

sooner or later become vegetable refuse, which must be removed. Traps such as those described above, are effective in direct proportion to the cleanliness of the area in which they are.

When many stumps have to be removed the cheapest method of destroying them is by the use of explosives.

The Palm-weevil goes through its life-history more rapidly than the Rhinoceros beetle; and it would seem that it should multiply more rapidly, as the female can lay nearly 300 eggs within fifty days, but that it is less in evidence is probably due to the circumstance that it is so much more particular about its food; it may be also that it has more enemies, but this we do not know. In any case it is to be remembered that an outbreak of it would be more rapidly destructive than one of the Rhinoceros beetle.

The female lays her eggs in living palm tissue, taking advantage of wounds, of which the commonest are those made by the Rhinoceros beetle; the mature beetles also feed on the palm tissue. If the female finds no hole in the palm, she makes one for herself, but only $\frac{1}{4}$ to $\frac{3}{4}$ inch deep; into it she places one egg; if she finds a Rhinoceros beetle tunnel she pushes eggs into its walls. The nearer to the heart of the tree the eggs are placed, the more serious must the attack be; the heart of the attacked palm is then tunnelled through by the fat greedy grubs, and its top falls over, declaring the presence of the invader only when the damage done is past repair. Though the grubs may not be mature when this happens, they finish their course in the tissues. The eggs may be laid also in palm tissues commencing decay.

Soft decaying palm-tissue should never be left lying about the estates to the advantage of the beetle, neither of coconut palms, nor in a general way of other large palms, for though there are palms in which the tissues hold abundant needle-crystals, until a palm, whatever it be, has been proved unpalatable to the grubs, it should be looked upon as possible food for the weevil.

I. H. BURKILL.

CLEROME GRACILIS,

a Butterfly destructive to Palms.

A social caterpillar with a yellow head, black body, densely covered with long hairs which are rusty red above the base, and freely come out, irritating the human skin, had been found doing damage to Rhopaloblaste palms in the Botanic Gardens. It was reared to maturity and proved to be *Clerome gracilis* Butler.

The caterpillars, both when feeding and when resting, take line from each other: they stand parallel on the lower surface of the leaf that they are or have been eating. They feed at night and rest by day.

When mature, they are nearly two inches long.

The chrysalis is of a brilliant green, angular as that of the familiar tortoise shell butterfly (*Vanessa urticae* Linn) and hangs by the tail from the under surface of some object.

The butterfly is of a rich brown colour.

I. H. BURKILL.

NOTES ON PLANTS OF INTEREST IN THE BOTANIC GARDENS, SINGAPORE.

Porphyroglottis Maxwelliae, Ridley.

Among the orchids which flowered in the Botanic Gardens, Singapore, in 1913, was *Porphyroglottis Maxwelliae*. This strange orchid of still somewhat doubtful affinities was described by Mr. Ridley in 1896, from dried specimens and drawings sent to him from Sarawak. Otherwise it has remained unknown, and living plants had been in no Botanic Garden, until a small collection from Dutch Borneo was offered to him for purchase in 1911. By chance *Porphyroglottis Maxwelliae* was in the collection.

A new Variety of *Eria gracilis*, Hook. f.

An orchid which has recently flowered in the Botanic Gardens is *Eria gracilis* in a variety not described. The lip is obcuneate, with the middle lobe reduced to a minute point overtopped by the truncate side-lobes. It may be called var. *obcuneata*.

There is a label on the Singapore plant calling it a "Dendrobium from Java." Possibly this label has been transferred from another plant, for *Eria gracilis* is a local orchid of Singapore, extending northwards to Penang, but unknown in Java.

The flowers are flesh-coloured with sparse crimson hair outside and the lip has a crimson line down its very margin, as in the allied *E. oligantha*, Hook. f.

A new Variety of *Sarcophilus stenoglottis*, Hook. f.

A variety of *Sarcophilus stenoglottis* flowered in the Gardens early in August. Unfortunately the origin of the plant is unknown.

Sarcophilus stenoglottis was described by Sir Joseph Hooker in the Flora of British India, vi. (1894) p. 34; and a plate is given in the Annals of the Royal Botanic Gardens, Calcutta, v., (1895) t. 62, a reproduction of a sketch made in Calcutta in 1883, from a plant obtained in Sumatra by Kunstler.