

### Mini data sheet on *Ophiomyia kwansonis*

Added in 2013 - Deleted in 2016

**Reasons for deletion:**

*Ophiomyia kwansonis* has been included in EPPO Alert List for more than 3 years and during this period no particular international action was requested by the EPPO member countries. The Panel on Quarantine Pests for Forestry and the Panel on Phytosanitary Measures agreed that it could be deleted. In 2016, the Working Party on Phytosanitary Regulations therefore considered that sufficient alert has been given and the pest was deleted from the Alert List.

*Ophiomyia kwansonis* (Diptera: Agromyzidae) - daylily leafminer

Why	<i>Ophiomyia kwansonis</i> is a leafminer of <i>Hemerocallis</i> species (daylilies) which until recently was only known to occur in Japan and Taiwan. In 2011, it was introduced into the USA where it spread rapidly. The same year, it was detected for the first time in Europe, in Slovenia. Considering the invasive behaviour of this new daylily leafminer, the EPPO Secretariat decided to add <i>O. kwansonis</i> to the EPPO Alert List.
Where	<i>O. kwansonis</i> originates from Asia. In the USA, the first indication of its presence is an image taken in July 2006 in Kennebunk, Maine. In 2008, damage was noticed by daylily amateurs at a national meeting in Texas, and by 2012 it was recorded in at least 15 US states. In Slovenia, it was first found in 2011 in the city of Ljubljana, and again in 2012 in Ljubljana and its surroundings, suggesting that the pest has been able to overwinter and spread. EPPO region: Slovenia. Asia: Japan, Taiwan. North America: USA (Alabama, Florida, Georgia, Louisiana, Maine, Maryland, Mississippi, North Carolina, New York, South Carolina, Pennsylvania, Tennessee, Texas, Virginia and West Virginia).
On which plants	<i>Hemerocallis</i> spp. (including <i>Hemerocallis fulva</i> , <i>H. lilioasphodelus</i> ).
Damage	Larvae feed on <i>Hemerocallis</i> leaves, mining up and down between the leaf surfaces, leaving obvious silver tunnels. Larvae are yellowish, up to 5 mm long, with protruding black anterior and posterior spiracles. Pupation occurs inside the mines, usually near the leaf base. Pupae are 3-3.5 mm long, orange-brown except for black anterior and posterior spiracles that protrude prominently as in larvae. Adults are small black flies (2 mm length) with red eyes and clear wings which can be seen resting on daylily blooms. Female oviposit in the leaf blade, often at or near its tip. No plant mortality has been reported but severe mining strongly disfigures daylilies which are grown for ornamental purposes. In Japan, there are three generations per year (2 in May-July and 1 in September-October). In Florida (US), it seems that the insect can breed continuously at least from March to September, probably representing several generations (number which remains to be determined). Pictures have kindly been provided by Dr D Jurc (SFI) and can be viewed on the EPPO gallery: <a href="http://photos.eppo.org/index.php/album/629-ophiomyia-kwansonis-ophokw-">http://photos.eppo.org/index.php/album/629-ophiomyia-kwansonis-ophokw-</a>
Dissemination	Adults can fly but no details are available on their flying capacities. Over long distances, movement of infested plants is probably an important pathway. In addition, <i>Hemerocallis</i> spp. with their numerous cultivars are quite popular in gardening and it is likely that amateurs are actively exchanging or trading planting material. Plants are often multiplied vegetatively and sold bare-rooted with 1 or 2 crowns including short green leafy parts which could carry eggs, larvae or pupae. Seeds are not likely to be a pathway.
Pathway	Plants for planting of <i>Hemerocallis</i> spp. from countries where <i>O. kwansonis</i> occurs.
Possible risks	<i>Hemerocallis</i> spp. are widely planted in the EPPO region for ornamental purposes in parks and gardens. However, more data would be needed on the economic importance of its production and trade in the EPPO region. Although, it seems

that *O. kwansonis* does not kill *Hemerocallis* spp., attacked plants can be severely disfigured which reduces their economic value. Young larvae and eggs are virtually invisible in plant tissue and may easily escape detection in nurseries and consignments. For the moment, no chemical methods have been tested against this insect and no biological control agents have been identified, which renders its eradication/containment very difficult once it has been introduced. A rapid PRA has been conducted in the United Kingdom which pointed out that *O. kwansonis* has the potential to seriously decrease the quality of marketed crops, and that import of *Hemerocallis* from the USA and Asia was not regulated, thus leaving a possibility for entry. Therefore, phytosanitary measures (e.g. requirements that *Hemerocallis* plants should come from an area free from the pest) would be most effective to prevent its entry into countries which are still free from it. Considering the invasive behaviour of this leafminer, it seems desirable to prevent its further spread within the EPPO region.

## Sources

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## INTERNET

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