



Chickens! What, Where, and How

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<https://youtube.com/watch?v=JCbAr6Yc15g>

<https://nerdfighteria.info/v/JCbAr6Yc15g>

How much do you know about chickens? You might think it's a lot, but most peoples' knowledge of chickens barely scratches the surface. Let's get to know these interesting birds by learning what they are and where they come from.

(Intro)

What's a chicken? This is a chicken. We can get to know more about what they are by classifying them. Here are the main groups. Kingdom Animalia, phylum chordata, and class aves. Aves is the class that encompasses all avian dinosaurs, or in other words, birds. They are endothermic vertebrates covered in feathers with a toothless beak. They lay hard-shelled eggs, have a four-chambered heart, and have a strong, yet lightweight skeleton. They're in the order Galliformes, which includes five families of heavy bodied, ground feeding birds like turkeys, guinea fowl, jungle fowl, pheasants, and (?~0:54). This group of birds is often called 'game birds' or just 'fowl'. Their family is phasianidae, which includes the most popular game birds like turkeys, chickens, grouse, and quail. They're in the genus gallus, which is Latin for rooster. All of the birds in this group are called 'jungle fowl' and the four living species are native to India, Sri Lanka, and Southeast Asia. The males have colorful plumage and play no part in the rearing of their young, while females have less vibrant coloring to maximize camouflage while incubating their eggs.

This leads us to the subspecies gallus gallus domesticus, or our modern day chicken. Alright, now that we know what chickens are, I'm dying to tell you how this became such a major part in human's lives. Let's learn about where these amazing birds came from. Did you notice I mentioned dinosaurs before? That's right, chickens are descendants of the group of dinosaurs called theropods, which includes tyrannosaurus rex. DNA-based evidence shows that birds diversified dramatically after the time of the cretaceous-palaeogene extinction event, which killed off all the other non-avian dinosaurs.

The earliest (?~1:55)-like, or you could say chicken-like, fossils were from the late cretaceous period, about 85 million years ago, and fossils from the order (?~2:03) date back to 30 million years ago. Scientists haven't pinpointed exactly when chickens became domesticated because it probably happened gradually, possibly several times over hundreds or even thousands of years.

Let's fast forward to about 5000 BCE. Jungle fowl were roaming the mangroves and scrublands of India and China and the males were often seen fighting furiously using the bony spurs on their backs of their legs. This is a natural behavior for the males and it's quite a big event. The spectacle drew the attention of humans who began to make bets on who would win the confrontation. The interest in the fights between wild male jungle fowl is the most likely reason for the domestication of chickens.

Of the four species of jungle fowl, our story centers around the red jungle fowl, gallus gallus, because they are the predominant origin of our modern-day chickens. However, DNA evidence shows that the grey jungle fowl, gallus sonneratii, also had some contributions, meaning that domestic chickens are a hybrid of these two species. Chickens mainly get their vocalizations, the crowing, and their plumage from the red jungle fowl, while they get their yellow legs from the grey jungle fowl.

In 2004, geneticists produced a complete map of the chicken genome. This revealed that some interesting mutations in their genes have occurred over their long history being selectively bred by humans. Some chickens have a mutation in the gene that regulates glucose metabolism, which causes them to become obese, which is desirable if they're being bred for consumption. Others have a mutation in the thyroid stimulating receptor gene. In the wild, this gene would coordinate egg-laying with length of day,

so they would only reproduce during the ideal season for raising young. The mutation enables chickens to lay more often, and when selectively bred for this trait, chickens can lay eggs all year long, but why do they lay so many infertile eggs?

Well, that's because fertilization doesn't happen until the egg is mostly formed, so hens that have the mutation in their thyroid stimulating hormone receptor gene continue to form eggs throughout the year. Whether they're fertilized depends on if a rooster is present or not.

With the next generation being bred so rapidly, new mutations quickly became apparent, especially color, shape, and size. Hardier chicken breeds were shaped and this once-tropical bird could now survive in much colder temperatures. Domesticated chickens are kept by households all over the world, some use them for consumption or egg-laying, some cultures still use them for sport fighting, while others keep them as pets.

Whatever the reason they are being cared for in captivity, they have specific needs to live a happy and healthy life, and now we've come to the part where we usually talk about how we can give them the best care possible. There are so many different breeds of chickens. Some are sensitive while others are hardy. Some are bred specifically for egg-laying or consumption, while others are bred to be very good looking. Because of all the possible variations, the best place to get information on their care in captivity is through written articles or longer videos that can go into detail about all the distinctions.

Instead of going into it here, I'm going to give a few recommendations for videos and articles that give great advice on how to care for chickens. I've put the links in the description below. I will leave you with this important consideration. If you decide to take on the responsibility of caring for chickens, do it with the intention of giving them a good life, where they will be happy and healthy.

I hope you learned something new about chickens today. Isn't it awesome that we get to walk the world alongside dinosaurs? If you enjoy meeting animals and learning new things about them, you can help us continue to make educational videos by becoming a monthly supporter at patreon.com/animalwonders and if you'd like to go on an adventure with us every week, subscribe to our YouTube channel AnimalWondersMontana.

Thanks.

(Endscreen/Credits)

She's a very sweet girl and we've had years to build up our trust bond so sometimes, she lets me hold her on her back.