Table S1 Prevalence of *Trichinella* spp. in wild carnivores in Canada and Alaska

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Host** | **Location** | **%**  | **Total number tested** | **Genotype (Number of isolates of *Trichinella* spp. genotyped)** | **Reference** |
| Arctic fox (*Vulpes lagopus*) | NT | 3  | 1566 | ND | [1] |
|  | NU, NT | 11  | 28 | ND | [2] |
|  | AK | 10 | 117 | ND | [3] |
| Black bear (*Ursus americanus*) | NT | 6  | 120 |  T2 (4), T6 (2) | [4] |
|  | QC | 1  | 107 | ND | [5] |
|  | BC, SK, QC, NT | 7  | 193 | BC- T2 (NM), SK-T2 (NM), QC-T2 (NM), NT- T2 (NM) &T6 (NM) | [2] |
|  | AK | 24 | 21 | ND | [3] |
|  | AK | 28 | 40 | ND | [6] |
| Bob cat (*Lynx rufus*) | NS | 4 | 24 | ND | [2] |
| Coyote (*Canis latrans*) | NS, BC | 1 | 346 | ND | [2] |
|  | AK | 13 | 8 | ND | [3] |
| Ermine (*Mustela erminea*) | AK | 43 | 40 | ND | [3] |
|  | AK | 9 | 11 | ND | [3] |
| Fisher (*Martes pennanti*) | BC, NS | 29 | 17 | ND | [2] |
| Grizzly Bear (*Ursus arctos*) | YT, NT | 88 | 24 | ND | [7] |
|  | NT | 73  | 11 | T6 (6), T2 & T6 (1) | [4] |
|  | BC, NU | 29  | 68 | T6 (NM) | [2] |
|  | AK | 50 | 20 | ND | [3] |
| Lynx (*Lynx canadensis*) | BC, NU | 7  | 107 | T6 (NM) | [2] |
|  | AK | 24 | 17 | ND | [3] |
| Marten (*Martes americana*) | BC, NU | 3 | 101 | ND | [2] |
| North American Cougar (*Puma concolor cougar*) | BC | 44 | 127 | BC (mainland) T2 (NM), T6 (NM), BC (Island) T4 (NM), T5 (NM) | [2] |
| Polar bear (*Ursus maritimus*) | QC, NU | 66  | 85 | T2 | [2] |
|  | AK | 53 | 17 | ND | [3] |
|  | AK | 47 | 478 | ND | [6] |
| Red Fox (*Vulpes vulpes*) | NT | 11 | 19 | ND | [1] |
|  | AB | 6 | 18 | ND | [1] |
|  | AK | 41 | 76 | ND | [3] |
| Skunk (*Mephitis mephitis*) | AB | 6 | 124 | ND | [2] |
| Wolf (*Canis lupus*) | NT | 13 | 8 | ND | [1] |
|  | YT, NT | 47 | 153 | ND | [8] |
|  |  NT | 52 | 27 | T2 (6), T6 (5) | [4] |
|  | AB | 33 | 3 | ND | [1] |
|  | QC | 50 | 2 | ND | [1] |
|  | NL | 4 | 48 | ND | [1] |
|  | YT, BC, NU | 43 | 28 | T2 | [2] |
|  | AK | 37 | 148 | ND | [9] |
|  | AK | 33 | 154 | ND | [3] |

ND= Not done, NM= number not mentioned, AB=Alberta, AK=Alaska, BC=British Columbia, MB=Manitoba, NS=Nova Scotia, NT= Northwest Territories, NU=Nunavut, QC=Quebec, SK= Saskatchewan, YT=Yukon.

Table S2 Prevalence and larval burden (larvae per gram) of *Trichinella* spp. in wolverine from different geographical locations.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Geographical Location** | **No. tested**  | **No. (%) positive** | **Method (specimen)-muscle weight** | **Mean larval burden (Range), Median$** | **Genotypes** | **Reference** |
| North America |  |  |  |  |  |  |
| YT | 338 | 262(78) | MsDig (Tng, Dia)-10  | 22.6 (0.1-295), 8$ | T2, T6, T1, T13 | Present study |
| BC | 4\*\* | 2 | MsDig/Comp (Tng, Dia, MsOther)-NM | NM | ND | [10] |
| MB | 1\*\* | 1 | NM | NM | ND | [11] |
| NT | 38 | 0 (0) | Comp | NA | NA | [12] |
| NT | 49 | 12 (24.5) | MsDig (Tng) | 129.9/10=13 | ND | [13] |
| NU | 41 | 36 (87.8) | MsDig (Dia)-5 | 8.6 (0.2-51.8) | T2, T6 | [14] |
| NT\*, BC, YT | 111 | 85 (76.6) | MsDig (Tng, Dia, MsOther)-10 | 20.8 (0.025-522), 3.7$ | \*T2, T6 | [2] |
| AK | 38 | 19 (50) | MsDig (NM)- NM | 3.5 (0.2-18) | ND | [3] |
| Iowa | 1\*\* | 1  | MsDig -BaTech (Tng, Dia, MsOther) | NM (10) | ND | [15] |
| Europe |  |  |  |  |  |  |
| Sweden | 27 | 0(0) | MsDig /Comp (Dia, MsOther)-NM | NA | ND | [16] |
| Asia |  |  |  |  |  |  |
| Kamchatka (Eastern Russia)\* |  | (30) |  |  |  | [17] |
| Chukotka PeninsulaYakutia | 1\*\* | 1 | MsDig (NM)-NM | NM | T2 | [18] |
| Yakutia | 1\*\* | 1 | NM | NM | T1 | [19] |

AK=Alaska, BC=British Columbia, MB= Manitoba, NT= Northwest Territories, NU= Nunavut, YT=Yukon,

BaTech= Baermann technique, Comp=compressorium, MsDig=Muscle digestion, Dia=Diaphragm, MsOther= muscle other than diaphragm and tongue, Tng=Tongue,

T1= *T. spiralis*, T2= *T. nativa*, T6= *Trichinella* T6, T13= *T. chanchalensis*

NA- Not applicable, NM=Not mentioned, ND= Not done,

\* All information was not extracted as published literature was not in English. \*\* Percentage positivity was not calculated when samples tested were less than 10.

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