

Wildlife Express!



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On the
Quail Trail



photo by Clair Kofoed ©





Mountain Quail
photo by Clair Kofoed ©

Let's Look at the Mountain Quail...

It is early morning on an autumn day. A hiker is wakened in her tent by a sharp whistle, *cle, cle, cle, cle*. Soon more, softer whistles are heard all around, in and under the bushes.

The hiker peeks out of her tent. She grabs her binoculars for a closer look. Finally she sees them. Beautiful gray heads, red-brown throat patches, white side stripes and straight, black plumes give them away. Mountain quail are waking from a night of rest.

What a wonderful experience this would be, but it is unlikely to happen. Mountain quail, *Oreortyx pictus*, (oree-OR-tiks PIK-tus) are very rare in Idaho. They used to be found throughout the western part of the state. Now they are found in only a few places.

Mountain quail are the largest quail found in North America. They live on steep, high mountains covered in bushes, shrubs and trees. Mountain quail often use the areas around streams. These areas are called **riparian** (ri-PAR-ee-en) areas. Mountain quail will follow riparian areas that run down mountains. These riparian areas are like hallways for the quail. They give the quail a safe way to move up and down the mountain. They spend summer higher on the mountain slopes and winter lower on the mountain where snow is not too deep.

Living on steep slopes helps to protect mountain quail. Mountain quail are amazing runners. If scared, mountain quail usually do not fly. They run straight uphill! Predators soon get tired, and the mountain quail get away. This works great on ground predators, but with hawks and other birds of prey it doesn't work so well. Hawks eat more mountain quail than any other predator. Other mountain quail predators include owls, coyotes, bobcats, weasels, skunks and snakes.

Mountain quail mostly eat plants like grasses, flowers, root bulbs and berries. They eat few insects.

With many birds, you can tell the male from the female just by looking at them. Usually the male has brighter more colorful feathers. Not mountain quail. They are **monomorphic** (mon-oo-MOR-fik). This means the male and female look the same. The only way to know for sure if a mountain quail is a male or female is to do a blood test.

One thing that is amazing about mountain quail is that the male and female may have two nests with eggs in them at the same time! No other bird species is known to do that. The female will lay 24 eggs, 12 eggs in one nest and 12 eggs in another nest. The female sits on one nest while the male sits on the other. The male helps to build nests, incubate eggs and care for the young chicks. Males even get brood patches. Brood patches are bare spots on the birds' abdomens and chests. They help the birds keep the eggs warm. Feathers would block the birds' body heat from reaching the eggs.

After about 30 days, the chicks hatch from their eggs. Chicks that are only one day old can walk, peck and look for food. When alarmed, the chicks scatter, then freeze motionless. They often tuck their heads to the ground or under trees or rocks. Their coloration **camouflages** (KAM-o-flazhes) them. They look a bit like rocks to predators.

Quail live in family groups called **coveys** (KOV-eez). To communicate with each other, they use sounds and body language. Quail make many different sounds. They cluck, whistle, crow and mew.

The feather on top of a quail's head is called a plume. The plume tells you something about how mountain quail may feel. When feeding and not concerned about things, the quail holds the plume up and back at about a 45-degree angle. When hiding, the plume is held against the back. When excited, the plume is held straight up or slightly forward.

Mountain quail, what an amazing bird!



Costa's hummingbird

What is a bird?

Birds are vertebrates. They have backbones, just like mammals, reptiles and amphibians. But only birds have feathers. Birds also have wings for front limbs, no teeth, scales on their feet, warm-blooded bodies and lay hard-shelled eggs.

Worldwide there are about 9,000 different kinds of birds. Birds live all over the world, from frozen polar caps to steaming rain forests and barren deserts. They range in size from the two and one-half inch bee hummingbird to the wandering albatross with an 11-foot wingspan! Even though birds live in different habitats and come in different sizes, they all have some things in common.

Birds are the only living animals with feathers. Feathers are made of keratin, just like your fingernails and hair. They are lightweight and strong.

Birds have fewer bones than you, but the bones birds have are lightweight and strong. Many bird bones are hollow. To make the bones strong, hollow bones have struts in them. If you cut a bird bone in half, it would look like a honeycomb inside.

Birds need powerful muscles to fly. Most birds have 175 major muscles! Have you ever wondered why the breast meat on your Thanksgiving turkey is light, and the leg meat is dark? The breast muscles of a turkey do not have as much blood flowing to them. The dark meat on the legs has a greater supply of blood. These muscles can work steadily for a long time without tiring. The dark meat on their legs tells us turkeys are good runners and walkers. Turkeys are not strong fliers and cannot fly for long distances. Do you think mountain quail have dark meat on their legs?

Birds' lives would leave us breathless, exhausted and starving. Their fast-paced lives depend upon efficient lungs and large, fast beating hearts. A pigeon takes up to 450 breaths per minute when flying, and its heart beats 200 times a minute when resting!

Birds are true gas-guzzlers. They burn a lot of energy, but they get their energy from food, not gasoline. Birds need to eat often and digest food quickly to keep their hearts beating and lungs working. They also need food loaded with energy to fly. Birds have two stomachs to digest their food quickly. In four hours, a spurwinged goose can digest the same meal that it takes a rabbit 24 hours to digest! Now that's fast!

Upland Birds

You may hear people talk about watching or hunting upland game birds or waterfowl. You might wonder what waterfowl or upland birds mean. Well, these are not particular birds, but two different groups of birds.

The main difference between these two groups is where the birds are found. Waterfowl are usually found on or around water. They are strong swimmers with webbed feet and are strong fliers. Waterfowl include ducks, geese and swans.

Upland game birds are found in drier landscapes, like mountainsides and farm fields. They are usually good runners and not very good at flying long distances.

The name, upland game birds, gives us a clue as to which birds are in this group. Upland refers to where they are found, and game means an animal that may be hunted and eaten.

Idaho has 13 different birds that are considered upland game birds. They are ring-necked pheasant, sage grouse, sharp-tailed grouse, blue grouse, spruce grouse, ruffed grouse, California quail, bobwhite quail, Gambel's quail, mountain quail, chukar, gray partridge and turkey.

It is important to remember that although a bird may be an upland game bird, not all upland game birds may be hunted. People are not allowed to hunt mountain quail or Gambel's quail. Idaho doesn't have many mountain quail and Gambel's quail left, so they are protected from being hunted.

Of the 13 species, only six are native to Idaho. That means they have always been in Idaho and were not brought into Idaho from other states or countries.

Mountain quail, sage grouse, sharp-tailed grouse, blue grouse, spruce grouse and ruffed grouse are all native to Idaho.

All upland game birds nest on the ground. They will scrape out a shallow hole and line it with plants and feathers. To help protect them from predators,



Turkey

Home Is Where the Habitat Is

What would you think if you saw a beaver walking on a sand dune? Would you think, “that beaver’s not too smart”? Would you start looking around for a pond? Beavers just don’t belong in deserts.

An animal’s home is called its **habitat**. A habitat contains four things: food, water, shelter and space. If one part is missing, an animal will not survive.

Mountain quail live in Idaho’s mountains. They like to be close to rivers and streams, so they have water to drink. Mountain quail habitat has dense thickets of rose, hawthorn, black current, elderberry and blackberry. All of these plants provide food. Many have thorns that offer shelter from predators. A fox would get pricked trying to catch mountain quail in a blackberry bush.

It is often easy to see the importance of food, water and shelter. You probably enjoy eating. A big glass of ice water sure hits the spot on a hot summer day. You wouldn’t want to stand outside during a thunderstorm. But the space part of habitat is just as important as food, water or shelter.

Animals need enough space to find the things they need without having to fight for them. When animals have to fight over food, they use precious energy. Animals gathered together in small spaces can also make each other sick. Think of a student that has a cough. In the small space of a classroom, that student’s germs quickly spread to others. Soon, two, three or more students are coughing and feeling sick.

You can sometimes tell an animal’s habitat by looking at its body. Animals have special features on their bodies that help them live in their habitats. These special features are called **adaptations** (ad-ap-TAA-shuns). Mountain quail have strong, muscular legs for running and short beaks for nipping plants and eating seeds. Beavers have webbed back feet and a thick two-layered coat of fur. Both of these adaptations are terrific in water, but would be deadly in a desert.

Next time you see an animal, think about its habitat. What is around that the animal might eat? Is there water nearby? Is there a bush, hole or cave for shelter? Does it seem like many other animals are around? Answering these questions will tell you a lot about the life and habitat of the animal you saw.

Calling All Coveys

Sometimes wild animals need our help. If a certain species of animal is becoming harder to find, wildlife biologists try to help it survive. But how can you help an animal when you don’t know anything about it? Mountain quail is one of those species.

People knew that over many years of human activity, mountain quail habitat had been destroyed. The habitat that remained for mountain quail was separated into patches or “islands”. Researchers needed to know how mountain quail used the remaining habitat. They needed to know more about mountain quail before they could help them.

Studying an animal, like the mountain quail, can be a real task. Mountain quail live in steep, rugged canyons. They are secretive and hide in thorny bushes. How can you track an animal you cannot see? **Radio telemetry** (te-LEM-e-tree) can help.

Researchers capture animals and place boxes, called radio-transmitters, on the animal’s bodies. The radio-transmitters send out signals. The signals are picked up by an antenna that the researchers have. By following the signals, researchers can figure out where an animal is.

To study mountain quail in Idaho, researchers put grains and seeds in traps and then hide the traps in bushes. Mountain quail go into the traps to eat the grain and are captured.

Once a quail is trapped, it is weighed and measured. Researchers put numbered leg bands on the quail. The leg bands are like giving the quail a name. Each of the birds has a different number, so researchers can tell them apart.

Some birds also get a very special collar. The elastic collars have radio-transmitters on them. The transmitters are about the size and shape of a lima bean and weigh about as much as four paperclips.

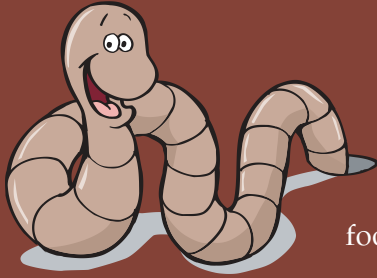
Researchers want to make sure the collared quail don’t stick out in a crowd. They don’t want to draw a predator’s attention. So, researchers make sure the transmitters are the same color as the quail’s throats. The antenna for the transmitter is hidden along the bird’s back.

Researchers have learned a great deal. Researchers first thought that mountain quail would not travel far from their winter homes to make a nest. But researchers found that some birds will travel many miles to find a good spot for nesting.

They were also able to find mountain quail nests. Mountain quail nests are difficult to find. The nests are usually under a shrub, under a log or in a rock cleft. By finding the nests, researchers now know more about mountain quail nests and young.

Radio-transmitters help researchers learn more about wildlife. With the help of modern technology, wildlife biologists can help animals survive.





Workin' For a Living

Think of the town where you live. People in your community have jobs that make it a nice place to live. There are doctors that keep you healthy. People that take your garbage away, and people that grow food for you to eat.

Animals, plants and other organisms also have jobs and roles to play in ecosystems. This role is called its **ecological** (e-ka-LOJ-i-kel) **niche** (NICH). An animal's niche includes such things as where and how the animal gathers food, its link in a food chain and even where the animal might go to the bathroom.

Within ecosystems, every living thing has important jobs and roles. If one of these organisms is missing, the ecosystem will be unhealthy. Here's an example.

Worms are important for the growth of plants. Worms burrow down into the soil, eating as they go. When worms eat, they break up dead plants and animals and turn the dirt. Then the worms come up to the surface of the ground and poop. Worm poop is called castings. Worm castings are wonderful fertilizer for plants. The burrowing mixes nutrients into the soil. All this worm activity gives plants what they need to grow. Animals, like the mountain quail, eat the plants. When the quail poops, the plant's seeds are passed out of the quail's body. This spreads the plant's seeds and allows more plants to grow. When the plants die, they give the worms food, and the cycle starts over again. The worms, plants and quail all work together to make a healthy ecosystem.

At times, it may be hard to see what an animal's niche is. Leeches are something that spring to mind. You might just think of leeches as pesky, slimy bloodsuckers, but even leeches have important roles in ecosystems. Fish love to eat leeches. Doctors use leeches to help people. After a person has surgery, doctors will sometimes put leeches around the wound. The leeches suck up unwanted blood and help the person heal faster.

What's your niche? Do you have an important job or role to play in your family or school?



American avocet

Food to Fit the Bill

Think of a bird. You may have thought of a robin or an eagle. Perhaps a woodpecker jumped into your mind. All of these birds look differently and have different shaped beaks. You can learn a lot about a bird just by looking at its beak.

Birds' beaks are their kitchen utensils. Beaks are the tools that birds use to capture, gather and eat their food. Many bird beaks work just like utensils you may have in your kitchen.

Can you guess whose beak works like tongs? Herons, avocets (AV-o-set) and shore birds need to probe in the water and ground to find food. Long, thin beaks and bills are great for that. The long bill of a snipe is perfect for getting worms out of the ground. Snipe can feel the vibrations of worms with their bills and can flex the upper part of their bills. They scare worms right into their mouths!

Birds that eat seeds and nuts need a nutcracker, and that is just what finches, sparrows, quail and grosbeaks have. Their short, stout beaks are strong. They even have ridges on the inside of their beaks like the ridges on a nutcracker. The ridges help hold and put pressure on the seeds, making it easier for the birds to open seeds and nuts.

Woodpeckers eat insects under tree bark and inside trees. They need a bill that is sharp, pointed and chisel-like to pull tree bark apart and drill holes in trees. Their beaks are strong and work like ice picks.

Can you think of a bird that has a turkey baster beak? It's the hummingbird. Hummingbird beaks are long, thin and round. This shape helps them to probe in flowers and suck out nectar. Their tongues are also special. The tongues roll in at the edges and have hair on the tips. The hairy tips help hummingbirds lap up nectar, and the rolled edges give them a trough to carry the nectar to the back of their mouths.

These are just some examples. Can you think of others? Next time you see a bird, look closely at its beak. Can you figure out what it eats?

Problem Pets

Many people have pets like dogs, cats or fish. It may be hard to imagine your pet as a killer, but it just may be. Cats allowed to roam outside kill billions of wild animals each year.

In the United States, there are 66 million pet cats. If we include cats that do not have a home, there are probably more than 100 million cats.

People have studied the effect cats have on wild animals. In Wisconsin, cats kill 39 million birds each year. Nationwide, cats probably kill over a billion small mammals and hundreds of millions of birds each year! That's a lot of wild animals!

Worldwide, cats may have been the cause of more bird extinctions than any other cause, except habitat destruction. In Florida, cats threaten herons, egrets and marsh rabbits, and the woodrat is near extinction. In New Zealand, eight birds are extinct because of cats, and 40 different kinds of birds are no longer found in New Zealand at all. In Idaho, cats are one of the problems that may be threatening mountain quail.

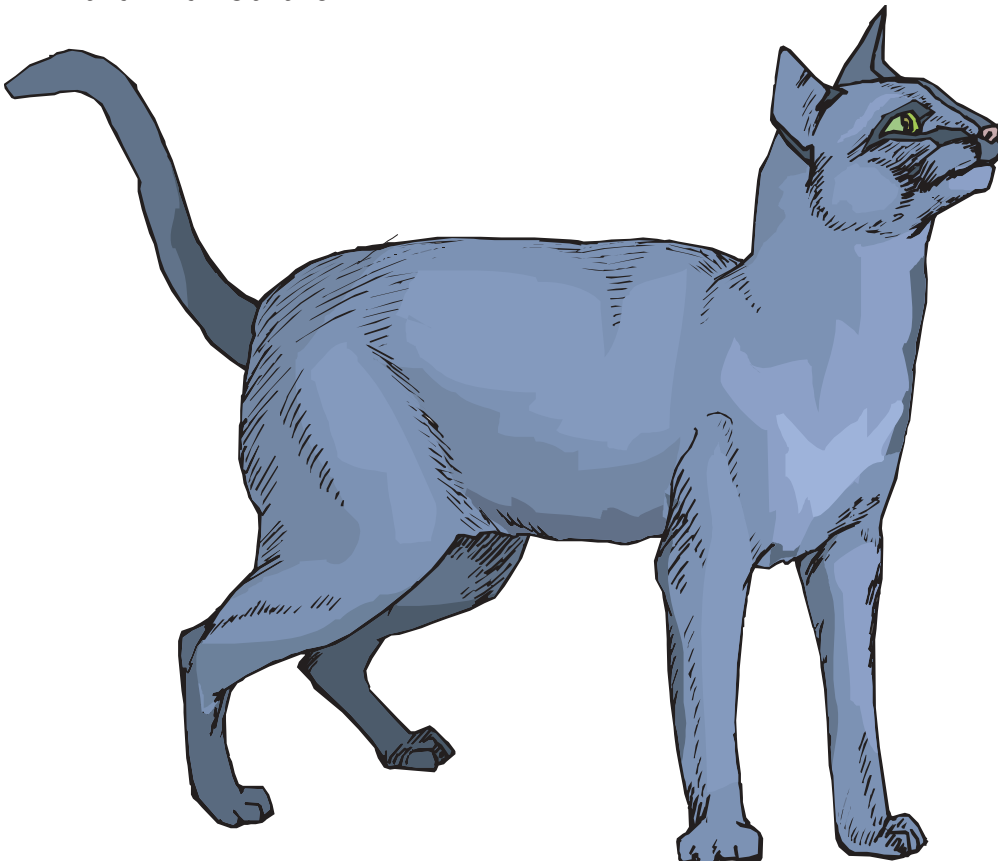
Cats are predators. But unlike some predators, scientists have found that a cat's desire to hunt does not stop when it is well fed. The instinct to hunt is stronger than hunger. Even when people feed their cats well, cats will continue to hunt.

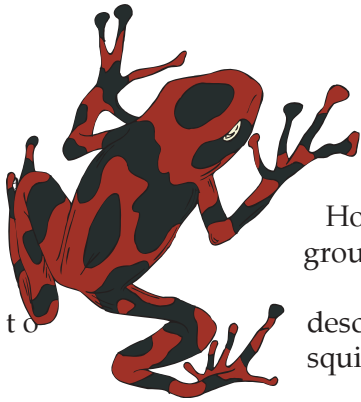
Cats also can out compete natural predators. People feed their cats, protect them from diseases and give them shelter. This makes cats stronger and sometimes healthier than native, wild predators. The more cats there are, the harder it is for hawks, foxes, coyotes and other native predators to find food.

The best thing cat owners can do for their cats and wildlife is to keep their cats indoors. Some people think bells will help stop their pet from killing wild animals, but bells usually don't help. Even if the bell does ring, it's usually too late for the animal being stalked.

Keeping your cat indoors helps protect wildlife and your cat. Outdoor cats may pick up diseases or get injured. The two most common causes of death for cats are diseases and cars. Cats allowed to roam outside have an average lifespan of five years. Cats kept indoors have an average lifespan of 17 years.

So keep your cat inside. You may be doing your cat and wildlife a favor.





A Cluster of Critters

You may know that deer hang out in herds, and a group of bats is called colony. But have you ever heard of a knot of toads or a murder of crows?

How about a kettle of hawks? The English language has hundreds of names for groups or collections of critters.

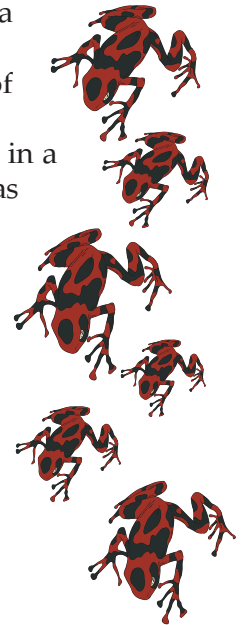
The names for groups of wildlife date back to the Middle Ages. Many names describe groups of animals were hunting terms. Hunters would pursue a dray of squirrels or a spring of teals.

There are many reasons why someone may have first chosen a particular name. The sounds the animals make – a murmuration of starlings. The animals’ homes – a nest of rabbits. What the gathering looks like – a knot of toads. A repetition of sounds the animal makes – a gaggle of geese.

Some names are mistakes. A school of fish was first called a shoal of fish. Fish gather in a shoal, a shallow place in a river or lake. A long time ago someone translated shoal of fish as school of fish, and the name stuck.

Here are some other animal group names. Can you think of more?

- Army of frogs
- Cete of badgers
- Covey of quail
- Cloud of gnats
- Gang of elk
- Hive of bees
- Leash of fox
- Tribe of goats
- Romp of otters
- Pack of wolves
- Charm of finches
- Descent of woodpeckers
- Hover of trout
- Raft of ducks

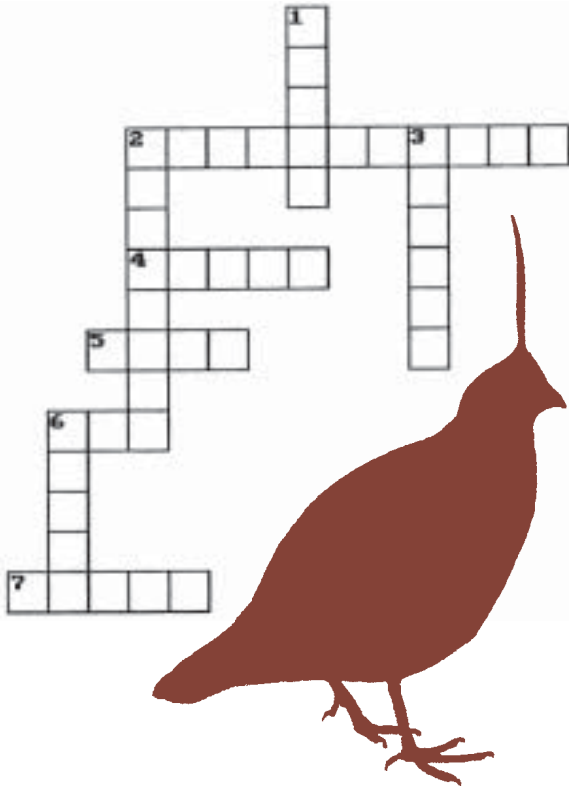


Home On The Range

Each month we will show you the geographical range or distribution of our featured animal in both Idaho and the United States. Because Idaho’s Mountain Quail range is so small, this month we are showing the entire U.S. distribution only.



A Quest for Quail



Down

1. A _____ is the long feather on a quail's head.
2. _____ quail are the largest quail in Idaho.
3. Mountain quail eat more _____ than anything else.
6. _____ telemetry is helping biologist learn about mountain quail.

Across

2. Mountain quail are _____. The males and females look alike.
4. Mountain quail may have two _____ with eggs in them at the same time.
5. Mountain quail are very _____ in Idaho.
6. Mountain quail _____ to get away from predators.
7. A group of quail is called a _____.

Words

Mountain
Covey
Rare
Plants
Run
Monomorphic
Nests
Radio
Plume

Express Yourself!

*Brown bears do not care
About their big rough Grizzly hair
Their claws are long, sharp, and strong
I would not want to surprise one!*

*Black bears have a cute muzzle
It feels soft when they snuggle
They search for berries everywhere
They do not ever share.*

*poem and art by Rachel Lierman
Ponderosa Elementary*



Ask your teacher for a list of animals that will appear in Wildlife Express this year and send us a poem about your favorite. We'll put one in each issue with your name and school. Send them to our address listed above.

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WE WOULD LIKE TO HEAR FROM YOU !

If you have a letter, poem or question for Wildlife Express, it may be included in a future issue! Send it to the address printed above!