



Summary of Late Devonian Fish and Early Tetrapods

Acanthostega is best known from Late Famennian (363 million years ago) deposits from East Greenland. *Acanthostega* had many fish-like characters, including gills and a lateral line system. However, it also had legs and feet rather than fins.

Fossils of *Elginerpeton* come from the Late Frasnian (368 million years ago) in Scotland and species have been described from fragments of the shoulder and hip, a femur (upper hind limb), tibia (lower hind limb), and fragments from the upper and lower jaw. *Elginerpeton* is considered one of the earliest tetrapods.

Elpistostege is part of the Miguasha fish fauna from the Escuminac Formation, recovered from late Givetian and early Frasnian deposits in Quebec, Canada, which date to 378 million years ago. *Elpistostege* was originally identified as an early amphibian. However, the discovery of additional fossils, including a partial skull roof and other dermal elements associated with vertebrae and scales, led to it being classified with lobe-finned fish such as *Panderichthys*.

Eusthenopteron, another lobe-finned fish, is known from several species that lived in the late Devonian, 380 million years ago. Specifically, hundreds of fossils have been recovered from the Frasnian Escuminac Formation of Quebec, Canada.

Glyptolepis is a type of coelacanth. Two species of this porolepiform lobe-finned fish (crossopterygian) have been described from Orkney, an island group in northern Scotland. One species, *Glyptolepis leptopteris*, is found only in sediments of the Sandwick Fish Bed, from the middle Eifelian of the Devonian. The second species, *Glyptolepis paucidens*, occurs in the sediments above Sandwick Fish Bed, and lived through the middle of the Givetian.

Ichthyostega was recovered from Upper Famennian deposits in eastern Greenland, dated to 363 million years ago. It had an extensively ossified spine, exhibiting longitudinal differentiation, indicating the possibility of flexion. *Ichthyostega* also had robust limbs and girdles and a rather conventional foot containing five digits. However, like *Acanthostega*, it is considered an aquatic tetrapod, exhibiting a unique form of terrestrial and/or shallow water locomotion.

Panderichthys has been described from a series of fossils including snout fragments, an incomplete jaw, and vertebrae. Fossils have been recovered from the Late Givetian and Early Frasnian (378 million years ago) in Latvia. *Panderichthys* did possess lobe fins; however, the skull is more similar to early tetrapods and it inhabited either calm fresh water or shallow tidal flats.

Specimen of *Sauripterus taylori* have been collected from the Famennian Catskill Formation in Pennsylvania, NA. *Sauripterus* is a rhizodontid fish that inhabited freshwater ecosystems.

Tulerpeton, also from the Late Famennian (363 million years ago), was recovered from the Tula Region of Russia. Species were described from a nearly complete pectoral girdle, forelimb and hindlimb, as well as fragments from the skull (premaxilla and vomer), and numerous small belly scutes. Of interest is the discovery that *Tulerpeton* had six digits on the front and hind limbs.

For more information, check out these links:

<http://www.devoniantimes.org>

<http://www.tolweb.org>

<http://www.fettes.com/Orkney/Fossils/Crossoperigians.htm>