

Spodoptera littoralis



Taxon	Family / Order / Class / Phylum
<i>Spodoptera littoralis</i> (Boisduval, 1833)	Noctuidae/Lepidoptera/Insecta/Arthropoda

COMMON NAMES (English only)

African cotton leaf worm
Cotton worm
Mediterranean brocade moth
The Mediterranean climbing cutworm
Egyptian cottonworm
Egyptian cotton leaf worm

SYNONYMS

Hadena littoralis Boisduval 1833
Spodoptera retina Freyer, 1845
Spodoptera testaceoides Guenée, 1852
Spodoptera metrioides Bethune-Baker, 1991
Spodoptera littoralis Boisduval, 1833 (= *Spodoptera litura* auct., non Fabricius)
Noctua gossypii Fabricius, 1794
Prodenia littoralis Boisduval, 1833
Prodenia retina Freyer, 1945
Prodenia testaceoides Guenée, 1852



Adult of *Spodoptera littoralis*

Photo: Paolo Mazzei

SHORT DESCRIPTION

It is a polyphagous adult moth up to 2 cm long with a wingspan of approximately 4 cm; fully developed larvae 35 to 45 mm long, its colour varying from grey to reddish or yellowish; eggs laid in batches covered with orange-brown hairs.

BIOLOGY/ECOLOGY

Dispersal mechanisms

Flight range of adult moths can be 1.5 km during a period of 4 h overnight. Long distance dispersal occur through eggs and larvae present on plant material, cut flowers and vegetables.

Reproduction

1000-2000 eggs laid per female between 2 and 5 days after emergence; egg masses of 100-300 on the lower leaf surface of host plants. Life cycle last from 19 to 144 days.

Known predators/herbivores

Braconids, encyrtids, tachinids and ichneumonids.

Resistant stages (seeds, spores etc.)

HABITAT

Native (EUNIS code)

F5: semi-arid and subtropical habitats in pre-Saharan Africa.

Habitat occupied in invaded range (EUNIS code)

F5: Maquis, matorral and thermo-Mediterranean brushes, F6: Garrigue, F8: Thermo-Atlantic xerophytic habitats, H5: Miscellaneous inland habitats with very sparse or no vegetation, I1: Arable land and market gardens, I2: Cultivated areas of gardens and parks.

Habitat requirements

Larvae are extremely sensitive to climatic conditions, especially to combinations of high temperature and low humidity; temperatures above 40°C or below 13°C may increase mortality.

DISTRIBUTION

Native Range

Tropical and subtropical Africa

Known Introduced Range

Africa, southern Europe and Asia Minor




Trend

It is one of the most commonly intercepted species in Europe, for example on imported ornamentals. It has been found but not yet established in Western and Northern Europe (Denmark, Finland, France, Germany, Netherlands, England). It is a potentially serious pest of glasshouse crops in northern Europe.

MAP (European distribution)



Legend

	Known in country		Known in CGRS square		Known in sea
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INTRODUCTION PATHWAY

Commerce appears to be the most likely pathway for introduction, on imported commodities such as glasshouse crops, both ornamentals and vegetables from infested areas. Adult moths can also be spread through wind, attachment to or transport by another organism or through other natural means.

IMPACT

Ecosystem Impact

Health and Social Impact

Economic Impact

It is one of the most destructive agricultural lepidopteron pests within its subtropical and tropical range. It is attacking plants belonging to 44 different families including grasses, legumes, crucifers and deciduous fruit trees all containing species of highly economic importance. In North Africa it is damaging vegetables, in Egypt cotton and in Southern Europe, the plant and flower production in glasshouses (Italy), and vegetables and fodder crops (Sicily).

MANAGEMENT

Prevention

It is important to seek assurance from suppliers that plants are free from this pest as part of any commercial contract. Avoid importing plant material from infested areas. Carefully inspect new plants on arrival, including any packaging material, to check for eggs and caterpillars and for signs of damage. Eggs are laid in batches, on

plants and other surfaces such as pots, benches or glasshouse structures. As the adults are nocturnal, light or pheromone traps should be used for monitoring purposes.

Mechanical

Physical destruction of insects and any plant material infested by this pest is recommended. Egg masses can be hand collected.

Chemical

There are many cases of resistance to insecticides.

Biological

Includes the use of microbial pesticides, insect growth regulators and slow-release pheromone formulations for mating disruption.

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