

Pseudapis bees are true bees just like honey bees but do not make honey that people can harvest. *Pseudapis* bees like to lap human skin particularly when it is hot hence the common name “sweat bees”. They live independently (i.e. are solitary) not in social colonies like honey bees. This factsheet intends to provide information about these bees to aid farmers in understanding them, protecting them and ensuring their crops get the best pollinator at times of flowering period. Please enjoy reading and enlighten other people of these different bees.

Scientific Classification

Kingdom: Animal
Phylum: Arthropoda
Class: Insecta
Order: Hymenoptera
Family: Halictidae
Subfamily: Nomiinae
Tribe: ??
Genus: *Pseudapis* Kirby, 1900



Species in the Genus

There are about 70 named species of *Pseudapis* bees known from different parts of the world, particularly from Africa, Europe, Australia and Asia.

Representative Species in East Africa

Twelve species of *Pseudapis* bee have been recorded in Kenya, Tanzania and Uganda (Eardley & Urban 2010).

Description

Just like other sweat bees, these bees will cling on human skin to collect sweat during periods of dry weather especially in arid and semi-arid areas. They are mainly pollen collectors, are important crop pollinators and could potentially be used for greenhouse pollination in East Africa. Currently no specialized bee species have been used for such an activity in the Region.

Economic / Ecological importance

These bees are important pollinators of crops and plants where they effect pollination while collecting their food resources. In so doing, they enhance productivity of crops, which in turns provides farmers with more income from commodity sales. In addition, farmers have enough to eat, both quantity and quality wise. At ecological level, they pollinate shrubs and plants and ensure their reproductive success. Some of the shrubs are important in erosion control and are source of food to animals and wildlife. Their presence is a good indicator of ecosystem.

Similar Taxa/Possible Causes of Confusion

Pseudapis bees are similar to most halictids especially *Nomia* bees. They can be distinguished with *Pseudapis* bees having a large tegula (the scale covering base of fore-wing) and pale bands on the abdomen.

Documented Distribution in Kenya, Tanzania, Uganda

They occur in different agro-ecologies in East Africa. They can be found in all regions.

Habitats

They will be found in all habitats as long as their nests and recreation sites are protected. In absence of these, their existence in those regions is not guaranteed.

Nesting Sites

Pseudapis bees prefer to nest in soils.

Crops Visited

There is not much information about crop pollination by *Pseudapis* bees. However, they have been reported as flower visitors of cashew, eggplants and crops belonging to Asteraceae (Compositae) family.

Other Plants Visited

They have been reported to visit, the screw tree (*Helicteres isora*) and wild plants belonging to family Asteraceae

Threats

Pseudapis bees and all other bees are threatened by factors such as habitat degradation and agricultural intensification (e.g. misuse of pesticides, tillage practices, hedgerow management). Information about the effects of their pests and diseases is lacking though these play important ecological role in regulation of population dynamics of species. Trampling by people and livestock can affect these soil-nesting species. The lack of knowledge about these bees and their economic importance by the farmers is far the most serious threat to their existence. This is because conservation and management practices implemented at farm level depend to a large extent upon the value that farmers attach to the bees.

Conservation and Management Practices

Little information exists on the usefulness of these bees to the lives of the people in East Africa has been gathered and there have been no scientific or farmer efforts to conserve them. However, information is now being sought and best practices for conservation and management of these bees will be developed and utilised for improving crop productivity. Theoretically, bee conservation and management is inexpensive and adopted activities can also improve the aesthetic value of the landscape. Such practices involve setting land aside (e.g. a 1-metre strip) in the farmland to host all year round food resources for the bees, as well as safer sites for nesting, mating, resting and hiding from natural enemies. During flowering, farmers should manage pesticide usage carefully to avoid poisoning flower-visiting bees. Farmers should also minimise pesticide drift from the field to adjacent areas. Trampling by people and livestock and tilling should be managed to conserve the nesting sites of soil-nesting species. KARI (the Kenya Agricultural Research Institute) is developing protocols for mass rearing of different species of solitary bees. Any successful results from this research will be freely communicated to the public. In addition, KARI is collaborating with other stakeholders to ensure in situ conservation and management of bees for pollination purposes. Much of the work of conserving native bees will be underpinned by raising public awareness of the importance of these species.

Legislation (National and International)

There is not yet any legislation in East Africa that explicitly addresses pollinators. However, there is scattered legislation for the protection of biodiversity particularly that covering environmental protection, protection of wildlife and heritage sites, protection of forests and natural resources such as water catchments. In addition, laws governing registration and use of plant protection products also indirectly play a major role in the protection of pollinators. Such legislation, together with market standards such as the Good Agricultural Practices (GAPs) codes, standards and regulations may help to protect bees albeit incidentally. Farmers should lobby their governments to develop Integrated Pest Management policies that would protect bees and other useful insects of importance in agriculture.

Sources of Further Information and Links

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Editors

Muo Kasina, Kenya Agricultural Research Institute (KARI) - Kenya; Théodore Munyuli, Busitema University - Uganda; Juma Lossini, Tropical Pesticides Research Institute (TPRI) – Tanzania; John Mauremootoo, BioNET-INTERNATIONAL Secretariat – UK; Connal Eardley, Plant Protection Research Institute (PPRI) – South Africa.

Acknowledgments

We recognize the support from the Kenya Agricultural Research Institute (KARI), Tropical Pesticides Research Institute (TPRI) – Tanzania and Busitema University (Faculty of Natural Resources and Environmental Sciences) Eastern Uganda. This activity was undertaken as part of the BioNET-EAFRINET UVIMA Project (Taxonomy for Development in East Africa).

Contacts

Bionet-EAFRINET regional coordinator: eafrinet@africaonline.co.ke

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