meadows, Inc., <http://www.benmeadows.com/>, PO Box 5277, Janesville, WI 53547, 800.241.6401, email: mail@benmeadows.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

BoatsUS (West Marine and Port Supply also), headquarters, West Marine, P.O. Box 50070, Watsonville, CA 95077-0070, http://www.westmarine.com/webapp/wcs/stores/servlet/TopCategories1_11151_10001_-1, 800.262.8464, Email: wmCustomerService@westmarine.com, stores all over the U.S. wholesale accounts possible with better pricing, all things for boats, boating, electronics, motors, ss hardware, foul weather gear, boots, etc.

Capitol Scientific, Inc., <http://www.capitolscientific.com/>, 2500 Rutland Dr., Austin, TX 78758, 800.580-1167, research, laboratory and life science research materials, glassware, furniture, lab tables/tops, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts, see catalog.

Carolina Biological Supply Co., <http://www.carolina.com/>, 2700 York Road, Burlington, NC 27215-3398, 800.334.5551, email: , teaching/science ed., teaching level instruments, microscopes, displays, physics, preserved specimens, living organisms, most soup to nuts.

Coastal Aquacultural Supply, *Clearing House Website*, <http://www.coastalaquacultural.com>, Coastal Aquacultural Supply, 100 Glen Rd., P.O. Box 8066, Cranston, RI, 02920, 401.467.9370, aquaculture supplies and equipment - upwellers, bags, cages, netting etc. Contact Persons: Brian Bowes or Patty Volino.

- Cole-Parmer North America**, www.coleparmer.com, 800.323.4340, email: info@coleparmer.com, 625 East Bunker Court Vernon Hills, IL 60061, comprehensive line of scientific lab supplies, diverse equipment instrumentation, chemicals, pumps, tubing, specs, weather, data recorders, etc.
- Fisher Scientific, Inc.**, <http://www.fishersci.com/ecom/servlet/home?storeId=10652>, 300 Industry Dr., Pittsburg, PA, 15275, 800.766.7000 (Web Support, 877.885.2081) research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts.
- FL Sea Grant, 2013 Clam Bag Suppliers, thread fabric, etc.**
<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2013%20Clam%20Bag%20Suppliers.pdf>
- FL Sea Grant, 2013 Marker (ID tags) sources, etc.**
<http://shellfish.ifas.ufl.edu/PDFs/Suppliers/2010%20BAG%20TAGS.pdf>
- Friendship Trap Company**, <http://www.friendshiptrap.com/>, 207.354.2545 (800.451.1200), email: info@friendshiptrap.com, 570 Cushing Rd., Friendship, ME, 04547, handle all sorts of tools, twine, buoys, floats, commercial fishing supplies, clothing rope, fasteners, mesh, etc.
- Fukui North America (division of Bishop Aquatic Technologies, Inc.)**, <http://www.fukuina.com/index.htm>, PO Box 669, 110-B Bonnechere St.W., Eganville, Ontario K0J 1T0, CANADA, 613.432.3173, Email: christineh@fukuina.com, see <http://www.fukuina.com/shellfish/oysters.htm> for all sorts of spat setting materials such as chinese hats and other aquaculture supplies, etc. Processing machines, fencing, netting, packaging, traps. Also have man-made bio-reactors for large areas and high microbial activity for filtering. Bio-Cord is a simple cord covered with countless rings of thread, made of polymers such as polypropylene, vinylon, polyvinylidene-chloride, binylon or nylon-polyester.
- Grainger, Inc.**, <https://www.grainger.com/>, 1.800.323.0620, offices all over world, <https://www.grainger.com/Grainger/wwg/branchSearchRender.shtml>, everything from batteries to hardware, fastening, sawing, cutting, safety, tools, organizing, glues, finishes, lighting, cleaning supplies, electrical, machinery, office supplies, plumbing, welding, repairs, PVC, plastics, test instruments, safety, woodworking, recycling containers, etc. get a catalog, <https://jacksongroup.grainger.com/CatalogRequest/ExternalRequest.aspx>
- Ketcham Supply, Corp.**, <http://www.lobstering.com/>, 111 Myrtle St., New Bedford, MA, 02740, 508 997 4787, ask for Bob or Myron, Email: info@lobstering.com, lobster and other traps and tools for trap building or repair, vinyl-clad galvanized wire mesh in rolls or panels, architectural mesh (for security screening, fencing, barriers, dividers), aquaculture supplies such as oyster bags, vinyl-coated wire mesh (incl. new 4½" aquamarine oyster mesh), rack and tray systems, distributor for the Oyster-Gro® system, clips, snaps, galvanized anchoring augers, marine grade vinyl coated wire mesh supplied as full rolls, or flattened pre-cut kits, also do custom work.
- McFeely's**, <http://www.mcfeelys.com/>, 800.443.7937, P.O. Box 44976, Madison, WI 53744-4976, contact: <http://www.mcfeelys.com/contact.aspx?technical-resources>, hardware (SS), fastening, sawing, cutting, safety, tools, organizing, glues, finishes, lighting, woodworking, etc.
- Macalaster Bicknell**, <http://www.mbcoc.com/products/>, 78 Rebesch Dr., North Haven, CT, 06473, 855.622.2425, Email: info@macbick.com, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration,

antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, request a catalog, <http://www.mbcoc.com/product-catalog>.

McMaster-Carr, <http://www.mcmaster.com/#>, 404.346.7000, 6100 Fulton Industrial Blvd. SW Atlanta, GA 30336-2853 (mail P.O. Box 740100, Atlanta, GA 30374-0100), Email: atl.sales@mcmaster.com, all manner of hardware (SS), fastening, joining, pipes, adhesives, tapes, tubing, fittings, sealing, flow, weatherstripping, filtering, lighting, electrical, machining, sawing, cutting, safety, material handling, suspending, tools, measuring, recycling containers, furniture, storage, plumbing, marking, engraving, office supplies, signs, and so much more.

Marine Biotech, *Clearing House Website*. <http://marinebiotech.com/?nr=0>, 978.927.8720, supplies and equipment, system design, etc.

Midland Scientific, Inc., <http://www.midlandsci.com/default.aspx?page=category>, Omaha, 1202 South 11th Street Omaha, NE, 68108-3611, 800.642.5263, Contact via email: http://www.midlandsci.com/default.aspx?Page=customer&file=customer/miscne/customerpages/contact_us.html, specialty printers, related software, water purification, equipment and instrumentation, hoods, cryogenic, storage organizers, chemicals and lab/field supplies, teaching/science ed., soup to nuts.

Nylon Net Co., www.nylonnet.com/, 800.238.7529, PO Box 592, Memphis, TN 38107, email: nylonnet@nylonnet.com, mesh distributor, netting for sampling, apparel, fishing gear, field supplies, erosion control, shoreline restoration, http://www.nylonnet.com/merchandise/?top_cat=97&cat_nav=182&cat=182, etc.

Omega Engineering, Inc., <http://www.omega.com/index.html>, P.O. Box 4047, One Omega Drive, Stamford, CT, 06907-0047, 800.826.6342, email: info@omega.com, data acquisition, pH and conductivity, environmental monitoring, flow, level gauges,

Pentair Aquatic Eco-Systems, Inc., <http://www.aquaticceco.com/>, 877.347.4788, 2395), (407.886.3939), email: AES@aquaticceco.com, 2395 Apopka Blvd., Apopka, FL 32703, <http://www.aquaticceco.com/categories/Predator-Control/204/0/>, <http://www.aquaticceco.com/categories/Biological-Filtration/76/0/>, <http://www.aquaticceco.com/categories/Hatchery-Supplies/139/0/>, plumbing distributor, field supplies, water quality, hatchery and lab equipment, predator control etc. Have pvc cage fittings in 3, 4 or 5-ways, <http://www.aquaticceco.com/subcategories/3678/PVC-Cage-Fittings-3-Way>, <http://www.aquaticceco.com/subcategories/1927/PVC-Cage-Fittings-4-Way-L>, 5-way cross, <http://www.aquaticceco.com/subcategories/3677/PVC-Cage-Fittings-5-Way-Cross>

Power-Pole Anchors, <http://www.power-pole.com/>, <http://www.power-pole.com/pages/environmental.htm>, 9010 Palm River Rd., Tampa, FL, 33619, 813.689.9932, Email: scott@powerpole.com alternative to anchors in shallow water when alone or when you want to not tear up SAV, etc. Very amenable to helping marine labs and related needs.

Presto Geosystems®, http://www.prestogeo.com/erosion_control, 670 N Perkins Street, PO Box 2399, Appleton, Wisconsin USA 54912-2399, 800.548.3424 (920.738.1328, see http://www.prestogeo.com/request_literature for many options for green sustainable solutions and materials/applications.

- Reed Mariculture, Inc.**, <http://www.reedmariculture.com/>, 900 E Hamilton Ave, Suite 100, Campbell, CA 95008, 877-732-3276), Email: sales@reedmariculture.com, Instant Algae, Rotigrow, etc., books on aquaculture, etc.
- Sea-Gear Corp.**, <http://www.sea-gear.net/index.html>, 321.728.9116 , 700-B1 S John Rodes Blvd., Melbourne, FL 32904, Email: bobbie@sea-gear.net, <http://www.sea-gear.net/products.html> see plankton nets, frames, mesocosms, trawls, etc.
- Sigma-Aldrich, Inc.**, <http://www.sigmaaldrich.com/sigma-aldrich/home.html>, P.O. Box 14508, St. Louis, MO, 63178, 800.325.3010, <http://www.sigmaaldrich.com/customer-service/email-for-service.html>, research, laboratory testing and life science research, equipment and instrumentation, water purification, glassware, cryogenic, molecular, titration, antibodies, PCR, storage organizers, vials, all manner of chemicals, lab supplies, teaching/science ed., soup to nuts, see catalogs, see <http://www.sigmaaldrich.com/site-level/literature-request.html>
- The Lab Depot, Inc.**, <http://www.labdepotinc.com/>, 469 Lumpkin Campground Rd., S. Dawsonville GA, 30534, 1.800.733.2522, Email: info@labdepotinc.com, research, laboratory supplies, testing and life science research, equipment and instrumentation, water purification, recycling containers , chemicals and lab/field supplies, chemicals, teaching/science ed., soup to nuts.
- United States Plastic Corp.**, <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217 , Email: usp@usplastic.com, sell all plastic, from buckets, trays, photo trays (sorting), fittings, recycling containers, Rubbermaid, tubing, labware, bottles, bags, cable ties, sheet plastics, tanks, etc.
- VWR, Inc.**, , <https://us.vwr.com/>, International, 800.932.5000, Email Tech. Supp.: technicalproductSupportNA@vwr.com, research, laboratory testing and life science research, equipment and instrumentation, chemicals and lab/field supplies, teaching/science ed., soup to nuts, see catalog, https://us.vwr.com/store/content/externalContentPage.jsp?path=/en_US/the_vwr_catalog_2009_2011.jsp
- West Marine (Boats US and Port Supply also)**, headquarters, West Marine, P.O. Box 50070, Watsonville, CA 95077-0070, http://www.westmarine.com/webapp/wcs/stores/servlet/TopCategories1_11151_10001_-1, 800.262.8464, Email: wmcCustomerService@westmarine.com, stores all over the U.S. wholesale accounts possible with better pricing, all things for boats, boating, electronics, motors, ss hardware, foul weather gear, boots, etc.
- Wildlife Control Supplies Co.**, <http://www.wildlifecontrolsupplies.com/>, P.O. Box 538, East Granby, CT 06026, 877.684.7262, Email: sales@wildlifecontrolsupplies.com, teaching/science ed., all manner of water, soil, sampling and other limnology gear, workup, etc., for terrestrial and aquatic needs, copper mesh & stainless steel fill fabric, marking, numbering, wildlife control, baits, safety, small animal capture, etc.
- Wildlife Supply Company**, <http://www.wildco.com/home.php>, 800.799.8301 (904.225.9889), Email: goto@wildco.com, 75 Gene Lasserre Blvd., Yulee, FL 32097. All manner of water, soil, sediment samplers and other gear, plankton nets, teaching, sampling, workup, etc., for terrestrial and aquatic needs, custom work, <http://www.wildco.com/Nitex-Bolting-Cloth-Nitex-100A-m.html>

Stacking Trays (deploy shell) and Plastics, Pallets, Restaurant Suppliers, Oyster Knives, Sorting Trays, etc.

Section 14

Associated Bag Co., <http://www.associatedbag.com/default.asp>, , distribution centers across US, 4039 Rock Quarry Rd., Dallas, TX 75211, 800-926-6100, Email: customerservice@associatedbag.com, have gotten from them ziplock bags and ladder cable ties (work great underwater or in muddy situations, adhesives, tapes, tubing, sealing, twist ties, safety, material handling, marking, engraving, signs, Rubbermaid, bags, totes, labeling, janitorial, etc.

Bakery Equipment.com, Inc., <http://bakeryequipment.com/Bakery-Equipment/storage-shelving/Trays/used/index.htm> , <http://www.bakeryequipment.com/bakery-equipment/bakeryequipment.asp>, 5500 Olympic Dr., STE H105 - PMB 117, Gig Harbor, WA 98335, 360.255.7467, 409 W. Cooper Street, Tipton, MO. 65081, used equipment.

Bigtray.Com , <http://www.bigtray.com/default.asp>, 800-244-8729, Email: help@bigtray.com, restaurant supply, oyster knives *Russell, Sani-Safe[®]), trays, pans, recycling containers, boxes, janitorial supplies, etc.

Buckhorn, <http://www.buckhorninc.com/default.aspx>, 55 West TechneCenter Dr., Milford, OH, 45150, 800.543.4454 (1.513.831.4402), Email: sales@buckhorninc.com, see specifically for reusable bread trays, pallets, bulk packing, specialty boxes, hand-held containers, etc <http://www.buckhorninc.com/products/hand-held-containers/bakery-trays.aspx> see for plastic stackable bakery trays, <http://www.buckhorninc.com/products/hand-held-containers/ct29260922.aspx>, food handling containers, etc.

FarmPlast, LLC, <http://www.buymilkcrates.com/>, 973-287-6070, Email: Farmplastic@gmail.com, 5 Washington Ave., Fairfield, NJ, 07004, focus on milk crates of various sizes and colors. All have baffled sides, heavy duty HDPE plastic, etc.

Flexcon, The Perfect Container Co., <http://flexcontainer.com/bakery-containers/>, 908.871.7000, Email: info@flexcontainer.com, GSA schedule pricing, recycling containers, trays, pans, boxes, etc.

Food Service Warehouse, Inc., <http://www.foodservicewarehouse.com/>, 6020 Greenwood Plaza, Greenwood Village, CO, 80111, 877.877.4379, <http://www.foodservicewarehouse.com/dexter-russell/s121pcp/p8646.aspx> have gotten dozens of oyster knives for research projects from them e.g., Dexter-Russell (S121PCP) - 3" New Haven Style Oyster Knife - Sani-Safe Series, slight curved up tip or Victorinox (44693) 3" Oyster Knife, New Haven Style. Have trays for sorting (fiberglass and metal) animals, stacking white plastic boxes for experiments, wholesale pricing, plastic buckets (5-6.5 gal.), etc.

Global Industrial, <http://www.globalindustrial.com/>, Global Industrial 11 Harbor Park Drive, Port Washington, NY 11050, 1.888.381.2868, all manner of food service materials, hardware, fastening, joining, pipes, adhesives, tapes, tubing, fittings, sealing, flow, tapes, twist and cable ties, weatherstripping, filtering, lighting, electrical, motors, transmissions, machining, sawing, cutting, safety, material handling, suspending, tools, measuring, furniture, storage, plumbing,

marking, engraving, office supplies, signs, sell all plastic, from buckets, sorting trays, photo trays (sorting), fittings, Rubbermaid, tubing, bottles, bags, sheet plastics, totes, etc. and so much more, have rigid milk trays, <http://www.globalindustrial.com/g/storage/bins-totes-containers/nest-stack/cross-stack-nest-tote-boxes-fda?ref=uat/mvrc> nest and stack trays.

Grainger, Inc., <https://www.grainger.com/>, 1.800.323.0620, offices all over world, <https://www.grainger.com/Grainger/wwg/branchSearchRender.shtml>, organizing materials, PVC, plastics, get a catalog, soup to nuts.

Melmat, Inc., <http://www.melmat.com/DesktopDefault.aspx?tabindex=0&tabid=0>, 800-635-6289, Email: info@Melmat.com, sell bread trays (see HBBC-26), square and rectangular milk crates, clear display boxes, bins, corrugated plastics, industrial handling containers, stackable large enclosed cases, etc., do custom cases (SpaceCase) for waterproof safe transport of equipment, instruments, etc.

Xiamen DADON Plastics Co., Ltd., <http://www.nowtobuy.net/>, Xiang'an Xiangbei Industrial Zone, Xiamen city, Fujian Province, China, 0086-15159296830, Email: vicky1415@yahoo.cn, <http://www.nowtobuy.net/product/showproduct88.html>, sell all manner of plastic pallets, trays, plastic pallets, wholesale, http://www.nowtobuy.net/product/product_34_109_1.html, never used them??

Orbis Corp., <http://www.orbiscorporation.com/>, 1055 Corporate Center Drive, P.O. Box 389, Oconomowoc, WI, 53066-0389, 800.890.7292, locations across US and elsewhere, Email: info@orbiscorporation.com, have all manner of reusable transport packaging, plastic pallets, site can be a bit difficult to navigate, (see <http://www.orbiscorporation.com/Products/Hand-Held-Containers/Stack-N-Nest/ML6040-30>, NPL 640), Dairy Cases for shell deployment (deep), <http://www.orbiscorporation.com/Products/Hand-Held-Containers/Stack-N-Nest/BB-207>, BB 207 (e.g., 20 x 24" x 4-5"),

Rehrig Pacific Co., <http://www.rehrigpacific.com/contact/united-states>, 800. 421.6244, 4010 E. 26th St., Los Angeles, CA, 90058, Email: info@rehrigpacific.com, Eric Voss, Rehrig Pacific, Environmental Sales for GA, SC, NC, VA, 770.312.6675 Cell; evoss@rehrigpacific.com, have all manner of reusable transport packaging, one example, small 20 oz. half-depth trays (e.g., (<http://www.rehrigpacific.com/products-and-services/reusable-transport-packaging/crates-and-containers/beverage-crates/20oz-crates/20oz-half-depth-crate>), also plastic pallets, stackable bread (roll and bun trays, e.g., <http://www.rehrigpacific.com/products-and-services/reusable-transport-packaging/crates-and-containers/bakery-trays-and-dollies/bread-trays/hbb-26-bread-tray>) or milk/soda trays, crates/containers, strong and can be gotten in various colors, generally only take larger 100-1000s for orders, local reps throughout U.S. L. Coen has used their large and small trays for all field experiments and even reef construction.

Reusable Transport Packaging, <http://www.reusabletransportpackaging.com/>, 410-150th Ave., Suite I, Madeira Beach, FL 33708, 727.319-2300, Email: sales@reusabletransportpack.com, RTP sells reusable plastic containers, pallets and packaging, all types of hand-held containers, bulk insulated containers, tubs and tanks, labeling, office furniture, workbenches, carts, racks, dollies, ladders, state they have an Eco-Friendly Program, <http://www.reusabletransportpackaging.com/plasticrecyclingprogram.html>

ULINE, Inc., <http://www.uline.com/Index.aspx>, 12575 Uline Dr., Pleasant Prairie, WI, 53158, 800.295.5510, Email: customer.service@uline.com, all manner of food service materials, hardware, fastening, joining, pipes, adhesives, tapes, tubing, fittings, sealing, flow, tapes, twist and cable ties, weatherstripping, filtering, lighting, electrical, machining, sawing, cutting, safety, material handling, suspending, tools, measuring, furniture, storage, plumbing, marking, engraving, office supplies, signs, sell all plastic, from buckets, trays, photo trays (sorting), fittings, Rubbermaid, tubing, bottles, bags, sheet plastics, totes, etc. and so much more, have rigid milk trays (see http://www.uline.com/BL_313/Milk-Crates?pricode=WP883&gclid=CJ-7z8DY_LQCFQq0nQodxAkA_g), request a catalog <https://www.uline.com/CustomService/RequestCatalog.aspx>,

United States Plastic Corp., <http://www.usplastic.com/>, 1390 Neubrecht Rd., Lima, Ohio, 45801-3196, 800.809.4217, email: usp@usplastic.com, sell all plastic, from buckets, trays, photo trays (sorting), fittings, recycling containers, Rubbermaid, tubing, labware, bottles, bags, cable ties, sheet plastics, tanks, etc.

Plastic Pallets & Handling, <http://www.usplasticpallets.com/>, 110 South St., Hopkinton, MA 01748, 800.620.4840, Email: dr@usp-ph.com, plastic pallets and skids, wood pallet alternatives, material handling containers, shipping containers and select material handling equipment, full pallet line. Authorized Distributor for many major pallet manufacturers.

Wasserstrom Restaurant Supply, Inc., <http://www.wasserstrom.com/> one of the world's leading restaurant suppliers, 477 South Front St., Columbus, OH 43215, 866.634.8927, Email: admin@wasserstrom.com, 1-866-634-8927, offices in AZ, midwest, and south. Have trays for sorting (fiberglass and metal) animals, stacking white plastic boxes for experiments, oyster/clam knives (Dexter Russell, OXO, Victorinox) wholesale pricing, plastic buckets (5-6.5 gal.)

Sample of Some Shell Recycling Programs and Related Materials for U.S.

Section 15

Educational information related to recycling, <http://portal.ncdenr.org/web/mf/oyster-shell-recycling-educational-information>

FGCU's Oyster Reef Restoration Project, <http://www.fgcu.edu/CAS/OysterResearch/>, 10501 FGCU Blvd, South, Fort Myers, FL 33965-6565, 239.590.1000 (800.590.3428). The Coastal Watershed Institute (CWI) at FGCU and their partners in the community-based restoration of oyster reefs. Located in the lower Charlotte Harbor estuary, and estuaries of the Ten Thousand Islands in the Western Everglades, oyster reefs have been created in the Caloosahatchee River / lower San Carlos Bay, Estero Bay (Lee County), and Henderson Creek (Collier County), see also <http://www.fgcu.edu/CAS/OysterResearch/reefbuilding.html> and <http://www.fgcu.edu/CAS/OysterResearch/recycling.html> shell recycling.

Harte Institute, TAMU Corpus Christi, TX, <http://www.oysterecycling.org/theprocess.html>
Galveston Bay Foundation establishes a Galveston Bay Oyster Shell Recycling Program, http://www.galvbay.org/conservation_shell.html

Shell recycling in Chesapeake Bay (through ORP),
<https://www.oysterrecovery.org/Content/ContentDisplay.aspx?ContentID=88>

Chesapeake Bay Foundation's (CBF) oyster shell recycling,
<http://www.cbf.org/page.aspx?pid=1456>

Overview of the Chesapeake Bay recycling effort,
<http://www.oysterrecovery.org/Content/ContentDisplay.aspx?ContentID=89>

Shell and restaurants, <http://oysterrecoverypartnership.squarespace.com/about-the-shell-recycling-alli/>

Tampa BayWatch Shell recycling program, contact Serra Herndon, Habitat Restoration Director, Tampa Bay Watch, 3000 Pinellas Bayway S., Tierra Verde, FL 33715, 727.867.8166 ext. 227, www.tampabaywatch.org, also specifically <http://www.tampabaywatch.org/index.cfm?fuseaction=content.home&pageID=209>

MA Oyster Shell Recycling effort, http://www.massoster.org/shell_recycling.html

Oyster Reef Restoration, http://en.wikipedia.org/wiki/Oyster_Reef_Restoration

Oyster shell recycling in SC (SCORE and SCDNR)
<http://score.dnr.sc.gov/deep.php?subject=6&topic=1>

Oyster shell recycling in SC and support via Shellfish Saltwater Recreational Fishing License,
<http://saltwaterfishing.sc.gov/oyster.html>

Recycling in NC, <http://portal.ncdenr.org/web/mf/oyster-shell-recycling-program>

Rhode Island TNC "Oysters Gone Wild",
<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/rhodeisland/oysters-gone-wild.xml>

Galveston Bay, TX, http://www.galvbay.org/conservation_shell.html, Oyster Shell Recycling Program

TNC involved in restaurant shell recycling in SC,
<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/southcarolina/howwework/restaurant-shell-recycling-program.xml>

UNH Oyster Shell Recycling Program, http://www.oysters.unh.edu/shell_recycling.html

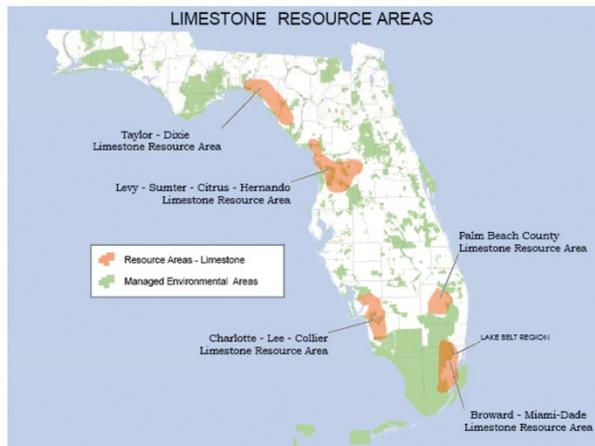
Sample of Some Shell/Fossil Shell and Other Materials for Reef Building in U.S.

Section 16

Gulf Coast Aggregates, Inc., 850-697-4669, 55502 SE County Road 67, Hosford, FL, 32334

SMR Aggregates, <http://smraggregates.com/>, 5875 Quarry Drive, Sarasota, FL, 34240, 941.907.0041 (Fax: 941.907.0050), Email: smraggregates@smrranch.com, <http://smraggregates.com/priceList.cfm>, \$22/Ton exclusive of delivery 3/13.

Tarmac America, Inc., <http://www.kingroadmine.com/abouttarmac.html>, 6051 King Rd., Inglis, FL, 34449, 305.401.8086, supplier of Florida construction materials, Plant Manager, Jeff Harris, jharris@titanamerica.com.



See <http://www.kingroadmine.com/aggregate.html>

<http://chesapeakebay.noaa.gov/oysters/technical-aspects-of-oyster-restoration>

<http://www.ncoystermonitoring.org/larvae.php>

<http://hatchery.hpl.umces.edu/oyster-seed-sales/>

<http://hatchery.hpl.umces.edu/facilities/follow-the-path-of-an-oyster/>

<http://www.fao.org/docrep/007/y5720e/y5720e0b.htm>