Devonian Fact File

Rhynia
This plant is another early pioneer of life on land, reaching the (then) giant size of nearly 30cm high!

***Rhynia* on the rampage**
Although superficially similar to *Cooksonia*, this plant had a very different growth pattern. A strong, robust stem snaked over the ground, growing root hairs where it came into contact with the ground. These hairs were each formed from a single cell, and allowed the plant to take up water wherever it could. The ground-hugging stem had frequent branches springing up from it and surging upwards to the sunlight, forming large stands of *Rhynia* in one place and crowding out any competitors.

To keep the pressure up, *Rhynia* seems to have carried a lot of sporangia at the tips of those upright branches, and could probably produce a lot of spores at once. However, how *Rhynia* managed to reproduce is still a matter for speculation as no 'baby' plants have been found.

The basic body
Like its contemporary, *Cooksonia*, this plant had no leaves, roots or seeds. Instead, each stem was capable of photosynthesis, and carried a thick cuticle and stomata to allow it to 'breathe'. The details of *Rhynia* are fairly well known as many pieces of it have been recovered from a village in Scotland called Rhynie (the plant is named after this village). In the Silurian here, hot volcanic pools splashed silica-rich water onto the plants growing around them, entombing them in silica and preserving them down to the very cells they are made of. In fact, some of these fossils are so detailed, it has been proposed that *Rhynia* may have had a symbiotic relationship with an early fungus to help it gather more food – many of the fossil *Rhynia* stems are riddled with fungal threads.

If this is not the case, then the plant had one more ace up its sleeve. Some of the upright stems show that they were growing adventitious roots (roots growing from the stem or other bits of a plant you don't expect them to). These fine, single-celled roots on the stem may have been there to help *Rhynia* absorb even more water – this time from the atmosphere as well as from the soil.

See also: Cooksonia