

NOCTUA COMES IN ONTARIO: AN INTRODUCED CUTWORM (NOCTUIDAE: NOCTUINAE) NEW
TO EASTERN NORTH AMERICA

Additional key words: grape, tobacco, Palaearctic.

The Lesser Yellow Underwing, *Noctua comes* Hübner, [1813], is an Old World cutworm moth that was introduced in North America in the Vancouver, British Columbia, area around 1982 (Neil 1984; Copley & Cannings 2005). It has since spread eastward in British Columbia as far as the Okanagan Valley, and south into Washington and central Oregon, and continues to expand, but has not yet crossed the Continental Divide (Lafontaine 1998, J. Donald Lafontaine pers. com.). The slow expansion of *Noctua comes* in the Pacific Northwest in the last twenty-five years is in stark contrast to the spread of its highly invasive congener, the Large Yellow Underwing, *Noctua pronuba* (L.), which was introduced in Halifax, Nova Scotia, around 1979 and in the same time period has traversed the continent (Neil 1981, Powell 2002), quickly becoming abundant in most areas.

On 15 August 2006 I collected a fresh male *Noctua comes* (Fig. 1) at a mercury vapor light in my garden in urban Toronto, Ontario, Canada (43.674°N, 79.337°W). On 25 September 2006 a second worn male was collected at the same location. The specimens are deposited in the Canadian National Collection (CNC), Ottawa, and the identification was confirmed by J. Donald Lafontaine. This is the first report of *Noctua comes* in eastern North America. In 2007, two additional specimens (both female) were collected at the same location on 24 September and 26 September (specimens in collection of the author). Despite regular moth collecting in downtown Toronto for a number of

years, yielding over 150 species of noctuid moths, *Noctua comes* has not previously been detected. Its sudden appearance suggests that it has only recently become established here and, over 3000 km east of its known North American range, undoubtedly represents a separate introduction from the Palaearctic or a secondary introduction from the Pacific Northwest. With the increasing number of recent introductions of Old World noctuids in the Northeast (Mikkola & Lafontaine 1994, J. Donald Lafontaine pers. com.), and the proximity to the Great Lakes–St. Lawrence Seaway (and the port of Toronto a few kilometers away), a European origin seems more likely. Dual introductions on the Atlantic and Pacific coasts, often almost simultaneously, have been noted with some frequency in the Lepidoptera (Ferguson 1996, Mikkola & Lafontaine 1994, Miller 1999, Powell & Passoa 1991).

Larvae of *Noctua comes* feed at night on a wide variety of herbaceous plants in open areas including weedy species, cultivated plants, and grasses (Poaceae) and in spring also climb to feed on low woody plants (Lafontaine 1998, Waring *et al.* 2003). It is a minor pest of grape (*Vitis* L.) (Vitaceae) and tobacco (*Nicotiana* L.) (Solanaceae) in the western Palaearctic, and larvae were recently found feeding on developing grape buds in vineyards in Washington (Sannino & Espinosa 1999, James 2007).

Additional records from Toronto are expected and the species should be watched for in southern Ontario, southwestern Quebec and the Great Lakes states. *Noctua comes* can be distinguished from *Noctua pronuba* by its smaller size (forewing length = 16 to 21 mm) and by the presence of a conspicuous black discal spot on the hindwing. The living moth with wings closed may suggest a species of *Abagrotis* Smith more than a small *pronuba*. Diagnostic characters of the genitalia and larvae of *Noctua comes* and *N. pronuba* are provided by Lafontaine (1998). Additional Palaearctic species of *Noctua* are illustrated in Fibiger (1993, 1997). The early stages of *Noctua comes* are described and illustrated by Sannino & Espinosa (1999). It has a single brood annually and overwinters as a larva; the flight season extends from July to September, with extreme dates in June and October in the Pacific Northwest and the British Isles. Specimens from British Columbia in

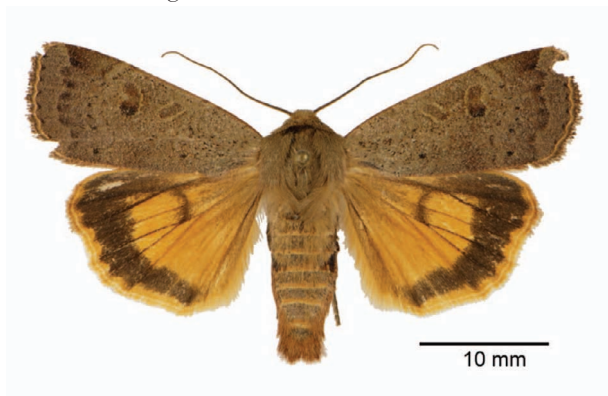


Fig. 1. *Noctua comes*, male, Toronto, Ontario, Canada, 15 August 2006.

the CNC from February and March are labeled “from nursery” and were likely reared from larvae found in greenhouses.

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ERYNNIS FUNERALIS OVIPOSITS ON EXOTIC ROBINIA PSEUDOACACIA IN WESTERN ARGENTINA

Additional key words: Fabaceae

Butterflies are adapting to exotic host plants worldwide, including high elevations in the Andes (Shapiro 2006) and in the South American subantarctic (Shapiro 1997). This note reports the apparently widespread use of the naturalized North American tree Black Locust (*Robinia pseudoacacia* L. (Fabaceae)) as an oviposition substrate and presumptive host plant of a presumably native skipper in western Argentina.

In late afternoon on 24 January 2008 at Chos Malal, Neuquen Province, I watched a female *Erynnis funeralis* (Scudder & Burgess) lay three eggs in succession on coppice growth of *R. pseudoacacia* in town. Alerted to this behavior, I then observed another female in a different part of town lay one egg on this plant three hours later. I subsequently saw repeated instances of oviposition, always on growth less than 4m tall and often in shade, at Las Lajas, Neuquen; in the city of Mendoza, Mendoza Province; and around Calingasta and Barreal, San Juan Province, all over the next three weeks, for a total of >30 ovipositions by at least 8 different females. Though the species was common, I never observed oviposition on other substrates.

Pastrana (2004) includes this plant as a host based on Aravena (1983), adding that that record might be based on reared material provided by J. Williamson from the Province of LaPampa. Scott (1986) lists this as a host of *E. zarucco* (Lucas), at that time considered conspecific, in the United States. He also lists *Robinia neomexicana* A. Gray as a host of *E. funeralis*. Although alfalfa (*Medicago sativa* L., Fabaceae) is the most widely-cited host of *E. funeralis* in both the United States and Argentina, and is regularly visited as a nectar source, I have never seen any trace of oviposition or pre-oviposition behavior directed toward it in 30 years' experience in Argentina.

Black Locust is widely naturalized, having escaped from urban cultivation in Argentina, and is routinely found as a participant in synthetic woody riparian communities recruited from the horticultural flora in irrigated zones in the arid and semiarid west. *Erynnis funeralis* is a consistent inhabitant of these communities as well as appearing in urban gardens and parks; its distribution in western Argentina is broadly concordant with that of *Robinia pseudoacacia*. A significant element of the western regional fauna is similarly restricted to