

At the Animal Clean-Plate Club

by Alison Pearce Stevens

Do you have a favorite food?
Turn your nose up at anything new?
You're not alone.

There are plenty of picky eaters in the animal kingdom—and plenty of adventurous ones too! So how do animals choose what to eat?

For a mouse wandering around the forest, dinner might be seeds, or berries, or mushrooms, or beetles—whatever it can find on the forest floor. Eating a mix of food is a good strategy. It makes

it easier to get all the protein and energy and vitamins an animal needs.

And if an animal is willing to eat different things, it's less likely to go hungry. No berries today? Try a nice root! Still, there are some things a mouse won't eat. Wood, crocodiles, and poisonous mushrooms are never on a mouse's menu.



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Some animals, like these butterflies, dine on other animals' poop!

Most animals, like the mouse, aren't too picky or too adventurous. They eat different things, but mostly stick to their favorite foods, suited to their needs and where they live.

Mice are foragers—they wander around eating what they find, including seeds, berries, and roots.



Daily Specials

Many animals specialize a bit—they prefer to eat mostly meat, or mostly plants, or mostly insects. Animals that eat meat are called carnivores. But as long as it's meat, they will eat just about anything they can catch with their sharp claws and teeth. Since meat is easy to digest, carnivores have simple digestive systems. Of course, catching a meal can be hard work—no animal wants to become another's lunch. So meat eaters have to be fast and strong,

and they often go hungry.

Herbivores, on the other hand, eat plants. Some eat only a few kinds of plants, but others will munch on anything green. Plant eaters have big, flat teeth for grinding up tough stems. Their long guts are full of special bacteria to help them digest tough plant fibers. Some, including cows, have several stomachs. Cows chew and rechew their grass many times to completely digest it.

You can often tell
what an animal eats
by its teeth.

Omnivores have a
mix of different
kinds of teeth.

Carnivores' sharp, pointy
teeth are good for catching
and slicing meat.

Herbivores have
broad, flat teeth for
grinding up plants.

Rachel C from Scotland
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Denali NPS
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Bears eat berries in the
spring, fish when the
salmon run, nuts in the fall,
and nothing all winter,
when they're hibernating.



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Then there are the omnivores—they'll eat both meat and plants, and other things like insects and honey. Bears are omnivores—and so are we.

In a balanced ecosystem, there's an eater for every available kind of food. Sometimes, what and animal eats depends on who else is living in the same area. Small South American hoary foxes share a forest with larger maned wolves and crab-eating foxes. The big wolves and foxes hunt for crabs and mice.

The smaller foxes can't compete, so they have learned to eat termites and fruit instead. This lets them share the forest with their larger cousins.

Squirrels do love
nuts, but they
also eat fruit,
tree buds, and
mushrooms.



What Picky Eaters Pick

A few animals, like some people, are picky eaters. They just like to eat one thing. Take the koala, a cuddly Australian animal related to kangaroos.

Koalas live in eucalyptus trees, and all they eat for breakfast, lunch, and dinner are eucalyptus leaves. Eucalyptus leaves are not very nutritious. They are also full of a strong oil that smells like cough

drops. But koalas don't mind. They have evolved an ability to digest the eucalyptus oil, so they don't get stomach-aches. And since other animals avoid eucalyptus, the koalas have it all to themselves. They don't need to be fierce or fast to get a meal. That's a good thing—the leaves don't have much energy, so neither do the koalas. They spend 18 hours a day sleeping and digesting.

We usually think of picky eaters as wanting only the best or tastiest food. But among animals, the picky eaters often eat what other animals don't want. That means they can have all that food for themselves.

If you eat the same food all the time, you can be pretty sure it's safe and won't make you sick. Animals that eat just one thing can develop mouths or claws shaped to get that food very efficiently. But if you only eat eucalyptus, you need a lot of it! Picky eaters often require lots of space to graze in.

Koalas are not bears—they're marsupials, like kangaroos, with pouches to carry their young.

Rennett Stowe, CC BY-SA 2.0

Being too picky also has risks. If a tree disease or insects wiped out the eucalyptus trees, the koalas might go hungry.

Beautiful monarch butterflies are picky eaters too. Monarch caterpillars feed only on milkweed, which is full of poisonous white sap. But the poison doesn't hurt the caterpillars—it protects them. Birds quickly learn to leave the black-and-yellow caterpillars alone.

Because milkweed protects their caterpillars, monarchs only lay eggs on milkweed plants. And that can be a problem—as milkweed gets harder to find, fewer young monarchs are born.

The long, sharp beak of a Clark's nutcracker is just the right shape for digging out pine nuts==.



Picky eaters will often go to great lengths to get their favorite food. Clark's nutcrackers are birds that are nuts for pine nuts. If they collect more nuts than they can eat, they hide them for later. Nutcrackers can remember their hiding places for up to nine months, so they can munch on their favorite nuts all year round.

USFWS Midwest Region
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I Love Leftovers

Vultures are picky in a strange way: they don't care what they eat, as long as it's been dead a while. Vultures are scavengers, animals that like to eat what other animals leave behind. They play an important role in cleaning up nature's messes. Vultures are well adapted to their decaying diet. Ever smell a dead animal?

It stinks! Those smelly gases guide vultures right to the carcass. A curved beak helps them tear in



to get at the meat inside, and a bald head helps them keep clean. Rotten meat is crawling with germs that would make most animals sick. But a vulture's stomach is full of super-strong juices that kill nasty germs. And their intestines host microbes that knock out any germs that survive the acid.

Justin Dolske, CC BY-SA 2.0

Bring It On!

Some animals are the opposite of picky. They're willing to try just about anything that looks like it might be edible. Of course, many other animals are competing for the same food. But if you're willing to eat anything, you can always find a meal.

Adventurous eaters can be carnivores, herbivores, or omnivores. Some, like the monkfish, aren't very adventurous in other ways. The odd-looking monkfish lies on the ocean floor waving around a long, fat spine that looks like a worm. When a fish, squid, or other critter swims up to take a nibble, the monkfish opens its enormous jaws and sucks the visitor down—whatever it happens to be.

The praying mantis is an insect ambush hunter. Perching on a flower, the mantis looks like part of the plant. Large eyes track flies, bees, and wasps that come to sip nectar. When it spots movement, it darts out lightning-fast legs covered with spikes. Hungry mantids aren't



Try It, You'll Like It!

Just like humans, within any species, some individuals are more picky than others. Clark's nutcrackers mostly eat pine nuts, but some are happy to try a bug or frog once in a while. Others are more cautious and stick to nuts. Even among raccoons, some are more choosy about their trash. This range of eating styles is good for the species. Picky eaters are less likely to eat something dangerous, keeping the species safe. But their adventurous brothers and sisters might just discover something delicious everyone can share.

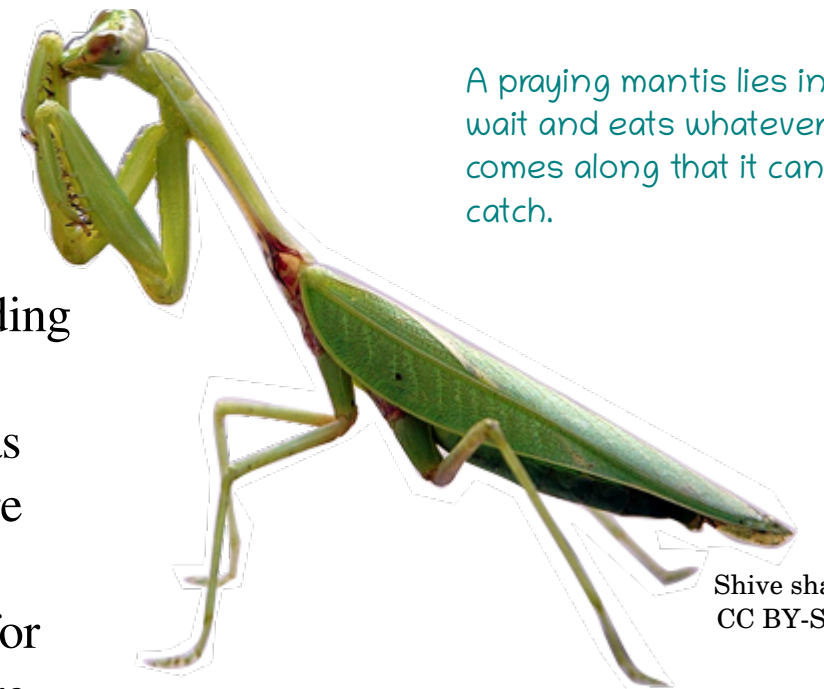
choosy—they have been known to catch and eat small lizards and even hummingbirds. Sometimes, they even eat each other.

The "try anything" approach to eating can be risky—there's always a chance that your meal may be poisonous or fight back. So adventurous eaters need to be tough, with mouths, stomachs, and claws that can handle a wide variety of food. And their gut bacteria need

to be strong.

But adventurous eating has many advantages. For one thing, it means you can live in a lot of different places—including cities! Some of the most successful city animals, such as rats, pigeons, and raccoons, are naturally curious and daring eaters. This has made it easy for them to move into cities, where they soon learn to like people food and trash.

Adventurous eaters can sometimes be a big problem. American bullfrogs, for example, will eat any critter they can fit into their mouths. Snails, insects, crayfish, spiders, leeches, tadpoles, and smaller frogs are all on the bullfrogs' menu. And that's not all! They will even eat mice, birds, bats, and small turtles. Although such a varied diet helps bullfrogs survive, it's bad news for other creatures when they move in.



A praying mantis lies in wait and eats whatever comes along that it can catch.

Shive shankar
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For every animal in every place, there's a different best way to eat. For some, it's better to corner the market on one favorite food. For others, it pays to eat what no one else wants, or to eat anything and everything. There are plant lovers and meat lovers and those that like both. but they all agree, the best time of day is—dinner!



American bullfrogs are the largest frogs in North America, with an appetite to match.

Carl D. Howe
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