



Morphometric variability of wild honey bees (*Apis mellifera adansonii* L.) in different agro-ecosystems in coastal Côte d'Ivoire, West Africa

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Submission 29th May 2024. Published online at <https://www.m.elewa.org/Journals/> on 31st July 2024.
<https://doi.org/10.35759/JABs.198.2>

ABSTRACT

Objectives: The aim of this work is to study the morphometric diversity of wild bees of the *Apis mellifera* (Linné, 1758) species in the Gboklé region, with a view to the possibility of beekeeping, which is still non-existent in the area.

Methodology and Results: For this purpose, worker bees were randomly collected over three months from wild nests in localities of Léléudou, Kpata cacao, Kpata Jachère and Dassioko Plage representing different agro-ecological zones. Sixteen morphometrical descriptors were recorded on dissected parts of each specimen. Mean morphological characters were analysed by the Kruskal-Wallis's test. Separately, these groups of descriptors were submitted to the Principal Component Analysis and to the Hierarchical Ascending Classification. The results showed a significant variation between hives and the cubital index, allowed the bees to be classified into one variety.

Conclusions and application of findings: In the whole, there is a great morphometric diversity in bees, resulting from a probable high underlying genetic variability together with diversity of available plants and sustainable agriculture practice. It is therefore possible to practice perennial beekeeping in the area.

Keywords: morphometric diversity, cubital index, beekeeping, Gboklé, Côte d'Ivoire.