


Some of the most iconic dinosaurs are the sickle-clawed 'raptors' like *Velociraptor*.

Made famous by Jurassic Park, *Velociraptor* and its cousins are known for their size, intelligence, and voracious appetites, but the real animals were a far cry from their movie counterparts. Most raptors were pretty small, about the size of chickens and turkeys, and every single one was feathered. Their retractable foot claws were probably not used to create long bleeding wounds, but instead may have helped anchor their feet into struggling prey.

They're important to paleontologists for their central place in understanding the origin of birds. When John Ostrom discovered the nearly identical hand and wrist bones in the dinosaur *Deinonychus* and the 'first bird' *Archaeopteryx* in 1970, he revived the theory that birds are dinosaur descendants and helped usher in a period of renewed scientific interest in dinosaurs called The Dinosaur Renaissance.



Deinonychus, the clawed predator that sparked the Dinosaur Renaissance.

ARTWORK BY
Julio Lacerda



TOP

Velociraptor was a swift turkey-sized dromaeosaurid that lived in the arid Mongolian landscape over 71 million years ago.

ARTWORK BY

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Dozens of species of raptors, technically known as **deinonychosaurs**, have been discovered through the years. They fall into two main lineages, the **troodontids** and the **dromaeosaurids**.

Troodontids are known from Jurassic and Cretaceous rocks in Asia and North America. **Dromaeosaurids** are known from more species and more places, and they had a greater variety of shapes and sizes.

This issue of the Discovery Collection takes a look at some of the incredible diversity in size and habits of the raptors. They include the short-snouted troodontid *Albertavenator* and giant Alaskan Troodon.

Dromaeosaurids are represented by the long-legged, four-winged *Zhongjianosaurus*, the cormorant-mimicking *Halszkaraptor*, and the bear-sized *Utahraptor*.

Each is from a unique branch of the deinonychosaur family tree and occupied a different ecological niche, showcasing the diversity of ancient raptor dinosaurs.

Eudromaeosaurs were larger hunters of terrestrial prey with shorter feet and longer sickle claws known from northern continents.

Dromaeosaurines were usually bigger and more robust than **velociraptorines**.

THE FAMILY TREE

Eudromaeosaurs

Dromaeosaurids

Deinonychosaurs (Raptors)

Microraptorians were small gliders that used long foot and leg feathers to create a second set of wings, mostly known from Asia.

Unenlagines are long-snouted wading raptors known mostly from South America and the semi-aquatic fishing **halzskaraptorines** are known from Asia.

ARTWORK BY
Julio Lacerda



Troodontids like *Zanabazar* (left) and dromaeosaurids like *Deinonychus* (right) have a lot in common like fully feathered bodies, clawed wings, and sickle claws, but the two lineages have some significant differences.

Most dromaeosaurids, especially the eudromaeosaurs, were larger and beefier, with shorter feet and larger sickle claws. They also had larger, curved, blade-like teeth and were probably totally carnivorous and focused on animals about their own size.

In general, troodontids were smaller and lighter hunters with longer feet and smaller sickle claws on their toes. They also had leaf-shaped teeth and were probably omnivores that focused on chasing smaller prey.