1103

BULLETIN No. 3058

WESTERN AUSTRALIAN DEPARTMENT OF AGRICULTURE

INSECT PESTS OF FORESTS

2. Tussock Moths and Bag-Shelter Moths

by

C. F. H. JENKINS, M.A.,
GOVERNMENT ENTOMOLOGIST

★

Reprinted from "THE JOURNAL OF AGRICULTURE OF WESTERN AUSTRALIA".
Volume 3 (Fourth Series) No. 11 - - - - NOVEMBER, 1962

INSECT PESTS OF FORESTS

(2) Tussock Moths and Bag-shelter Moths

By C. F. H. JENKINS, M.A. GOVERNMENT ENTOMOLOGIST

TWO native caterpillars which sometimes attract attention are the larvae of the tussock moth and the bag-shelter moth. Neither insect is a serious forest pest in Western Australia, but the tussock moth sometimes does restricted damage in orchards and home gardens and the bag-shelter caterpillars cause some defoliation of wattles and eucalyptus.

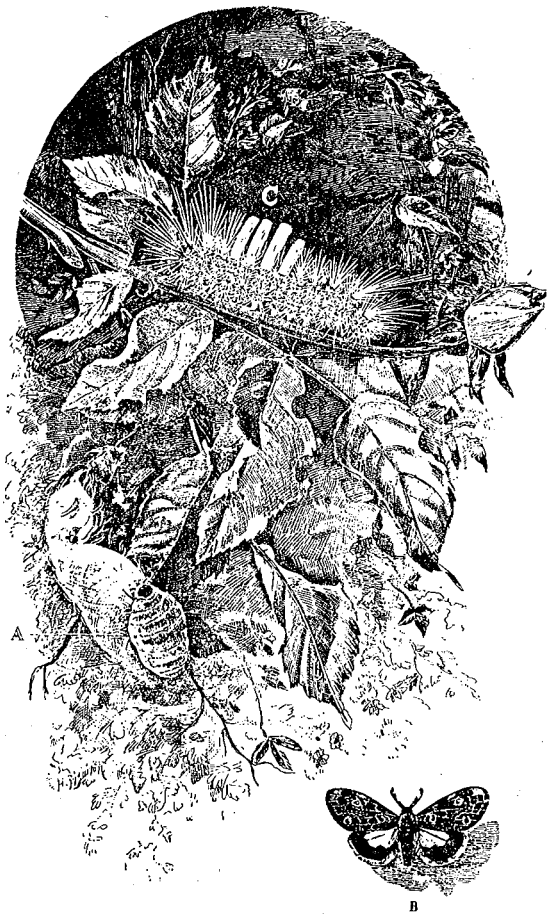
The tussock moth caterpillar (*Orgyid anartoides*) gets its name from the dense brush-like tufts of bristles which stand out from the main hairy covering of the body. There are several species of tussock moths found in Australia, and it is interesting to note that they are closely related to the gypsy moth of North America and Europe; these are well known as a major pest of forest trees.

The adult female of the tussock moth is unusual as it has no wings. Its thick-set body is covered with short brown hair and it has six feeble legs with which it is able to cling to any suitable support.

The male moth is quite a handsome insect with a wing spread of about one and half inches. The general colour is reddish brown, the fore-wings having light spots and markings. The caterpillars as already described are covered with tufts of hairs of irregular length. The general colour is greyish brown, and a fully fed caterpillar is about one and a half inches long.

On reaching maturity, the caterpillar spins a flimsy cocoon of silk which may be attached either to the food plant or even a paling fence. On emerging, the female usually just crawls on to the outside of the cocoon and starts laying her eggs. These may number several hundred. In due course, the time varying according to the season of the year, the eggs hatch into tiny hairy caterpillars which swarm over the surrounding twigs and soon show their presence by the severe defoliation they cause.

Damage is severe but confined, this is because the female is incapable of moving

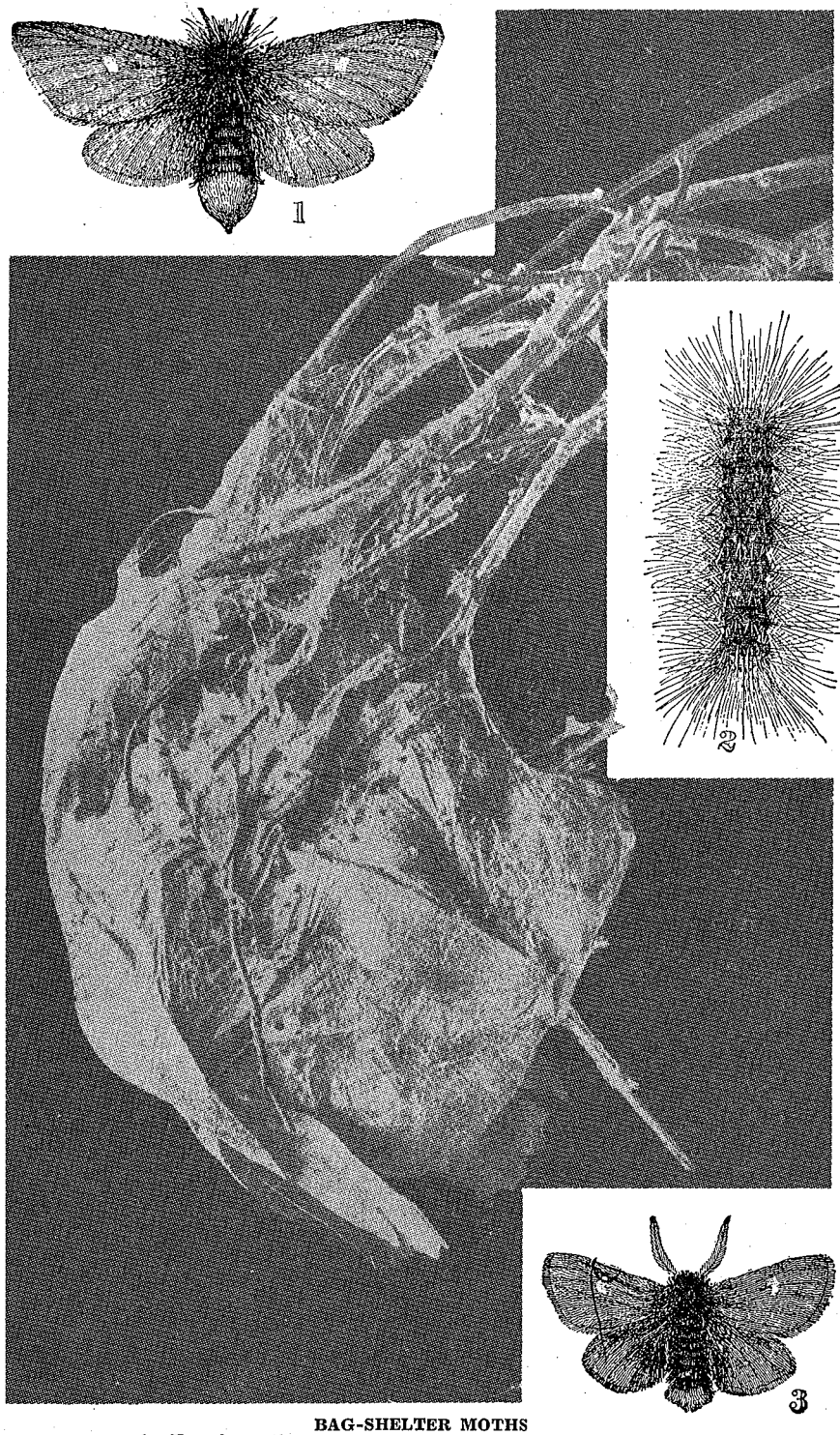


LIFE CYCLE OF THE TUSSOCK MOTH

A.—Wingless female moth on silken cocoon

B.—Male moth

C.—Hairy caterpillar



BAG-SHELTER MOTHS

1.—Female moth.
2.—Larva.
3.—Male moth.
4.—Bag shelter or nest in which the caterpillars live.

—Forest Insects of Australia by W. W. Froggatt.

more than a few inches. If a tree becomes infested the number of caterpillars would be enormous if a second generation was allowed to develop.

Tussock moth damage is usually most prevalent in the spring, but several generations occur annually and caterpillars may be found active on some type of foliage during almost any month of the year.

The bag-shelter caterpillar or processional caterpillar (*Ochrogaster contraria*) is well known to most country residents. The strings of trailing caterpillars never fail to arouse attention and large silken bags hanging from defoliated trees are a feature of many roadsides.

If you want a few minutes diversion the next time you see a line of these caterpillars just make the following test. Pick out one of the insects from the middle of the line and note what happens. The caterpillar ahead of the break will stop, as soon as the next in line realises that it is not being followed it will also stop and so on until finally the leader is halted. In the meantime the caterpillars behind the break will move slowly forward feeling about from side to side in an effort to close up the gap. When this has been accomplished the stimulus will pass along the line until the leader moves off again.

The jam tree (*Acacia acuminata*) and several other types of wattle are favourite hosts of the bag-shelter caterpillar but eucalypts are also attacked. The bags sometimes reach the size of a football and contain a large amount of excreta, cast skins and other rubbish as well as the living caterpillars. During the night the insects range over the tree eating the foliage; during the daytime they return to their silken shelter.

The hairs of many insects are highly irritating to some people and bushmen usually treat the homes of the bag-shelter caterpillars with respect.

When ready to pupate, or when in search of food, the caterpillars trail down from their tree dwellings and set off in single file. If fully fed, they bury themselves in the soil, spin a silken covering into which hairs are worked and remain dormant until the spring.

The adult moths, popularly known as brown tails, are rusty brown and are about two inches across the expanded wings. The body of the moth is thickly covered with fluffy scales or hairs which are used by the female to construct a warm covering for the eggs. These are deposited in clusters on the branches or twigs of the food tree and are enveloped in downy scales stripped from the body of the parent moth.

Control

Control measures are seldom warranted for the bag-shelter caterpillars but the tussock moths sometimes need attention on cultivated trees. Insecticides such as DDT and gusathion are effective against a wide range of caterpillars and may be used when considered necessary.

65745/11/62—1m

Alex. B. Davies, Government Printer, Western Australia