

# Factsheet *Ceratitis ditissima* (Munro)

**Original name:** *Pardalaspis ditissima* Munro, 1938: 164.

**Vernacular name:** none

(updated April 29<sup>th</sup>, 2020)

## Formal redescription (after De Meyer, 1996)

Body length: 6.79 (6.0-7.5) mm; wing length: 6.79 (6.0-7.5) mm.

### Male

Head. Antennal segments orange to dark red. Third antennal segment twice as long as second segment. Arista basal part orange, otherwise dark. Frons yellow in ground colour (in some specimens orange-red), silvery over entire length; with dispersed short hairs, same colour as frons. Ocellar triangle dark. Face dark red; no median band but lower margin white. Occiput moderately swollen below, pale whitish. Chaetotaxy normal for subgenus.

Thorax. Ground colour of mesonotum greyish-brown, anterior border dark brown, sickle-shaped and extended along lateral margins; also with three poorly defined darker stripes. Postpronotum paler than mesonotum. Chaetotaxy normal for subgenus. Mesonotum with pale pilosity, brown part with dark hairs. Anepisternum along upper margin and lower half with darker hairs. Two anepisternal bristles, sometimes three, but then median one usually less well developed. Scutellum yellow with apical markings black; basally with two dark spots.

Legs dark yellow to orange brown, femora with darker streaks; setation typical of subgenus. Hind femur with dorsal hairs dark apically. Setae general dark in colour, posterior row on front femur dark.

Wings with brownish bands, yellow markings strongly reduced. Banding, setation and venation normal for subgenus. Marginal band continuous; discal band joined with marginal band; cross-vein r-m at middle of discal cell; vein R1 ending before cross-vein r-m.

Abdomen. grey-brown, sometimes with orange tinge, with clearly defined spots. Pattern of spots and setation normal for subgenus.

### Female

As male except for the following characters. Frons yellow, not silvery; with distinctly darker hairs. Face wholly yellow, lower margin same colour. Mesonotum without darker anterior part, concolorous; pilosity completely pale. Scutellum basally sometimes more whitish. Oviscape shorter than abdominal terga 3-6, orange in colour.

Encyclopedia of Life link: <http://eol.org/pages/724880/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=Ceratitiss+ditissima&searchTax=](http://www.boldsystems.org/index.php/Taxbrowser_Taxonpage?taxon=Ceratitiss+ditissima&searchTax=)

(accessed May 2020)

DNA barcoding might be considered as a fairly suitable tool for the molecular identification of *C. ditissima*, regardless of the fact that the BINs in which this species is represented, also include a few unidentified / possibly misidentified reference sequences

## Host plant list

*Ceratitiss ditissima* is a polyphagous species but its host range is poorly known. In western Africa, it has been recorded from commercial fruits such as mango, citrus and cocoa. Wild hosts belong to the family Sapotaceae among others. Throughout its range it is recorded from the hosts listed in the table below.

PlantFamily	PlantLatinName	PlantCommonNameEnglish
Anacardiaceae	Mangifera indica	mango
Apocynaceae	Saba senegalensis	Saba nut
Apocynaceae	Saba sp.	
Cecropiaceae	Myrianthus arboreus	bugtree?
Lecythidaceae	Napoleonaea gabonensis	
Rutaceae	Citrus sinensis	sweet orange
Rutaceae	Citrus sp.	
Rutaceae	Citrus x paradisi	grapefruit
Sapotaceae	Chrysophyllum albidum	white star-apple
Sapotaceae	Chrysophyllum beguei	
Sapotaceae	Chrysophyllum pruniforme	
Sapotaceae	Chrysophyllum sp.	
Sapotaceae	Tridesmostemon claessensi	
Sapotaceae	Vitellaria paradoxa	shea butter
Sterculiaceae	Theobroma cacao	cocoa

information on host records and associated specimens can be found on :

<http://projects.bebif.be/fruitfly/taxoninfo.html?id=11>

## Impact & management

Details on losses incurred by *Ceratitiss ditissima* on commercial crops are very limited. Vayssières et al. report limited occurrence and infestation in citrus in Benin (Vayssières et al., 2010) and in mango in Mali (Vayssières et al., 2004), while Foba et al. (2012) list it as the dominant species in a number of citrus varieties in Ghana. Umeh et al. (2008) reports its presence in citrus orchards in Nigeria.

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

Protein bait products such as liquid protein baits and three component Biolure can be used to monitor females and males of *C. ditissima*.

Male flies can be attracted by methyl eugenol.

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

*Ceratitidis ditissima* is widespread in western and central Africa, but dispersed records are available throughout eastern Africa, south till the northern part of South Africa. 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=11>

## REFERENCES

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