

Rabbits Aren't Rodents

Explore the differences between rabbits and rodents

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Posted: September 15, 2008, 5.a.m. EDT

How could you mistake this rabbit for a rodent?

It all started with the swat of a broom and an old woman standing helplessly on a chair in the middle of a perfectly sterile kitchen (at least as sterile as it could be until a "rodent" graced its floor). My quest for the discovery of the distinction between what is a rodent and what's not became apparent with one broom swoop as my friend's mother yelled, "Get that rodent out of my kitchen!" Meanwhile, my friend's lop-eared rabbit, Charlie, hopped along the edges of the freshly swept floorboards to avoid the undeserved assault. Because Charlie had whiskers, large eyes, big ears and a tail, he was instantly perceived as the ultimate enemy to sterile kitchens everywhere: a rodent.

Ten years later, I heard rodents and rabbits mixed up again as I stood in the check out line at a rural plant nursery. Another patron stood nearby, browsing pest control products while complaining about the lettuce crops she had lost to the "verminous rodent" known as the feral rabbit. The nursery's owner gently comforted her, noting that rabbits are nothing more than "rodents with fluffy tails."

Rabbits can't get a break from being labeled as rodents. In plant nurseries, kitchens and petting zoos, the rumor remains that rabbits are rodents. Could this be right? Is it really true that the sweet house rabbits that hop around my apartment are nothing more than "rodents with fluffy tails?" In the defense of Charlie and house bunnies everywhere, I had to seek the truth and answer the question that had been on my mind since Charlie met the working end of a broom: Are rabbits really rodents?

My first step was reading science books, where I discovered that rabbits and rodents have some things in common. Both have fur, short breeding cycles and have multiple young born live that feed on milk. They also lack canine teeth and have continuously growing teeth, which include sharp incisors used to cut through tough stems and leaves. Because of these similarities rabbits and rodents were thought to be under the scientific order Rodentia, an order that contains more than 40 percent of all mammals. The scientific community originally placed rabbits under the order Rodentia until 1912, when James Williams Gidley, a U.S. paleontologist, recommended that rabbits be placed in their own distinct scientific order: Lagomorpha. Gidley proposed that rabbits and rodents are in separate orders because of a few anatomical differences.

After Gidley's proposal, scientists dug deeper to find the physical differences between rabbits and rodents. Among these differences, they found that rabbits have unique nutritional needs. For example, rabbits are herbivores, while rodents are capable of eating vegetation, grains, insects and even meat. Unlike the majority of rodents, rabbits are considered cecal digesters — they have a large intestine connected to a secondary "stomach" known as a cecum, which contains special bacteria that help break down plant material. This rare digestive organ allows rabbits to survive on a diet choc-full of plants and stems that would normally be indigestible to other mammals. But this unique digestive system is not special to rabbits, some rodents also have a cecum, such as guinea pigs and chinchillas.

Because rabbits are herbivores and endure living in areas with poor or rough vegetation, rabbits have distinctive teeth. According to Gidley, one of the key differences between rabbits and rodents is hidden behind the rabbit's upper incisors, wherein lies a small rod-like tooth that helps the lower incisors cut tough vegetation. Rabbits also have more teeth than rodents. They have two upper incisors and two lower incisors, while rodents only have a total of two incisors.

Along with a different dental system, the male rabbit's reproductive organs are also different than the male rodent's. The male rabbit's testicles are located in front of its penile region, unlike rodents. Also, the male rabbit's penis doesn't contain a bone (known as the baculum) while the rodents do.

After much research on the skeletal, dental and muscular differences between rabbits and rodents, the scientific community now doesn't even recognize rodents as close relatives to the rabbit.

Despite these physical differences between rabbits and rodents, many people still equate rabbits to rodents because of the vast amount of economic and structural damage they cause. Rodents are a problem to mankind because they spread disease, destroy items in storage, eat valuable crops, damage building structures and consume the grain stored in grain

silos that is meant for human consumption. And every year, wild rabbits also cost agricultural industries around the world millions of dollars in damage to crops and ornamental plants. The destruction that wild rabbits cause is such a problem in Australia that the Australian government introduced the diseases myxomatosis and calicivirus to eliminate feral rabbit populations.

Similar problems have happened in the United States, as shown in one Southern California community where feral rabbit populations have exploded due to the number of people abandoning pet rabbits in one particular area. As a result, the feral rabbit colonies have dug underground tunnels (known as warrens) under buildings such as schools, businesses and homes. The warrens are damaging the foundations of buildings, causing the ground to sink and leading to millions of dollars worth of damage.

Now, my quest to find the truth for Charlie and rabbits everywhere has come to an end. Rabbits are not rodents. They are just another misunderstood mammal that is often mistakenly finds itself in an incorrect order. Rabbits and rodents do cause problems for mankind and they do have many physical attributes in common but, as science has shown, they aren't the same. So next time you find yourself calling a rabbit a rodent, think again.