CLEARWATER'S

TOPSAIL TIMES

Informing the Next Generation of Environmental Leaders



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Sustainability

I remember, when I was growing up, my mom saying to "leave a place better than you found it". Back then, this mostly meant cleaning up my room, but it also means making sure that the things I do today won't make life harder for others tomorrow. There's a word called "sustainability" which really gets at how we choose to live in the world. To be sustainable means learning to make choices that will make things easier for people in the future, so there will always be enough clean air, clean water, and good food for everyone. A wise man named Aldo Leopold once said that our biggest challenge as people is to try to figure out "how to live on a piece of land without spoiling it". Who wants to live on spoiled land? But it's easy to spoil the land if we allow it to happen.

Continued on page 2...

SPECIES PROFILE

Right, the Striped Bass, last month's challenge.



Discovering the species of fish last month was probably not much of a challenge: the **Striped Bass**, Morone saxalitis. This fish is one of the most recognizable and largest predatory fish in the Hudson. It is an anadromous fish, meaning it breeds in fresh water but spends most of its life in the ocean. As the fish enter the estuary, their bodies slowly acclimate to the fresh water through osmoregulation as they head north to the headwaters of the Hudson. Spawning occurs from Albany south on the flats and shallows. The fertilized egg travels downstream and hatches after a few days. These "fry" or larval fish live in the marshes and shallow water of places like Haverstraw Bay and the Tappan Zee. Come autumn, they continue their journey to the estuaries of NY Harbor and western Long Island Sound. These 'young of the year' spend up to 2 years in the estuary before joining the adults in their ocean migrations. In the ocean they travel the coastal waters from the St. Lawrence River in Canada to the St. Johns River in Florida. To reach their giant size they consume fishmenhaden, herring, eel, and invertebrates-crab, lobster, and squid. They are in turn preyed upon by sharks, larger fish, and fish-eating birds such as osprey.

In the Chesapeake Bay they are called Rockfish. Other common names include striper, and linesider. They are the official marine fish of New York and the official fish of Maryland, Rhode Island, and South Carolina.

-Eli Schloss



Above, this issue's identification challenge! Use Clearwater's Guide to Common Hudson River Fishes and other resources to discover its identity.

DID YOU KNOW?

The largest Striped Bass caught in NY was caught off Montauk in 1981, and weighed 76 pounds, while the US record is a Striped Bass caught in 1891 that weighed 125 pounds! These are BIG fish! The larger specimens are usually female, and are sometimes referred to as "cows".

IN THIS ISSUE:

- Sustainability!
- Species Profile!
- Knot Tying!

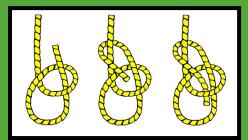
The Topsail Times is designed and edited by Catherine Stankowski, and written by Clearwater's Education Staff

Knot Tying Practice

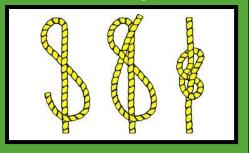
Sailors use all different kinds of knots for all different kinds of jobs. Here are a couple of important knots that you can learn and use:

- Bowline This is one of the most useful knots that the Clearwater crew needs to know. This bowline is used for tying our topsail onto the topsail sheet which helps Clearwater catch the winds that are 100 feet above the surface of the Hudson River.
- Figure 8 This is an important knot used for securing a sailor safely to the rigging when they climb aloft. Sailors onboard Clearwater need to climb up to 70 feet in the air to check the pulleys, shackles, ropes and sails on a regular basis.

Try to master tying these two knots and imagine yourself catching the winds blowing off the Hudson Highlands in the topsail or perched high up in the rigging to look out over the majestic river.



Above, the Bowline Below, the Figure 8



-Maija Niemistö

Sustainability (continued)

Let's face it: it's easy to make a mess. Polluting the Hudson is a lot easier than cleaning it up. Throwing garbage on the street is easier than carrying it with you to a recycling bin, but a mess is left behind for others. Many people think that all that garbage and pollution will just go to a magic place called "away". The garbage will just go away, the smoke will blow away, the dirty water will wash away, but I think we all know there really is no place called away. When we waste energy, when we create lots of trash and don't recycle, when we use more water than we need or buy lots of stuff we don'treally need, we are not living in a sustainable way.

On the sloop Clearwater, we think a lot about what it means to be sustainable. We don't want to waste energy so we turn off lights whenever they aren't really needed. On the boat, the crew eats a lot of food that was grown locally in the Hudson Valley. We recycle as much trash as possible and we compost any waste food so it will serve as fertilizer for new crops. Our toilet system on board also saves lots of water by not using water at all to flush!

If we can do it on the boat, you can do it at your home. Use energy saving light bulbs and turn off lights. Ask yourself "how much stuff do I really need?" Remember that the toy or game you buy today may quickly end up being trash that gets thrown away. Find ways to reuse items instead of throwing them out. Don't waste water. Clean water is getting harder to come by. If you have a dog, be sure to pick up after it. Dog waste is more than just mess if you step in it! It can wash into the water and hurt fish. Ask your school if they have a recycling program. Sustainability means living today in a way that allows others can live well tomorrow. Let's all think of ways today how we can make things better tomorrow: that's the meaning of sustainability.

-Dave Conover

How do we live sustainably on the boat?

FUEL:

We have a 450-gallon tank of diesel for pulling into and out of the dock. One tank can last 2-3 months because we mostly sail using wind power.

YOU CAN: carpool to activities with your friends, ask your parents to drive less by doing all of their chores at once.

WATER:

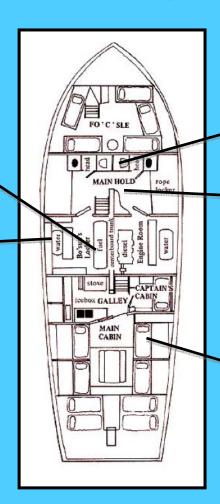
We have room to store 300 gallons to use for cooking and personal hygiene. We use less water to bathe, since we don't have showers.

YOU CAN: switch to low flow faucets, turn the water off when brushing your teeth, take shorter showers.

Send us your questions, artwork, and letters, and we may feature them in a future issue!

Hudson River Sloop Clearwater Attn: Topsail Times 724 Wolcott Avenue Beacon, NY 12508

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HEAD (BATHROOM):

We use 5 gallon buckets and no water for our bathroom. For a boat carrying 20 crewmembers and 25 passengers for 3 days, this saves over 540 flushes and 2300 gallons of water!

YOU CAN: Use low flow toilets.

MATERIALS:

Limited storage space means multi-use tools and minimal personal items. It takes a lot of fuel and water to manufacture consumer goods, so buying less means using fewer resources.

YOU CAN: ask your parents to buy tools/items that can be used for multiple purposes.

SPACE:

Each crewmember has a 7' x 3.5' bed and 60 liters of storage. This requires less lighting, less energy for climate control (although the ship does not have heat or air conditioning), and less room to fill with consumer acods that take resources to

-Andrea Sherman

Headwaters Osmoregulation

The source of a river or stream.

An internal process to balance bodily fluids to prevent them from becoming too diluted or too concentrated compared to surrounding waters. As a fish swims into fresh water from the ocean, it must reach a new internal balance by letting most of the water it drinks pass right through its body.