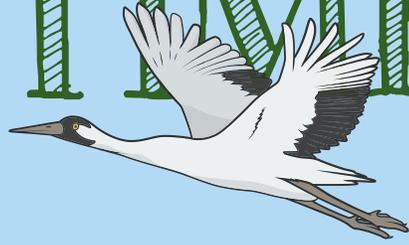


WILD TIMES

KIDS MAGAZINE

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INSIDE:

Why hitting a snag isn't such a bad thing

Meet the downy woodpecker

Where do the fish go when rivers flood?



ACTIVITIES | LESSONS | INFORMATION | FUN

Trees provide habitat

A sure sign that spring has sprung is when the trees that lost their leaves in autumn begin to grow their leaves back. Trees that lose their leaves in fall and grow them back in the spring are called deciduous. Some examples of deciduous trees in Wyoming are aspens and cottonwoods. Trees that keep their leaves all year are conveniently called evergreens. Some common evergreen trees in Wyoming include lodgepole pine, blue spruce, and ponderosa pine.

Trees provide great habitat for wildlife whether or not they lose their leaves for part of the year. Wildlife can use trees for food by eating leaves, buds, seeds, berries, nuts, and even bark! Wildlife also use trees as shelter when raising their young in a nook or in a nest in the branches. Trees can also provide shade when it's hot and help to shelter animals from the brisk Wyoming wind.

Trees that die after

being hit by lightning, catching a disease, wildfire, experiencing drought, being damaged by wildlife, or simply of old age, become something called a "snag." Snags provide very important habitat for wildlife, as they use hollow spaces in the tree trunks for nests, places to store food, and shelter. Branches on snags are perfect for perching birds! Finally, if snags along the edge of a stream or river fall over and end up in the water, they provide great structure in aquatic habitats for fish to find shelter in.

When snags get weathered enough and fall to the forest floor, insects, bacteria, and fungi help to break down the wood which releases nutrients back into the soil. The dead trees on the landscape also help to anchor soil in place and prevent it from eroding. This helps create healthy soil for new plants and trees to sprout, eventually creating more habitat for wildlife in the future!



Biologists helps provide healthy habitat

By **Miles Proctor**
Habitat and Access Biologist

The Habitat and Access branch of the Wyoming Game and Fish Department is in charge of managing all of the land that the Game and Fish commission owns, as well as public access areas.

These include fishing access to rivers and lakes, hunting access to private land, and Game and Fish owned Wildlife Habitat Management Areas throughout the state.



Miles Proctor, Habitat and Access Biologist, helping to count Burbot in Torrey Lake.

Miles Proctor is a Habitat and Access Biologist in Dubois, Wyoming. In the Dubois area, the Wyoming Game and Fish Department has three management areas: the Spence & Moriarity Wildlife Management Area, the Inberg/Roy Wildlife Habitat Management Area, and the Whiskey Basin Wildlife Habitat Management Area. The three areas boast having every big game animal in the state, except for bison and mountain goat. The management areas provide winter habitat for elk, bighorn sheep, deer, antelope, moose, black bears, grizzly bears, mountain lions, and countless other species of animals. Miles helps to make sure that these areas are well managed for wildlife, which is a year-round process!

During the spring and summer, Miles manages these areas to grow



Above: Miles and other Game and Fish employees work to build a fence. Left: Miles moves some hay.



hay to provide forage for the wildlife that live on these and other Game and Fish management areas during the long winter to come. Irrigation starts in the spring as the winter herds leave the management areas and migrate

back into the high country. When summer comes to an end and haying season is over, some of the hay is hauled to winter feedgrounds in the Jackson and Pinedale regions to feed elk when the snow gets too deep for them to forage for themselves. The fall brings beautiful colors and hunters along with it. Cow elk and doe deer start migrating back to the lower country, pushed down by the first snows of the year. Big bulls, rams, and bucks are soon to follow. After hunting season things settle down and the wildlife start preparing for the long winters of the Dubois country on the fresh irrigated meadows, and Miles gets ready for another busy year managing habitat.

WILDLIFE PROFILES



Red Squirrel (*also called Pine Squirrel*)

Range: Can be found throughout most of North America, except for the West coast.

Size: They weigh about 200-250 grams, and are a little larger than a chipmunk.

Habitat: They primarily live in conifer forests (which include pine, spruce, and fir trees)

Young: They typically have 3-4 babies per year, which are hairless at birth. The mother nurses them for about 2.5 months until the young squirrels leave the nest. Their nests are built out of twigs, grass and other materials up high in trees.

Predators: Red squirrels provide food for many other creatures, including: lynx, bobcats, coyotes, owls, hawks, martens, foxes, and weasels.

Food: Red squirrels mostly eat seeds from pine, spruce, and fir cones. They can also be found eating buds, flowers, berries, and mushrooms.

Did you know...? Red squirrels store pine cones in a “cache” to provide food throughout the winter. When they eat the seeds out of these stored cones all in one spot, the scales and other leftover cone parts collect in a large pile below them on the ground. These piles are called “middens” and can measure over 3 feet across!



Downy Woodpecker

Range: Can be found throughout most of North America

Size: Their body length ranges from 14-18cm, with a wingspan of 25-30cm. They weigh only 20-33 grams, which is about the same weight as six quarters.

Habitat: They are native to forested areas, living and nesting in tree cavities that the males and females excavate (dig out) themselves.

Young: They lay 4-5 eggs each year, with both the mother and father helping to incubate them for 12 days until they hatch. Then the parents will both

feed the babies until they leave the nest about a month later.

Predators: They have to watch out for hawks, squirrels, and snakes that like to eat them. Having a small entrance hole to their nest can keep most predators out, except for snakes.

Food: They mainly eat insects, supplementing with seeds and berries. They often eat food that larger woodpeckers cannot reach, such as insects living on or in the stems of weeds.

Did you know...? This is the smallest species of woodpecker in North America.

Where do fish go when rivers flood?

By Tom Annear

A few years ago, Wyoming was in the middle of a fairly long dry spell. It never rains a lot in Wyoming during the summer, but in most parts of the state it was raining even less than usual. A bigger problem was that it didn't snow much during the winter either. Whether you were a rancher, fisherman, or fish that was no small problem.

For pretty much everyone, as well as fish and wildlife, the amount of water in streams and lakes makes a big difference in how well they live. Conditions are a lot different now. This year it has snowed a lot more than normal. Reservoirs and lakes will be full again and there will be lots of water to grow plenty of fish and crops.

When most of that snow melts, it all happens over a short period of a month or two. That means most rivers in Wyoming will flood, especially in the western part of the state. If you live along a river, you might be scrambling to get out of the way. But what do you do if you're a fish? Surely the boiling, splashing water washes away any fish that pokes his head into the flow. Right?

Surely some fish will get carried away by high flow, but for the most part, when rivers and streams drop back to normal summer levels, the majority of fish that were in the stream before the flood are still there.



In reality, floods aren't as bad for fish as they are for people – and floods actually do some good things for fish and their habitat. Here are a few important things to know about fish behavior and what's really going on with water in the stream channel. When rivers are out of their banks and the middle of the channel is rushing right along, the extra water actually makes all sorts of places for fish to hang out. You see, fish like to stay in slow water and there is actually a lot of slow water for them to live in during a flood. For example, the water that spills over the bank and flows through the vegetation along the stream (riparian vegetation) is actually flowing slowly – just what fish are looking for. If you were to get into the stream, you'd find that the fastest water is really just flowing in the top half of the channel. The water along the stream bottom is often flowing a lot

slower, especially if there are boulders and logs in the stream. Fish will just swim into those slow areas and wait for the flooding to go down.

Surely some fish will get carried away by high flow, but for the most part, when rivers and streams drop back to normal summer levels, the majority of fish that were in the stream before the flood are still there. Instead of sweeping all the fish away, flood waters sweep away a lot of the silt and debris that can cover the stream bottom. That's really important because it leaves behind clean gravel where insects can grow and trout can lay their eggs.

So the next time you see a stream or river flooding, don't worry too much about the fish. Floods are actually a necessary part of keeping streams and rivers in Wyoming healthy and maintaining lots of fish and some really great fishing.

OUTDOOR CLASSROOM

Become a tree detective!

Trees come in many different sizes, shapes, and forms. Just like animals, there are many different species of trees! In order to solve the mystery of what types of trees are most common near your home or school, you will have to make some scientific observations like a good detective. **Here are 8 of the most common trees found in Wyoming:**

WHEN YOU ENCOUNTER A MYSTERY TREE LOOK FOR:

- Does it have needles or broad leaves?
- Does the tree have cones, acorns, or other things attached?
 - Look closely at the color, texture (scaly, smooth, ridged), thickness, and anything interesting about the bark.
- How are the leaves attached to the stem (facing opposite each other, alternating, spaced out, or close together)?
- Look closely at its habitat. What is growing around the tree? What is the area like (swampy, near a river/stream, mountainous, near a lake, dry/desert-like)?



Lodgepole Pine

Has 2 needles per bundle that are 1 to 3 inches long. Has small, prickly cones, and its scaly bark is rough and gray and orange.



PHOTO BY FAMARTIN

Limber Pine

Has 5 needles per bundle that are 1 to 3 inches long. Has very flexible twigs, and smooth light grey bark. Its cones do not have prickles on them.



Ponderosa Pine

Has 2 or 3 needles per bundle that are 3 to 5 inches long. The bark is orange with black cracks between plates.



PHOTO BY STAN SHEBS

Narrow Leaf Cottonwood

Grows along streams at lower elevations, leaves are 2 to 4 inches long, 1/2 to 1 1/2 inches wide, turn yellow in autumn, and fall off in the winter.



Quaking Aspen

These trees have tall trunks with smooth silver/white bark. Their leaves are heart shaped, with a flat stem, and they also fall off in the winter. This flat stem catches in the wind, causing the leaves to “quake,” giving them their name!



Douglas Fir

This conifer has flat needles that are not in bundles (each needle attaches to the twig by itself) and are 2 to 3.5 centimeters long. Its bark is silvery-grey and smooth on young trees, and more like cork when it is older.



Blue Spruce

This high elevation conifer has super spiky needles that are also not in bundles. Spruce needles are square shaped, so they will roll in your fingers more easily than needles from a “flat fir” will. They often have a blue tint, giving this tree its name!



Willow

There are actually a large number of different species of willows in Wyoming, and many are difficult to tell apart from one another. Generally, willows are found near streams or rivers, have long branches and flexible stems with many long, narrow, pointed leaves along the stem.

TEST YOUR KNOWLEDGE

Wildlife and habitat word search

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

aspen

redsquirrel

downywoodpecker

ponderosa

lodgepole

limberpine

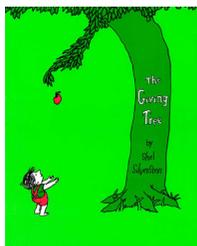
cottonwood

fir

spruce

LEARNING LINKS

Book to check out



Shel Silverstein's book, *The Giving Tree*, is a great way to explore the life-cycle of a tree.

Other Resources

Download a free printable key to Wyoming's conifer trees from the University of Wyoming's Biodiversity Institute at this link: http://education.wyobiodiversity.org/files/2214/7500/2240/Key_to_conifers_folding.pdf



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