Two groups of plants exhibit such intriguing behaviour that a century and a half ago they attracted the attention of Charles Darwin. These same plants, the orchids and the carnivorous plants, still fascinate scientists today. In two one-hour films, 'Plants behaving badly' reveals a world of deceit and treachery worthy of any fictional thriller.

## Part 1: ORCHIDS

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 clarified 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 seduce 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-tech laboratories. This means that some of the rarest plants can be re-introduced to old haunts. However, these projects are carried out in such secrecy, it's like something from a spy movie.

## Part 2: CARNIVOROUS PLANTS

Scientists have recently shown that many more plants than we had ever thought are carnivorous. Welcome to the world of killer tomatoes and murderous potatoes! Even the more well-known carnivorous plants—sundews, flytraps and pitchers—are revealing new behaviour. 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. In Borneo, one giant pitcher has formed a remarkable relationship with a single 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. Carnivorous plants have featured in many sci-fi films over the years, but the reality turns out to be far stranger than the fiction.





## **BEHAVING BADLY**

2 × 53 min.

Written and directed by Steve Nicholls

HD, 5.1 and Stereo Executive producers: Martin Mészáros, Sabine Holzer

