Some Nysius bugs of concern to U.S.  
(Hemiptera: Lygaeidae)

CLASSIFICATION
Insect Order: Hemiptera
Suborder: Heteroptera, or “True Bugs”
Family: Lygaeidae, “Seed Bugs”

DISTRIBUTION
World: 106 described species (revision needed)
North of Mexico: 12 species (2 pests)
Florida: 3 species, two in common with California

N. raphanus, the “false chinch bug”
N. scutellatus
N. tenellus

©Google Map from Feb. 1, 2017 of some records of Nysius raphanus from “The Symbiota Collections of Arthropods Network” (SCAN).

Several Nysius species feed on sap in addition to seeds, and two feed only on dead or dying insects.

*Nysius raphanus* is common in USA and is intercepted regularly from California.
They are pests on grains and/or vegetables and ornamentals

Lettuce is a common element in intercepted *Nysius* pests and a likely commodity for its transportation.
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**Nysius huttoni**  
“Wheat Bug”

**DISTRIBUTION**
From New Zealand, now in Europe, at least in Belgium, France, Netherlands and the UK.

**PPQ Interception Records since 1984**
- **From:** mostly New Zealand, some from Australia, and the Netherlands.
- **Ports of entry:** mostly in California (Los Angeles, Long Beach, San Francisco, Oakland), some in Pennsylvania (Philadelphia), a few in Florida (Tampa, Miami), and Delaware (Wilmington).
- **Life stage:** all as live adults.
- **Cargo:** on or with fruits (apples, pears, strawberries, blueberries, kiwi fruit, apricots), cut flowers, and cut herbs.

**PATHWAYS**
Naturally by flight
Hitchhiker on non-hosts

Considered a passenger pest, transported through trade on non-host material as a contaminant
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**Nysius huttoni**  
“Wheat Bug”

**HOSTS**  
Polyphagous (13 plant families), primarily feeding on weeds, but it severely affects wheat and **cole crops** (*Brassica* spp.). Pest also on clover, alfalfa, oats, rye, barley, strawberries, raspberries, beets, lettuce, turnips, and other crops.

**DAMAGE**  
The enzymes in these bugs’ saliva damage the gluten in the wheat kernels, making for runny dough unsuitable for baking.

The enzymes also cause flower and foliage damage. They cause wilting, leaf death, and stem collapse in **cole crops**.

**BEHAVIOR**  
Highly mobile species, overwinters as adult, and forms large aggregations, which can become a nuisance.

*Nysius huttoni*. Photos with permission from J. M. McKenzie. Material used with kind permission of HortNET, a product of The Horticulture and Food Research Institute of New Zealand Limited.
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**IDENTIFICATION**

*Nysius huttoni* is characterized by its dorsal pilosity, that is, a cover by short erect hairs on its upper surface. This is the primary character needed to distinguish it from the false chinch bug, *Nysius raphanus*, a native pest species that is regularly intercepted in Florida from California. However, *N. caledoniae* is also pilose.

**Screening aid**

A field screening aid has been prepared, but a microscope is still needed for close examination.

**Identification aid**

Dissection is required for final identification. An identification aid has been produced, which is based mostly on genitalic structures. A key that separates it from other species in US has not been prepared.
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*Nysius caledoniae*

“Caledonia Seed Bug”

**DISTRIBUTION**

From the Pacific, including New Caledonia, Fiji, Japan, the Philippines, into New Zealand, Australia, Guam and Hawaii.

**HOSTS and DAMAGE**

Polyphagous, breeding on weeds, primarily Asteraceae and common purslane, where they can develop large populations.

Has caused serious damage to buds and flowers of vanda orchids (Hawaii).

May invade and damage some crops, including lettuce, sunflowers, safflower. It may be a threat to flower growers.

**IDENTIFICATION**

Based on dissected genitalia. No screening or identification aids available yet.

*Has not been intercepted in U.S. ports*

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Some *Nysius* bugs of concern to U.S.  
(Hemiptera: Lygaeidae)

*Nysius vinitor*  
“The Rutherglen Bug”  
“RGB”

**DISTRIBUTION**  
Australia and Tasmania, Philippines, Caroline Islands. May have been introduced into Hawaii.

**HOSTS and DAMAGE**  
Polyphagous, with feeding records of 20 plant families, mostly on native or native and introduced weeds, primarily Asteraceae. Can invade field crops including sunflowers, potato, strawberry, papaya, canola, sorghum, cole crops, beans, tobacco, grapes, carrots, peaches, tomatoes, potatoes, beans, young citrus, wheat, barley, cherry, and many other crops; ornamentals such as calendula flowers; and pastures. Frequently found in shipped vegetables and lettuce.

Has not been intercepted in U.S. ports
Some *Nysius* bugs of concern to U.S.  
(Hemiptera: Lygaeidae)

*Nysius vinitor*  
“The Rutherglen Bug”  
“RGB”

**BEHAVIOR**

Breeds into large local populations.
Sporadic pest and outbreaks.
Displays strong dispersal behavior, fast and agile.
Highly migratory, traveling distances up to 300 km.
Nocturnal.

Painful bites and skin irritation reactions reported.

> "They will 'nip'. They are basically trying to find out if you're good enough to eat," she said.  
> "It can be painful. They are trying to stick that proboscis in you, and that proboscis is quite tough. They can put it quite a way into hard objects," she said.  

Enters homes; known well by homeowners.

Desks, houses, hair, even the coffee cup hasn't been able to escape a spike in numbers of the Rutherglen Bug.

The bugs are not just bugging car owners - they are small enough to fit through insect screens and have been invading homes.
Identification aid – in process.
Dissection of genitalia is required for final identification, primarily to see the shape of the dorsal opening of the male capsule (pygophore).