

Origin of domesticated chicken identified

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A very large international team of researchers has identified the origin of the domesticated chicken. In their paper published in the journal *Cell Research*, the group outlines the extensive genetic study they conducted and what they learned from it.

Until now, the origin of the domesticated chicken has remained up for

debate, though most in the field have suspected that it got its start somewhere in China (sometime around 7500 B.C.E.) and involved one or more subspecies of red jungle fowl. In recent times, researchers claim to have found evidence of the [birds](#) originating in northern China and the Indus Valley. The researchers with this new effort contradict that finding, reporting evidence of an origin in southwestern parts of China, northern Thailand and Myanmar. In either event, once the bird was domesticated, all agree it was transported and bred on every continent except Antarctica.

Understanding chickens is important: they not only represent the most populous bird (they outnumber other species by a very large number) but they also represent the single largest source of animal protein in the human diet. They have also played a major role in human migration history.

The new study involved collecting and sequencing 863 genomes in all: of that total, 787 involved whole genome sequencing, 162 of which were from domestic chickens. Also, 142 of the specimens came from birds representing all of the subspecies of red jungle fowl. And 12 were from green jungle fowl, two were from gray jungle fowl and four were from Ceylon jungle fowl.

The researchers were able to use the resulting data to piece together the place where chickens were first domesticated: southwestern parts of China, northern Thailand, and Myanmar. They also found that the birds that eventually became the modern domestic [chicken](#) were originally a red jungle fowl subspecies called *Gallus gallus spadiceus*. The data also showed that after the birds were carried off to other parts of Asia, they were bred with other red jungle fowl and also other [jungle](#) fowl species. The researchers also found that domestic chickens diverged from *Gallus gallus spadiceus* between 9,500 and 3,300 years ago, which was much later than the time when first domestication began.

More information: Ming-Shan Wang et al. 863 genomes reveal the origin and domestication of chicken, *Cell Research* (2020). [DOI: 10.1038/s41422-020-0349-y](https://doi.org/10.1038/s41422-020-0349-y)

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