off the fence.

Plants Behaving Badly

2 x 60'

EPISODIC BREAKDOWN

1. Orchids: Sex and Lies

Darwin's book 'On the Origin of Species' shook the scientific world and far beyond. Yet it was his next book, devoted entirely to orchids, which filled in gaps and firmed up his revolutionary ideas. Orchids have an ethereal beauty, whether growing hundreds of feet up in a misty rainforest or along the verges of busy suburban roads. But their exotic flowers are shaped for just one purpose – to draw in pollinators. Many use sex as a lure, by impersonating a female bee or wasp.

Orchids produce thousands of seeds, which are so small that they contain no food reserves. They can only germinate with the help of specific fungi in the soil. In the past, this made orchids hard to grow from seed, a problem now solved by hi-tec labs. This means that some of the rarest can be re-introduced to old haunts. These projects are carried out in such secrecy, it's like something from a spy movie.

2. Carnivorous Plants: Murder and Mayhem

Charles Darwin was fascinated by the extraordinary behaviour of carnivorous plants and we now know that he barely knew the half of it. Recently scientists have shown that many more plants are carnivorous than we ever thought. Welcome to the world of killer tomatoes and murderous potatoes.

But even the more obvious carnivorous plants- sundews, flytraps and pitchers - are revealing new behaviour. Scientists have finally worked out how the Venus flytrap can close its trap so quickly and discovered an underwater relative- the waterwheel plant- that is even more amazing.

Pitcher plants sometimes need to form partnerships with insects. Mosquito larvae live inside North American pitchers, where they break up drowned prey and help the plant digest it. But in Borneo, one giant pitcher has formed a remarkable relationship with one species of ant. The pitcher has swollen tendrils, to house the ants. The ants dive into the pitcher fluid to retrieve drowned insects to feed on- but in tearing these up they also help the plant digest the prey.

In the same place several pitchers have given up carnivory. The pitcher lids secrete nectar, which attracts tree shrews, and the pitchers are shaped in such a way that they catch the droppings of the tree shrew. The plant absorbs nutrients from these. Carnivorous plants have featured in many Sci-Fi films over the years, but the reality turns out to be far stranger than the fiction.