THE OFFICIAL PUBLICATION OF THE SOUTHERN LEPIDOPTERISTS' SOCIETY ORGANIZED TO PROMOTE SCIENTIFIC INTEREST AND KNOWLEDGE RELATED TO UNDERSTANDING THE LEPIDOPTERA FAUNA OF THE SOUTHERN REGION OF THE UNITED STATES
American Trypanosomiasis (Chagas Disease) is an acute and chronic infection caused by the flagellate Trypanosoma cruzi, known to occur only in the Western Hemisphere. The parasite enters man via skin transmission from infected triatomine bugs (Hemiptera). The disease was first described in 1909 by Carlos Chagas in Brazil. In South America, Chagas cardiomyopathy is the most important cause of death among males 25-44 years of age, and it is the leading cause of cardiovascular death. Various species of assassin bugs (Reduviidae), ranging from the southern U.S. to Argentina, are linked with this disease. Blood feeding species of the genera Triatoma, Rhodnius, and Panstrongylus are more often cited in literature. These common insects take up residency and are routinely encountered in fermenting bait traps, feeding on flies and other insects, including those in size up to medium sphingids. They are also readily attracted to UV light traps and considerable numbers can routinely be taken.

In South America, Chagas cardiomyopathy is the most important cause of death among males 25-44 years of age, and is the leading cause of cardiovascular death. Infected sylvatic Triatoma species have long been found in most southern U.S. states. They have a blood-dependent life cycle. Dogs and cats are important domestic reservoirs. Opossums, rats, armadillos, and native rodents are important sylvatic reservoirs.

These insects usually feed at night and one individual can ingest up to one milliliter of blood per incident. Man is infected when the trypomastigotes in the insect feces penetrate the entry point as the bug defecates during or after feeding. Often there are no signs of the entry site. Sometimes there is an erythematous area at the site of skin penetration. Subsequently the heart wall, skeletal muscle and both central and autonomic nervous systems are invaded. A variety of maladies may ensue including fever, hypothermia, malaise, anorexia, convulsions, as well as fatal meningioencephalitis. The mortality among patients hospitalized with acute disease is about 10%. In some patients, congestive heart failure develops rapidly and is quite often fatal. Sudden death without previous symptoms is frequent in endemic areas. The disease also causes other serious complications including megaesophagus and megacolon.

There is no protective immunity in humans, nor is there any specific therapy. Chagas disease is primarily the result of socioeconomic deprivation. There are documented instances in the U.S. (Florida, and others) of persons living in poorly constructed housing which were infested with these insects.

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Note: Vernon Antoine Brou Jr.