

A Brown Widow (*Latrodectus geometricus*) Arrives in Burlington

by Carl Rothfels

On September 22, 2005, a gentleman arrived in my office at Royal Botanical Gardens, and presented me with a jar: “Is this a Black Widow spider?”

My surprise guest (the human one) was Michael Brown, who runs a business – Hydro Spas – importing hot tubs. Earlier that morning, at the corner of Plains Road and Brant Street in Burlington, he had been unpacking a shipment of hot tubs from Clearwater, Florida, when he discovered the small dark spider. Interest piqued, he captured it, and brought it to RBG, where he was eventually directed to me.

Even through the textured glass of the Snapple bottle, we could easily see the hourglass-shaped mark on the underside of the spider’s abdomen, which confirmed that it was one of the widows (*Latrodectus*), a genus of very poisonous spiders. These spiders are perhaps most famous for the female’s habit of eating the male after mating, hence the “widow” moniker. This bizarre behaviour is part of an extremely interesting evolutionary and ecological story, and is coincidentally the subject of much research by Dr. Maydianne Andrade, a professor at Scarborough College (www.utoronto.ca/~mandrade/).

Curious to know more about my guest (the spider one), I took some digital photos of it, and sent them to local insect experts. Tom Mason, Curator of Invertebrates at the Toronto Zoo, promptly wrote back and confirmed that the spider was indeed a female

widow. But, instead of being one of the Black Widows (there are several species of “Black Widow” including the Western Black Widow - *Latrodectus hesperus*; the Black Widow - *L. mactans*; and the Northern Black Widow - *L. varians*) it was the related Brown Widow (*Latrodectus geometricus*).

Brown Widows differ from the other species in that their legs are banded, and by their egg sacs, which are bumpy instead of smooth. It is a very variable species, with both dark and light morphs (the Burlington one was a dark morph). While the venom of Brown Widows is approximately twice as potent as that of the Black Widows, they rarely bite, and inject a very small quantity of venom if they do. They have been introduced to Florida, and are now common there and present in the neighboring states (sarasota.extension.ufl.edu/IPM/BrownWidow.htm).

While it is extremely unlikely that this spider could have survived our winter, she did lay an egg case shortly after her arrival (female widows can store sperm and thus produce eggs without any males in the vicinity); had Michael

not brought her in, there might have been small Brown Widows running around Burlington this fall.

The broader lesson here is the ease with which organisms can be spread beyond their native ranges. It was only because Michael was particularly eagle-eyed that he spotted the spider in the first place, and because he was curious enough to bring it in to RBG, that this visitor was reported at all. What would he have done if it was a plain brown spider? How many thousands of events like this occur each year, without anyone ever being any the wiser? The most dangerous ones, of course, are not small poisonous spiders, but invasive species that would potential get established here, to the detriment of our local natural spaces. ☒



Photographs of the Burlington Brown Widow courtesy of Royal Botanical Gardens.