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North American Plant Protection Organization

Organización Norteamericana de Protección a las Plantas

NAPPO Expert
Group:
Lymantriids:
Status Report

LYMANTRIIDS

Country	Name	Title
Canada	Dave Holden	
Canada	Thierry Poiré	
USA	Glenn Fowler	
Mexico	Sara Cabrera Ramírez	
Mexico	Norma Patricia Miranda González	
Mexico	Augusto Mirafuentes	
Mexico	Eduardo Jiménez Quiroz	Co-Chair
Mexico	Clemente de Jesús García	
Mexico	Daniel Bravo Pérez	

Project

- Develop a NAPPO S&T document on the risks associated with lymantriids of potential concern to the NAPPO region, identifying potential species and pathways of concern

Orgyia anartoides



Ken Walker, Museum Victoria PADIL

Olene mendosa



[Sindhu ramchandran](#)



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Audience

Primary: Risk analysts and surveillance groups

Why: Potential to assist in identification, risk analysis, and surveillance

Secondary: Asian Gypsy Moth expert group

Why: Inform potential revision of the RSPM #33



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Group News

- Determined scope and time to complete the science and technology document: Tentatively July 2019
- Dave Holden stepped down as group chair
- Gustavo Gonzalez departed the group
- Lymantriids are now in the Family: Erebidae, Subfamily: Lymantriinae



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Progress

- 74 data sheets completed
- 56 data sheets need to be categorized
- 31 data sheets are outstanding
- Technical report in progress: “Assessment of risk of introduction and establishment of tussock moths [Lepidoptera: Erebidae: Lymantriinae] exotic pests to North America”



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Data Sheet Example: *Orgyia thyellina*

Question	Answer	Score	Comments/References
Does this species occur within similar climate types to the NAPPO region?	Yes	---	Potential Climate Match: Canada: 74.49%, Mexico: 12.42%, United States: 66.40% Climate Types Affected: Csc, Cwc, Dfa, Dfb, Dfc, Dsb, Dwa, Dwb, Dwc (MAF, 2008; Peel et al., 2007; Umeya and Okada, 2003). Note: these Koppen-Geiger climate types are based on those present in the majority of its distribution.
Known to feed on forests and/or crops of economic concern to the NAPPO region.	Yes	---	<i>Orgyia thyellina</i> is a polyphagous moth that feeds on agricultural crops and economically important forest trees in the NAPPO region including: <i>Glycine max</i> (soybean), <i>Malus domestica</i> (apple), <i>Phaseolus vulgaris</i> (bean), <i>Prunus ameniaca</i> (apricot), <i>Prunus salicina</i> (plum), <i>Prunus</i> spp. (cherry), and <i>Pyrus</i> spp. (pear) (NASS, 2014; Umeya and Okada, 2003).
Adult female moths attracted to light	Yes	1	MAF, 2008
Reports of contaminant during pest's overwintering stage	Yes	2	<i>Orgyia thyellina</i> egg masses have been intercepted in used vehicles from Japan at New Zealand ports (Armstrong et al., 2003).
Known to feed on other native NAPPO region hosts	Yes	1	<i>Humulus lupulus</i> is a host and is native to Canada and the United States (NRCS, 2017; Umeya and Okada, 2003).
Reported to cause damage in native range, causing economic or environmental losses	Uncertain	0	<i>Orgyia thyellina</i> is a horticultural and forest pest (Plant Health Australia, No Date). However specific information on <i>O. thyellina</i> 's pest significance in its native range is lacking (MAF, 2008) and we rated it uncertain.



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Data Sheet Example: *Orgyia thyellina*

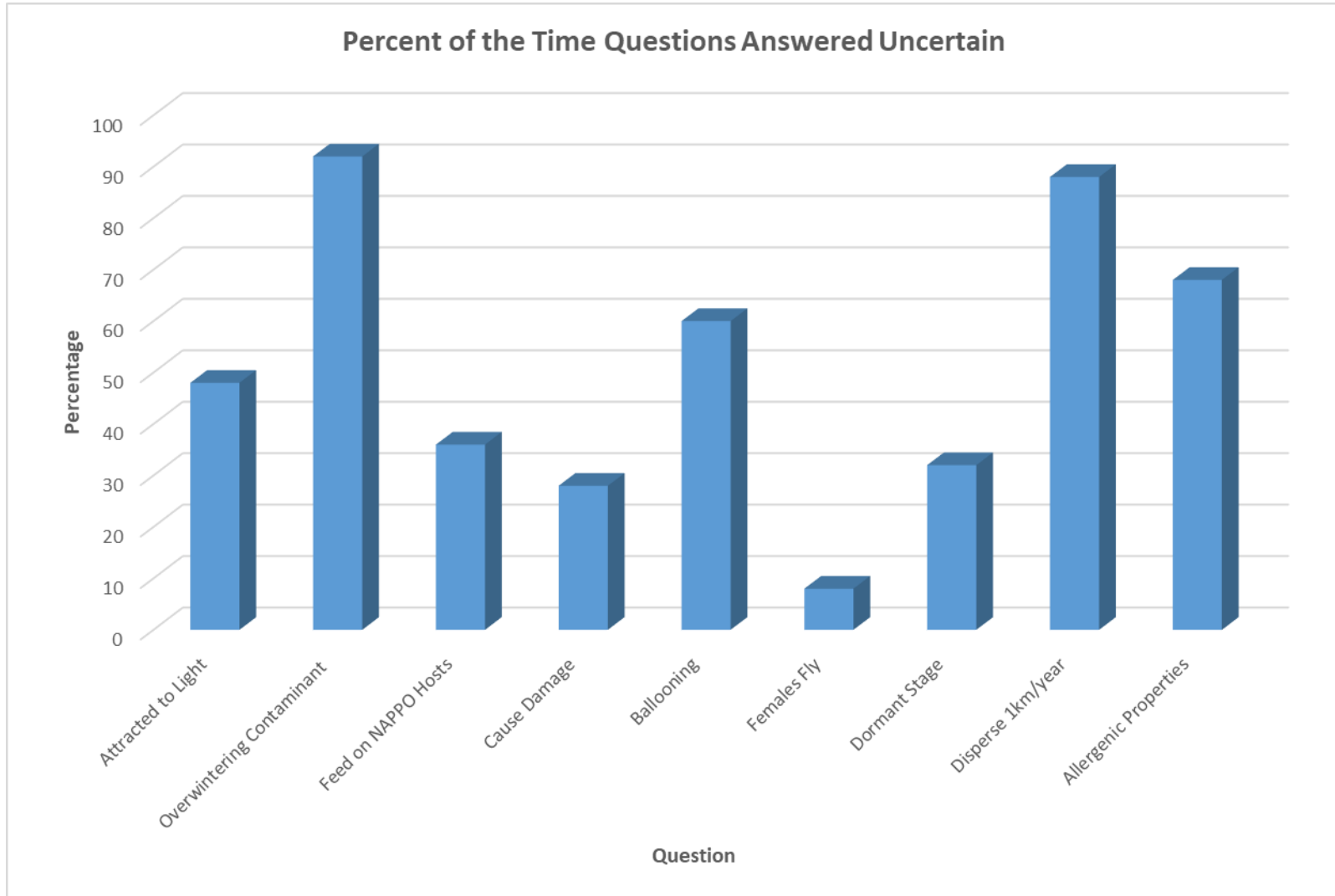
Larvae capable of ballooning	Yes	1	MAF, 2008
Adult females capable of flight	Yes	1	Females exhibit seasonal dimorphism with the spring and summer generations being capable of flight (Plant Health Australia, No Date).
Life history contains dormant stage to withstand harsh environmental conditions	Yes	1	<i>Orgyia thyellina</i> will diapause in the egg stage to survive the winter (Kimura and Masaki, 1977).
Capable of dispersing naturally more than 1km/year	Uncertain	0	Specific flight distances are not known (MAF, 2008).
Reported to have allergenic properties	Yes	1	Larvae have urticating hairs that can cause rashes and respiratory problems in people (Gries et al., 1999).
TOTAL SCORE		8	



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Uncertainty Analysis



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Next Steps

- Complete remaining pest data sheets
- Highest risk candidates will be included in the report
- Complete report by established deadline



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- Dave Holden (Thanks for serving as Chair!)
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