

ORIGIN and EVOLUTION of Birds

The evolution of birds is thought to have begun in the Jurassic Period, with the earliest birds derived from theropod dinosaurs. Birds are categorised as a biological class, Aves. The earliest known species of class Aves is

*Archaeopteryx lithographica*, from the late Jurassic period, though *Archaeopteryx* is not commonly considered to have been a true bird. Modern phylogenies place birds in the dinosaur clade Theropoda. According to current consensus, Aves and ~~Crocodylia~~ *Crocodylia* order Crocodylia, together are the sole living members of an unranked "reptile" clade, the Archosauria.

Phylogenetically, Aves is usually defined as all descendants of the most recent common ancestor of a specific modern bird species (such as the pair *Passer domesticus*) and all either *Archaeopteryx*, or some prehistoric species closer to neornithes, and in latter classification is case in a larger group called Avialae.

The basal bird *Archaeopteryx*, from the Jurassic, is well known as one of the first "missing links" to be found in support of evolution in the late 19th century though it is not considered a direct ancestor of modern birds. *Confuciusornis* is another early bird. It lived in the Early Cretaceous. Both may be predated by *Protoavis leverensis*, though the fragmentary nature of this fossil leaves it open to considerable doubt if this was a bird ancestor. Other Mesozoic birds include the *Confuciusornis*, the *Fuwaornithus*, *Xanornis*, *Ichthyornis*, *Cyanus* and *Hesperornithiformes*. A group of flightless birds