Supplementary Table S1: Morphological measurements for *Pomphorhynchus tereticollis*

|  |  |  |
| --- | --- | --- |
| Hook Number | Length Range (µm) | Width Range (µm) |
| 1 | 41.45-58.35 | 9.59-18.08 |
| 2 | 50.39-69.61 | 10.50-18.36 |
| 3 | 46.95-69.13 | 12.39-17.61 |
| 4 | 39.13-70.33 | 14.19-19.52 |
| 5 | 34.92-63.50 | 15.50-23.88 |
| 6 | 16.43-48.68 | 6.26-22.59 |
| 7 | 17.80-28.42 | 7.01-10.32 |
| 8 | 15.54-30.20 | 5.16-10.97 |
| 9 | 18.71-26.95 | 4.70-10.97 |
| 10 | 13.72-41.97 | 6.48-10.32 |
| 11 | 25.81-34.02 | 7.86-11.63 |

**Above data taken from 10 parasites collected from eel and rainbow trout form the rivers Thames and Hampshire Avon**

Supplementary Table S2: Haplotype distribution of all sequences used.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Haplotype Distribution | | | | | | | | | | | | | | | | | | |  |
| River | Host | COI-Long | | | | | | | COI-Short | | | | | | | | | | | | Ref |
|  | | ***C1*** | ***C2*** | ***C3*** | ***C4*** | ***C5*** | ***C6*** | ***C7*** | ***L1\*\****  ***EDoC3*** | ***L2\*\* EDoC1*** | ***L3\*\****  ***EDoC4*** | IMaBT | ILeBT1 | ILeBT2 | ILeBT3 | EDoC2 | EHaBH | EDeBT | SIsST1 | SIsST2 |  |
| Hampshire Avon,  England | *Cottus gobio* |  | 13 |  |  |  |  |  | 3 | 10 |  |  |  |  |  |  |  |  |  |  | Present study |
| *Squalius cephalus* |  | 3 |  |  |  |  |  | 1 | 2 |  |  |  |  |  |  |  |  |  |  |
| *Barbatula barbatula* |  | 3 |  |  | 1 |  |  | 2 | 1 | 1 |  |  |  |  |  |  |  |  |  |
| *Phoxinus phoxinus* |  | 2 |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |
| *Gammarus* |  | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| *Anguila anguila*\* |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Anguila anguila* |  | 3 |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |
| *Salmo trutta* |  | 5 |  |  |  |  |  |  | 5 |  |  |  |  |  |  |  |  |  |  |
| Darent,  England | *Cottus gobio* |  | 3 |  |  |  |  |  | 1 | 2 |  |  |  |  |  |  |  |  |  |  |
| *Squalius cephalus* | 1 | 2 |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |
| *Gobio gobio* |  | 3 |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |
| *Phoxinus phoxinus* |  | 3 |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |
| *Rutilus rutilus* |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| *Barbatula barbatula* |  | 3 |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |
| Kennet,  England | *Phoxinus phoxinus* |  | 2 |  |  |  |  |  | 1 | 1 |  |  |  |  |  |  |  |  |  |  |
| Lodden,  England | *Cottus gobio* |  | 1 | 1 |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |
| *Phoxinus phoxinus* |  | 2 |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |
| *Gammarus* |  | 2 |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |
| Teme,  England | *Cottus gobio* |  | 6 |  | 1 |  |  |  | 1 | 6 |  |  |  |  |  |  |  |  |  |  |
| *Barbatula barbatula* |  | 1 |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| *Gammarus sp.* | 1 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Thames,  England | *Cyprinus carpio*\* |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Gammarus sp.* |  |  |  |  | 2 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cain,  England | *Gammarus sp* |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lake Feeagh, Mayo, Ireland | *Salmo trutta* |  |  |  |  |  |  |  |  |  |  | 17 |  |  |  |  |  |  |  |  | O’Mahony et al. 2004 |
| Lee, Cork, Ireland | *Salmo trutta* |  |  |  |  |  |  |  |  |  |  |  | 5 | 1 | 2 |  |  |  |  |  |
| Culm, England | *Squalius cephalus* |  |  |  |  |  |  |  | 1 | 7 | 1 |  |  |  |  | 2 |  |  |  |  |
| Hampshire Avon, England | *Cottus gobio* |  |  |  |  |  |  |  |  | 8 |  |  |  |  |  |  | 2 |  |  |  |
| Otter, England | *Salmo trutta* |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  | 3 |  |  |
| Otter, England | *Platichthys flesus* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  |
| Snizort, Scotland | *Salmo trutta* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4 | 1 |

\*Old samples; L1 = AY390511; L2 = AY390509; L3 = AY390512;Haplotypes C2 and C6 correspond to haplotypes Pt22 and Pt23 in Perrot-Minnot et al. (2018) respectively.

Additional samples for COI-long (from Perrot-Minnot et al. (2018))used in the meta analyses were: (a) River Otter (England)- *Platichthys flesus* n=2; Haplotype Pt24; *Salmo trutta* n=2 Haplotype Pt13; (b) River Liffey (Ireland) – *Salmo trutta* n=1 Haplotype Pt26, n=1 Haplotype Pt27; (c) Lake Feeagh (Ireland)- *Salmo trutta* n=2 Haplotype Pt25; (d) Snizort sea Lake (Scotland)- *Salmo trutta* n=2 Haplotype Pt28; (e) River Culm (England)- *Squalius cephalus* n=1 Haplotype Pt22, n=2 Haplotype Pt23