

WILD TIMES

KIDS MAGAZINE

FALL 2020



INSIDE:

**DISCOVER HOW BEAVERS
STORE FOOD FOR
THE WINTER**

**WHAT IS AN
INVASIVE SPECIES?**

**NEED A FALL PROJECT?
CREATE A SMORGASBIRD!**



ACTIVITIES | LESSONS | INFORMATION | FUN

HABITAT CONNECTION



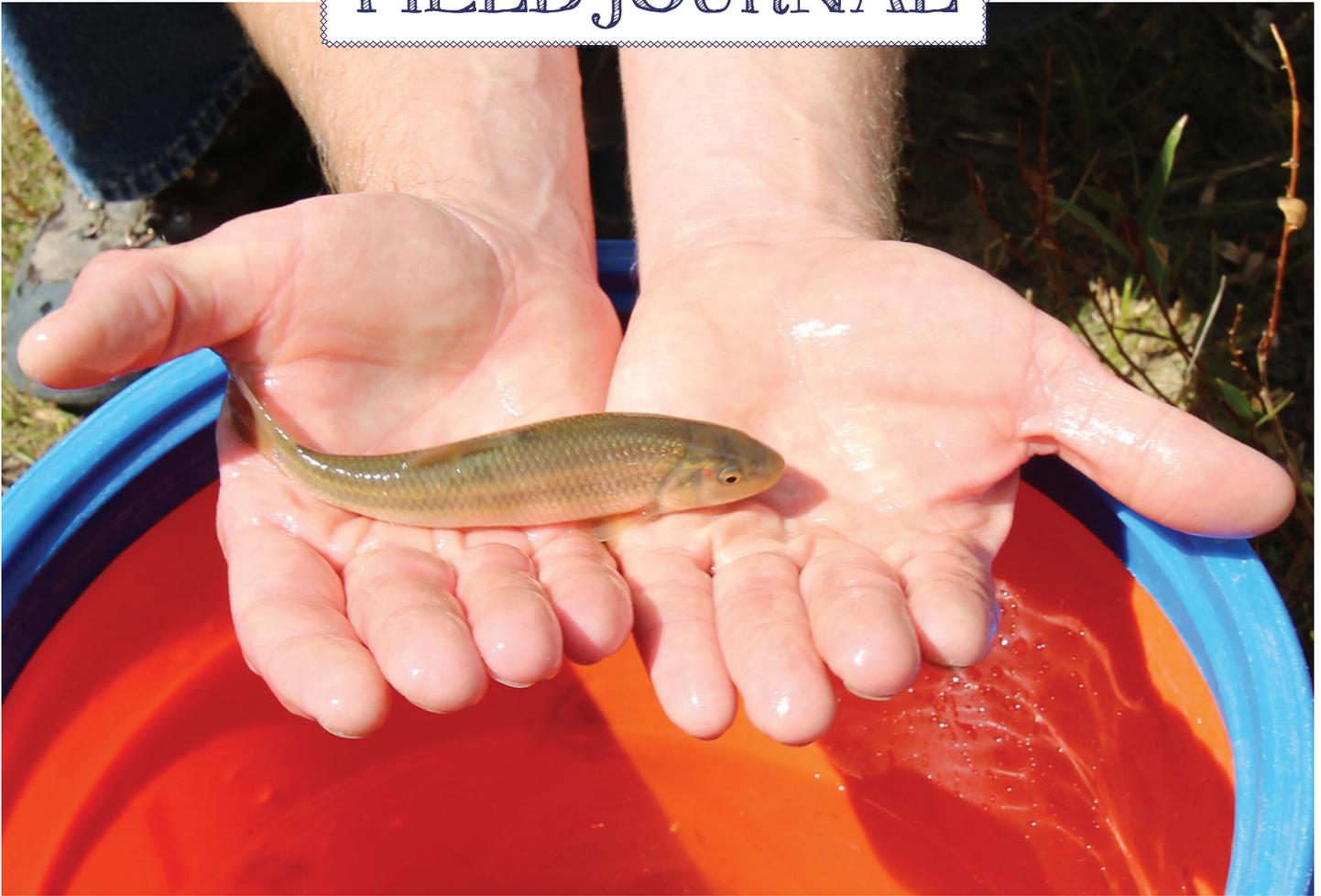
Fall changes

Fall is a season for change, especially for habitats. Plants use a chemical reaction called photosynthesis to make food from sunlight. The substance that makes plants green is called chlorophyll. As leaves get less sunlight when it gets dark earlier, plants stop making chlorophyll. Without green chlorophyll, the remaining color of the leaf is revealed. This is why aspen and other leafy plants look yellow, red or orange.

Beavers will harvest these changing aspen branches. The mammal will jam the ends of branches into the mud at the bottom of their pond. The cold water preserves the nutrients in branches and gives beavers a reliable source of food during the winter.

Beavers are not the only animal that stores food for the winter. Chipmunks, squirrels and shrews create caches or stockpiles of food near their burrows. Even birds like Canada jays and Clark's nutcrackers will collect pine seeds and other food and scatter them across Wyoming. These are just a few of the events that signal fall.

Have you seen these or other changes with plants and wildlife?



A common shiner, hornyhead chub, and creek chub (top to bottom). (WGFD photo)

The Hornyhead chub

Did you know Wyoming is home to a unique fish that grows horn-like bumps on its head? This small — but feisty— fish is called the hornyhead chub.

Males grow horn-like structures called tubercles during the spawning season. They use the horns to make nests for the female to lay eggs and drive off competing males.

The hornyhead chub lives in the waters of the Laramie and North Laramie rivers in the Laramie mountains. This population is unique since the closest population lives in the Midwest.

Hornyhead chub grow to be between 3 and 7 inches long, and prefer cool, clear, deep water with rocky pools and runs. They are very sensitive to changes in water levels, temperatures and silt and other sediment.

Unfortunately, hornyhead chubs have a tough life in Wyoming. The Wyoming Game and Fish Department is working to protect these fish by transplanting them to areas with low populations. Biologists are working to protect habitat important for hornyhead chub in the Laramie and North Laramie rivers, and even in other areas of the state

where they used to live.

Hornyhead chub may be small and rare, but they play a beneficial role in streams. Many other small fish species will lay their eggs in the hornyhead chub's nest. The males will also protect the eggs these other fish lay!

Even though you may never have one of these fish on the end of your line, fishing helps protect the hornyhead chub. Money from fishing licenses helps Game and Fish to protect these and other important species so the hornyhead chub can continue to have a home in Wyoming.

WILDLIFE PROFILES



Hornyhead Chub (*Nocomis biguttatus*)

Range: Hornyhead chub are found in the Laramie and North Laramie Rivers in Wyoming. This population is geographically distinct from the main population that lives in waterways from the Dakotas to New York, and as far south as Kentucky and Arkansas. They also used to be found in small areas of Nebraska, Colorado and Kansas.

Size: Hornyhead chub are typically 3 to 7 inches long.

Habitat: Hornyhead chub prefer rocky pools and runs in creeks and small to medium-sized streams. They are sensitive to fluctuating water levels, changes in water temperature and streamside grazing. Young hornyhead chubs rely on aquatic vegetation for shelter during the first month or so of their life.

Young: Male hornyhead chubs make nests by stacking pieces of gravel to create a depression shaped like a cup. They then spawn and cover the eggs in gravel. Once the eggs hatch, young hornyhead chub continue

to develop in the nest for about another 50 days. It takes about two years for hornyhead chub to mature into adults.

Predators: Larger predatory fish — like brown trout — feed on hornyhead chub. Other predators include American mink and Belted Kingfisher.

Food: Hornyhead chub mostly eat aquatic macroinvertebrates, but will also eat terrestrial insects that fall into the water. Occasionally they also feed on algae.

Did you know? Male hornyhead chub create the nests used for spawning. Once they have created a nest, they use the bony, horn-like projections on their heads to drive off rival males. Even though they aggressively drive off members of their own species, they tolerate other species of fish in their nests. Some of these other species will actually lay their eggs in the hornyhead chub's nest and take advantage of its protection!

WILDLIFE PROFILES



Clark's Nutcracker (*Nucifraga columbiana*)

Range: Clark's Nutcrackers live in the mountainous regions of the Western half of North America, from British Columbia and Alberta in the north to Northern Mexico in the South, from the Cascades and Sierra Nevada to as far east the Front Ranges of the Rockies.

Size: The Clark's Nutcracker is about 12-inches long, with a wingspan of 24 inches. That is a bit larger than an American robin. They weigh about 4.6 ounces which is about the same weight as a cheeseburger!

Habitat: Clark's Nutcrackers live in coniferous forests at elevations between 3,000 and 11,000 feet in elevation. They are migratory and roam within their home ranges. Clark's Nutcrackers typically use forests made up of Douglas fir to nest and require stands of whitebark and limber pine for food.

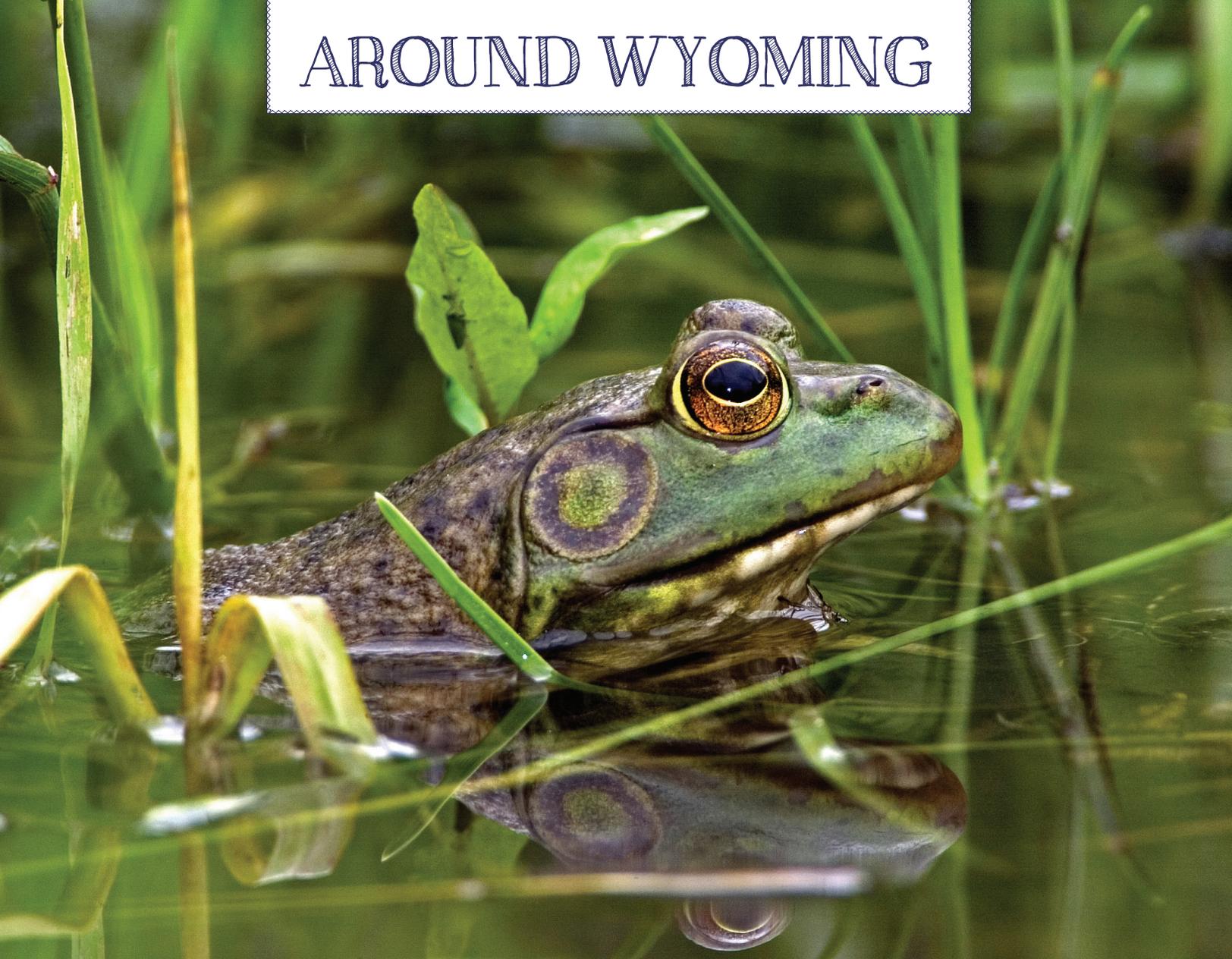
Young: Clark's Nutcrackers lay one brood of 2-6 eggs each year. These eggs take about 16 days of incubation to hatch. The young Clark's nutcrackers remain in the nest for 20 days before they fledge and begin to fly. They then follow their parents for another three or so months learning to forage and cache food.

Predators: Raptors such as falcons, Cooper's Hawks, goshawks and others may try to catch an unsuspecting Clark's Nutcracker. However, Clark's Nutcrackers often

rally together and mob predatory birds and drive them away before they can be a threat. Larger birds such as ravens and magpies may occasionally prey on eggs and nestlings.

Food: While Clark's Nutcrackers are omnivores they rely heavily on the seeds produced by whitebark and limber pine. These species produce seeds that are high in fat and protein, making them a great food for the winter. Clark's Nutcrackers store tens of thousands of seeds in places called caches every year. Other conifer seeds, berries, insects, carrion and small prey make up the rest of the Clark's Nutcracker's diet.

Did you know? Clark's Nutcrackers have evolved a special ability to collect pine seeds. Their beak is the perfect tool to reach seeds stuck in between the hard scales of pine cones. Clark's Nutcrackers will store up to 150 seeds in a special pouch under their tongue and will bury hundreds of seed caches in the ground across many square miles. Each cache typically has only 1-5 seeds. Amazingly, scientists have observed that Clark's Nutcrackers recover almost 80% of the seeds they store. Any leftover seeds that are not eaten by other animals may end up sprouting. Because of this behavior, Clark's Nutcrackers actually help plant forests!



The encroaker

Have you ever heard of an invasive species? These are animals or plants that are not originally from the area they are found in AND have negative impacts on native species. One example is the American bullfrog.

Bullfrogs are native to states east of Wyoming, but are commonly kept as pets. Unfortunately when they get loose, these animals can cause a lot of problems. Bullfrogs grow faster than Wyoming's native frogs and toads, and get bigger, too. This means they not only outcom-

pete the native species for food, but eat them as well. Even small fish, birds and mammals may end up inside a large bullfrog's stomach because they have a big appetite. Bullfrogs can also carry diseases that are harmful to native amphibians.

Luckily, you can help stop bullfrogs from becoming a threat. If you see a large frog that you think may be a bullfrog, take a picture of it, and alert your local game warden or Game and Fish office. Be sure to provide the location you saw the

bullfrog and any other important information about it that you may have.

Never release bullfrogs or any other pets into the wild. Not only can they become invasive species, it's not the best for an animal that has spent its life in captivity. If you have a bullfrog or another pet you can no longer care for, contact the seller you got it from or find somewhere that can give it a new home. Be sure to choose your pets wisely and stop invasive species!

OUTDOOR CLASSROOM

Make your own “smorgasbird”!

Fall is a great time to watch birds. Many species are passing through as they migrate further south or to lower elevations. You can help these traveling birds and increase your odds of seeing some cool species, just create a backyard bird buffet.

Follow the steps below and have fun!



Materials

- Black oil sunflower seeds
- Nyjer thistle seed
- Safflower seeds
- Cracked corn
- Mealworms
- Raisins or currants
- Peanut butter
- String
- Sticks

Steps

- 1. Gather a bunch of pine cones.** Clean off any dirt or other debris from the outside of the cones and between the scales.
- 2. Tie a string around the widest part of the cone.** Use an overhand knot and be sure the loop is at least two rows from the bottom of the cone. Push the string through the scales so it is securely attached to the cone.
- 3. Smear peanut butter on the cones.** Be sure to smooch peanut butter into the gaps between scales.
- 4. Add food.** Put the various seeds, fruit or mealworms on plates or trays. Roll each cone in one type of food or mix it up. Be sure to press the seeds, fruit or mealworms into the peanut butter so they do not fall out.

5. Make a buffet. Tie the cones to a stick. Be sure they are balanced. Try placing a few cones with different options on the same stick. Hang the sticks from branches at different heights to create a variety of choices for different species.

6. Record what you see. Find a place where you can watch which birds visit your feeders. Take pictures, draw or write descriptions of the types of birds you see. Include your location, the date and time of your observation, if you see a rare or unusual species this can be very useful information for biologists.

For more information on everything related to birds, check out *al-laboutbirds.org* by the Cornell Lab of Ornithology. You can also download a free checklist about the birds of Wyoming here: <https://bit.ly/3k2ncLR>

TEST YOUR KNOWLEDGE

CROSSWORD PUZZLE

CLUES:

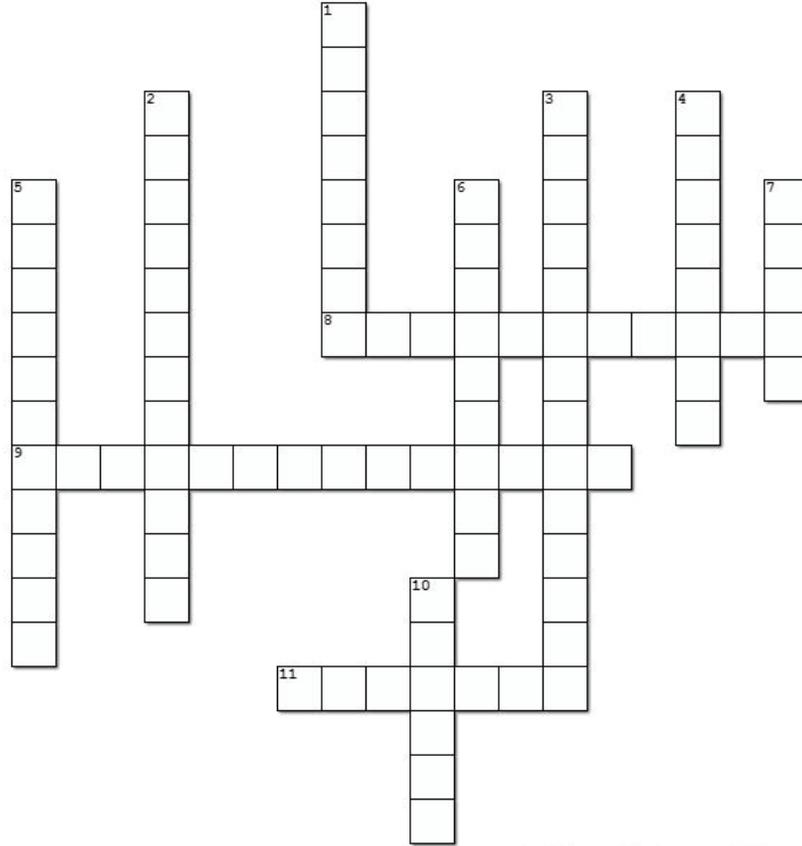
Down:

1. One of these were likely pets that were released and have become a problem
2. You use this with pinecones and birdseed, fruit or mealworms to make a bird feeder at home
3. When you buy this it helps protect hornyhead chub and other wildlife
4. An animal or plant that is not native and harmful to wildlife
5. When a plant stops making this, leaves change color
6. The clark's nutcracker's favorite food
7. A place where animals store food
10. This animal stores branches underwater to eat in the winter

Across:

8. Who should you call if you see a bullfrog Wyoming?
9. How aspen and other plants make food
11. The name of a river hornyhead chub live in

IF YOU AREN'T SURE, LOOK AROUND IN THIS ISSUE TO FIND THE ANSWER!



Created using the Crossword Maker on TheTeachersCorner.net

Answers:

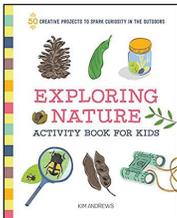
1- bullfrog; 2- invasive; 3- peanutbutter; 4- cache; 5- chlorophyll; 6- pinecones; 7- beaver; 8- Laramie; 9- Gameandfish; 10- photosynthesis; 11- fishinglicense

LEARNING LINKS

If you enjoyed this issue of Wild Times and would like to see more, visit

<https://wgfd.wyo.gov/Education/Conservation-Education/Wild-Times>

Books to check out



Exploring Nature Activity Book for Kids:
50 Creative Projects to Spark Curiosity in the Outdoors
 By Kim Andrews

This book is full of great, hands on activities that will stimulate your child's curiosity about the natural world.



The Hike
 By Alison Farrell

The Hike is a plucky and sweet adventure story about three intrepid young female explorers set out to conquer the outdoors in their local forest.



Volume 14, No. 4

Fall 2020

Editor/writer: Owen Carrol

Graphic Design: Patrick Owen

Additional editors and contributors: Sara DiRienzo

The Wyoming Game and Fish Department receives financial assistance in Sport Fish and Wildlife Restoration. Under title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, sex, or disability. If you believe that you have been discriminated against in any program, activity, or facility as described above, or if you desire further information please write to: Department of Interior, U.S. Fish and Wildlife Service, Division of Human Resources, 4401 N. Fairfax Drive, Mail stop: 2000, Arlington, Virginia 22203.