

Insects complex associated with the tropical basil, *Ocimum gratissimum* L. (Lamiaceae) in southern Benin.

Yarou Boni Barthélémy^{1*}, Bokonon-Ganta H. Aimé², Assogba Komlan Françoise³, Mensah Armel³, Verheggen François Jean¹ and Francis Frédéric¹



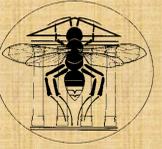
Gembloux Agro-Bio Tech
Université de Liège

¹Université de Liège, Gembloux Agro-Bio Tech, Département Agro Biochem, Entomologie fonctionnelle et évolutive, Passage des Déportés 2, 5030 Gembloux (Belgique)

²Université d'Abomey-Calavi, Faculté des Sciences Agronomiques, Laboratoire d'Entomologie Agricole, 01 B.P. 526 Abomey-Calavi (Bénin)

³Institut National des Recherches Agricoles du Bénin, Programme des Cultures Maraîchères, 01 BP 884 Cotonou (Bénin)

*entomologie.gembloux@ulg.ac.be/boniyarou1981@gmail.com



General information about Tropical basil

Tropical basil is an aromatic, perennial herb. Plant and the essential oil have many applications in traditional medicine and are used as pesticides on crops pests and diseases. In several west Africa countries this plant is used as vegetable crops. In Benin, It's produced on almost all urban and periurban garden throughout the year for fresh market. The aim of this study is to asses the arthropod community of tropical basil in southern Benin.



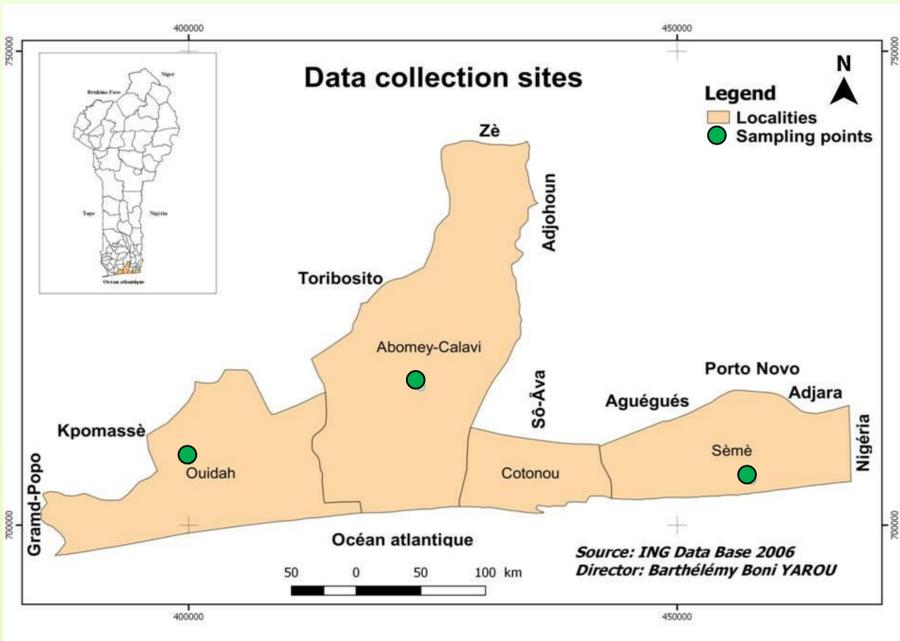
O. gratissimum plots in garden



Worldwide distribution

Collect and identification

Arthropod were mowed using a sweep net in three localities of southern Benin. The insects were kept in alcohol before identification.



Map of collection localities : Ouidah, Abomey-Calavi (Togba) and Sèmè



Mowed in basil plots



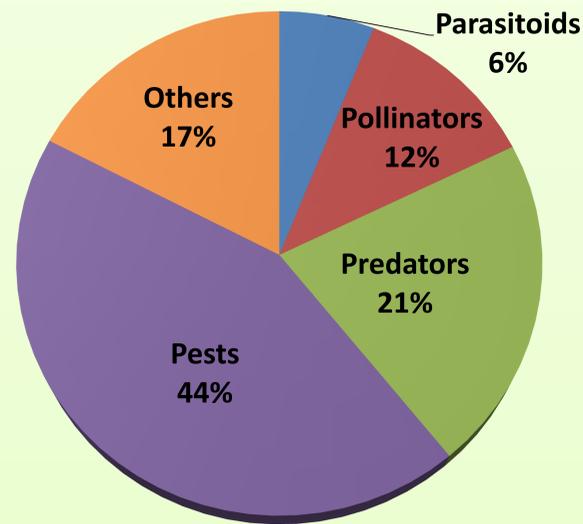
Identification

Insects identified

Insects were identified at the taxonomic level of the family.

■ **1365** insects were treated.

■ **44 families** grouped in **7 orders** were identified.



Functional groups

Order	Number of families
Hymenoptera	15
Heteroptera	9
Diptera	6
Coleoptera	5
Homoptera	4
Orthoptera	4
Mantoptera	1
Total	44



Chalcididae



Braconidae



Apidae



Megachilidae

Parasitoids

Pollinators



Membracidae

Other



Reduviidae



Syrphidae

Predators



Coccinellidae



Pyrgomorphidae



Aphididae



Pyrrhocoridae

Pests



Chrysomelidae

Conclusion and prespectives

- It appeared that, there is a large diversity of families and functional groups associated with tropical basil.
- Continue the identification until the species level;
- Study the spatio temporal variability and the dynamics.