



Identification Aid for the Wheat Bug, *Nysius huttoni* (Hemiptera: Lygaeidae)

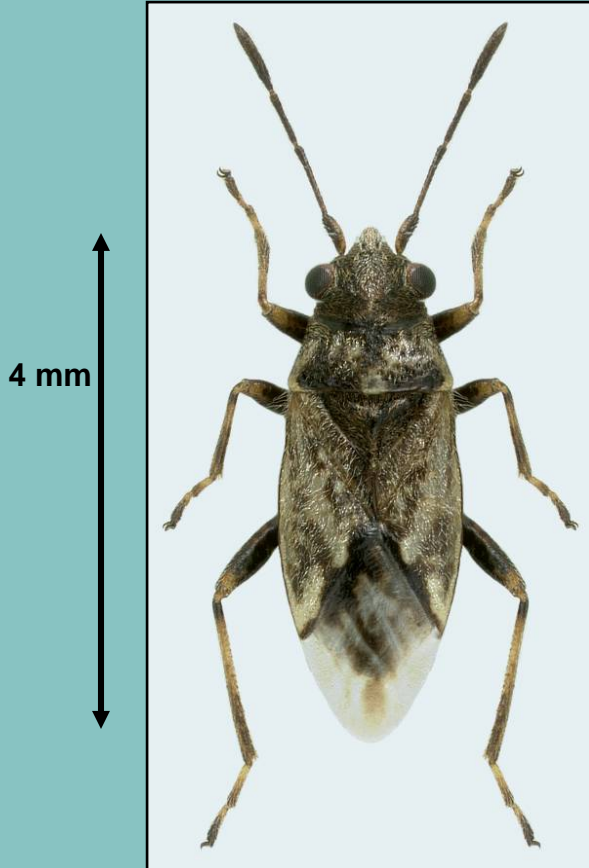


Photo by Natasha Wright, Division of Plant Industry,
Florida Department of Agriculture and Consumer Services.

Size: Adults are 2.4 to 4.5 mm long

Shape: Body elongate oval and dorsally flattened, except short-winged forms are somewhat convex.

Head: Head triangular, slightly narrower than pronotum, with eyes round and prominent but not stalked. Antennal segments 1 and 4 are wider than segments 2 and 3, with segment 4 fusiform. Labium reaches hind coxae. Bucculae elongate and wide, abruptly ending near apex of first labial segment.

Legs: Forelegs thin and without spines.

Color: Adults have a cryptic pattern in grey and/or brown with black and creamy white. Femora brown with apex yellow, tibiae yellow. Wing membranes are translucent or transparent, even shiny. Nymphs are grey and brown with reddish brown abdomens.



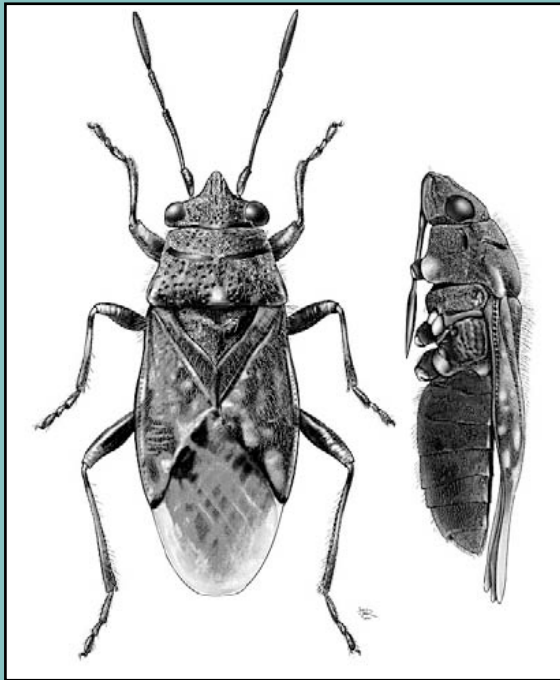
Live specimens

Photographs used with permission of HortNet (www.hortnet.co.nz), a product of The Horticulture and Food Research Institute of New Zealand Limited.

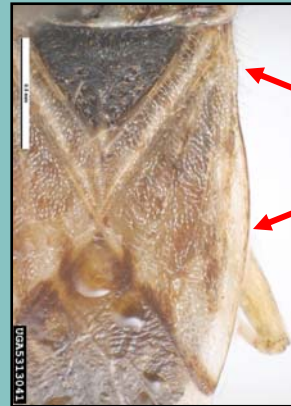
Wheat bugs are polymorphic. However, they are distinguishable from *Nysius* species in U.S. and Canada by a combination of external and genitalic characters.

This handout was produced by J. Brambila (USDA/APHIS/PPQ) for CAPS (Cooperative Agriculture Pest Survey program). I thank Berend Aukema (Netherlands, retired from Plant Protection Service) for the specimen.

Hemiptera: *Nysius huttoni*



From Aukema, 2005, "Nysius huttoni, a New Zealand endemic heading from Britain?", HetNews Newsletter (www.hetnews.org), 2nd series, no. 6, page. 12.



Constricted base of corium

Laterally expanded margin of corium

Photo by Ken Walker, Museum Victoria, www.invasive.org

Left figure: Dorsal and lateral views of *Nysius huttoni*. Notice surface pilosity on the lateral view.

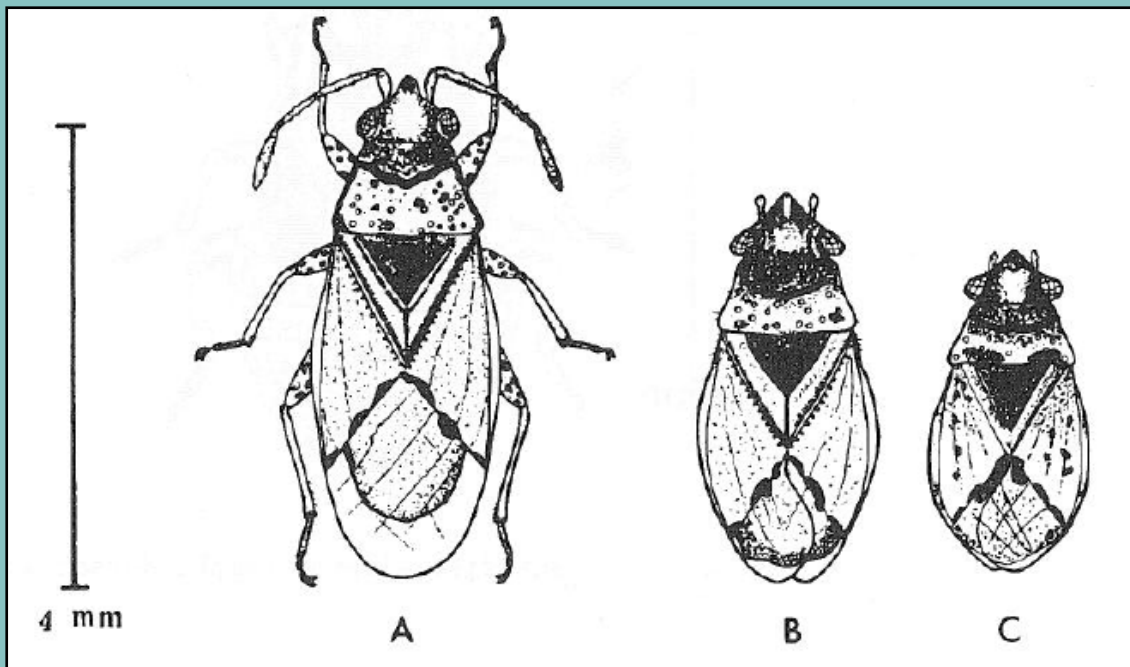
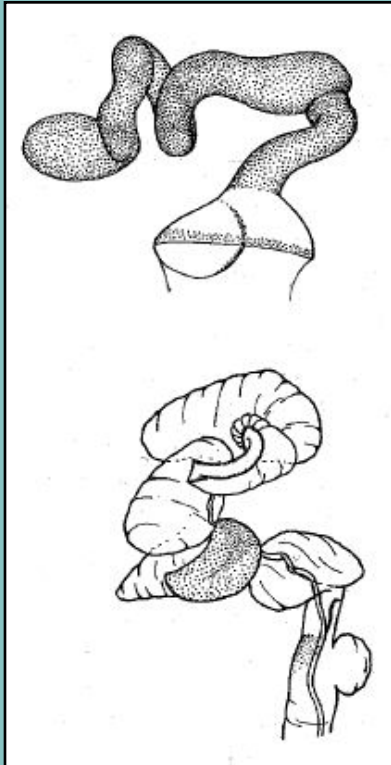


Figure from Whittle and Henry, 1985, APHIS Report 81-46, Pests not known to occur in the United States or of Limited Distribution, N. 67, 1985, page 3, "Wheat Bug, *Nysius huttoni* White".

Size and shape polymorphism. A: Large macropterous form. B: Medium sub-brachypterous form. C: Small brachypterous form.

Hemiptera: *Nysius huttoni*



Spermatheca of female (upper figure), and vesica and apex of conjunctiva of aedeagus of male (lower figure) of *Nysius huttoni*.

Nysius huttoni is most similar to *N. thymi*, a species described from Europe and of Holarctic distribution. The Wheat Bug can be distinguished from *N. thymi* by the features listed below. At present *N. huttoni* has been found in Europe (the Netherlands, Belgium, United Kingdom, and France) and not North America. It is originally from New Zealand.

Figure from Eyles and Ashlock, 1969, in "The Genus *Nysius* in New Zealand", p. 725.

Nysius is a large cosmopolitan genus with more than 100 species recognized and more to be described. It is characterized by having the outer corial margins constricted basally, the pronotum slightly wider than the head across the eyes, and the forefemora unarmed. It is further distinguished by lacking a stridulatory ridge along the lateral corial margin.

Nysius huttoni can be distinguished from the twelve species recorded from North America north of Mexico by the combination of the following characters:

- Dorsal surface pilose.** Long erect setae are present on the pronotum, scutellum, clavus, and corium together with decumbent pubescence instead decumbent pubescence only.
- Clavus with rows of punctures.** A regular double of row of punctures is found on the clavus instead of a single row or instead of a smooth surface with at most a few punctures near the base.
- Bucculae scarcely tapered.** Bucculae are wide and long, slightly tapering and ending abruptly near the base of the head instead of gradually tapering.
- Short wings.** Short-winged forms are predominant in populations of *N. huttoni* while no brachypterous forms are known for *Nysius* species found in North America.