

Lesson 22: Cretaceous Period

The **Cretaceous** Period, from about 145 to 66 million years ago, was the last and most spectacular chapter of the dinosaur age. Tyrannosaurus rex, Triceratops, and Velociraptor all lived during this time, in a world that was warm, largely ice-free, and extraordinarily diverse. The continents had drifted further apart, so dinosaurs on different landmasses evolved in different directions, producing the richest variety of dinosaur life the world had ever seen.

But the most transformative event of the Cretaceous had nothing to do with dinosaurs. It was botanical: the rise of the **angiosperm**, the flowering plant. For most of Earth's history, plants reproduced using spores or cones, relying on wind to carry pollen. Flowers changed everything. A flower offers a reward, nectar, pollen, to any creature that visits it. In return, that creature carries pollen from flower to flower, far more reliably than wind ever could. This partnership between plants and their **pollinators**, the insects and other animals that carry pollen, is one of evolution's greatest relationships, and it worked so well that flowering plants spread and diversified faster than any plant group before them.

This is called **coevolution**, when two species shape each other's evolution as they adapt to each other over millions of years. Flowers became more elaborate to attract the pollinators that served them best. Bees and beetles evolved to be better at finding and using flowers. Each drove the other forward. Fruits evolved too, nutritious packages around seeds, designed to be eaten by animals that would carry the seeds somewhere new in their digestive systems. The relationship between flowering plants and animals reshaped entire **ecosystems**, making them richer and more interconnected than anything that had existed before.

The Cretaceous world was, in many ways, the most complex and interconnected Earth had ever produced. New flowers everywhere. New insects. Dinosaurs evolving alongside the new plant life. And in the undergrowth, small fur-covered mammals watching, waiting, living carefully. They had been waiting for a very long time. Their moment was coming.