Biological Evaluations

Capabilities

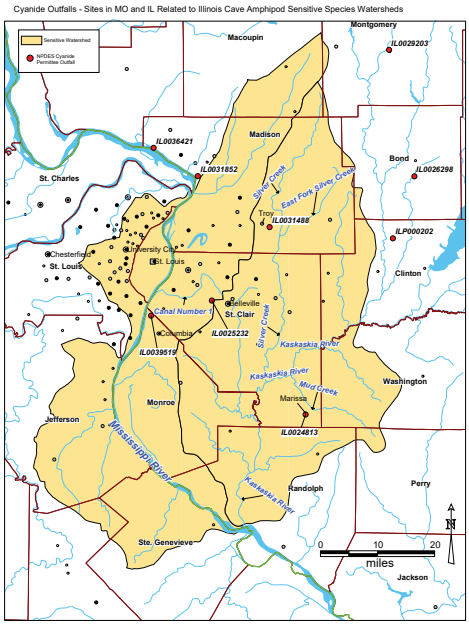
Ecological Risk Assessments

Literature Search

Technical Writing

Graphics/Publications

Geographic Information Systems



Clients

U.S. Environmental Protection Agency

State and Tribal Surface Water Quality Regulatory Agencies

State and tribal surface water quality standards are subject to U.S. EPA approval when they seek to adopt U.S. EPA's 304(a) criteria recommendations. Under the Endangered Species Act, U.S. EPA must consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to demonstrate that any such federal agency approvals will not adversely affect the health or habitat of federally- listed threatened or endangered species. Since these consultations were often redundant at the state and tribal level, the federal agencies agreed in 2001 to conduct national level consultations of 304(a) criteria impacts on federally- listed species.

GLEC researchers fulfill a unique and critical role in this national effort by conducting biological evaluations that evaluate the effect of recommended water column concentrations of NPDES-regulated chemicals on federally-listed aquatic and aquatic-dependent species. For each biological evaluation, GLEC utilizes a standard risk assessment paradigm, employing the following steps in assessing risk to aquatic life from exposure to contaminants: 1) a review of pertinent toxicity data, 2) the presentation and analysis of the toxicity data, 3) an in-depth toxicity assessment, 4) an exposure assessment, and 5) a risk characterization. The risk assessment paradigm is applied to the assessment of effects to federally-listed species as well as to any designated critical habitat. Each of the tasks are conducted according to the procedures and scientific guidance described in 50 CFR part 402.

Gammarus acherondytes
Illinois Cave Amphipod

Percina pantherina
Leopard Darter

Contact: Tyler Linton, Senior Research Scientist
tlinton@glec.com
715-821-9540

glec.com