



## Quick scan for *Lateantenna inana*

National Plant Protection Organization, the Netherlands

Quick scan number: QS2025ENT001

Quick scan date: 11-02-2026

No.	Question	Quick scan answer for <i>Lateantenna inana</i>
1.	What is the scientific name (if possible up to species level + author, also include (sub)family and order) and English/common name of the organism? <i>Add picture of organism/damage if available and publication allowed.</i>	<i>Lateantenna inana</i> (Butler, 1881) (Lepidoptera: Ditrysia: Gelechioidea: Blastobasidae: Blastobasinae)  Synonyms: <ul style="list-style-type: none"><li>- <i>Blastobasis explorata</i> Meyrick, 1918</li><li>- <i>Blastobasis inana</i> Walsingham, 1907</li><li>- <i>Gracilaria inana</i> Butler, 1881</li></ul>
2.	What prompted this quick scan? <i>Organism detected in produce for import, export, in cultivation, nature, mentioned in publications, e.g. EPPO alert list, etc.</i>	Interception (17 February 2025) of a living larva of <i>Lateantenna inana</i> (LATEIN) in a fruit of <i>Citrus x aurantium</i> var. <i>sinensis</i> (CIDS) from Egypt during an import inspection (EPPO codes of the species names in brackets).
3.	What is the risk assessment area?	The risk assessment area is the territory of the European Union (EU 27)
4.	What is the current area of distribution?	Reported occurrences: Réunion, India, Hawaii (Bippus, 2020), French Polynesia (Clarke, 1986), New Britain, Thailand (Ohshima et al., 2018), China (Li et al., 2023), Papua New Guinea (Sam et al., 2017) and in a single greenhouse in Japan (Ohshima et al., 2018).  Its apparently patchy distribution might be the result of introduction events as a result of international trade or may suggest a wider unobserved or non-reported distribution of the

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5.	What are the host plants?	<p>organism. The infested fruit originated from Egypt which indicates that <i>L. inana</i> is present in Egypt although it has not been reported from that country.</p> <p><i>Lateantenna inana</i> is polyphagous as species from different plant families have been reported as host plants:</p> <ul style="list-style-type: none"> <li>- <i>Allium sativum</i> (garlic) (Zimmerman, 1978),</li> <li>- <i>Citrus unshiu</i> (Satsuma mandarin) (Ohshima et al., 2018),</li> <li>- <i>Coffea</i> spp. (coffee) (Zimmerman, 1978),</li> <li>- <i>Dioscorea</i> spp. (yam) (Zimmerman, 1978),</li> <li>- <i>Eugenia uniflora</i> (Clarke, 1986),</li> <li>- <i>Litchi</i> spp. (Li et al., 2023),</li> <li>- <i>Phaseolus vulgaris</i> (garden beans) (Zimmerman, 1978),</li> <li>- <i>Saccharum officinarum</i> (dead sugarcane) (Zimmerman, 1978),</li> <li>- <i>Shorea acuminata</i> (Robinson et al., 2023).</li> </ul>
6.	<p>Does the organism cause any kind of plant damage in the current area of distribution and/or does the consignment demonstrate damage suspected to have been caused by this organism?</p> <p><i>Yes/no + plant species on which damage has been reported + short description of symptoms.</i></p> <p><i>Please indicate also when the organism is otherwise harmful (e.g. predator, human/veterinary pathogen vector, etc.).</i></p>	<p>Two records were found of damage caused by the organism on living plants (qualitative description of damage; no quantitative data):</p> <ul style="list-style-type: none"> <li>- In 2013, <i>L. inana</i> was observed to cause premature fruit drop in <i>Citrus unshiu</i> (Satsuma mandarin) by boring and feeding within the pedicel of the fruit in a single greenhouse in Kagoshima Prefecture in Japan (Ohshima et al., 2018).</li> <li>- Li et al. (2023) observed damage of the bark and phloem of <i>Litchi chinensis</i> (lychee) in 'the past two years' (probably 2020 – 2021) in Guandong Province in China with particularly severe infestations in the Pearl River Delta including Guangzhou and Dongguan. They provide the following description of the damage (translated from Chinese): in severely affected trees, the bark of the main stem and the main branches are completely eaten away, leading to weakened trees and affecting flowering and fruiting. Control methods are described but the study does not provide quantitative information on yield losses in lychee in China.</li> </ul> <p>No other records of damage or yield losses were found during an online search (sources used: the Host Plant Database (Robinson et al., 2023), Google Scholar, Biological Abstracts 1969 to November 2025 and CAB Abstracts 1973 to 2025 Week 50 using the search string '(Blastobasis and explorata) OR ((Lanteantenna OR Blastobasis OR Gracilaria) AND inana)').</p> <p>The intercepted fruit (n=1) demonstrated damage (extensive blackening of the endocarp bordering the exocarp/albedo) that makes it unmarketable. Such kind of damage caused by <i>L. inana</i> was not found in literature and the symptoms may lead to confusion with well known/regulated citrus borers. It is uncertain whether it concerns a rare or incidental infestation or whether citrus fruit (or other kinds of fruit) are frequently attacked by <i>L. inana</i> leading to significant yield losses in the current area of distribution.</p>

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7.	<p>Assess the probability of establishment in the Netherlands (NL) (i.e. the suitability of the environment for establishment).</p> <p>a. In greenhouses b. Outdoors c. Otherwise (e.g. storage facilities, human environment)</p>	<p>a. Given the climate in the species current known distribution area (tropics, subtropics and possibly a hot desert climate in Egypt), climatic conditions in heated greenhouses may be suitable for establishment of the species. However, the host plants listed above (see 5.) are not or only incidentally present in heated greenhouses.</p> <p>b. Climate conditions outdoors are likely unsuitable (the species is only known from warmer climates, see above).</p> <p>c. Unsuitable.</p>
8.	<p>Assess the probability of establishment in the EU (i.e. the suitability of the environment for establishment).</p>	<p><i>Lateantenna inana</i> was found in a greenhouse in Kagoshima Prefecture in Japan (Ohshima et al., 2018). This Prefecture has a humid subtropical climate (Köppen-Geiger: Cfa) which is also present in the EU, mainly in parts of Italy, Slovenia, Croatia, Hungary, Bulgaria and Romania (Beck et al., 2023). However, it is unclear whether <i>L. inana</i> has established outdoors in Kagoshima Prefecture because the only finding reported was from a greenhouse. In China, the pest has been reported from The Pearl River Delta (Li et al., 2023) which has a Monsoon-influenced humid subtropical climate (Köppen-Geiger: Cwa) which does not occur in the EU. Other countries or islands where <i>L. inana</i> is known to be present has (mainly) a tropical climate which also does not occur in the EU. If <i>L. inana</i> is indeed established in Egypt it would be present in a hot desert climate (Köppen-Geiger: BWh). The southernmost parts of the EU have mainly a Mediterranean climate (Köppen-Geiger: Csa and Csb) but there is also a small area with a hot desert climate (BWh; in south eastern Spain). These parts include regions where citrus is grown on a commercial scale (EFSA Panel on Plant Health et al., 2023) and might be suitable for establishment of <i>L. inana</i> (uncertainty).</p> <p>Note that the use of the Köppen-Geiger climate classification only provides a preliminary indication of the suitability of the EU climate for establishment of a species because within the same Köppen-Geiger climate class large climatic differences can occur (e.g. the average air temperature in the coldest month in a Cfa climate is between 0 and 18°C (Beck et al., 2023)).</p>
9.	<p>What are the possible pathways that can contribute to spread of the organism after introduction? How rapid is the organism expected to spread (by natural dispersal and human activity)?</p>	<p>The pest may spread naturally and by trade of infested fruit.</p>
10.	<p>Provide an assessment of the type and amount of direct and indirect damage (e.g. lower quality, lower production, export restrictions, threat to biodiversity, etc.) likely to occur if the organism would become established in NL and the EU, respectively?</p>	<p>Establishment in the Netherlands is unlikely. Establishment in southern EU Member States might result in yield losses in citrus crops considering the damage observed on the citrus fruit imported from Egypt and the damage on <i>C. inshiu</i> reported from Japan (see 6.). Lychees may be grown on a very small scale in the EU (Diariosur, 2012) and might also be impacted if <i>L. inana</i> were to become introduced into the EU. However, the uncertainty is high because no other publications were found reporting <i>L. inana</i> as a pest of citrus and the magnitude of impact in lychee is also uncertain (see 6.). In addition, there is uncertainty about the establishment potential in the EU.</p>
11.	<p>Has the organism been detected on/in a product other than plants for planting (e.g. cut flowers, fruit, vegetables)?</p>	<p>Yes, fruit</p>

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	<i>If "no", go to question 12</i>	
12.	If the organism has been found on/in a product other than plants for planting (e.g. cut flowers, fruit, vegetables), what is the probability of introduction (entry + establishment)? <i>Only to be answered in case of an interception or a find.</i>	Question not answered because of the high uncertainty concerning the impact of the pest.
13.	Additional remarks	-
14.	Summary and conclusions	<ul style="list-style-type: none"> <li>• This Quicksan was prompted by the interception of <i>Lateantenna inana</i> on a fruit of <i>Citrus x aurantium</i> var. <i>sinensis</i> from Egypt.</li> <li>• <i>Lateantenna inana</i> is not known to be present in the EU.</li> <li>• <i>Lateantenna inana</i> might be able to establish in parts of the EU (uncertainty).</li> <li>• The potential impact of <i>L. inana</i> for the EU is highly uncertain: only two records have been found describing damage caused by the species: on pedicels of <i>Citrus unshiu</i> (Satsuma mandarin) in a greenhouse and on bark and phloem of <i>Litchi</i> but without any quantitative data on yield losses.</li> </ul>
15.	References	<p>Beck HE, McVicar TR, Vergopolan N, Berg A, Lutsko NJ, Dufour A, Zeng Z, Jiang X, van Dijk AI &amp; Miralles DG, 2023. High-resolution (1 km) Köppen-Geiger maps for 1901–2099 based on constrained CMIP6 projections. <i>Scientific data</i>, 10 (1), 724.</p> <p>Bippus M, 2020. Records of Lepidoptera from the Malagasy region with description of new species (Lepidoptera: Tortricidae, Noctuidae, Alucitidae, Choreutidae, Euteliidae, Gelechiidae, Blastobasidae, Pterophoridae, Tonzidae, Tineidae, Praydidae, Cosmopterigidae, Batrachedridae). <i>Phelsuma</i>, 28, 60-100.</p> <p>Clarke JFG, 1986. Pyralidae and Microlepidoptera of the Marquesas Archipelago. In: Smithsonian Institution Press, Washington.</p> <p>Diariosur, 2012.]. Available online: <a href="https://www.freshplaza.com/north-america/article/2103071/spain-la-axarquia-only-place-in-europe-suitable-for-lychee-cultivation/">https://www.freshplaza.com/north-america/article/2103071/spain-la-axarquia-only-place-in-europe-suitable-for-lychee-cultivation/</a> [Accessed: 28-01-2026].</p> <p>EFSA Panel on Plant Health, Bragard C, Baptista P, Chatzivassiliou E, Di Serio F, Gonthier P, Jaques Miret JA, Justesen AF, MacLeod A, Magnusson CS, Milonas P, Navas-Cortes JA, Parnell S, Potting R, Reignault PL, Stefani E, Thulke H-H, van der Werf W, Yuen J, Zappalà L, Makowski D, Maiorano A, Mosbach-Schulz O, Pautasso M &amp; Vicent Civera A, 2023. Risk assessment of <i>Citripestis sagittiferella</i> for the EU. <i>EFSA Journal</i>, 21 (2), e07838. Available online: <a href="https://doi.org/10.2903/j.efsa.2023.7838">https://doi.org/10.2903/j.efsa.2023.7838</a></p> <p>Li WJ, Dong YZ, Yao Q, Xu S &amp; Chen BX, 2023. <i>Lateantenna inana</i>, a new insect pest of litchi and a new record species of Blastobasidae from China (Lepidoptera: Gelechioidea). <i>Journal of Environmental Entomology</i>, 45, 1772-1777.</p> <p>Ohshima I, Sakamaki Y, Inoue H, Arai T &amp; Adamski D, 2018. DNA barcoding and adult morphology reveal an unrecorded species on Citrus and other new host associations of Blastobasidae (Lepidoptera: Gelechioidea) in Japan, with taxonomic notes on the genus <i>Lateantenna</i>. <i>Lepidoptera Science</i>, 69 (1), 1-9.</p>

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		<p>Robinson GS, Ackery PR, Kitching I, Beccaloni GW &amp; Hernández LM, 2023. HOSTS (from HOSTS - a Database of the World's Lepidopteran Hostplants) [Data set resource]. . Natural History Museum. Available online: <a href="https://data.nhm.ac.uk/dataset/hosts/resource/877f387a-36a3-486c-a0c1-b8d5fb69f85a">https://data.nhm.ac.uk/dataset/hosts/resource/877f387a-36a3-486c-a0c1-b8d5fb69f85a</a></p> <p>Sam K, Ctvrticka R, Miller SE, Rosati ME, Molem K, Damas K, Gewa B &amp; Novotny V, 2017. Low host specificity and abundance of frugivorous lepidoptera in the lowland rain forests of Papua New Guinea. PLoS ONE, 12 (2), e0171843. Available online: <a href="https://doi.org/10.1371/journal.pone.0171843">https://doi.org/10.1371/journal.pone.0171843</a></p> <p>Zimmerman EC, 1978. Microlepidoptera. University of Hawaii Press, Hawaii.</p>
16.	Follow-up measures	No official measures. This decision may be reconsidered following new information about the impact of <i>Lateantenna inana</i> and/or repeated interceptions of the organism on fruit and new information on climatic requirements for establishment of the organism.