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The free-living soil nematode *Caenorhabditis briggsae* isolated from Kurtistown, Hawai‘i

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The nematodes *Caenorhabditis elegans* and *Caenorhabditis briggsae* are of great interest to geneticists, cell and molecular biologists, and ecologists. Both *C. elegans* and *C. briggsae* have completely sequenced genomes and are used as model organisms for basic and applied biomedical research ranging from development to rational drug design. Species of the *Caenorhabditis* genus are cosmopolitan and noted to be highly anthropogenic (Barrière & Félix, 2005; Teotonio *et al*, 2006) thus we suspected their presence on former sugar cane farmlands. Previously identified strains isolated from unknown locales in Hawai‘i at the *Caenorhabditis* Genetics Center, University of Minnesota but unreported in the Hawaii Biological Survey, include *C. elegans* CB4856 and *C. briggsae* VT847.

Peloderinae

Caenorhabditis briggsae UH1 (HI806-1) **New state record**

Isolated by Baermann funnel extraction (Barrière & Félix, 2006) and maintained on agar nematode growth medium plates with an *Escherichia coli* OP50 bacterial lawn. It is identified morphologically under Normarski optics by its smooth cuticle and a buccal opening characteristic of Rhabditiae (Barrière & Félix, 2006). It has an elegant sinusoidal swim and a pointy tail, symmetrical brownish gut granule coloration, wide cytoplasmic rachis, a didelphic gonad, and a short rectum characteristic of *Caenorhabditis*. It reproduces hermaphroditically. Also like other *Caenorhabditis*, it has a two-bulb pharynx featuring a buccal cavity, procorpus, metacorpus, isthmus, and terminal bulb (Yochem, 2006). It prefers to grow at temperatures between 18 and 20 °C, is sterile at 30 °C and is lethal at 36 °C. Males can be induced by standard temperature-dependent methods (Hope, 1999). Molecular barcode identification used the *glp-1* gene (Barrière & Félix, 2005) and sequence from the gene encoding the 18S subunit of the ribosome (Floyd *et al*., 2002). Biological speciation is determined by crossing males of this isolate with hermaphrodites of *C. elegans* N2 and CB4856 strains, and *C. briggsae* AF16 and VT847 strains, and vice versa.

Material examined: **HAWAI‘I**: Kurtistown, Hwy 11 at 11 mi marker, in decomposing vegetative sample from pumpkin garden, hermaphrodite (*Caenorhabditis* Genetics Center, University of Minnesota).

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