

GREEN BUSH LOCUST - *PHYMATEUS VIRIDIPEs* STÄL

Green bush locust

Phymateus viridipes Stäl.
Order Orthoptera
Family Pyrgomorphidae

OTHER COMMON NAMES

Milkweed locust (E); groenbossprinkaan (A)

ORIGIN AND DISTRIBUTION

This grasshopper species occurs in east and southern Africa. It is characteristically a woodland insect of higher altitudes, especially in Malawi, Zimbabwe and Tanzania.

IDENTIFICATION

Nymph (hopper stage): hoppers are black and oily in appearance, with red and orange spots and large yellow flecks, with each abdominal segment edged with yellow.

Adult: 70-85 mm long, usually bright green in colour, with the raised, serrated edges of the pronotum and first leg joints tinged with red. Head is green with black eyes and black antennae. The hindwings are bright crimson red and blue. When alarmed, the adult raises its tegmen to expose its brightly coloured hindwings, and exudes a strong, malodorous, and bitter tasting foam from the dorsal side of the thorax.

HOST PLANTS

Feeds on a wide variety of herbs, grasses, shrubs and trees (especially *Euphorbia*), and a variety of garden ornamental shrubs and fruit trees (particularly fig and citrus). They are also known to feed on a range of highly toxic plants, such as *Acokanthera oppositifolia* and *Secamone alpinii*.

DAMAGE

Damage to citrus and vines is commonly reported in the literature, although many other crops have been attacked. Urban gardens are often attacked, especially fruit and nut trees, vegetables and even some ornamental plants. Human fatalities from ingestion of the grasshoppers have been recorded.



Adult *Phymateus viridipes*. © ARC



Tree with grasshopper "leaves".
Margaret Kieser, 2002



Dense groups of adults. Margaret Kieser, 2002

PEST STATUS

Populations only flare up sporadically and it is not regarded as a national pest in South Africa. Control of outbreaks is therefore the responsibility of the landowner and not the State. The hopper stages are rarely reported as causing damage, but the large green adults aggregate as 'swarms' and can cause considerable local damage. The adults are very noticeable when they form groups in the late autumn and winter months. Adults are generally sluggish, but can fly in loose swarms during the heat of the day.

During a Green Bush locust 'outbreak' in July 2002 on farms on the southern slopes of the Magaliesberg mountains, the adult grasshoppers, basking in the morning sunshine, were densely grouped on a variety of trees, such as the "Mountain Karree" (*Rhus leptodictya*) and on the "poison bush" or "gifblaar" (*Acokanthera oppositifolia*). Although being the middle of winter, some of the trees looked as though spring had already arrived and were covered in lush green leaves, but on closer inspection these leaves were actually grasshoppers!

LIFE HISTORY

There are three life forms, namely eggs, nymphs (hoppers), and adults, with the hopper passing through seven instars. This grasshopper has a prolonged life-cycle, taking two years to complete, causing adults to appear in greater abundance in alternate years. Little is known, but egg development may take up to a year. Hoppers hatch and develop during the summer-autumn rain season and the adults survive the dry winter season for 7-8 months to lay eggs during the middle of the following summer.

NATURAL ENEMIES

The grasshoppers have few natural enemies, which is possibly due to their offensive smell and bitter taste. Hoppers and adults can, however, be parasitized by the fly *Blaesoxipha anceps*, as well as *B. filipjevi*.

MANAGEMENT

Control: Possibly because these grasshoppers can readily feed on poisonous plants, they are very tolerant to poisons and do not easily succumb to standard insecticides. Very high dose rates are needed and therefore insecticide spraying is not recommended and no products are officially registered against this locust. If these grasshoppers are causing economic damage and will not fly away, a suggested environmental friendly method of control is to knock the adults out of the trees in the early morning while they are still cold and sluggish, collect them by hand into sacks and drown them in water. The bodies can then be destroyed, but should NOT be used for animal feed.

FURTHER READING

Myburgh, A.C. (Ed.) 1989. Crop Pests in southern Africa, vol.4. Plant Protection Research Institute, Department of Agriculture and Water Supply, Pretoria.

Picker, M, Griffiths, C & Weaving, A. 2002. Field Guide to Insects of South Africa. ISBN 1 86872 713 0

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