Concerns over Chagas disease and kissing bugs in Ohio are unwarranted

Recent media reports have increased concern and awareness of the general public in Ohio about the risk of contracting Chagas disease, which is an insect-borne disease transmitted by blood-feeding reduviid bugs (Order Hemiptera, Family Reduviidae, Subfamily Triatominae), also known as kissing bugs. Chagas disease is a chronic illness caused by a protozoan parasite (*Trypanosoma cruzi*) that is similar to the one that causes African sleeping sickness. In brief, when an infected kissing bug feeds on a human host, the parasite can be transmitted to humans. Chagas disease is an important illness throughout Central and South America. However, the risk of contracting this disease in Ohio is extremely low.

Triatomine-borne Chagas in the U.S. is a viable-concern along the Texas-Mexico border and Southwestern U.S. where the vectors and pathogen are abundant, and the disease has been emerging in canines. Insects capable of vectoring Chagas exist in the U.S. and at least one potential vector occurs in Ohio (*Triatoma sanguisuga*). However, the likelihood of acquiring Chagas in Ohio from a bug is very low for a variety of reasons (see additional readings below). The most likely route of acquiring Chagas within the U.S. is from receiving a blood transfusion from an infected blood donor.

Please note that there are several insects in Ohio that may be confused for a kissing bug, such as <u>assassin bugs</u>, <u>wheel bugs</u> (a large assassin bug), and <u>leaffooted bugs</u>. Assassin bugs can bite if picked up, but since they generally feed on other insects, they are not vectors of any known human disease. Leaffooted bugs that feed on seeds of pine trees commonly invade homes in Ohio and have recently been confused with kissing bugs, but are completely harmless to humans. The CDC provides more information on how to identify the only kissing bug that is found in Ohio (http://www.cdc.gov/parasites/chagas/gen_info/vectors/t_sanguisuga.html).

Additional readings:

Very good summary of the current situation and reasons why recent concerns are unwarranted: http://www.wired.com/2015/12/remain-calm-kissing-bugs-are-not-invading-the-us

Informative webpage about research on Chagas disease in Texas where the disease is emerging: http://kissingbug.tamu.edu/

General information from the CDC on Chagas disease: http://www.cdc.gov/parasites/chagas/



Kissing bug, *Triatoma sanguisuga* from Oklahoma (about 1 inch



Western conifer seed leaffooted bug, *Leptoglossus occidentalis* (about 1.2 inch long).



Wheel bug, *Arilus cristatus* (about 2.3 inch long).