

**United States 2008 State  
Stockholm Junior Water Prize Winners**

**Alabama**

Rebecca Daniels  
"Phytoremediation of Simulated Wastewater Using Lemnaceae"  
Brooks High School  
Killen, Alabama  
Science Teacher - Vicki Farina  
Sponsored by the Alabama Water Environment Association

**Alaska**

Madison Nolan and Hannah Wilson  
"The Effects of Estradiol on Sand Shrimp (*Crangon spp.*)"  
Juneau Douglas High School  
Juneau, Alaska  
Science Teacher - Jonathan Smith  
Sponsored by the Alaska Water Wastewater Management Association

**Arizona**

Michael Lien  
"Microbial Nitrate and Perchlorate Reduction in Ion Exchange Brine  
Using Hydrogen-Based Membrane Biofilm Reactors (MBfR)"  
Chandler High School  
Chandler, Arizona  
Science Teacher - Denise Lewis  
Sponsored by the Arizona Water and Pollution Control Association

**Arkansas**

Kaleb Horlick  
"The Discovery of a Correlation Between Fluorescent Whitening Agents  
and Macro-Invertebrate Biodiversity in Streams"  
Fayetteville Senior High School  
Fayetteville, Arkansas  
Science Teacher - William Rosser  
Sponsored by the Arkansas Water Environment Association

**California**

Joyce Chai  
"Modeling the Toxic Effects of Silver Nanoparticles  
Under Varying Environmental Conditions"  
Palos Verdes Peninsula High School  
Rancho Palos Verdes, California  
Science Teacher – Peter Starodub  
Sponsored by the California Water Environment Association

**Colorado**

Alex Schnaderbeck  
"The Effects of Limestone on the Productivity of Aquatic Invertebrates"  
Sargent High School  
Monte Vista, Colorado  
Science Teacher - Ronna Cochran  
Sponsored by the Rocky Mountain Water Environment Association

**Connecticut**

Courtney Fogwell and Likhitha Aidunuthula  
"New Artificial Turf: Are There Water Quality Indicators?"  
Greenwich High School  
Greenwich, Connecticut  
Science Teacher - Andrew Bramante  
Sponsored by the New England Water Environment Association

**Washington, DC**

No Nominations

Sponsored by the Federal Water Quality Association

**Delaware**

No Nominations

Sponsored by the Chesapeake Water Environment Association

**Florida**

Gene Rodrick

“Effects of Temperature, Salinity, and Pesticides on Oyster Hemocyte Activity”

Oak Hall School

Gainesville, Florida

Science Teacher - Sandra Swindler

Sponsored by the Florida Water Environment Association

**Georgia**

Megan Tierney

“Assessing the Filtration Ability of Eastern Oysters Using Municipal Wastewater”

Peachtree Ridge High School

Suwanee, Georgia

Science Teacher - Jeff Burmester

Sponsored by the Georgia Association of Water Professionals

**Hawaii**

Shelby Nacino

“Phytoremediation of Nitrates (Which Plant Phytoremediates the Most Effectively?)”

St. Andrew's Priory

Honolulu, Hawaii

Science Teacher - Joseph Pacific

Sponsored by the Hawaii Water Environment Association

**Idaho**

No Nominations

Sponsored by the Pacific Northwest Clean Water Association

**Illinois**

Eva Feldman

"Pollution Indicators in the Chicago River"

Lincoln Park High School

Chicago, Illinois

Science Teacher - Sandra Michalek

Sponsored by the Illinois Water Environment Association

**Indiana**

Neeta Kamat

“Ecotoxicological Effects of Ionic Liquids on Aquatic Life”

John Adams High School

South Bend, Indiana

Science Teacher - Nevin Longenecker

Sponsored by the Indiana Water Environment Association

**Iowa**

Jordan Lightfoot

“Waste...Not Wasted: Harvesting Electricity  
from Wastewater with Microbial Fuel Cells”

Central Lee High School

Donnellson, Iowa

Science Teacher - Alicia Schiller

Sponsored by the Iowa Water Pollution Control Association

### **Kansas**

No Nominations

Sponsored by the Kansas Water Environment Association

### **Kentucky**

Ashley Fields and Kristin Fields

“Got Mercury? A Two-Year Spectrophotometric Analysis of  
Fish Tissue Utilizing Diphenylcarbazone”

Ballard High School

Louisville, Kentucky

Science Teacher - Ronda Fields

Sponsored by the Kentucky-Tennessee Water Environment Association

### **Louisiana**

Garrett Breaux and Cassy Okoye

“Rescuing Our Natural Waters: Fighting Oil Spills  
Through Bioremediation and Biostimulation”

Ovey Comeaux High School

Lafayette, Louisiana

Science Teacher - Lisa Ranney

Sponsored by the Louisiana Water Environment Association

### **Maine**

Carin King

“Determination of Arsenic in Natural Waters Using Surface Plasmon Resonance:  
A Low-Cost Analytical Tool for Arsenic Screening”

Waterville Senior High School

Waterville, Maine

Science Teacher - Jody Veilleux

Sponsored by the New England Water Environment Association

### **Maryland**

Brendan McMurtray

“The Effect of Chlorine on the Control of Zebra Mussels”

Marriotts Ridge High School

Marriottsville, Maryland

Science Teacher - Michael Prada

Sponsored by the Chesapeake Water Environment Association

### **Massachusetts**

William Clerx

“Do Modern Chemical and Hydrological Processes  
Reduce DBPs and Improve Drinking Water Quality?”

Bishop Feehan High School

Attleboro, Massachusetts

Science Teacher - Margaret Stenerson-Reynolds

Sponsored by the New England Water Environment Association

### **Michigan**

Amanda Bennett

“Great Invaders: A Continuation - Mercury Amplification and Bioremediation  
Through Methylation and Demethylation by *Escherichia coli*”

Marysville High School

Marysville, Michigan

Science Teacher - Ryan Rathje

Sponsored by the Michigan Water Environment Association

**Minnesota**

Sara Gleason and Logan Pallin  
“An Analysis of Predator-Prey Macroinvertebrate Interactions on Scanlon Creek with the  
Use of a Rain Garden to Diminish the Impact of Urban Road Run-Off—Phase II”  
Cloquet Senior High  
Cloquet, Minnesota  
Science Teacher - Cynthia Welsh  
Sponsored by the Central States Water Environment Association

**Mississippi**

Christopher Peterson  
“The Effects of Reduced Salinity on Barnacle Survival”  
Ocean Springs High School  
Ocean Springs, Mississippi  
Science Teacher - Renee Hill  
Sponsored by the Mississippi Water Environment Association

**Missouri**

Brittany King  
“Hidden Dangers II: The Synergistic Effect”  
Tuscumbia High School  
Tuscumbia, Missouri  
Science Teacher - Constance Wyrick  
Sponsored by the Missouri Water Environment Association

**Montana**

Stephanie Cabrera and Caitlin Brown  
“The Remediation of Pechloroethylene Contaminated Ground Water  
With Permeable Reactive Barriers”  
Billings Central Catholic High School  
Billings, Montana  
Science Teacher - Debora Wines  
Sponsored by the Montana Water Environment Association

**Nebraska**

Jessica Boschen  
“The Effects of Beaver Dams on Water Quality Phase III”  
Newman Grove Public Schools  
Newman Grove, Nebraska  
Science Teacher - Suzy Goedeken  
Sponsored by the Nebraska Water Environment Association

**Nevada**

Ramon Racilis  
“Acute BioMonitoring: The Effect of Toxic Run-Off on *Daphnia Pulex*”  
Desert Pines High School  
Las Vegas, Nevada  
Science Teacher - Jacqueline Theriault  
Sponsored by the Nevada Water Environment Association

**New Hampshire**

Jeanette Wat  
“Biomarkers: Monitoring Chemical Pollution in Water”  
Phillips Exeter Academy  
Exeter, New Hampshire  
Science Teacher - Margaret Wat  
Sponsored by the New England Water Environment Association

### **New Jersey**

Jason Zukus

“The Use of Ion Exchange Resins in the Forward  
Osmosis Desalination System for the Softening of Feedwater”

High Technology High School

Lincroft, New Jersey

Science Teacher – Michael Roche

Sponsored by the New Jersey Water Environment Association

### **New Mexico**

Kevin Wymer

“The Effects of Agricultural and Urban Development on  
Bacterial Populations in the Rio Grande River”

Rio Rancho High School

Rio Rancho, New Mexico

Science Teacher - Nadyne Shimada

Sponsored by the Rocky Mountain Water Environment Association

### **New York**

Timothy Chang

“Kinetics of Bioremediation and Electricity Production  
in a Novel Microbial Fuel Cell”

Stuyvesant High School

New York, New York

Science Teacher - Jonathan Gastel

Sponsored by the New York Water Environment Association

### **North Carolina**

Kara Tinker

“The Effects of Exposure to Waterborne Acetaminophen  
and Ibuprofen on *D. magna*”

North Carolina School of Science and Math

Durham, North Carolina

Science Teacher - Amy Sheck

Sponsored by the North Carolina Water Environment Association

### **North Dakota**

Patrick Gulan

“An Investigation into the Water Quality of Regional Lakes”

Hankinson High School

Hankinson, North Dakota

Science Teacher - Marcus Friskop

Sponsored by the North Dakota Water Environment Association

### **Ohio**

Jyotiraditya Sinha

“An EDTA-Encapsulated Nanofiber Filtration Device for  
Eliminating Divalent Heavy Metals from Water”

Hoover High School

Uniontown, Ohio

Science Teacher - Connie Hubbard

Sponsored by the Ohio Water Environment Association

### **Oklahoma**

Gregory Epperson

“Natures Remedy for Eutrophication: Effects of *Juglans nigra*  
and *Juniperus virginiana* Leachates on Algae and Aquatic Plant Growth”

Grove High School

Grove, Oklahoma

Science Teacher – Keli Steen

Sponsored by the Oklahoma Water Environment Association

### **Oregon**

Ashutosh Patra

“Low-Cost, Single-Chambered Microbial Fuel Cell  
For Harvesting Energy and Cleansing Wastewater”

Sunset High School

Portland, Oregon

Science Teacher - Kirk Soule

Sponsored by the Pacific Northwest Clean Water Association

### **Pennsylvania**

Claudia Shuman

“Physical Factors Affecting the Erosion Rates of Legacy Sediments  
and Nutrient Loading to the Chesapeake Bay”

Penn Manor High School

Millersville, Pennsylvania

Science Teacher - David Bender

Sponsored by the Pennsylvania Water Environment Association

### **Rhode Island**

Alexander Grecco

“Solar Desalination”

Bishop Hendricken High School

Warwick, Rhode Island

Science Teacher - Mark Fontaine

Sponsored by the New England Water Environment Association

### **South Carolina**

Yupeng Liu

“Effects of Repeated Oxytetracycline Exposure on  
Phytoplankton Growth and Toxin Production”

Academic Magnet High School

North Charleston, South Carolina

Science Teacher - Katy Metzner-Roop

Sponsored by the Water Environment Association of South Carolina

### **South Dakota**

Diandra Diede and Kelsey Hento

“Improving the Fenton Reaction for Water Treatment”

Avon High School

Avon, South Dakota

Science Teacher - Paul Kuhlman

Sponsored by the South Dakota Water Environment Association

### **Tennessee**

Gregory Markov

“Utilization of Microalgae in a Photobioreactor for  
Ammonium Ion Removal from Water”

Franklin High School

Franklin, Tennessee

Science Teacher - Sergei Markov

Sponsored by the Kentucky-Tennessee Water Environment Association

### **Texas**

Helen D'Couto

“Removal of Water Pollutants Using Magnetite Nanoparticles”

Clear Lake High School

Houston, Texas

Science Teacher - Brenda Pinchbeck

Sponsored by the Water Environment Association of Texas

### **Utah**

Christie Hewlett

“The Effects of Potential Contamination Sources on the  
Weber, Provo, and Ogden Rivers”

Weber High School

Pleasant View, Utah

Science Teacher - Lorraine Radell

Sponsored by the Water Environment Association of Utah

### **Vermont**

Hannah Kay

“The Effects of Acid Rain”

South Burlington High School

South Burlington, Vermont

Science Teacher - Curtis Belton

Sponsored by the New England Water Environment Association

### **Virginia**

Anup Myneni and Gabrielle Strike

“An Economic Pathway for the Restoration of the Chesapeake Bay

Utilizing *Medicago sativa*”

York High School

Yorktown, Virginia

Science Teacher – Amy Holtschneider

Sponsored by the Virginia Water Environment Association

### **Washington**

Zack Sheats

“Nisqually Project: Surviving Questionable Water”

Clover Park High School

Lakewood, Washington

Science Teacher - Melanie Sheats

Sponsored by the Pacific Northwest Clean Water Association

### **West Virginia**

Eric Smith

“Is Dilution the Solution to Pollution?”

Jefferson High School

Shenandoah Junction, WV

Science Teacher - Sandra Pulsifer

Sponsored by the West Virginia Water Environment Association

### **Wisconsin**

Laura Mark

“A Study of the Potential of Quagga Mussel (*Dreissena bugensis*) Filtration  
in the Removal of Aquatic Pollutants”

Divine Savior Holy Angels

Milwaukee, Wisconsin

Science Teacher - Betty Jo Azpell

Sponsored by the Central States Water Environment Association

### **Wyoming**

Chloe Cundall

“Bioremediation of Arsenic Contaminated Water by  
Mesophilic and Thermophilic Algae”

Greybull High School

Greybull, Wyoming

Science Teacher - Joel Kuper

Sponsored by the Rocky Mountain Water Environment Association

**Puerto Rico**

Andrea Gutierrez

"Analysis of Water Quality of Five Different Rivers in Puerto Rico"

Southwestern Educational Society

Mayaguez, PR

Science Teacher - Evelyn Montalvo

Sponsored by the Puerto Rico Water & Environment Association