



# The Salmon Times

May

Number 8

## They're Off and "Running!"

Just think, in a few short weeks you will be releasing your salmon family into a nearby stream. You will learn how a parent feels watching a child go off to college for the first time. You know you will have done your level best to raise your "children" (salmon) in the proper way. You also know that the time has arrived for the fry to brave the rigors of life in the wild. You should feel proud to have played an important role in an effort to restore a wild creature that last appeared in many New England rivers more than a century ago!



Your teacher and facilitator have carefully selected a stream release site where they feel confident the young salmon will do well. You will release your fish in a riffle, a section of stream with a gravel bottom and relatively fast moving water. Once in the stream the fry will probably seek cover behind a rock. Such a position shelters them from the current and predators. You will be surprised at how well the salmon blend in with their surroundings.



How many of your salmon do you think will survive to reach the Atlantic Ocean? As you learned earlier in the Adopt-A-Salmon Family program, a relatively few number of salmon survive to adulthood. That is why the female salmon lays so many eggs - remember? Those that do survive to adulthood could return from the ocean to spawn in three to six years. What an "egg-citing" possibility!

During the past school year you've learned a lot about Atlantic salmon and the watershed where they live - along with us. You've seen that human interference in an ecosystem's delicate balance often creates problems for the salmon and other wild things. By understanding the consequences of our actions, we can help to improve watershed health, not harm it.



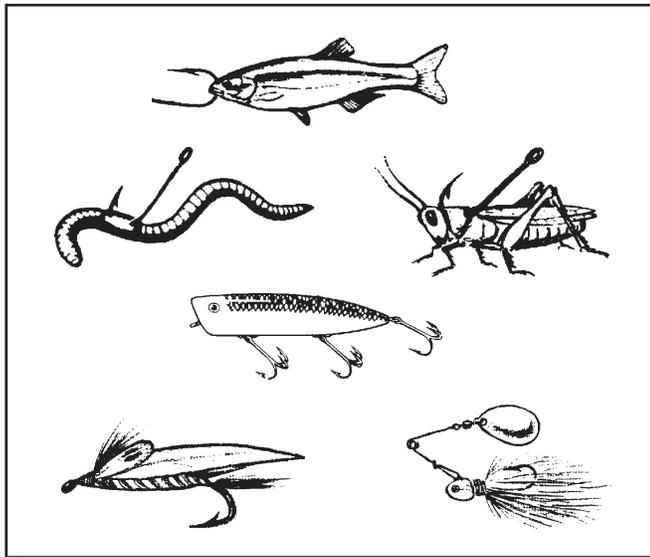
## Sport Fishing:

# Hooked For Life!

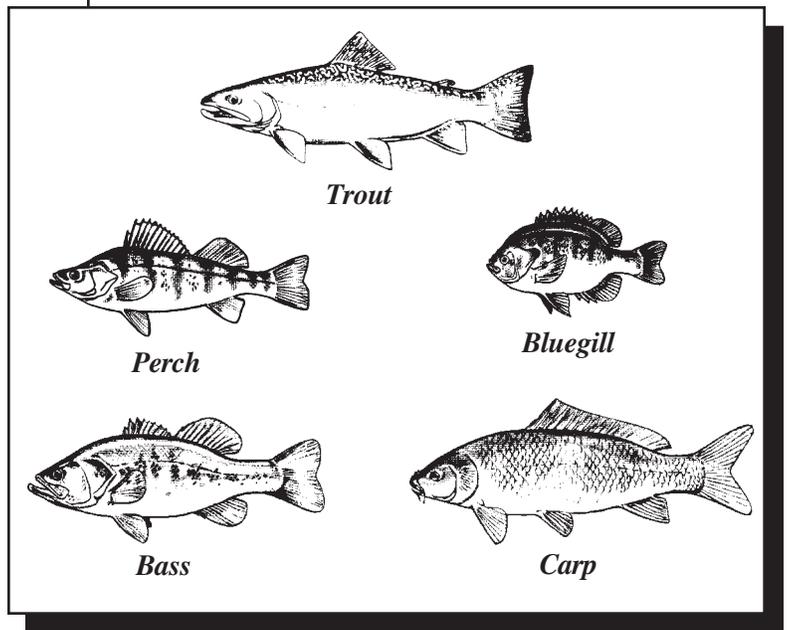
The "Adopt-A-Salmon Family" program would not be complete unless we talked about the sport of fishing. You have heard that Atlantic salmon are called the "king of sport fish." Even though there aren't as many salmon as there once were, there are still many other fish species in our local ponds and rivers that are just as much fun to catch. Trout, pickerel, bass, carp, sunfish, perch, and catfish all provide an angler with a worthy challenge.

Fishing is a wonderful way to enjoy the outdoors. It's a sport that everyone can be successful at, boy or girl, and doesn't require a huge investment in equipment. You could visit a local department store and be fully outfitted and ready to go for fifteen dollars. For that matter, you can even catch a fish with a stick, piece of string, hook, and piece of American cheese!

To be a good angler you must understand a fish's behavior. Where will you find it in the water - in the weeds, on the bottom, or near the surface? What does the fish eat? Different species have different behaviors and diets. These differences will determine how you find and attract



*There are an amazing variety of live baits and artificial lures. You don't have to make it too complicated though. Many a fish has been caught with a hook and a piece of American cheese!*



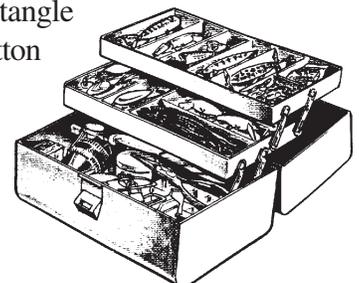
*A variety of freshwater fish can be caught in lakes and ponds nearby.*

a fish to your hook.

Most experienced anglers agree that the easiest way to get a fish's attention is with live bait, preferably creatures they normally feed upon. Worms, crayfish, crickets, and minnows are common live baits. Most of these baits can be collected in a stream, pond, or even dug up in your back yard.

Artificial lures imitate the color, shape, size, scent, and/or behavior (or action) of live baits. A rubber worm is a very simple form of artificial bait. Spinners, poppers, spoons, and flies are other examples you've surely seen in sport shops. As with live or natural baits, artificial lures may only catch certain species of fish. You may hook plenty of bass with a rubber worm, but no trout. An experienced angler knows what type of bait will catch the fish he or she is after.

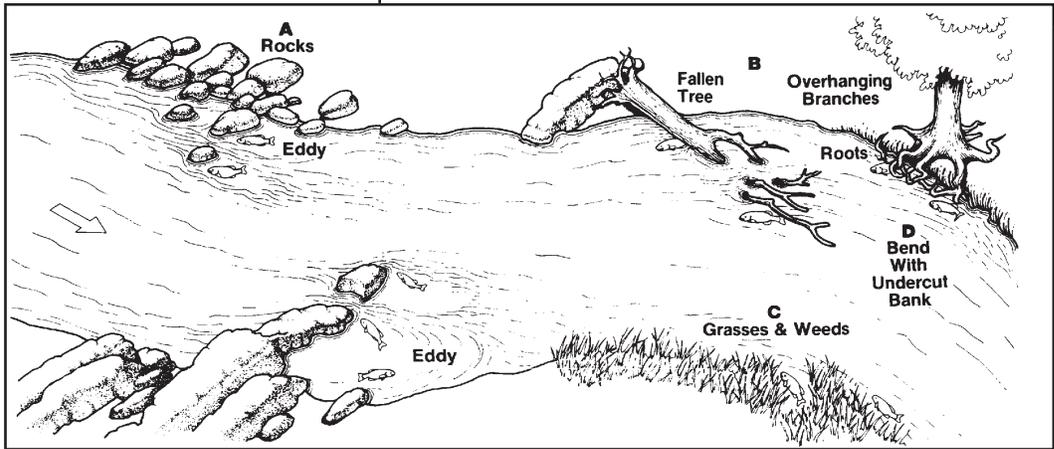
So what type of rod and reel do you start with? Most kids begin fishing with a spincast reel. It's easy to operate and, because it has a closed face, you are less likely to tangle the line. It has a single button that is pressed to cast the line. To retrieve the fish, you simply crank the handle.



There are a variety of other rod and reel types. Spinning reels require a little more skill than a spincast reel. Surf cast rods are used in saltwater. An odd looking rig called a "tip-up" is used for ice fishing. A fly rod is probably the most difficult to master. Instead of buying artificial lures, many fly fishermen tie their own flies. Catching a trout on a lure you've made is quite a thrill!

Even before you catch a fish, it's important to decide whether or not you are going to keep it or release it. Catch and Release has become a very popular form of fishing. If every angler kept all their fish, the populations would soon be depleted. Putting a fish back in the water ensures that someone else can catch it another day! It's O.K. to keep a fish as long as you plan to eat it and don't let it go to waste.

If you plan to release a fish, it's very important to handle it gently and return it to the water as soon as possible. A fish out of water is like a person under water...it can't



*Knowing the locations of fish in a stream or lake increases your chances of catching one.*

Illustration source: Aquatic Resources Education Curriculum

breath. If you can avoid taking the fish out of the water at all, by using a landing net, even better! If a fish seems "out of gas" when you release it, move it back and forth in the water to force oxygenated water across its gills. This quite often does the trick. One last tip: if you have difficulty dislodging a hook from a fish's mouth, cut the line near the hook and let the fish go. The hook will gradually dissolve away.

Fishing is a great activity to enjoy with friends and family...for a lifetime. So go ahead and give it a try. You'll be happy you did!



## RESTORATION FOR RECREATION

*We've spent a good part of the school year talking about the benefit of clean rivers to wildlife. But what about the benefits to people? Clean rivers are just plain fun to be around. Fishing, nature photography, painting, canoeing, swimming, hiking, and picnicing are just some of the zillions of recreational activities that you can enjoy in, on, or near clean rivers.*



## Career Choices:

# LOOKING TOWARD YOUR FUTURE...



*Fisheries biologists work to restore depleted fish populations, including Striped bass.*

Have you ever thought about what you would like to be when you grow up? How about an environmental career, perhaps working for an agency like the U.S. Fish and Wildlife Service? There will always be a need for dedicated environmental professionals. No matter what your talents or specific interests might be, chances are there is a job you would find challenging and rewarding.

### **Conservation and Management**

Preventing, minimizing, and reversing negative human impacts on the environment are difficult, but essential tasks. As the world's population continues to grow, this mission only gets more complicated. Protecting endangered species, operating fish hatcheries to restore depleted fish populations, and preserving wildlife habitat are just a few of the many duties performed by fish and wildlife biologists.

### **Environmental Education**

Education can be a powerful tool in protecting the environment. Many of our environmental problems occur because of ignorance and carelessness. Working with kids and adults, environmental educators explore nature's delicate complexities and the impact of human actions. When people understand



*Managing migratory waterfowl.*

and care about the wild world, they tend to take better care of it.

### **Law Enforcement**

Education doesn't always do the trick! Unfortunately, there will always be people who will want keep too many fish, shoot a bald eagle, or destroy important



*Environmental educators play an important role in promoting better environmental understanding.*



New Hampshire Fish and Game Department

*Enforcing fish and wildlife laws is an important part of environmental conservation.*

wildlife habitat. Special agents, game wardens, and other law enforcement officers play a crucial role in keeping these problems under control.

## Research

Fish and wildlife biologists, ecologists, and other scientists make important discoveries and attempt to find the answers to complicated environmental questions. They study wildlife habitat, migratory birds and marine mammals, fish health and diseases, environmental contaminants (like acid rain), and many other subjects. The knowledge gained by these scientists gives environmental managers more powerful tools with which to do their jobs.

## Preparing for the Future

Because most of the careers we've talked about require a college degree, a good education is very important. *How do you know if you really want to be a biologist, game warden, or other environmental professional?* One way to find out is by talking with people who have these jobs. Ask them what they like (and don't) about their job?; how they got hired?; and what kind of background they have?

When you get a little older you may be able to "try out a career." Many refuges, hatcheries, national and state parks, universities, and conservation organizations hire college students to fill summer positions in many of the fields we've talked about. Volunteer experience can also be valuable.



## THE SKY ' S THE LIMIT !

**We've talked a little about environmental careers. But suppose you want to do something else for a living? Are there other jobs where you can enjoy the natural world? Are there other jobs where you can contribute to the the conservation of our natural resources? Sure there are! You could be an artist, nature writer or journalist, photographer, moviemaker, lawyer, veterinarian, organic farmer, water treatment plant operator... the list goes on. You are only limited by your imagination!**

# Help'n Out:

Simple Ways to Improve Your Watershed

USE ENERGY-SAVING  
LIGHTBULBS

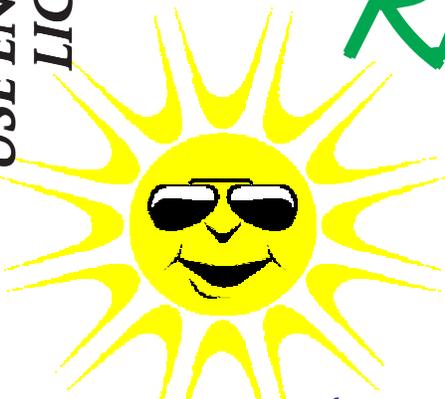
*Conserve!*

Use Pump Sprays  
Instead of Aerosols



Plant Trees

**RECYCLE**



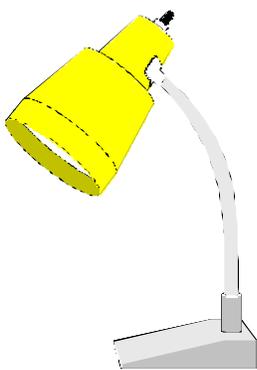
*Use Solar  
Power*

**Don't Dump Harmful  
Liquids on the Ground**

*Use Rechargeable  
Batteries*

**Don't Litter**

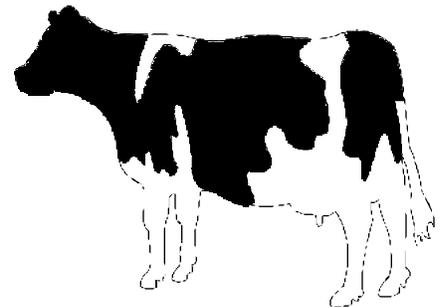
**Compost**



Turn Off Lights

**Pick Up Trash**

**Car  
Pool**



*Use Organic  
Fertilizer!*

# My Watershed Pledge

*In the Adopt-A-Salmon Family Program, I've learned how and why healthy watersheds are important to wildlife and people. I promise to do my part to contribute to keeping my watershed healthy by doing the following:*

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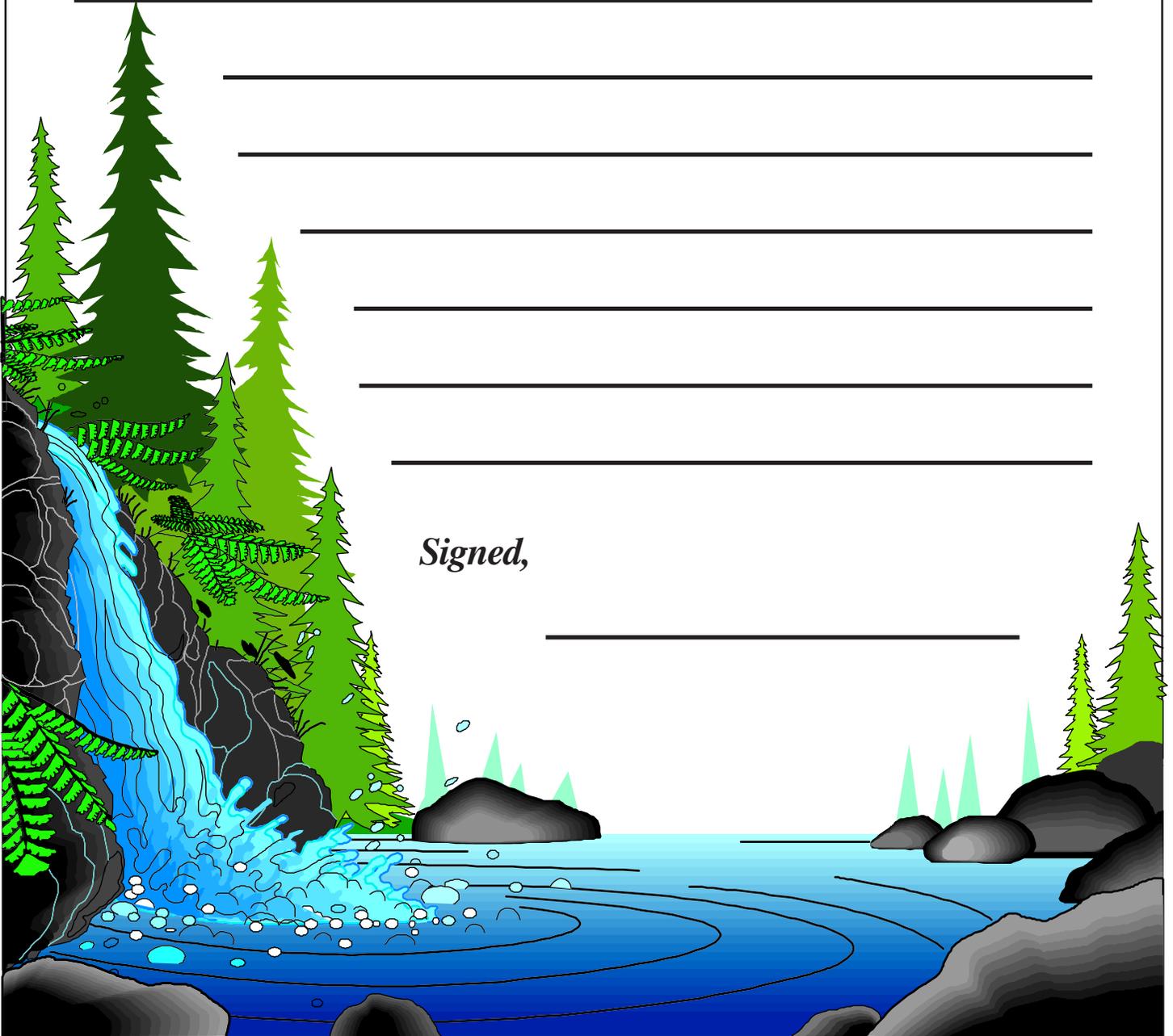
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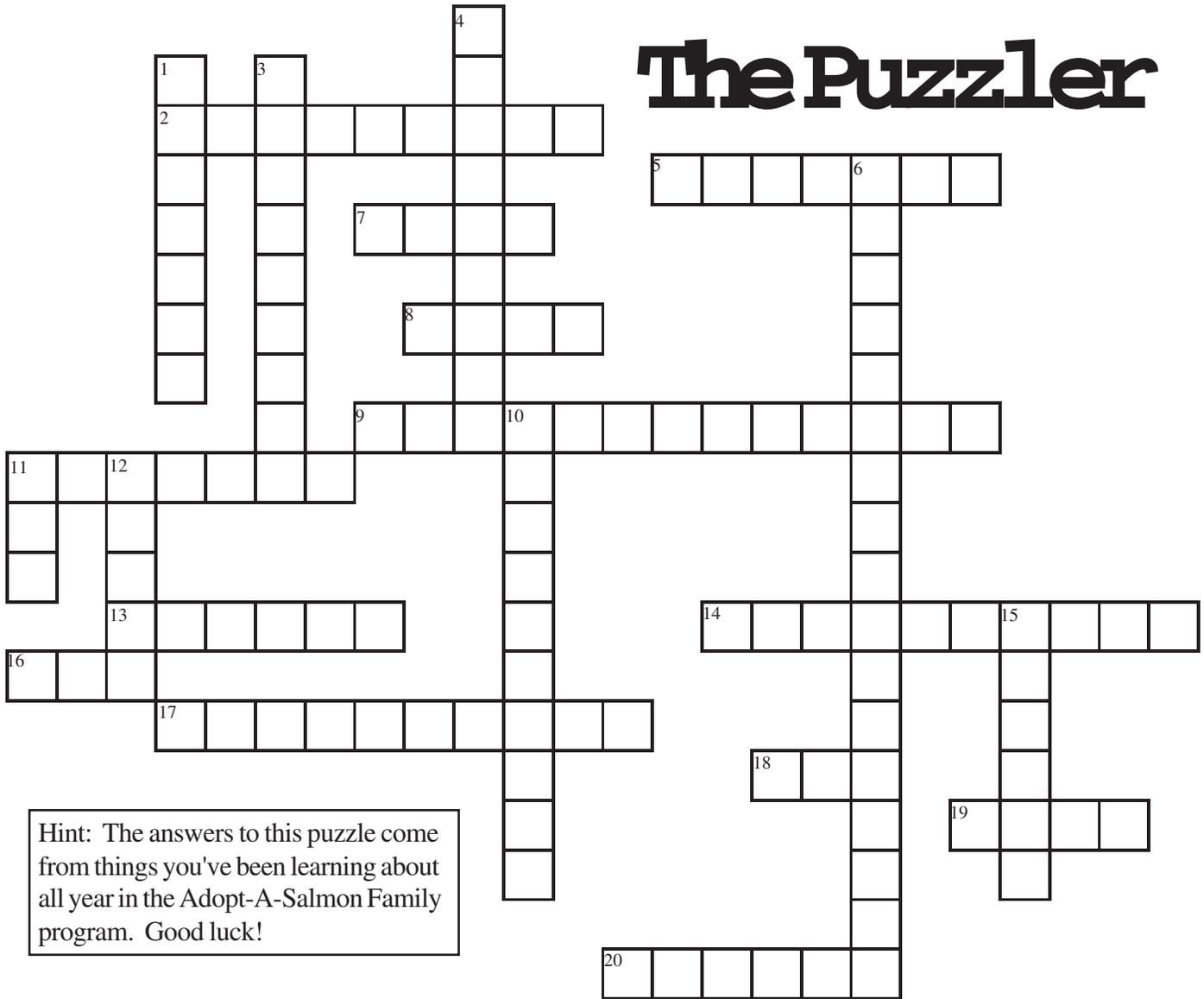
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*Signed,*

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# The Puzzler



Hint: The answers to this puzzle come from things you've been learning about all year in the Adopt-A-Salmon Family program. Good luck!

Across:

2. A balanced community of plants and animals.
5. A form of pollution where water temperature is changed.
7. A salmon life cycle stage.
8. An anadromous fish common to New England rivers.
9. A common form of water pollution usually caused by erosion.
11. A fun form of recreation that can be enjoyed in a clean river.
13. Fish \_\_\_\_\_; a fish passage structure.
14. A source of cheap, renewable electrical energy.
16. A pesticide responsible for reducing the bald eagle population.
17. Not many left.
18. All living things in an ecosystem are connected in a food \_\_\_\_\_.
19. A salmon's "nest."
20. Stream habitat that is perfect for salmon fry.

Down:

1. This type of land area is valuable as wildlife habitat and for filtering pollutants from water.
3. \_\_\_\_\_ contributed to the salmon's decline.
4. An area of land that drains to a common body of water.
6. Insects and crayfish are examples of these.
7. A salmon life cycle stage.
10. \_\_\_\_\_ Revolution.
11. A salmon life cycle stage.
12. A salmon life cycle stage.
15. Dissolved \_\_\_\_\_; very important to fish.

