



Pork Information Gateway



## Post-Miocene expansion, colonization, and host switching drove speciation among extant nematodes of the archaic genus *Trichinella*.

### Authors:

- D. S. Zarlenga<sup>†,‡,§</sup>,
- B. M. Rosenthal<sup>‡</sup>,
- G. La Rosa<sup>†</sup>,
- E. Pozio<sup>†</sup>, and
- E. P. Hoberg

### Summary:

We performed an extensive study of genetic variation among species of parasites in the genus *Trichinella* in order to better evaluate its history of diversification and geographic spread. Our data established that 1) all contemporary species of *Trichinella* diversified within the last 20 million years; 2) people may have first come in contact with *Trichinella* when their diets shifted from herbivory to carnivory, long before pigs were first domesticated (only within the last several thousand years); and 3) expansion of *Trichinella* into North America likely occurred across the Bering Land Bridge, after which differences arose among parasites restricted to the New and Old Worlds. These findings better explain why (and for how long) certain parasites have occupied particular locales, and should assist future efforts to understand local variation in the health risk posed by such parasites. This work was published in the *Proceedings of the National Academy of Sciences*:

<http://www.pnas.org/content/103/19/7354.abstract>