

Section 2: Fossil Spiders

by Paul Selden

Department of Earth Sciences, University of Manchester, U. K.

The oldest fossil spider known is *Attercopus fimbriungis* Shear, Selden & Rolfe, 1987, which is known from Devonian strata, some 380 million years old, from New York. Though known only from scraps of cuticle, but including all legs, chelicerae and spinneret spigots, *Attercopus* shows features more ancient in origin than the primitive Mesothelae. A true mesothele is known from Upper Carboniferous rocks (about 300 million years old) of France. *Eothele montceauensis* Selden, 1996, shows features remarkably similar to living *Liphistius* of south-east Asia, including a segmented abdomen, anterior median spinnerets, two book lung opercula and a narrow sternum. The oldest araneomorph and mygalomorph spiders are found in rocks of Triassic age (about 240 million years old). The Triassic mygalomorph *Rosamygale grauvogeli* Selden & Gall, 1992, belongs in the extant family Hexathelidae. Certainly by about 140 million years ago during the Cretaceous period, both cribellate and ecribellate orb weavers were present, alongside the dinosaurs (Selden, 1989).

By far the largest number of fossil spiders comes from amber deposits of Eocene and Oligocene age (about 40 million years ago). The most famous amber deposits occur in the Baltic region of Europe and in the Dominican Republic. However, amber of Eocene age has been mined in Myanmar and has yielded a great variety of insects and a few arachnids. Cockerell (1920) mentions pseudoscorpions and a few, small spiders.