

During my 2015 expedition to Tanzania, I was lucky to observe numerous *Ctenoplectra* bees visiting flowers of Cucurbitaceae and collecting floral oil. This relationship with oil producing flowers is well known. Thus, my goal was to find nest, study their nest construction and nesting behaviour.

Ctenoplectra

belong among few apid lineages with uncertain position within the family (Cardinal et al. 2010; Martins et al. 2014; Martins and Melo 2016) and in the past, its position was uncertain among all bees (Michener 2007). Currently, some studies suggest that the lineage can be basal to Eucerine line, apine line or closely related with

Tetrapedia

. Behavioural and nesting characters could suggest phylogenetic affinity of this peculiar oil collecting bee. There is an interesting consequence in oil collecting behaviour. Within apid bees, there are only few lineages that collect oil. There are bees from the tribe Tapinotaspidini from Eucerine line, bees from the tribe Centridini that are closely related to corbiculate bees and bees from the tribe Tetrapediini that are closely related to Xylocopine bees. Tapinotaspidini are derived bees which collect oil for nest construction and use it as it is in a pure form for cell isolation in rotten wood. I excavated their nests in Peru (J. Straka, unpublished). It is similar nest construction like in *Macropis* bees from the family Melittidae, which collect oil from

Lysimachia

. Tetrapediini and at least the studied oil collecting Centridini collect oil from flowers and in some phase, they found free sand or dry soil and immerse their oily hind scopae to the sand. With a load of sand and oil they fly to nest and use the mixed material for nest construction. I have observed this behaviour of both

Tetrapedia

and

Centris

simultaneously on the path along the river Iguazú in Argentina. Surprisingly, nothing is known about nesting materials in

Ctenoplectra

. I expected that the

Ctenoplectra

will collect sand, because it seems to be rather related to

Centris

and

Tetrapedia

and far from Tapinotaspidini. My expedition was not lucky in search for

Ctenoplectra

nests. Thus, I was very happy when seeing their behaviour. I saw females of two species of *Ctenoplectra*

(

C. antinorii

Gribodo, 1884 and

C.

polita

Ctenoplectra collect sand on oily hairs on its metasoma

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(Strand, 1912)

) when landing on the path in the forest and wagging with metasoma on the sandy places. I saw what I expected,

Ctenoplectra

females actively collecting sand and soil particles on the oiled hairs on their ventral part of metasoma.

Jakub Straka, 2016



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