

United States 2010 Stockholm Junior Water Prize

State Winners

Alabama

Rebecca Daniels
A Three Year Study of Phytoremediation
Brooks High School
Teacher - Vicki Farina
Sponsored by the Alabama Water Environment Association

Alaska

Kaitelyn McDonald
Seasonal Differences in Water Quality on Jordan and Duck Creek in Juneau Alaska
Juneau Douglas High School
Science Teacher - Jonathan Smith
Sponsored by the Alaska Water Wastewater Management Association

Arizona

Scott Boisvert
An Innovative Method to Evaluate the Effects of the Aquatic Environment on the Chemotaxis
of the Amphibian Pathogen *Batrachochytrium dendrobatidis*
Basha High School
Science Teacher - Christina Jahr
Sponsored by the Arizona Water and Pollution Control Association

Arkansas

James Rose
Leaching Lead Phase 2
Alpena High School
Science Teacher - Roger Rose
Sponsored by the Arkansas Water Environment Association

California

Sumit Mitra
The Effect of Photosensitization of Fullerene-based Nanoparticles on Reactive Oxygen Species
Generation and Toxicity to Viruses in Various Aqueous Environments
University High School
Science Teacher – David Knight
Sponsored by the California Water Environment Association

Colorado

Ben Armstrong
The Uptake of Endocrine Disrupting Chemicals
Monte Vista High School
Science Teacher – Gary Wilkinson
Sponsored by the Rocky Mountain Water Environment Association

Connecticut

Joseph Bonavita
Design and testing of two-step arsenic - remediating water filtration system
Oxford High School
Science Teacher - Dr. Frank LaBanca
Sponsored by the New England Water Environment Association

Delaware

No Nominations
Sponsored by the Chesapeake Water Environment Association

Florida

Collin McAliley

Florida Harmful Algal Bloom Mitigation, Year 6: Effect of Cysteine Methyl Ester on the Bioaccumulation of Brevetoxin in Mercenaria mercenaria Clams

Cocoa Beach Jr./Sr. High School

Science Teacher - Scott McCord

Sponsored by the Florida Water Environment Association

Georgia

Elizabeth Kornegay

The Relationship Between Precipitation and Water Quality of the Ochlockonee River, Phase III

Thomasville High Scholars Academy

Science Teacher – Laura Kornegay

Sponsored by the Georgia Association of Water Professionals

Hawaii

Robinson Bucaneg and William Fisher

The Effect of Sari Filtration on Bacterial Content of Water Samples

James Campbell High School

Science Teacher - Marites Barangan

Sponsored by the Hawaii Water Environment Association

Idaho

No Nominations

Sponsored by the Pacific Northwest Clean Water Association

Illinois

Allison Ramsey

Bioremediation: Comparing the Ability of PRP Powder and Miracle Gro the Enhance Oil Degradation

Southeastern Jr./Sr. High

Science Teacher - Carolyn Phillips

Sponsored by the Illinois Water Environment Association

Indiana

John Barnes

Acid Mine Drainage Remediation: A Novel Approach Phase II

Northwestern High School

Science Teacher - Patricia Zeck

Sponsored by the Indiana Water Environment Association

Iowa

Meghana Pagadala

Nanotube Filters: A Practical Solution or Unrealistic Wonder

Rivermont Collegiate

Science Teacher - Linda Hampton

Sponsored by the Iowa Water Pollution Control Association

Kansas

Erin Adams

The Effects of Pharmaceutical Pollution on Aquatic Organisms

Blue Valley North High School

Science Teacher - Jan Cyr

Sponsored by the Kansas Water Environment Association

Kentucky

Monica McFadden

Nitrate Reduction in Simulated Nitrate Wastewater by Biobarrier Filtration

Notre Dame Academy

Science Teacher - Mary Ethel Parrott

Sponsored by the Kentucky-Tennessee Water Environment Association

Louisiana

Emily Tassin

The Salt Tolerance of Marsh Plants and Their Ability to Aid
in Louisiana Coastal Restoration

St. Joseph's Academy

Science Teacher - Linda Messina

Sponsored by the Louisiana Water Environment Association

Maine

Rebecca Ye

Nanoparticle-amplified immunobiosensor enables
excellent sensitivity in rapid detection of viable E. coli O157:H7
Bangor High School

Science Teacher - Cary James

Sponsored by the New England Water Environment Association

Maryland

Mikhail Slutskiy

Wastewater Filtration

Franklin High School

Science Teacher - Kaitlin Spivak

Sponsored by the Chesapeake Water Environment Association

Massachusetts

Amanda Fragata

CO2 Kills Sea Creatures: The Effect of Carbon Dioxide on Oyster Shells

Plymouth South High School

Science Teacher - Kathy Marks

Sponsored by the New England Water Environment Association

Michigan

Nicole Smith

Researching a Relevant Remedy to Repair Riparian Residences: Exploring the Effectiveness of
Ceratophyllum demersum and *Lemna valdiviana* in Absorbing Nitrates from Freshwater Sources

Saginaw Arts and Sciences Academy

Science Teacher - Matthew Miller

Sponsored by the Michigan Water Environment Association

Minnesota

Logan Pallin

Engineering a rain garden to control road run-off in Scanlon Creek and an assessment of rain
gardens as the best storm water management practice-Phase IV

Cloquet Senior High School

Science Teacher – Dr. Cynthia Welsh

Sponsored by the Central States Water Environment Association

Mississippi

No Nominations

Sponsored by the Mississippi Water Environment Association

Missouri

Kishan Patel

Developing a Microbial Fuel Cell for Application in
Wastewater Treatment Facilities

Camdenton High School

Science Teacher - Chriss Reeves

Sponsored by the Missouri Water Environment Association

Montana

Adair Borges

The Effects of Nutrient Supplementation on In-Situ Bioremediation
Billings Senior High School
Science Teacher - Dawn Carson
Sponsored by the Montana Water Environment Association

Nebraska

Nicholas Kinzer

“A Prototype Sewage Treatment Plant Phase II”
Lakeview High School
Science Teacher - Edward Kinzer
Sponsored by the Nebraska Water Environment Association

Nevada

No Nominations

Sponsored by the Nevada Water Environment Association

New Hampshire

No Nominations

Sponsored by the New England Water Environment Association

New Jersey

April Choi

Effects of Bisphenol A on Rotifers and a Dipstick to Detect
Bisphenol A Bergen County Academies
Science Teacher - Donna Leonardi
Sponsored by the New Jersey Water Environment Association

New Mexico

Spencer Kent

Bioremedial Effects of Pleurotus Ostreatus on Endocrine-Disrupting Contaminants
Albuquerque High School
Science Teacher - Joan Newsom
Sponsored by the Rocky Mountain Water Environment Association

New York

William Genova, Lauren Herrera, and Ijeamaka Anyene
The Encapsulation of Alcanivorax borkumensis in a Gelatin
Hydrogel Membrane for Water Filtration Purposes
Brentwood High School
Science Teacher - Rebecca Grella
Sponsored by the New York Water Environment Association

North Carolina

Ankesh Madan

An Investigation into the Aggregation, Deposition, and Mobility
of Silver Nanoparticles through Porous Media
North Carolina School of Science and Mathematics
Science Teacher – Myra Halpin
Sponsored by the North Carolina Water Environment Association

North Dakota

Patrick Gulan

An Inquisition into the Hydro-Conditions of Tile Drainage Runoff
Hankinson High School
Science Teacher – Marcus Friskop
Sponsored by the North Dakota Water Environment Association

Ohio

No Project Selected

Sponsored by the Ohio Water Environment Association

Oklahoma

Nick Shepherd

Tar Creek-Measuring the Recovery of a Superfund Stream Using Macroinvertebrates,
and Two Types of Toxicity Tests Phase II

Miami High School

Science Teacher - Sally Fenska

Sponsored by the Oklahoma Water Environment Association

Oregon

Laurie Rumker

Toxicity of Surfactant, Degradation by Straight-Chain Hydrocarbon-Degraders
and the Potential for Organoclay Biodegradation

Oregon Episcopal School

Science Teacher - Parmely Pritchard

Sponsored by the Pacific Northwest Clean Water Association

Pennsylvania

Emily Goetz

The Effects of a Low-Head Dam on Water Quality

Trinity High School

Science Teacher - Susan Sweeney

Sponsored by the Pennsylvania Water Environment Association

Puerto Rico

Laura Roldán

“A New Type of Stormwater Treatment System Based on Natural Remedies”

Colegio Maria Auxiliadora

Science Teacher - Maria Lopez

Sponsored by the Puerto Rico Water & Environment Association

Rhode Island

Robert Checani

How are Bodies of Water in Southern New England Affected by
Eutrophication in Proximity to Sewage Treatment Plants?

La Salle Academy

Science Teacher - Leslie Martinelli

Sponsored by the New England Water Environment Association

South Carolina

JaJa Liao

Impact of di(2-ethylhexyl)phthalate (DEHP) on the Mortality, Growth,
and Reproduction of *Caenorhabditis elegans*

Wilson High School

Science Teacher – Karen Herbert

Sponsored by the Water Environment Association of South Carolina

South Dakota

No Project Selected

Sponsored by the Water Environment Association

Tennessee

Gregory Markov

Using algae and inorganic nitrogen-polluted water in a
photobioreactor for biodiesel generation

Franklin High School

Science Teacher – Sergei Markov

Sponsored by the Kentucky-Tennessee Water Environment Association

Texas

Lin Boynton
Effect of Pharmaceutical Residues in Wastewater on Bioluminescent Dinoflagellates
Bellaire High School
Science Teacher - Anna Loonam
Sponsored by the Water Environment Association of Texas

Utah

Albert Cui
Novel Demonstration of CO₂ Enhanced Precipitation Treatment
of Heavy Metals in Wastewater
Hillcrest High School
Science Teacher – Jeff Salter
Sponsored by the Water Environment Association of Utah

Vermont

Stephanie Chang
Reduction of E. Coli and Phosphorus in Dairy Effluent
through Steel Slag Filtration
South Burlington High School
Science Teacher - Curtis Belton
Sponsored by the New England Water Environment Association

Virginia

Akshar Wunnava
“The First Quantitative Projection of Extreme Precipitation:
The Making of a Multi-Model Ensemble”
Thomas Jefferson High School for Science and Technology
Science Teacher - Robert Latham
Sponsored by the Virginia Water Environment Association

Washington

Marley Iredale
An Evaluation of Invasive Tunicates in Pleasant Harbor, Washington
Sequim High School
Science Teacher - Bryan Smelcer
Sponsored by the Pacific Northwest Clean Water Association

West Virginia

Catherine Breault
Reducing BOD in Wastewater
Bishop Donahue
Science Teacher - Robert Ball
Sponsored by the West Virginia Water Environment Association

Wisconsin

Christopher Welker
The Effects of Different Genera of Algae on the Phosphorus Excretion and Oxygen Depletion of
Quagga Mussels (*Dreissena Bugensis*)
Nicolet High School
Science Teacher - Gary Stresman
Sponsored by the Central States Water Environment Association

Wyoming

Sean Sylvester
Effectiveness of Natural Aluminosilicates in the Removal of Heavy Metal
Greybull High School
Science Teacher - Joel Kuper
Sponsored by the Rocky Mountain Water Environment Association