

# GUM LEAF SKELETONISER (*Uraba lugens*)

## Information for Medical Practitioners and other Health Professionals

### Introduction and biological notes

The gum leaf skeletoniser (*Uraba lugens*) is an Australian moth, whose immature stage (caterpillar) causes damage to mainly gum trees (*Eucalyptus*) by eating the foliage. This insect is now widespread in the greater Auckland region.<sup>1</sup>

The Auckland populations of *Uraba lugens* have two generations each year, with larvae usually present from January to March and May to October.<sup>3</sup>

*Uraba lugens* caterpillars vary in length from one to 25 mm depending on the stage of development<sup>2</sup>. These caterpillars are extremely hairy with yellow and brown markings, and when mature they retain the head capsules of previous developmental stages that are pushed up to the top of the head, making them easy to identify.<sup>4</sup> Each body segment of the larvae has short, stiff, brown-tipped bristles that are hollow and contain venom that can be injected into the human skin upon contact.<sup>2</sup>



*Uraba lugens* caterpillars.

### Exposure and symptoms of envenomation

Most cases of harmful exposure to caterpillars seem to occur in young children. Indeed, in one study of 365 cases of exposure to a different caterpillar species (*Lophocampa caryae*) 80 percent of the records were paediatric exposures.<sup>5</sup> Caterpillars are a source of curiosity to children due to their easy accessibility, slow mobility, and generally bright colours.<sup>1,5</sup>

The nature of *Uraba lugens* venom is largely unknown,<sup>6</sup> but it contains histamine and most likely also a proteinaceous substance.<sup>2</sup> Skin contact with the venomous bristles of *Uraba lugens* will immediately cause a sharp stinging sensation, which may be severe.<sup>2</sup> Local pain is followed by the associated formation of flat itching weals,<sup>7</sup> which may remain visible for a few weeks.<sup>2</sup> The skin reaction may cause a high degree of discomfort – an adult woman described the reaction as “violent and distressful for three to four days”.<sup>2</sup> As a result, adverse reactions to *Uraba lugens* venom may be particularly distressing for young children.

It is important to note that even the spines on the youngest caterpillars are capable of stinging, and that these continue to sting even after the insect is dead, and also following the shedding of skin.<sup>2</sup>

Ingestion of caterpillars of other species by children has been described in the literature,<sup>8-10</sup> with some adverse effects consisting of pain, difficulty swallowing, drooling, and shortness of breath.<sup>9</sup> There seem to be no records of *Uraba lugens* ingestion, but it would be likely to require hospitalisation.

#### THE THREAT

The *Uraba lugens* caterpillar has spines that sting and can lead to a rash and itching on skin contact.

April 2007



For more information visit

[www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist/gum-leaf-skeletoniser](http://www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist/gum-leaf-skeletoniser)

While life-threatening reactions are unlikely to occur, the possibility of serious adverse reactions, such as anaphylaxis, cannot be discounted.<sup>6</sup> Although severe and systemic reactions to *Uraba lugens* have not been described, eye lesions could be potentially serious and should be dealt with by a specialist. Note that there is no evidence of sensitisation from repeated exposures to *Uraba lugens*.<sup>2</sup>

## Treatment

Contact with some caterpillar species such as the white-stemmed gum moth (*Chelepterix collesi*) leads to a very large number of hairs becoming embedded in the skin.<sup>11</sup> There are, however no such reports for the spines of *Uraba lugens*. The application of ice packs, and oral or topical administration of antihistamines to attenuate the itching and burning sensation is advised.<sup>8,10,12</sup> Intense inflammatory reaction may be relieved by topical or oral corticosteroids.<sup>10,12</sup>

## Management

When a case of exposure to *Uraba lugens* is confirmed, the access of children to areas around an infested tree should be restricted, and a reputable pest controller should be contacted to deal with the infestation. Where the infested tree is located on public land, local or regional authorities should be notified. Avoidance is a fundamental preventive tool, and children should be educated not to touch or handle *Uraba lugens* caterpillars. It should be also noted that this species' potential establishment in *Eucalyptus* plantations in New Zealand may lead to occupational safety and health concerns, as a result of the likelihood of exposure to forestry workers.<sup>6</sup>



Weals formed approximately 30 minutes after exposure to the urticating spines of *Uraba lugens*.

**For further information contact the National Poisons Centre on 0800 POISON (0800 764 766), or visit [www.toxinz.com](http://www.toxinz.com)**

## References

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For more detailed information see: Derraik JGB. *Erucism in New Zealand: exposure to gum leaf skeletoniser (Uraba lugens) caterpillars in the differential diagnosis of contact dermatitis in the Auckland region*. New Zealand Medical Journal 2006;119:U2142

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