

# An annotated list of insects associated with citrus plantations at Kade, Ghana

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## SUMMARY

The insect fauna of citrus plantations at the University of Ghana's Agricultural Research Station, Kade, in the Eastern Region of Ghana was studied between October 1980 and May 1983 to identify insect pests associated with citrus that were of significant importance and their preferred locations on citrus plants. Out of the 123 species identified, 21 preferred only one location on citrus plants (fruit, leaf or stem) and 103 species had two or more preferred locations on citrus plants.

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## RÉSUMÉ

AFREH-NUAMAH, K.; *Une liste annotée des insectes associés aux plantations de citrus à Kade, Ghana.* La faune d'insecte de la plantation de citrus au Centre de recherche agronomie de l'Université du Ghana à Kade, dans la région est du Ghana a été étudiée entre Octobre 1980 et Mai 1983 à fin d'identifier des insectes nuisibles les plus importants et leurs emplacements préférés sur des arbres de citrus. Cent-vingt et trois (123) espèces ont été identifiées. Vingt et un (21) espèces préfèrent un seul emplacement (soit l'agrume, soit la feuille, soit le tronc) et cent et trois (103) d'autres préfèrent au moins deux emplacements sur des arbres de citrus.

## Introduction

Various workers have indicated that citrus is attacked by a large number of insect species. Ebeling (1959) compiled a list of 875 species of insects and mites known to feed on citrus in different parts of the world. Talhouk (1975) also considered 72 insect species as major pests. Since what may be a major pest in one locality may be insignificant in another, it is advisable to study the insect fauna at any one place and time.

The paper reports the findings of a study of insects associated with citrus plantations at the University of Ghana Agricultural Research Station, Kade in the Eastern Region of Ghana.

## Materials and methods

Since October 1980, insects have been collected by the hand-height-visual count method (Owusu-Manu, 1977) in the citrus plantations at the University of Ghana's Agricultural Research Station at Kade in the Eastern Region. The insects were

identified using the reference collections held at the Departments of Zoology and Crop Science, University of Ghana, Legon.

## Results

An annotated list of insects that associated with citrus plantations at Kade during the study period is presented below.

The preferred location of the insects is indicated as follows:

F= Fruit, L= Leaf, S= Stem, B= Branch, Fl= Flower.

Orthoptera	Preferred location
Acrididae	
<i>Aeruginosa flavescens</i> Wilker	L
<i>Brevicornis</i> sp.	L
<i>Ecoptacra</i> sp. Bolivar 1902	L
<i>Zulua ramme</i>	L
<i>Paratype acorypha</i>	L

Unidentified specimen	L	<i>Cletomorpha unifasciate</i> Blote	F, L
<i>Zonocerus variagatus</i>	L	<i>Tupalsus</i> sp.	F, L
<b>Tettigonidae</b>		<i>Stenocoris sordida</i>	L, F
<i>Euliotera recticulata leptomorpha</i> Ragge	L	<i>Mydonia tuberculosea</i>	L, F, S
<i>Arantia rectifolia</i>	L	<i>Dindymua flairpens</i>	F, L, B
<i>Catoptropteryx signatipennis</i>	L	<i>Anoplocnenus melancholia</i>	F, L, Fl
<i>Poreomena lamottei</i> Chopard	L	<b>Largidae/Lygacida</b>	
<i>Cestromoccha tennipes</i> (Korsch)	L	<i>Pyrrhocoridae</i>	
<i>Catoptropteryx naevia</i>	L	<i>Dinomachus</i> sp.	S, B, L
<i>Catoptropteryx capreola</i>	L	<i>Dysdercus melanoderes</i> Karsch	F, B, L
<i>Polyglochin</i> sp.	L	<i>Dryntus</i> sp.	F, B, S
<i>Pyrgomorpha</i> sp.	L	<i>Sericocoris acromelanthus</i>	F, B, L
<b>Gryllidae</b>		<i>Cletomorpha unifasciata</i>	F, B, L
<i>Homeogryllus recticulatus</i>	L, S	<b>Plataspidae</b>	
<i>Modicogryllus</i> sp.	S, L	<i>Cyptosoma stali</i>	L, B, S
<b>Hemiptera</b>		<i>Sptonia misella</i>	L, B, S
<b>Pentatomidae</b>		<i>Cyptosoma nubila</i>	L, B, F
<i>Aspavia armigera</i> (F)	F, L	<b>Homoptera</b>	
<i>Halyomorpha annulicornis</i> Sign	F, L	<i>Aphis</i> sp.	L, S
<i>Nezara viridula</i> (L)	F, L	<i>Ptylus grossus</i> : Cercopidae	L, S
<i>Atelocera raptoria</i> Germ	F, L	Unidentified Fulgoroidae 1	L, S
<i>Bathycoelia thalassina</i> (H-S)	F, L	Unidentified Fulgotoidae 2	L, S
<i>Caura pugillator</i>	F, L	<i>Dictyophara</i> sp. Dictyophoridae	L, S
<i>Halyomorpha reflexa</i>	F, L	<b>Lepidoptera</b>	
<b>Reduviidae</b>		<i>Achaea</i> sp.	F, L
<i>Nagusta</i> sp.	L, S, B	Unidentified Nymbalidae	F, L
<i>Vestula obscuripes</i> Stol	S, B	Unidentified Acraeidae	F
<i>Petalochirus murrayi</i>	S, B, L	Unidentified Hesperiidae	F
<i>Acanthaspis</i> sp. Nr <i>moculalata</i> Dist.	L, S, B	<b>Dictyoptera</b>	
<i>Tracasafra</i> sp.	S, B	<i>Blattodea</i>	
<i>Ectrichodia</i> sp.	S, L, B	<i>Symplole</i> sp.	S, B
<i>Cethromm</i> sp.	L, B, S	<i>Thegemopteryz aethroips</i> Sauss	B, S
<i>Pisilus rifuliform</i> (F)	L, S, B	<i>Manthodea</i>	
<i>Vestula lineatiup</i> Sign	B, S	<i>Polyspilota aeruginosa</i>	B, S, B
<i>Lisarda</i> sp.	L, B, S	<i>Prohierodula ornatipennis</i>	S, L, B
<i>Rhinocoris rapax</i>	S, B	<b>Diptera</b>	
<b>Terasotomidae</b>		Unidentified Anthomyiidae	F, L
<i>Piezosternum calidum</i>	S, B, L	Unidentified Dolichopodidae	F, L
<b>Coreidae</b>		<i>Ceratitis capitata</i> - Tryptidae	F
<i>Leptoglossus membranaceus</i> (F)	F	Unidentified Tephritidae	F, L
<i>Homeocerus dans</i>	F, L	<b>Neuroptera</b>	
<i>Homeocerus pallens</i> (F)	F, L	Unidentified Mantispidae	F, L

Unidentified Chrysopidae	F, S, L	Hispinae <i>Dictylispa</i> sp.	S, B
<b>Coleoptera</b>			
Lagriidae	B, S	Scarabidae <i>Bilga</i> sp.	S, B
<i>Lagria villesa</i>	B, S, L	<i>Crytocephalus</i> sp.	S, B
<i>Lagria cuprina</i> Thoms	S, B, L	<i>Trochalsus</i> sp.	S, B
Chrysomelidae		<i>Pachnoda</i> sp.	S, B
<i>Euthethus</i> sp.	S, B	<i>Calasposoma senegalense</i> Cast	B, S
<i>Creptocephalina</i> sp.	S, B	<i>Platynaspis solieri</i>	B, S
<i>Prosephus</i> sp.	S, B		
<i>Strongylium</i> sp.	B, B	<b>Hymenoptera</b>	
<i>Eudochilus</i> sp.	B, B	<i>Formicidae</i>	
<i>Synandophalma elongata</i> Jac.	S, B	<i>Camponotus acuapimensis</i>	S, B, L
<i>Caccobius</i> sp.	S, B	<i>Oecophylla longinoda</i> (Latr)	L, B, S
<i>Ootheca mutabilis</i> Sahib	S, B	<i>Polyrachis laboriosa</i> Smith	B, S, L
<i>Platynaspis ferruginea</i> Wse	S, B	<i>Micromischoides aculeatus</i> (Mayr)	L, S, B
<i>Cryptocephalus dislocatus</i> Suffr.	S, B	<i>Palthothyreus</i> sp.	S, B, L
<i>Sphaeroderma</i> sp.	B, B	<i>Odontomachus</i> sp.	S, L, B
Cassidinae		<i>Crematogaster castanea</i>	S, B, L
<i>Chiridopsis</i> sp.	L, S, B	<i>Pheidole</i> sp.	B, S, L
<i>Cassida tostaki</i>	L, B, S	<i>Cataulacus guineensis</i>	S, L, B
<i>Chiridopsis quadriplagiata</i> Boh	L, S,	<i>Platythyrea</i> sp.	S, B
Curculionidae		<i>Atopomyrmex</i> sp.	S, B
<i>Tetragonaspis</i> sp.	S, L	<i>Tapinoma</i> sp.	S, B
<i>Temnoschoita guardrimaculata</i> Gyll.	S, L		
Unidentified Curculionidae	S, L	<b>Apidae</b>	
Meloidae		<i>Apis mellifera</i>	Fl
<i>Mylabris trefasciata</i>	L, S, B	<i>Polybioides tabida</i> Fab.	S, L
<i>Zonitoschema</i> sp.	L, S, B		
Cerambycidae		<b>Isoptera</b>	
<i>Monohammus ruspator</i>	S, B, L	Unidentified macrotermes	S, B
<i>Pseudohammus nyrmidonum</i> Koble	S, B, L		
Carabidae			
<i>Ptyelus</i> sp.	S, B		
<i>Craspidophorus tetrastigma</i>	S, B		
Lycidae			
<i>Lyctus elegans</i>	L, S		
<i>Cautires</i> sp.	L, S		
<i>Lycus latissimus</i> (L)	L, S		
Elateridae			
<i>Conocepholum simplex</i> (F)	S, B		

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*REFERENCES*

Ebeling, W. (1959) Sub tropical fruitpests. Berkeley, California: University of California.

**Owusu-Manu, E.** (1977) Distribution and abundance of cocoa shield bug *Bathycoelia thalassina* (Hemiptera: Pentatomidae) in Ghana. *J. appl. Ecol.* **14**, 231-241.

**Talhouk, A. S.** (1975) Citrus pests throughout the world. *Citrus Ciba-Geigy Agrochemicals Technical Monograph No. 4*, 21-23.