

Factsheet *Ceratitis silvestrii* Bezzi

Original name: *Ceratitis silvestrii* Bezzi, 1912: 10.

Vernacular name: none

Formal redescription (after De Meyer, 1998)

Body length: 3.88 (3.75-4.00) mm; wing length: 3.96 (3.75-4.15) mm.

Male

Head. Antenna yellow. Third antennal segment twice as long as second segment. Arista with short hairs over entire length. Frons with short scattered hairs which are the same colour as frons; convex, in lateral view not distinctly projecting forwards at antennal implant. Face white. Chaetotaxy normal for subgenus, except dark reddish in colour.

Thorax. Postpronotum white, unspotted. Ground colour of mesonotum almost white. Chaetotaxy normal for subgenus, dark reddish. Scapular setae pale. One anepisternal bristle. Scutellum white basally, otherwise yellow with three black separate markings apically; basally without spots. Subscutellum completely dark.

Legs yellow; setation typical for subgenus, mainly pale especially on femora. Posterior and posterodorsal rows on fore femur pale. Ventral bristles reddish.

Wing bands with yellow markings. Banding, marginal band continuous; cubital band free, medial band absent; crossvein r-m well before middle of discal cell, at basal third. Crossvein dm-cu posteriorly approximately at same position as anteriorly.

Abdomen. Yellow-grey. Setation and banding typical for subgenus.

Female

As in male except for the following characters: Mesonotum less white.

Remark: This species is very similar to *C. quinaria* but can be differentiated by the three large isolated spots on the apical margin of the scutellum (five smaller isolated spots in *C. quinaria*). Both species co-occur in western Africa.

Encyclopedia of Life link: <http://eol.org/pages/727815/overview>

DNA barcoding

Multiple reference DNA barcodes from the species distribution are available on the Barcode of Life Data Systems (BOLD) at:

http://www.boldsystems.org/index.php/Taxbrowser_Taxonpage?taxon=Ceratitis+silvestrii&searchTax=

The molecular identification of *C. silvestrii* through DNA barcoding proves to be problematic as this species cannot be resolved from the closely related *C. quinaria* (Virgilio et al., 2017). Accordingly, in BOLD (March 2017), these two species are recovered in a multispecific BIN.

Host plant list

Ceratitis silvestrii is a polyphagous species, reported from a limited number of host but including mango. Throughout its range it is recorded from the hosts listed in the table below.

PlantFamily	PlantLatinName	PlantCommonNameEnglish
Anacardiaceae	Anacardium occidentale	cashew nut
Anacardiaceae	Mangifera indica	mango
Chrysobalanaceae	Chrysobalanus sp.	
Fabaceae	Acacia albida	
Olacaceae	Ximenia americana var. americana	
Sapotaceae	Vitellaria paradoxa	shea butter

Additional information on host records and associated specimens can be found on :
<http://projects.bebif.be/fruitfly/taxoninfo.html?id=48>

Impact & management

Details on losses incurred by *Ceratitis silvestrii* on commercial crops are very limited. Vayssières et al. (2004) reports that 1 to 22% of flies emerging from infested mangoes in Mali belong to this species (note: this is prior to the introduction of *B. dorsalis*). Vayssières et al. (2015) reports slightly under 3% of trap catches in mango orchards in Benin belonging to *C. silvestrii*.

Management for this species is, as for most fruit fly pests, most efficient using an IPM (Integrated Pest Management) program, including aspects such as orchard sanitation, bait sprays, mass trapping among others. General reviews on the current IPM components applied in Africa can be found in chapters 13 to 20 of Ekesi et al. (2016).

No SIT (Sterile Insect Technique) application specifically for this species has been developed in Africa.

Attractants & trapping

Both sexes can be attracted by protein bait products such as liquid protein baits and three component Biolure.

Male flies can be attracted by the following lures: terpinyl acetate, Enriched Ginger Oil (EGO) lure.

General information on trapping, types of traps, lures and required density of trapping stations can be found in IAEA (2013), Shelly et al. (2014), and Manrakhan (2016).

Distribution

Ceratitis silvestrii is reported from the Trans-Saharan belt in western Africa (from Senegal to Cameroon). Not established outside mainland Africa.

Distribution map for Africa, based upon specimen records with georeferences is available at:

<http://projects.bebif.be/fruitfly/taxoninfo.html?id=48>

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