Because mountain and desert cottontails often live in similar habitats and have similar physical characteristics, the species are extremely hard to tell apart. Photo by Rhiannon Jakopak.

Curious about cottontails?

Every now and then, I open my front door just as the morning light meets the lavender and currant in my yard to witness a cottontail nibbling on their leaves. It's not long before the brown ball of fluff darts away, since an open door at my house is typically followed by energetic dogs. Although usually brief, encounters with cottontails always put me in a curious mood.

I see these animals every day—bounding across the street as I bike to work, reaching for grass in the alley as I come home from buying groceries—but even for a careful observer, it's nearly impossible to identify them by name.

Types of cottontails

Wyoming is home to three closely related species of cottontail rabbits: the desert cottontail (*Sylvilagus audubonii*), mountain cottontail (*Sylvilagus nuttallii*), and eastern cottontail (*Sylvilagus floridanus*).

These species are exceedingly hard to tell apart, even if you know the range, physical descriptions, and ecology of each species. Perhaps I should be satisfied with knowing that my front yard visitors are cottontails, but something in me is amazed that animals considered so common can also be so mysterious.

Range maps are usually the go-to identifier for distinguishing between species, but this technique has limited applicability in a quest to tell the difference between Wyoming's cottontails.

According to range maps and distribution models available through the Wyoming Natural Diversity Database, mountain cottontails can be found throughout much of Wyoming, excluding the farthest northeast and southeast corners of the state. This species often overlaps with desert cottontails, which can be found throughout the state outside the Greater Yellowstone ecosystem.

Their names might suggest that mountain cottontails are found in the mountains and desert cottontails in the desert, but both species can be found in a wide variety of habitat types and across elevations.

Eastern cottontails are currently only found in the eastern part of the state. If you see a cottontail west of Worland, Riverton, or Rawlins, you are likely not looking at an eastern cottontail. However, if you're in Casper, all bets are off, and you might be looking at any one of Wyoming's cottontails.

Physical characteristics

Physical attributes are typically helpful in telling even closely related species apart. For example, white-tailed deer (*Odocoileus virginianus*) and mule deer (*Odocoileus*

hemionus) have similar overall physical characteristics, but can be easily distinguished based on the color and shape of their tails.

It's not so simple for Wyoming's cottontails. They all have white cottony tails, and the backs of all three species are covered with light brown fur, with rusty patches on their front legs and around their neck.

Steven Buskirk's *Wild Mammals of Wyoming and Yellowstone National Park* asserts that the eastern cottontail has more brown on its back than the other species, but the fur of mountain and desert cottontails are too similar to be useful in telling them apart.

The other physical differences between cottontail species are relatively minor, and are challenging to use for identification purposes without a long, careful look. Desert cottontails have longer ears than the other two species, and mountain cottontails have more fur on the insides of their ears than desert cottontails, but without a side-by-side comparison, these differences are difficult to detect.

Subtle differences

There are overwhelming similarities between the three species, but they are distinct in their own right, and the differences serve as clues (even if the mystery can't be solved definitively most of the time).

Eastern cottontails weigh the most, followed by desert and then mountain. When combined with sex, measurements of the tail, hindfoot, body length, and ear can be useful in differentiating between the species. Some skull characteristics can be used to tell the difference between the species, although those differences are of course hard to see outside of museum collections or for a hunter who has carefully cleaned their harvest.

Different types of cottontails have also been known to use habitat in slightly different ways. Mountain cottontails, for example, tend to prefer areas with more rocks than the other species.

Naturalists, scientists, and other curious observers have been documenting the differences between species for hundreds of years. If we know what species an animal is, we have access to an incredible amount of information. We know that the animal is distinct enough from other similar creatures that it warranted its own category, and we might even catch a glimpse of the animal's history.

For a casual observer, it's hard to catch a glimpse of a cottontail's history because it can be so challenging to tell the species apart. Can we still build a relationship with an animal that defies the categorization and organization that we humans crave?

In the case of cottontails, we may have to be content with uncertainty. Besides, isn't there something compelling about a mystery in your front yard?

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Cottontail trivia

- Males are called bucks, females are called does, and young are called kits or kittens.
- Typically short-lived, with maximum lifespan between 3 years in the wild and 8 years in captivity.
- Gestation period is 28 to 30 days.
- Give birth to 3 to 5 kits per litter, and 3 to 4 litters per year. Kits are weaned after a couple weeks.
- Primarily eat grasses, but can eat other vegetation as well.
- Eat their own feces (coprophagy) to gain extra nutrients from their food.
- Predators include red foxes, coyotes, raptors, and bobcats.
- Weigh between 1 and 3 pounds, depending on species, sex, and age.
- Can reach speeds of 15 miles per hour as they zigzag to avoid cover.
- Most active around dawn and dusk (crepuscular).

Sources of information:
Animal Diversity Web, located at animaldiversity.org, and *Wild Mammals of Wyoming and Yellowstone National Park* by Steven Buskirk.