

# Geographic Range Expansion for Rat Lungworm in North America

## Technical Appendix

**Technical Appendix Table 1.** Location, species, and number of mammals collected from each area that were tested for *Angiostrongylus cantonensis* rat lungworms, United States

Trapping location	Species	Common name	No. caught
McCurtain County, OK	<i>Neotoma floridana</i>	Eastern wood rat	2
McCurtain County, OK	<i>Blarina carolinensis</i>	Southern short-tailed shrew	3
McCurtain County, OK	<i>Oryzomys palustris</i>	Marsh rice rat	2
McCurtain County, OK	<i>Peromyscus leucopus</i>	White-footed mouse	1
McCurtain County, OK	<i>Reithrodontomys fulvescens</i>	Fulvous harvest mouse	7
McCurtain County, OK	<i>Sigmodon hispidus</i>	Hispid cotton rat	30
New Orleans Parish, LA	<i>Rattus norvegicus</i>	Brown rat	36
East Baton Rouge Parish, LA	<i>Rattus</i>	Black rat	3
Calcasieu Parish, LA	<i>Rattus norvegicus</i>	Brown rat	8

**Technical Appendix Table 2.** DNA sequence fragments of the ITS1 region generated from a known *Angiostrongylus cantonensis* rat lungworm specimen, United States \*

Region	Sequence, 5'→3'
Species-specific region, 105 bp	TTTCATGGATGGCGAACTGATAGTATCATCGCATATATACTATACGCATGTGACACCTGAT TGACAGGAAATCTTAATGACCCAAGTATAATGTTTCAATGGGCGC
267-bp fragment used in phylogenetic analysis	TTTCATGGATGGCGAACTGATAGTATCATCGCATATATACTATACGCATGTGACACCTGATT GACAGGAAATCTTAATGACCCAAGTATAATGTTTCAATGGGCGCCAACGTAGCAACAGAA CAGTTTTTCTACACGTGAAAATGTGGAACGAGATACACAGGATGTATATATATATATAC ACATATATATGTGTATGGAAATTGATATACTAGCTTCAGCGATGGATCGGTTCGATTCCG GTATCGATGAAAAACGCATCTAAA

\*ITS1, internal transcribed spacer 1.

**Technical Appendix Table 3.** Presence of *Angiostrongylus cantonensis* DNA in tissue types from host species, United States

Host species	Common name	Tissue type	No. samples positive/no. samples screened
<i>Rattus norvegicus</i>	Brown rat	Brain	2/97
		Blood	0/98
		Lung	0/100
<i>Rattus</i>	Black rat	Brain	0/3
		Blood	0/3
		Lung	0/3
<i>Sigmodon hispidus</i>	Hispid cotton rat	Brain	1/27
		Blood	0/26
		Lung	0/30
<i>Neotoma floridana</i>	Eastern wood rat	Brain	0/2
		Blood	0/2
		Lung	0/2
<i>Oryzomys palustris</i>	Marsh rice rat	Brain	0
		Blood	0
		Lung	0/2
<i>Peromyscus leucopus</i>	White-footed mouse	Brain	0/1
		Blood	0/1
		Lung	0/1
<i>Reithrodontomys fulvescens</i>	Fulvous harvest mouse	Brain	0/7
		Blood	0/4
		Lung	0/7

Host species	Common name	Tissue type	No. samples positive/no. samples screened
<i>Blarina carolinensis</i>	Southern short-tailed shrew	Brain	0
		Blood	0
		Lung	0/3