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Invertebrate of the Month

August 2009



Ancient Spiders

Spiders can be divided into two distinct groups: the Araneomorphs, or modern spiders and the Mygalomorphs, or primitive spiders. Trap door spiders (pictured here) are Mygalomorphs. One of the many features which distinguish them from their more modern relatives are two pairs of book lungs which can be seen as the four pale patches on the underside of the abdomen (above right). These organs are used by the spider to breathe and transport oxygen from the air to the spider's blood and organs. Modern Araneomorphs use a slightly different system to breathe. Unlike modern spiders, which die after about a year, Mygalomorphs can live for up to 25 years, and some don't reach maturity until they are about six years old. Some endoparasites of these spiders may remain dormant in the book lungs for as long as 20 years before completing their life cycle. In the spider pictured above, a colony of mites have taken up residence in the centre of the spider's cephalothorax (above left). For them it's a good long term choice for accommodation and will see them through many generations.