The Journal of Parasitology – *Toxoplasma gondii* is a parasite that affects warm-blooded animals and is able to cross-contaminate between species. Humans are susceptible to this parasite in a variety of ways: congenital defects, blood-to-blood contact, undercooked meats of infected animals, and contaminated water. In addition, although all humans can contract this parasite, individuals with weakened immune systems, such as those infected with HIV, are at greater risk of death from toxoplasmosis. Because of the potential threat of *T. gondii*, it is important for humans to take preventative measures to avoid contraction of the parasite.

Studies centered in Europe and North America have identified three types of *T. gondii.* However, a recent study published in *The Journal of Parasitology* has identified different genotypes of the *T. gondii* parasite that correlate with studies from South America. The researchers conducted their study on the Caribbean island Grenada, by using free-range chickens to identify the existence of *T. gondii*. Free-range chickens are susceptible to the parasite because they feed from the ground. The existence of *T. gondii* in these animals indicates environmental contamination by the parasite.

The researchers tested 145 backyard chickens from five different communities around Grenada. They found that 27% were infected with the *T. gondii* parasite; type III being the most prevalent. When genotyping, the researchers discovered a fourth type of the parasite, showing an agreement with South American studies, proving that there is a high variability in the genetic diversity of *T. gondii*. This not only has implications for the animal life in Grenada but also worldwide.

Toxoplasmosis that results from the known genotypes of *T. gondii* has detrimental effects on those suffering from an already weakened immune system. However, the newly discovered atypical genotypes are linked to the clinical toxoplasmosis that is occurring in individuals with regular immune systems.

Based on the findings of their study, the researchers believe that toxoplasmosis will continue to grow as an infectious disease, especially in Grenada. Due to the greater emergence of HIV in Grenada, complications from toxoplasmosis are a threat to those with a weakened immune system. In addition, because free-range chicken is a substantial food source, it is imperative that meat and eggs are cooked properly to help lower the chances of infection for the entire population.

Full text of the article, “Isolation and RFLP Genotyping of Toxoplasma Gondii in Free-Range Chickens (Gallus Domesticus) in Grenada, West Indies, Revealed Widespread and Dominance of Clonal Type III Parasites,” *Journal of Parasitology*, Vol. 103, No. 1, February 2017, is available here: http://www.journalofparasitology.org/doi/full/10.1645/15-945

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About the *Journal of Parasitology*

The Journal of Parasitology is the official journal of the American Society of Parasitologists (ASP). It is a medium for the publication of new original research, primarily on parasitic animals, and official business of the ASP. The journal is intended for all with interests in basic or applied aspects of general, veterinary, medical parasitology, and epidemiology.