





LIFE IN WATER

Eco Analysts, inc.

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HELPING OUR CLIENTS MAKE HIGHLY INFORMED DECISIONS REGARDING THE CONDITION AND STEWARDSHIP OF OUR NATURAL RESOURCES.

EcoAnalysts is North America's leading provider of services supporting the assessment of surface waters (freshwater, estuarine, marine) using biological communities. Our core services include:

- Taxonomy of aquatic and terrestrial invertebrates, algae, zooplankton, and fish (larvae, juveniles, and adults)
- · Ecological research and consulting
- Rare, threatened or endangered invertebrate species surveys
- Aquatic invasive species surveys

As the largest bioassessment laboratory in North America, we process more than 8,000 benthic samples annually and have completed projects throughout North America as well as in Suriname, Peru, Brazil, Mexico, Dominican Republic, Australia, and India.

LIFE IN WATER — that's our focus at EcoAnalysts.

We are the recognized leader in the bioassessment industry as a result of our performance providing taxonomic determinations and rigorous internal quality assurance and quality control measures.

We have assembled the top team of taxonomists in North America comprised of 14 taxonomists with 20 SFS certifications and over 190 years of comprehensive taxonomy experience. We continually update our extensive library of taxonomic references and maintain a comprehensive voucher collection containing more than 10,000 specimens verified by outside experts.

EcoAnalysts serves federal, state, and municipal government agencies; environmental engineering and consulting firms; environmental law firms; regulated industry clients; volunteer monitoring groups and watershed councils; universities; tribes; and a variety of non-government organizations.

TAXONOMY SERVICES

EcoAnalysts has assembled the top team of taxonomists in North America comprised of 14 taxonomists with 20 SFS certifications and over 190 years of combined taxonomy experience. Multiple taxonomists working on your project in a professional laboratory increases the accuracy and repeatability of identifications. In addition to our taxonomy staff, we employ 15 full time professional sorting technicians, including specially trained quality control technicians. This allows us to minimize the potential for introducing sorting error in the bioassessment process.

Organisms that our taxonomists identify include:

- Benthic Macroinvertebrates
- Terrestrial Invertebrates
- Periphyton (diatoms and soft algae)
- Phytoplankton
- Zooplankton
- Fish (eggs, larvae, juvenile and adult)

RARE, THREATENED OR ENDANGERED SPECIES SURVEYS

Our ecologists are permitted by the US Fish and Wildlife Service to work with several federally listed terrestrial and aquatic invertebrate species. We can perform surveys for these species and determine their presence/ absence in your project area, develop conservation plans for these species, and monitor constructed habitat for mitigation purposes.

INVASIVE SPECIES

Invasive species are a major threat to the biological integrity of our waters and our landscape. EcoAnalysts has wide-ranging experience with many terrestrial and aquatic invasive species. Our experts can design and implement surveys to determine the extent of infestations, develop strategies for containment where feasible, and develop models to assess the risk of infestation.

Special Service: Zebra and Quagga Mussel Detection

EcoAnalysts is on the cutting edge of early detection and identification of Zebra, Quagga, and Corbicula veligers (larvae). Using light microscopy and cross-polarization microscopy, we offer expertise in detecting and identifying these aquatic invasives. Our methods are more accurate and cost effective than automated detection methods.

STUDY DESIGN

The first and probably most important step in the bioassessment process is designing a study. The process begins with one question: What are you trying to accomplish with the project? Once your objectives are clear, EcoAnalysts' scientists will make recommendations as to which biological indicators will best suit your needs, including logistical and budget considerations. We will design your study to include all necessary components, including:

- a sampling strategy that matches the requirements in your region, with detailed protocols for efficient and scientifically sound sample collection
- detailed instructions on the handling and processing of the samples you collect
- taxonomic effort levels and raw data requirements
- a list of the necessary metrics and indices to get the most out of the data

DATA ANALYSIS

The final step in the bioassessment process involves the analysis of data and each project has its own special requirements. Our Master's level and Ph.D. level consulting ecologists have a high degree of expertise in quantitative methods and applied ecological theory. We have a great deal of experience calculating metrics and indices from all over the United States. These data are considered along with habitat conditions, water chemistry, statistical analyses, and other information to provide a comprehensive analysis and interpretation of the data. Our involvement does not stop with reporting —we are always available to assist with further explanation, interpretation, and analysis.

FIELD SAMPLING

Our staff has considerable experience working in aquatic habitats throughout North America. From temporary spring seeps to large rivers and estuaries, we are familiar with the logistics of field sampling methods used in various habitat types. We provide field identification of fish and invertebrates and measure the physical, chemical, and biological variables needed for your project.

WORKSHOPS AND TAXONOMIC TRAINING MATERIALS

EcoAnalysts' scientific staff have an excellent record of teaching and scholarship. We have developed and taught a variety of workshops and training courses for our clients, on topics ranging from the basics of bioassessment and the role of taxonomy in the bioassessment process to advanced workshops covering specific topics such as the biology and ecology of vernal pools and their invertebrate inhabitants (clam shrimp, tadpole shrimp, and fairy shrimp).

Over the years, our consulting scientists and taxonomists have used their considerable expertise to produce several taxonomic keys and an identification manual. These publications contain the most reliable taxonomic characters and photographic supplements.

SUPPLEMENTAL LABORATORY SERVICES

EcoAnalysts provides several laboratory services in addition to taxonomy, including:

- Biomass: wet weight, dry weight, ash-free dry mass, length-weight regressions
- Chlorophyll a,b,c, and pheophytin corrections (Spectrophotometry-EPA 446.0)
- Biovolume
- Individual organism measurements
- Tissue metal content analyses

CONTRACT LABOR

Hiring freezes and fixed budgets can mean that an agency or organization cannot directly hire the necessary staff to implement their programs. Sometimes it is easier to contract with an entity when salary funding is locked down. EcoAnalysts can serve as a contract labor provider whereby we hire the person of your choice and you hire us to provide the labor hours you need.

