

Animal, Vegetable or Fungus?

June 2005

Something macabre is happening beneath the soil under Black Wattle (*Acacia mearnsii*) trees. A few months ago some large moth larvae buried in the soil came in contact with spores from a fungus. The fungus then grew inside the caterpillars, gradually consuming all the internal organs until only the external skins were left. When conditions are right the fungus will grow a stem, usually from the head of the hapless caterpillar. This will grow up towards the soil surface, through the tunnel prepared by the victim before it was infected, in preparation for its own emergence.

At the surface the fungus will produce a club shaped “finger” about eight centimetres tall. The colour is at first a greyish green, which darkens with age. This is the spore producing body of the fungus. The club shape gives it its scientific name of *Cordyceps*, which means club shaped head.

If one digs carefully it is possible to extract the whole fungus with the dried remains of the larva intact. In earlier times this curiosity was taken to be evidence of a transformation from plant to animal and the name Vegetable Caterpillar was given to it.

There are several kinds of *Cordyceps* in Victoria, each favouring its own host. Some parasitise beetle larvae, others grow on adult insects. Every kind of *Cordyceps* has its own distinctive shape and colour.

The moth that is most commonly affected in our area is the same one that emerges in autumn in response to even the lightest shower of rain. Needless to say there haven't been many sightings this dry year. Nor have there been many *Cordyceps*, as they too need a reasonably damp soil.

Photographs below (from left):

Cordyceps fungus caterpillar – animal or vegetable?

Vegetable Caterpillar – showing the whole body when extracted from the ground. The stem sprouted from the remains of the caterpillar, allowing the spore-producing head to emerge above the surface, where the spores will ripen and then be released into the air.

