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Towards conservation of Apefly (*Spalgis lemolea*. Druce) for managing papaya mealybug (*Paracoccus marginatus* Williams and Granara de Willink) in Sub Saharan Africa

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Abstract

This review compiled published information on a rare butterfly, namely Apefly (*Spalgis* spp) in order to conserve it and explore its potential for managing papaya mealybugs (PM) (*Paracoccus marginatus* Williams and Granara de Willink), which attack various crop varieties of economic importance worldwide, causing a yield loss of up to 100% in Sub Saharan Africa. One of the biggest challenges behind PM management is its ability to form a wax coat that makes it difficult for chemicals used in pest management to suppress the PM once they have attacked the crops. This review provides a comprehensive description of different *Spalgis* species, their distribution and how they can be used to control PMs to reduce the losses of crops in Sub Saharan Africa. About 29% of the cited literature in this review indicates the Indian Apefly (*Spalgis epius*) to be intensively studied with explicit information of its biological control potential. The African Apefly (*Spalgis lemolea*) has been mentioned by 16.8% of the cited literature with limited or without detailed information of its biological control potential. Thus, this review recommends research on understanding the biological control potential and other key information such as the life cycles, biology, diversity and ecology of the African Apefly so that the information that will be obtained can be used to design strategies towards conservation of Apefly (*Spalgis lemolea*. Druce) and biological management of papaya mealybug in Sub Saharan Africa.

Keywords

Papaya mealybugs; Bio-control; Butterfly; Pest; Host range; Species conservation