NOCTUIDAE - *Trichoplusia ni* (Hübner) *Non-Rep*

Taxonomy

Noctuoidea: Noctuidae: Plusiinae: *Trichoplusia ni* (Hübner)

Common names: cabbage looper, cabbage worm

Synonyms: *Plusia innata, Autographa brassicae*

Larval diagnosis (Summary)

- Vestigial prolegs on A3 and A4
- Second and third ridge of the mandible extending to the scissorial teeth
- Smooth cuticle with minute granules (not microspines) under high magnification
- Equally spaced mesothoracic pinacula

Host/origin information

*Trichoplusia ni* is highly polyphagous and can be found on nearly any host plant. It is most commonly intercepted from Mexico (73% of records), Colombia, and Peru, on the following hosts:

<table>
<thead>
<tr>
<th>Origin</th>
<th>Host(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>Ocimum</td>
</tr>
<tr>
<td>Mexico</td>
<td>Brassica, Coriandrum, Mentha, Ocimum, Salvia</td>
</tr>
<tr>
<td>Peru</td>
<td>Ocimum</td>
</tr>
</tbody>
</table>

Recorded distribution

*Trichoplusia ni* is widely distributed in temperate regions around the world, with a few exceptions. In the New World, it is present from Canada to Argentia. In the Old World, its distribution is more sporadic. It is present in most regions but is absent from Australia, Northern Europe, Russia, and parts of Africa and Asia.

Identification authority (Summary)

For the New World, identification to species is rarely necessary; it is best to just stop at subfamily if the larva is in the tribe Argyrogrammatini (*T. ni* and relatives). If a species name is needed for a special risk assessment, the mouthparts can be mounted and larvae identified with existing keys. Because of other unknown Plusiinae, it is safest to identify *Trichoplusia*-like interceptions from most of Africa or Asia only to subfamily

Pest characterization

- Taxonomy: **High**. Species identification is often possible.
- Distribution: **Low**. *Trichoplusia ni* occurs in the U.S.
- Potential Impact: **High**. *Trichoplusia ni* is a pest species.

This ranking characterizes *Trichoplusia ni* as not quarantine significant for the U.S.

Larval diagnosis (Detailed)


Typically, *T. ni* can be recognized by having vestigial prolegs on A3 and A4, the second and third ridges (ribs) of the mandible extending to the scissor (cutting) teeth, a smooth cuticle with minute granules (not microspines) under high magnification, and the equally spaced mesothoracic pinacula (LaFontaine and Poole 1991). The cuticular texture of *T. ni* was illustrated in Ichinose
Identification authority (Detailed)

**Trichoplusia ni** is highly polyphagous and widely distributed. It occurs from Canada to Argentina in the New World but is more sporadic in the Old World (LaFontaine and Poole 1991). The Commonwealth Institute of Entomology map (1974) does not list it from northern Europe, Russia and parts of Africa or Asia. It is absent from Australia (Edwards 1996) and rare under natural conditions in the Netherlands (Bretherton et al. 1983). Otherwise it can be expected from the rest of the world where winter temperatures are mild.

**Trichoplusia ni** identification is an excellent example of the clash between the theoretical and the practical worlds of quarantine entomology. Of course, species identification of all the interceptions is the goal. But for the New World, given the volume of the interceptions and the lack of time to do dissections, it is rarely worth the effort to try and identify **T. ni** from Mexico, Central America, and usually South America. The host list of **T. ni** reads “like a compendium of herbaceous plants of the world” (LaFontaine and Poole 1991) suggesting that cataloging all the plants infested with this species is of little value when we can assume it could occur on almost any herbaceous host. With limited resources, from a United States perspective, it is best to just stop at subfamily if the larva is in the tribe Argyrogrammatini (**T. ni** and relatives) from the New World. If a species name is needed for a special risk assessment, the mouthparts can be mounted and larvae identified with existing keys.

On the other hand, Weisman (1986) did not list **T. ni** from the Old World. Perhaps he wanted to imply that Old World interceptions should not go to species. Identification of **T. ni** from Europe, North Africa, and the Middle East is possible with Beck (1999-2000) or Ahola and Silvon (2005). Beardsley (1982) can be used for interceptions from Hawaii. However, Kitching (1987: 144) noted that **Trichoplusia** contains about 50 potentially unrelated species that form one of the most difficult problems to resolve in the systematics of the Plusiinae. Given this uncertainty, it seems safest to identify **Trichoplusia**-like interceptions from most of Africa or Asia only to subfamily.

**Origin records**

**Trichoplusia ni** has been intercepted from the following locations:

Antigua and Barbuda, Brazil, Canada, Chile, China, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Germany (?), Guatemala, Guyana, Hawaii, Israel, Italy, Jamaica, Kenya, Mexico, Netherlands, Nicaragua, Palestinian Territory, Peru, Yemen

**Host records**

**Trichoplusia ni** has been intercepted on the following hosts:

Trichoplusia ni setal map

Click here to download a full-size printable PDF of this larval setal map