



2024 LEBANON COUNTY ENVIROTHON

ELEMENTARY & MIDDLE SCHOOL AQUATIC RESOURCES



IDENTIFICATION STUDY LIST:

FISH	REPTILES & AMPHIBIANS	INVERTEBRATES
American Eel	Eastern Hellbender	Caddisfly
American Shad	Northern Dusky Salamander	Mayfly
Common Carp	Common Snapping Turtle	Water Penny
Blacknose Dace	Midland Painted Turtle	Crane fly
Brown Bullhead	Longtail Salamander	Stonefly
Brook Trout	Northern Red Salamander	
Brown Trout	Map Turtle	
Striped Bass	Stinkpot Turtle	
Smallmouth Bass		
Rock Bass		

1) PA Fish & Boat Commission-PA FISH BOOK:

https://www.fishandboat.com/Fishing/All-About-Fish/Documents/PA_Fishes_Book.pdf

**New schools should contact the Envirothon Coordinator to obtain a hardcopy (if available).*

Students should be familiar with the species overview, identification, and habitat of species on the **IDENTIFICATION STUDY LIST ONLY**.

2) Macroinvertebrate Resources (links to full sites):

- Creek Connections, Allegheny College (<https://sites.allegheny.edu/creekconnections/>)
- <http://www.macroinvertebrates.org/>

Caddisfly Larva

<http://sitesmedia.s3.amazonaws.com/creekconnections/files/2013/12/caddisfly.pdf>

<http://sitesmedia.s3.amazonaws.com/creekconnections/files/2013/12/casebuildingcaddisfly.pdf>

[https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/trichoptera.hydropsychidae.hydropsyche.lateral\[clean\]_10.png](https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/trichoptera.hydropsychidae.hydropsyche.lateral[clean]_10.png)

Mayfly Nymph

<http://sitesmedia.s3.amazonaws.com/creekconnections/files/2013/12/mayfly.pdf>

https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/ephemeroptera_order_sheet.pdf

[https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/ephemeroptera.ephemerellidae.ephemerella.dorsal\[clean\]_10.png](https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/ephemeroptera.ephemerellidae.ephemerella.dorsal[clean]_10.png)

Water Penny

<http://sitesmedia.s3.amazonaws.com/creekconnections/files/2013/12/waterpenny.pdf>

[https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/coleoptera.psephenidae.psephenus.adult.ventral\[clean\]_10.png](https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/coleoptera.psephenidae.psephenus.adult.ventral[clean]_10.png)

Crane fly Larva

<http://sitesmedia.s3.amazonaws.com/creekconnections/files/2013/12/crane fly.pdf>

<http://macroinvertebrates.org/taxa-characters/diptera-larva/tipulidae/tipula/lateral>

Stonefly Nymph

<http://sitesmedia.s3.amazonaws.com/creekconnections/files/2013/12/stonefly.pdf>

<https://www.macroinvertebrates.org/taxa-characters/plecoptera-larva>

[https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/plecoptera.perlidae.acroneuria.dorsal\[clean\]_05reduced.png](https://seetolearn.weebly.com/uploads/4/6/7/4/46744079/plecoptera.perlidae.acroneuria.dorsal[clean]_05reduced.png)

3) Fish & Boat Commission- **AMPHIBIANS & REPTILES BOOK** (ISBN 1-930369-00X)

The scanned book is on the LCCD website as 7 PDFs

*New schools should contact the Envirothon Coordinator to obtain a hardcopy (if available).

The 2024 **IDENTIFICATION STUDY LIST ONLY** has been scanned separately and is available as:

"2024 - Amphibian & Reptile Resource PDF" under the Aquatic Objectives.

The following materials are in the "2024 Aquatics Resource Packet":

4) Focus on Habitat: Wild Brook Trout

5) Smart Angler's Notebook

- Crazy Crayfish
- The Basics of Water Pollution in PA
- Diadromy
- A River Flows Through It

6) "Herp" Sweet Home (use for map and description of stream order)

7) Selected pages from the following PLAY issues:

- Fall 2002 – All About Fish
- Summer 2004 – Watersheds and Stream Order (Rivers)
- Fall 1999 – Why Fish Need Trees & Aquatic Leaf Eaters
- Summer 2005 – PA's Most Mighty Migratory Fish

Sample Question(s):

1) If you were fishing for brook trout, which of the following streams would you choose?

- a) Slow moving deep stream
- b) Cold fast-moving headwater stream**
- c) Wide warm river

Non-Testing, Enrichment material:

- PLAY Winter 2007 - Smallmouth Bass
https://www.fishandboat.com/Education/ActivitiesAndEducationPortal/Fish/Documents/play-2007-SmallmouthBass_Allpages.pdf
- PLAY Spring 2015 - All About Trout
<https://www.fishandboat.com/LearningCenter/PennsylvaniaLeagueofAnglingYouthPLAY/PLAY2015/Documents/PLAY-AllAboutTroutFull.pdf>

Highlighted materials are available under the Aquatics section at
<https://www.lccd.org/ethonobjectives>