Netherlands Food and Consumer
Product Safety Authority
Ministry of Economic Affairs

National Plant Protection Organization
POBox 9102
6700 HC Wageningen
The Netherlands

2015 December PEST Report - THE NETHERLANDS

1.1 Suspicion of *Contarinia pseudotsugae* in forest trees of *Pseudotsuga menziesii* at four locations in the provinces Limburg, Noord-Brabant and Gelderland.

1.2 Executive summary

This report concerns the suspicion of an official finding of *Contarinia pseudotsugae* (Douglas-fir needle midge) at four locations in the Netherlands on numerous forest trees of *Pseudotsuga menziesii* (Douglas-fir) in the provinces Gelderland, Limburg and Noord-Brabant. Findings were triggered by the yearly national specific survey of forest stands *inter alia* for the fungus *Mycophaerella.*
The identification of the species is tentative because three different *Contarinia* species are known to occur in the neeldes of Douglas fir in Canada and the USA and adults need to be reared to identify the species. *C. pseudotsugae* is the economically most important species in North America. It can cause severe defoliation, twig die-back and stunted growth of especially younger trees. Findings at four widely dispersed locations in the Netherlands in natural stands with thousands of trees of Douglas fir, indicate that the pest is established and has been present for several years. The current impact appears limited and concerns minor wilting symptoms of leafs on lower branches. The species may especially pose a risk for young tree nurseries. It is unknown how the pest was introduced. Import of plants of *Pseudotsuga* from non-European countries has been prohibited in the EU for more than 20 years.
The origin of the finding is unknown. Before the finding in the Netherlands, this midge was only known to occur in North America. The organism is not listed as a harmful organism in the EU directive 2000/29/EC and is not listed on the EPPO A1 or A2 list.
Identity of the pest (scientific name) *Contarinia pseudotsugae Condrashoff*
Categorization of the pest none
Location**:** Provinces Limburg, Noord-Brabant and Gelderland
Reason of the notification: First report.
How the pest was found (1) pest related official survey
Information on the infested area, severity and source of the outbreak – Relatively mild wilting symptoms were observed on lower branches (see figure 3).
Official phytosanitary measures - No measures have been taken based on the wider distribution.

4. Reason of the notification and pest status
4.1 Select: (1) First presence of the harmful organism
Select: First report

4.4 Current Pest status
(3) Present: in specific parts of the area where host plants are grown

4.3 Previous Pest status
Select: (8) Absent: no pest records

1.3 Legal provisions – select (or include in cover letter)
Full notification

3. Location of presence of harmful organism
3.1 Provinces Limburg, Noord-Brabant and Gelderland.

5. Information relating to the finding.
(1) pest related official survey for other harmful organisms on *Pseudotsuga.*

5.2 Date of finding.
Inspections were carried out on 27 November 2015.

(5.3) submission of information concerning the sampling procedure for laboratory analysis, including date, method, and sample size. Attachment of pictures is possible.
On 26 November mycologists of the National Reference Centre, while analyzing samples, found gall midge larvae in Douglas needles and subsequently informed the Diptera specialist.

(5.4) the name and the address of the laboratory
NPPO – The Netherlands
National Reference Centre
Contact person:
Ir. A.T.C. (Anton) van der Sommen (a.t.c.vandersommen@nvwa.nl) Tel: +31 88 223 2486
P.O.Box 9102
6700 HC Wageningen
The Netherlands

5.5 Diagnostic method.
The larvae were confirmed to belong to the family Cecidomyiidae (Diptera) or gall midges. After further examinations of the larvae, literature check and consultation with the American expert (R. Gagné, USDA Systematic Entomology Laboratory, Washington DC) the larvae were tentatively identified as Contarinia cf pseudotsugae Condrashoff. Rearing adults is necessary to resolve the species identity.
At the moment, there are no species specific DNA barcode data in the public databases for the three Contarinia species attacking Douglas needles. However, a 100% match was obtained with an unidentified Contarinia sp. supporting the view that the genus concerns Contarinia.

5.6 Date of official confirmation of the harmful organism's identity
27 November 2015.

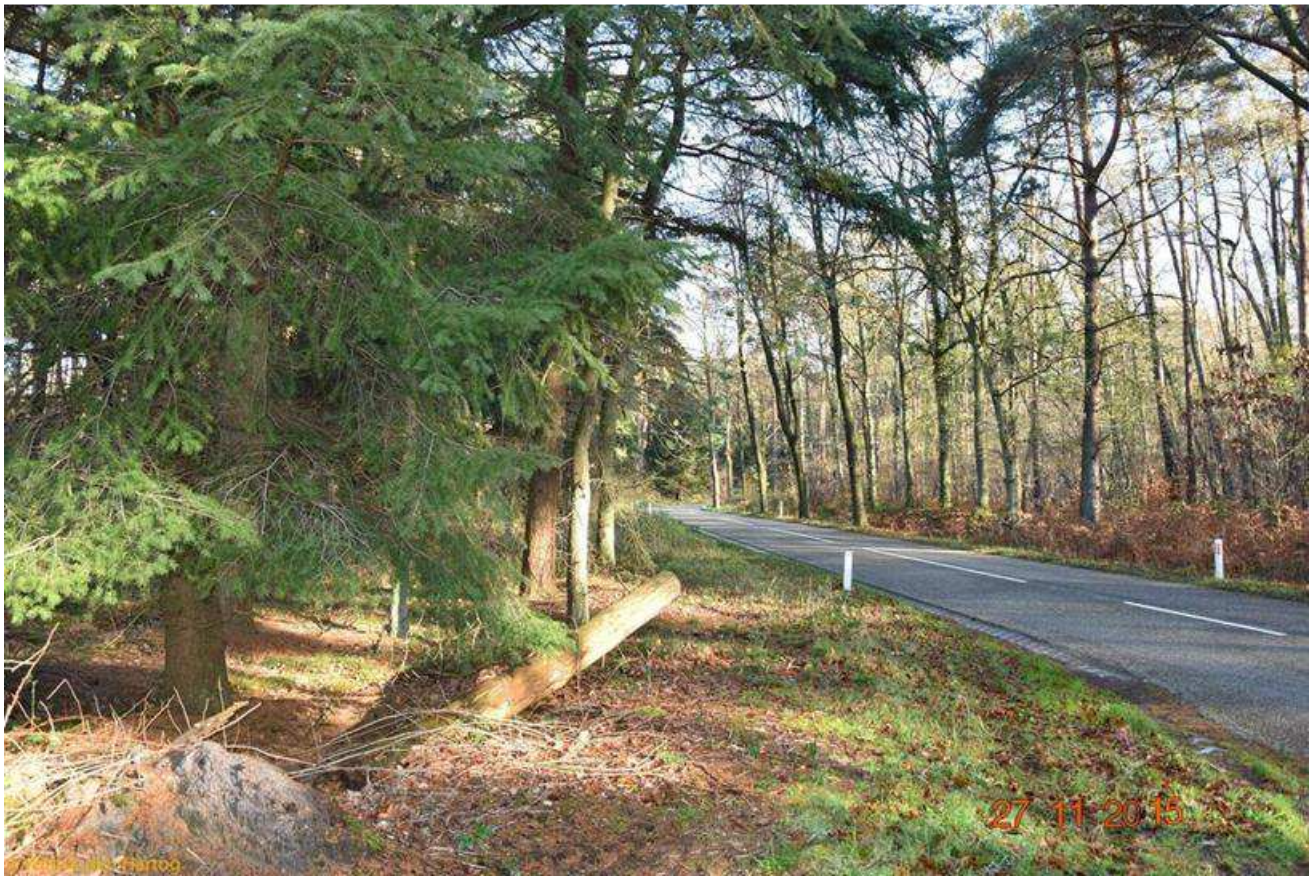
6. Information related to the area, severity of the finding and source of the finding
Relatively mild symptoms were observed on multiple (at least 10 per location) at four locations in natural forest stands totalling thousands of trees of Douglas fir.

6.2. Characteristics of the infested area and its vicinity. Indication of one or more of the following options:
(2) Open air – other
(2.3) conservation area

6.3. Host plants in the infested area and its vicinity.
Only *Pseudotsuga menziesii* is affected.

Fig1. Affected trees (right – symptoms are not visible on this picture) and surrounding trees.

Fig 2. affected trees (left – symptoms not visible on this picture) and surrounding trees.



6.4. Infested plant(s), plant product(s) and other object(s).
Pseudotsuga menziesii

6.5. Vectors present in the area.
Not relevant.

6.6. Severity of the outbreak.
Mild symptoms were observed on lower branches of several trees at four different locations. It is presumed that the pest has been present for several years.

Fig. 3 Symptoms on lower branches of a tree of *Pseudotsuga menziesii* caused by feeding damage of larvae of *Contarinia pseudotsugae.*

Fig. 4 Close-up of symptoms caused by feeding damage of larvae of *Contarinia pseudotsugae.*

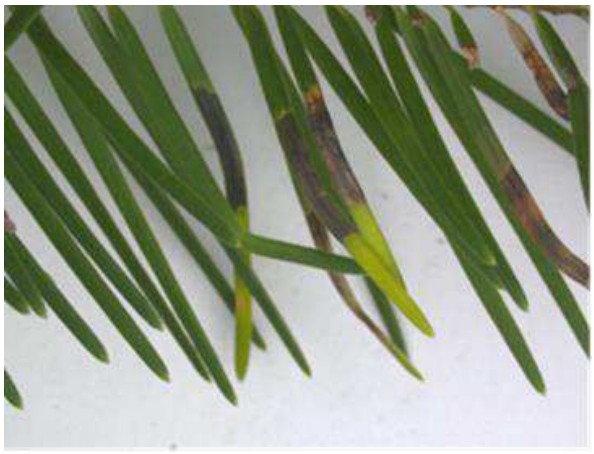
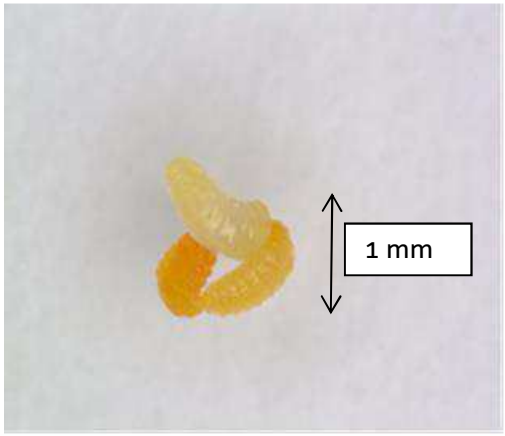


Figure 5. suspected larvae of *Contarinia pseudotsugae*



6.7. Source of the outbreak.
The origin of the finding is unknown. Thus far this midge is only known to occur in Northern America.

7. Official phytosanitary measures

7.1. Adoption of official phytosanitary measures.
(5) No official phytosanitary measures due to wider distribution the pest has been present for a prolonged period and eradication is no longer possible.

8. Pest risk analysis/assessment.

(3) Preliminary pest risk analysis exists.
The relevant quick scan will become available on the website of the NPPO:
https://english.nvwa.nl/documents/document/pest-risk-analysis/quick-scans

9. Links to relevant websites, other sources of information.

References:

NPPO The Netherlands