INSECT ECOLUTIONS*

Mopane worms (*Imbrasia belina*)

A Japan-South Africa Joint Initiative

Knowing more about mopane worms

*Ecolutions is about finding ecologically sound solutions for food security, poverty and unemployment.

EE or SD
Environmental Education for Sustainable Development
Omgewingsopvoeding vir Volhoubare Ontwikkeling
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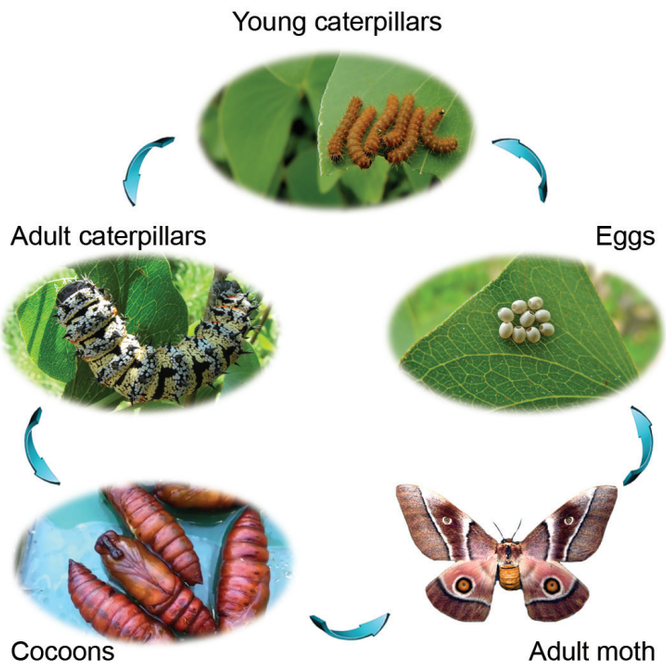
National Research Foundation

Supporting the use of beneficial insects

Mopane Worms *(Imbrasia belina)*

A mopane worm is the 5th larvae stage of an emperor moth species. It is not a worm, but a large caterpillar that feeds on mopane leaves and other indigenous species. It is known by numerous common names such as phane (Setswana), matamani or masonja (Xitsonga), mashonzha (Tshivenda), mašotša (Sepedi) and iinnondo (Ndebele). Mopane worms can produce two generations a year hatching November-January or March-May.

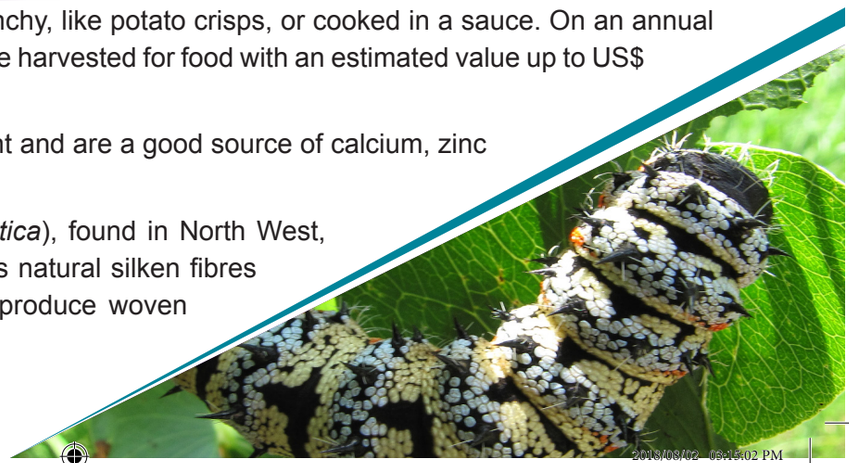


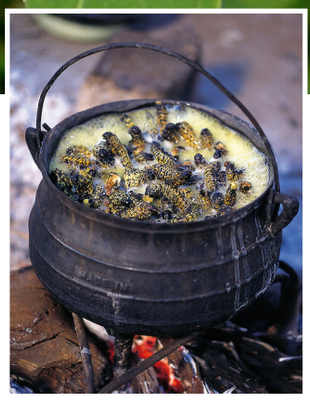
Uses

Food: Mopane worms can be eaten dry and crunchy, like potato crisps, or cooked in a sauce. On an annual basis, approximately 9.5 billion mopane worms are harvested for food with an estimated value up to US$ 85 million (±R 12 billion).

Nutritional value: They have high protein content and are a good source of calcium, zinc and iron.

Silk: The African wild silk moth (*Gonometa postica*), found in North West, Northern Cape and Limpopo Provinces produces natural silken fibres of exceptional quality. Small businesses which produce woven wild silk are found in South Africa.





Record Sheet

The record sheet below is recommended for Grade 4 to 6 Natural Science and Technology. This could be a homework task to encourage intergenerational knowledge transfer. The data can be collated, analysed and discussed in groups.

Fill in the table below with people having Venda, Tswana, Pedi, KhoiSan or other heritage. Try to find different cultures.

Cultural group	**Age** (the older the better)	**Can you describe the taste of mopane worms?**
Total insect eaters =		

Mopane worm stats

Where to find them? Mopane worms are found in semi-deserts, bushveld and grassland in Angola, Botswana, Namibia, Mozambique, Malawi, southern Zimbabwe, Zambia, Democratic Republic of Congo (DRC) and northern South Africa (Limpopo and Mpumalanga).

What is raising alarm bells? Mopane worms have become rare in some areas where they were once common due to over-harvesting and cutting down of their food trees.

What is being done? Entomologists and nature conservationists have studied how many mopane worms can be collected at a time. Areas that were not previously open such as Kruger National Park are allowing people to collect a certain amount. Mopane worm farming and protection is being practiced in some areas.

References

Baiyegunhi, L., Oppong, B., & Senyolo, G. (2016). Mopane worm (*Imbrasia belina*) and rural household food security in Limpopo province, South Africa. Food Security, 8(1), 153-165.

Mukwazhi, T. (2013). Mopane worms a crunchy delight. https://bit.ly/2rZS46R