

# THE CATALYST

## SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

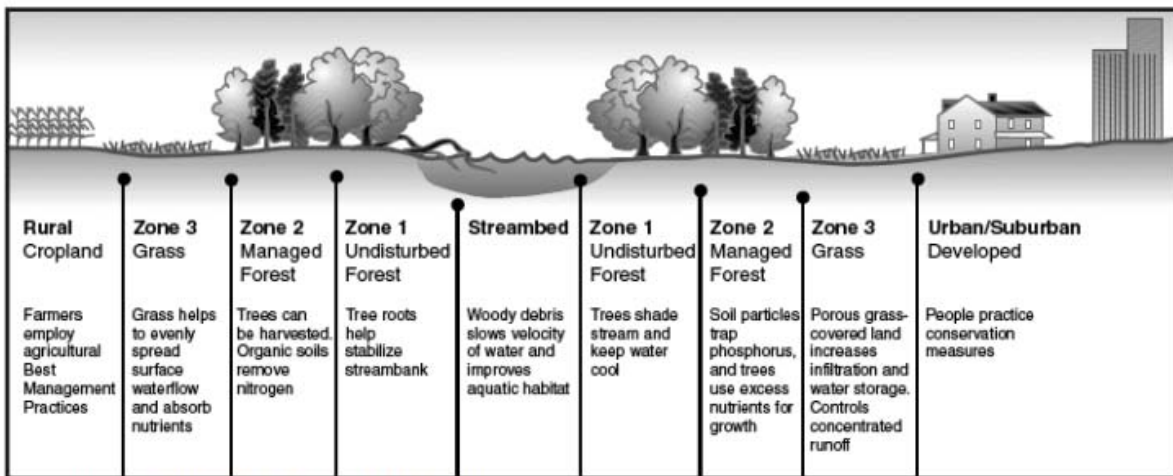
**NEXT MEETING:** August meeting cancelled. Next meeting 7 pm on 9/13/18 at Jennings Environmental Education Center, pizza and pop provided.

7/11/18 meeting attendance: J. Belgraden, H. Bloom, C. Denholm, M. Dunn, B. Kuban, D. Johnson, J. Puskas, S. Smith, W. Taylor, F. VanAtta, S. Vanderwal

### Multifunctional Riparian Forest Buffers

What is a multifunctional riparian forest buffer? A riparian forest buffer is a strip of trees and shrubs along water ways that help stabilize streambanks and reduce soil erosion. Riparian forest buffers also limit nutrient and sediment runoff, give shade to streams which cools water temperature, and provide food and cover for wildlife. A multifunctional buffer has the same ecological benefits of a riparian forest buffer with the additional benefit of producing perennial crops, such as fruits, nuts, and floral trees and shrubs.

There are three different management zones of multifunctional buffers. Zone 1 is typically an undisturbed zone nearest to the stream. It extends 0 ft-15 ft from the streambank into the riparian area and its essential function is to improve water quality and wildlife habitat. If you harvest from Zone 1, only harvest by hand as to not disturb the land and potentially harm the stream. Zone 2 is typically 15 ft to 35 ft away from the streambank and can be planted with fruit and nut producing trees and shrubs. Its essential function is to absorb and store nutrients and slow floodwaters. Again, this area is still close to the stream, so hand-harvesting is recommended. Zone 3 is about 35 ft to 100+ ft from the streambank and is considered the “working” part of the buffer. It captures nutrient and sediment runoff and disperses surface water to slow it down to promote soil infiltration. Floral and woody plant species do well in this zone and can be harvested with mechanical equipment. Plants grown in this area can be sold as floral/woody decoration.



From: [www.agnt.umd.edu/MCE/Publications/PDFs/FS724.pdf](http://www.agnt.umd.edu/MCE/Publications/PDFs/FS724.pdf)

There are a few things to consider when deciding to plant a multifunctional buffer:

- What is your overall conservation objective? (i.e. stabilizing stream banks, wildlife habitat, improving water quality)
- What kind of multifunctional buffer do you want to plant? (fruits, nuts, a mixture)
- What is your production objective? (commercial, personal, or for wildlife)
- Are your production and conservation objectives compatible?

If you are interested in planting a multifunctional riparian forest buffer, please contact the Butler County Conservation District; or if you would just like more information, visit them at <http://pecpa.org/wp-content/uploads/DCNR-Riparian-Plants-Book.pdf>. **Danielle Rihel**, Conservation Resource Specialist for the Butler County Conservation District and contributor to this article, is looking for sites for buffers. **Funding is available to landowners to cover the cost of planting.** Danielle can be reached by email at [drhel@bccdonline.org](mailto:drhel@bccdonline.org). Danielle can provide examples of which species to plant in each zone, along with descriptions of the use and benefits of those species.



Current and past Mayfly Award winners at the 2018 PA Abandoned Mine Reclamation Conference in State College, PA including one of our own, **Margaret Dunn!** See the article about the conference in next months issue of the Catalyst.

### Algae Bloom Found in South Branch of Slippery Rock Creek

Signs have been posted alerting the public to an algae bloom with possible toxic effects on the south branch of the Slippery Rock Creek.

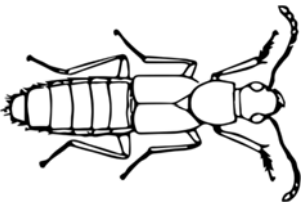
Pennsylvania Game Commission Northwest Region information education supervisor Chip Brunst said he was informed of the situation by a land supervisor who also reported there were some dead fish downstream from the dam, but not in Glades Lake near Moniteau schools. Investigators from the PA DEP discovered about three dozen fish floating dead between sites around Grubb Road, Chambers Road, and Coaltown Road bridges. Chip added it does not take long for a fish to either decompose or sink to the bottom on a hot day, so the figures could only be estimates.

“We saw fish that were dying or those that were stressed or deprived of oxygen,” he said. “These fish are basically suffocating.”

Areas most affected are by the water’s edge and near the dam, with the algae bloom giving an appearance like green scum. Normally, moving water does not allow algae growth to the extent that the toxic bacteria could collect but the temperature of the stagnant lake water, combined with the recent lack of substantial rain, has created the conditions necessary. The algae bloom isn’t necessarily rare, as this phenomenon does occur periodically. The game commission does not take any action to treat this algae bloom or ones like it since it would cost too much and some water movement or rain will be able to take care of it naturally.

Some algal blooms are the result of an excess of nutrients, particularly phosphorus and nitrogen, into waters and higher concentrations of these nutrients in water cause increased growth of algae and green plants. As more algae and plants grow, others die. This dead organic matter becomes food for bacteria that decompose it. With more food available, the bacteria increase in number and use up the dissolved oxygen in the water. When the dissolved oxygen content decreases, many fish and aquatic insects cannot survive, resulting in a dead area. Algal blooms may also be of concern as some species of algae produce neurotoxins. At the high cell concentrations reached during some blooms, these toxins may have severe biological impacts on wildlife.

The DEP’s warning of an algae bloom that could develop into a danger for humans in water near Moniteau schools if certain bacteria are produced includes a caution for residents to not drink, cook with or get into the water while the algae is present in their area, and pet owners should not allow their animals to either. Avoiding the water there altogether is best until the algae bloom is gone.



# The KIDS Catalyst

## SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY

### Pennsylvania Puzzler



How well do you know your official Pennsylvania state symbols? In this month's activity, you'll be able to use the alphabet maze to determine the answers of PA's official state bird, fish, tree, insect, and more! Simply begin on the "Start" square. Then write down every third letter until you spell a word, and that's your answer! We hope you'll learn something new as we celebrate the beautiful creatures (hopefully you have seen some of them!) we are blessed to call our own in Pennsylvania. If you mail us your completed paper, we'll send you a prize: a \$1 credit to use on Amazon! Credits can be saved up so you can buy something extra awesome. Happy summer!

1. The state insect of PA is the \_\_\_\_\_.
2. The state animal of PA is the \_\_\_\_\_.
3. PA's state fish is the \_\_\_\_\_.
4. PA's state flower is the \_\_\_\_\_.
5. The state bird of PA is the \_\_\_\_\_.
6. PA's state tree is the \_\_\_\_\_.

Start →

L	G	F	M	T	I	S	Q	R	O	R	E
W	S	N	Y	B	A	L	E	J	F	W	H
A	I	H	G	M	I	R	S	T	N	V	E
L	P	A	I	O	Y	A	U	G	T	F	W
H	A	E	B	M	D	K	L	D	M	X	E
R	C	H	B	U	N	R	Y	Z	E	B	Q
U	D	O	D	J	O	C	H	K	A	I	T
T	F	A	U	E	S	O	W	T	R	A	O
E	L	M	W	B	O	C	D	U	M	U	N
N	Y	T	I	F	L	A	U	G	T	O	I
H	V	L	P	U	A	I	O	U	Z	X	R
U	A	E	R	I	N	L	R	S	E	S	H
K	S	F	S	D	F	E	X	E	Z	V	D
U	Y	N	O	C	L	R	L	O	G	T	O
R	Q	S	U	X	E	S	T	E	R	H	A
R	J	D	E	F	P	T	R	I	S	D	S
W	A	N	S	Q	H	U	Z	E	X	A	M
K	U	O	C	I	B	O	C	D	L	S	R

Name \_\_\_\_\_ Age \_\_\_\_\_

Parent email address \_\_\_\_\_



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated  
A PA Non-Profit Organization  
434 Spring Street Ext.  
Mars, PA 16046

Thanks to The William & Frances Aloe Charitable Foundation, Environmentally Innovative Solutions, LLC, Dominion Peoples, Amerikohl Mining, Inc., Quality Aggregates Inc., Drs. Ron & Kathy Falk Family, BioMost, Inc., Allegheny Mineral Corporation and PA DEP for their support. For more information contact: Slippery Rock Watershed Coalition, c/o Stream Restoration Incorporated (PA non-profit), 434 Spring Street Ext., Mars, PA 16046 (724)776-0161, fax (724)776-0166, [sri@streamrestorationinc.org](mailto:sri@streamrestorationinc.org), [www.srwc.org](http://www.srwc.org). Aug. distribution: 250 copies