

# Allegheny River Stewardship Project

## Volunteer Newsletter

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### **PARTNERS**

*Alle-Kiski Health Foundation*

*Rachel Carson Homestead*

*RiverQuest*

*Venture Outdoors*

*University of Pittsburgh Graduate  
School of Public Health*

*UPCI Center for Environmental  
Oncology*

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### **Purpose**

The purpose of the Allegheny River Stewardship Project (ARSP) is for leading researchers in environmental and behavioral health sciences to work together with concerned citizens of the Alle-Kiski Valley river communities, volunteers from communities around the Allegheny River watershed and strategic partners to determine the sources and types of river pollutants by monitoring the levels of toxins in fish living in the river and to create long-term community environmental and specific water quality goals so that the footprint of the project widens and deepens with the passage of time

### **ARSP Continues to an Important Phase**

Greetings! We hope you have been having a wonderful summer. August has been beautiful, with the number of cool and pleasant days and evenings. Once again many, many thanks to all those who participated in our community fishing days and have been such a huge help to moving this project forward. We consider the community fishing days and our collection of fish, water and sediment samples to be a big success.

The ARSP staff and student interns have not been idle since our last fishing day. In all the graduate students have dissected, labeled and stored 324 fish from four sites (Ford City, Springdale/Cheswick, Freeport and Turtlepoint) as well as retrieve, label and store 115 water and sediment samples from the same four sites.

The first samples of fish, water and sediment have been sent to labs at both the University of Pittsburgh and Dartmouth College. The University of Pittsburgh lab, located in Scaife Hall, is operated by Drs Pat Eagon and Frank Houghton. Frank participated in our Freeport fishing day.

The Pitt lab will be analyzing eleven composite samples of Shad and Alewife for cell proliferation. This means the fish sample will be ground together and then the tissue placed on cancer cells to assess whether or not cell growth is enhanced. This will let

us know if there is something in this tissue that could be promoting cancer cell growth.

The lab at Dartmouth will be analyzing tissue from all of our channel catfish samples as well as water and sediment from the Cadogan site across from Ford City and near the shore of the Springdale/Cheswick site. This lab will be analyzing for Arsenic, Lead, Mercury, Copper, Cadmium, Chromium, Manganese, Selenium, and Zinc. The Department of Environmental Protection (EPA) set the regulations for how much metal is allowed in our drinking water. Many of these metals are harmful for human consumption if the quantity taken is too high. We are testing fish for these substances to understand how they bio accumulate metals in the water to better understand how these are affecting aquatic life and the eco system we are related to in an intimate manner.

Further analysis and types of fish to be analyzed will depend a great deal on the results of these initial analyses. Our plan is to send another set of fish samples to the lab at the UPMC Center for Environmental Oncology. This lab will analyze the fish tissue for estrogen and substances which act like estrogen as endocrine disrupters. These are called *xenoestrogens* and include non-ionic detergent agents such as nonylphenol and Bisphenol-A, a potent xenoestrogen associated with polycarbonate plastics. These substances are going into the river predominately from sewage treatment and water treatment facilities.

Analysis of this type is expensive and therefore we have taken a critical approach to how we go about this process. We chose Shad and Alewife because we were able to do a good comparison sample and composite sample between Freeport and Ford City. Freeport is important as a sampling site for estrogen and xenoestrogens because of the proximity of the water treatment facility there to the river and the large deposit of bio solids at the mouth of Buffalo Creek.

We truly look forward to the results from these samples, especially if these results can generate improved water quality for the Allegheny River Watershed.





## ANNOUNCING A REVISED AND REVITALIZED Center for Healthy Environments and Communities WEBSITE!!!

Please check out the new Center for Health Environments and Communities website. We have made a number of changes. We hope these changes and future changes will make this a website you will want to access often. We plan to have all of our newsletters, papers, publications and data on this website in the near future as well as many, many links to various important sites with helpful information concerning many of the issues and concerns related to environmental health. Thanks to our new webmaster for CHEC, Donna Murr.

We are a community based participatory research center so we are asking your input into our ongoing process of designing and providing content for this website. We really desire that this website be something you will want to use over and over again because it provides helpful information as well as keeps you connected in an easy and comfortable way to other organizations and statistics. We would like to know what you think of the website, what is important for you about having a website such as this one as well as your suggestions for what you would like to see on this site. You can provide your feedback either by emailing Chuck Christen at [chec@pitt.edu](mailto:chec@pitt.edu) or by going directly to our website and clicking on the button for our feedback survey [www.chec.pitt.edu](http://www.chec.pitt.edu)

As always thank you for your help and participation in this project. We look forward to building this into something that is sustainable and useful for you!



# OTHER NEWS

Below are some of the statistics from our Community Fishing Days.

## Type of Fish Caught

Ford City – May 10, 2008		
TYPE OF FISH	SITE	
	Count	Percent of total
Alewife	11	13.6%
Bluegill		
Crappie Bass		
Channel Catfish	28	37.6%
Carp	2	2.5%
Flathead Catfish		
Fresh Water Drum	7	8.6%
Gar	3	3.7%
Quillback	5	6.2%
Rock Bass	8	9.9%
River Redhorse		
Smallmouth Bass	10	12.3%
Shad	2	2.5%
Sauger	3	3.7%
Skipjack		
Shorthead Redhorse		
White Bass		
Walleye	1	1.2%
White Sucker		
<b>TOTAL</b>	<b>80</b>	

Springdale/Cheswick – May 31, 2008		
TYPE OF FISH	SITE	
	Count	Percent of total
Alewife		
Bluegill	1	1.1%
Crappie Bass	1	1.1%
Channel Catfish	8	9.1%
Carp	1	1.1%
Flathead Catfish	2	2.3%
Fresh Water Drum	4	4.5%
Gar		
Quillback		
Rock Bass	5	5.5%
River Redhorse		
Smallmouth Bass	19	21.6%
Shad	9	10.2%
Sauger	15	17%
Skipjack		
Shorthead Redhorse	7	8%
White Bass	7	8%
Walleye	9	10.2%
White Sucker		
<b>TOTAL</b>	<b>87</b>	



Freeport – June 7, 2008		
TYPE OF FISH	SITE	
	Count	Percent of total
Alewife	5	4.7%
Bluegill	1	.9%
Crappie Bass		
Channel Catfish	18	17%
Carp	6	5.7%
Flathead Catfish	3	2.8%
Fresh Water Drum	6	5.7%
Gar	3	2.8%
Quillback	11	10.4%
Rock Bass	4	3.8%
River Redhorse		
Smallmouth Bass	14	13.2%
Shad	13	12.3%
Sauger	11	10.4%
Skipjack		
Shorthead Redhorse	3	2.8%
White Bass	5	4.7%
Walleye	3	2.8%
White Sucker		
<b>TOTAL</b>	<b>104</b>	

Upper Allegheny At Turtlepoint June 14, 2008		
TYPE OF FISH	SITE	
	Count	Percent of total
Alewife		
Bluegill		
Crappie Bass		
Channel Catfish	2	7.4%
Carp	7	25.9%
Flathead Catfish		
Fresh Water Drum		
Gar		
Quillback	4	14.8%
Rock Bass	1	3.7%
River Redhorse	6	22.2%
Smallmouth Bass	2	7.4%
Shad		
Sauger		
Skipjack		
Shorthead Redhorse		
White Bass		
Walleye	1	3.7%
White Sucker	4	14.8%
<b>Total</b>	<b>27</b>	



# OUR VOLUNTEERS

Total Number of Volunteers - 176

## What Did Our Volunteers Look Like and Where Did They Come From

Number of Volunteers over 16	136
Number of Volunteers 16 and over and under 30	27
Number of Volunteers over 30 but under 50	27
Number of Volunteers 50 and over	60
<b>RACE</b>	
Caucasian	127
African American	2
Hispanic	1
No Response	24
<b>GENDER</b>	
Male	82
Female	82
No Response	13
<b>Location by County</b>	
Allegheny	74
Armstrong	43
Westmoreland	36
Indiana	3
Butler	1
Beaver	1
Mercer	1
Lawrence	1
Washington	1
Number of Volunteers agreeing to hair and nail samples	106
Number of Volunteers said YES to participation in a focus group	77
Males	
Females	
Number of Volunteers said YES to Community Study Activity	71
Number of Volunteers said YES to Community Meeting participation	66
Number of Volunteers said YES to fishing for project sample	143

Pittsburgh	37
Ford City	12
Apollo	11
Bethel Park	10
Freeport	9
Kittanning	9
Leechburg	8
New Kensington	6
Lower Burrell	5
Natrona Heights	4
Tarentum	3
Elizabeth	3
Sewickely	3
North Apollo	2
Manor	2
Corapolis	2
New Florence	2
Vandergrift	2
Gibsonia	2
Oakmont	2
Export	2
Shelocta	2
Rural Valley	2
Breckenridge	2
East McKeesport	1
Cheswick	1
Irwin	1
Rural Ridge	1
Aliquippa	1
Swissvale	1
Grove City	1
Armagh	1
Upper St. Clair	1
Moon Township	1
Canonsburg	1
Ellwood City	1
Sewickley Heights	1
Elderton	1
Arnold	1
Sarver	1
Adrian	1
Penn	1
Monongahela	1
Belle Vernon	1
Dayton	1
Emsworth	1
Verona	1
West Leechburg	1
RD Creekside	1