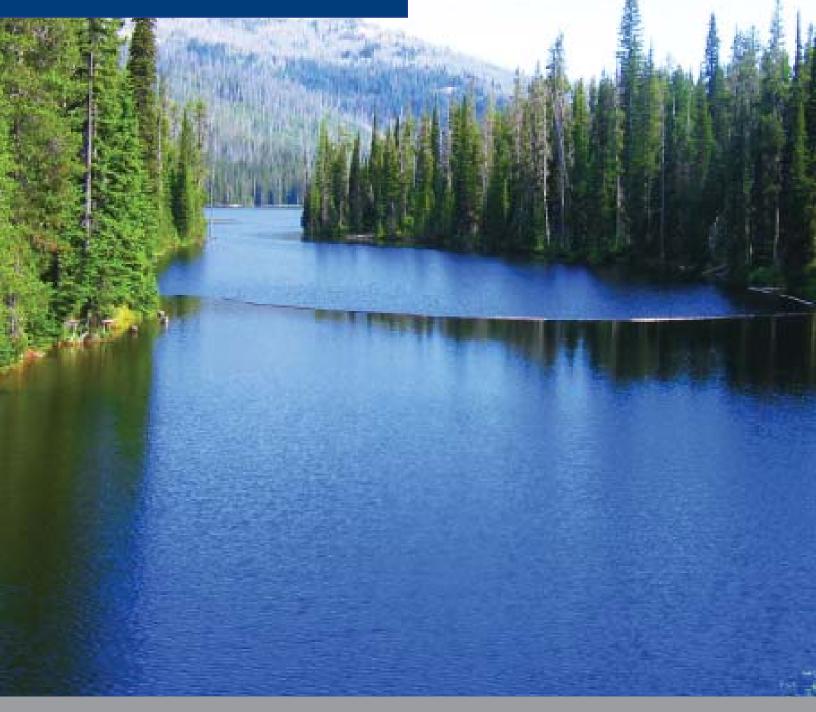


# LIFE IN WATER



## **FRESHWATER • ESTUARINE • MARINE**

## **COMPANY OVERVIEW**

EcoAnalysts has been in operation for over 15 years and have become a nationally recognized leader in the field of biological monitoring and consulting services.

EcoAnalysts has offices in Canada, Idaho, Massachusetts, Pennsylvania, Florida, and two in Washington. Our core services include: 1) identification of aquatic and terrestrial invertebrates, periphyton, phytoplankton, zooplankton, larval fish, and fish stomach samples; 2) aquatic ecology research, monitoring and consulting; 3) endangered invertebrate species surveys; and 4) invasive invertebrate species surveys and management plans.

To date EcoAnalysts has completed several thousand projects, having identified over tens of thousands of macroinvertebrate, plankton, and periphyton samples from around the United States. We have completed projects worldwide including Australia, Brazil, Canada, Mexico, Peru, India, and Surinam. EcoAnalysts has become one of the largest taxonomic laboratories in the country, with the capacity to process 10,000 macroinvertebrate samples annually.

Our rigorous quality control procedures, along with the accompanying documentation gives our clients confidence in knowing their dataset is of the highest quality and can withstand peer and legal scrutiny.



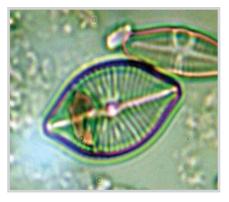




The success of EcoAnalysts is attributed to:

Industry leading technical experitise
High laboratory capacity and quick delivery times
Superior value at competitive prices

Our commitment to having the highest technical expertise, quick turn around time, large capacity and superior value enables EcoAnalysts to be proactive in addressing the needs of our clients and the development of our company.







## **Our Purpose**

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 Focus**

LIFE IN WATER — EcoAnalysts is a recognized leader in the bioassessment industry as a result of our focus on providing taxonomic determinations and rigorous internal quality assurance and quality control measures.

## LABORATORY SERVICES

#### **Benthic Macroinvertebrates**

Our specialty is macroinvertebrate taxonomy as it relates to biological monitoring and assessment. We are the leading provider of services supporting the assessment of surface water (freshwater, estuarine, marine) using biological communities.

#### Algae

EcoAnalysts has a highly trained team of algal taxonomists with considerable experience identifying benthic algae and phytoplankton samples from around North America; including both soft algae and diatoms identified to species/variety. We are one of the only taxonomic laboratories in the country with the capacity to successfully manage large scale algae projects.

#### Marine

Our marine team has considerable experience with collecting and analyzing marine samples globally, from nearshore to deep-sea. With this experience we are able to offer our clients a wide range of marine services including eelgrass and shellfish surveys, assessment of marine environments, marine habitat characterization, benthic infaunal sorting, enumeration and identification and more.



### **Taxonomy Services**

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

## Pricing

There is considerable variation in the objectives and methods of biological sampling projects, which generally makes it impractical to set a standard price for processing samples. Factors that influence cost of processing samples include taxonomic effort, subsample size, mesh size used to collect samples, preservative used, season sampled and turn-around time.



#### 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.

#### Fish

EcoAnalysts offers three fish bioassessment services including fish community analysis, fish stomach content analysis, and ichthyoplanton identification and enumeration. With EcoAnalysts' solid background in fisheries science, we are able to provide full population estimates using either mark-recapture methods, multiple pass depletion estimates, general surveys and habitat assessments. Additionally, we can design and conduct a fish sampling program for you.

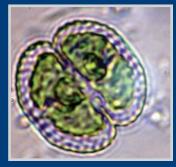
#### **Invasive Species**

Invasive species are a major threat to the biological integrity of our waters and our landscape. EcoAnalysts has a wide range of 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.

#### 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.





## **Supplemental Lab Services**

- 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
- Genetic analyses

## **CONSULTING SERVICES**

#### **Field Sampling**

Our staff are experienced working in a variety of aquatic habitats and deep-sea. 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.

#### **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.



## **Mining Industry Services**

- Baseline ecological assessments during permitting phase
- Annual monitoring for active mines in operation and/or closure.
- •Assessment of effects of abandoned mines on

public and private land



### Certifications

We have assembled the top team of taxonomists in North America comprised of 14 taxonomists with 20 Society for Freshwater Sciences (SFS) certifications and over 180 years of combine comprehensive taxonomy experience.

We also are certified in Maryland Biological Stream Survey benthic macroinvertebrate sampling and benthic macroinvertebrate processing and subsampling.



#### **Data Analysis**

The final step in the bioassessment process involves the analysis of data and each project has its own special requirements. Our Masters and Ph.D. level aquatic 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.

#### **Workshops and Training Materials**

Our scientific staff has an excellent record for teaching and scholarship. We have developed and taught a variety of workshops and training courses for our clients. Over the years, our consulting scientists and taxonomists have also used their expertise to produce several taxonomic keys and manuals.

## **Our Clients**

- 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
- Non-government organizations

## **Marine Services**

- Coastal and deep-sea benthic infaunal sorting, enumeration, and identification
- Benthic community statistical analyses and assessments
- Shellfish and eelgrass surveys and mitigation
- Environmental due diligence and impact assessment
- Assessment of wastewater impacts to marine benthic habitats
- Upstream, midstream and downstream oil and gas EIA/ESHIA/ESIA biological assessments
- Remote sensing of seafloor habitats using still photography and video
- •Hardbottom reef and seagrass assessments
- •Essential fish habitat assessments
- Marine habitat characterization



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