



Recent transcontinental sweep of *Toxoplasma gondii* driven by a single monomorphic chromosome.

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Summary:

Toxoplasma gondii is a prevalent parasite of humans and other vertebrates, and certain strains are particularly dangerous to human health. We have characterized genetic variability among a broad sampling of *Toxoplasma gondii* isolates, revealing strains endemic to North and South America, respectively. In each region, certain strains have propagated as asexual clones, although sexual recombination has played a greater role in diversifying some South American lineages. In striking contrast to these patterns, a particular version of one chromosome has become established in distinct genomic backgrounds, both north and south of the Central American Isthmus. We do not yet understand why this chromosomal variant has experienced such disproportionate success, but its gene content points towards possible explanations that may unlock keys to the widespread prevalence of this important zoonotic parasite. This work was published in the *Proceedings of the National Academy of Sciences*:

<http://www.pnas.org/content/104/37/14872.full>