

Genetically distinct carriers of Chagas disease-causing parasite live together

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Researchers have found living together the known carrier species for the Chagas disease-causing parasite *Triatoma dimidiata* (also known as "kissing bugs") and a cryptic species that looks the same — but is genetically distinct from — the known carrier species. The two species haven't interbred for as many as 5 million years, according to a report published March 10 in the open-access journal *PLoS Neglected Tropical Diseases*. PLoS Negl Trop Dis 3(3): e393. doi:10.1371/journal.pntd.0000393, dx.plos.org/10.1371/journal.pntd.0000393

Researchers with [Loyola University](#) New Orleans (United States), University of Wisconsin-Madison (United States), University of San Carlos ([Guatemala](#)), and Universidad Autónoma de Yucatán (Mexico) also describe the first finding of the cryptic [species](#) in Belize.

By examining the DNA of [kissing bugs](#) from throughout Mexico and Central America, the research team showed that the two species co-exist in the same towns and rural areas although they do not interbreed. "It will be important to understand what is keeping them separated," says Patricia Dorn, one of the lead authors of the study.

Chagas disease remains the leading cause of parasitic illness in Latin America, with approximately 10 million people infected.

"The best hope in curbing Chagas disease lies with controlling the kissing bugs that spread the parasite," Dorn says.

"To effectively control the kissing bugs, and thus interrupt transmission of Chagas disease, it will be important to correctly identify distinct species transmitting the parasite and to then design interventions that will be effective against particular species," Dorn says.

More information: Dorn PL, Calderon C, Melgar S, Moguel B, Solorzano E, et al. (2009) Two Distinct *Triatoma dimidiata* (Latreille, 1811) Taxa Are Found in Sympatry in Guatemala and Mexico.

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