**Supplementary Table S3**

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| --- | --- |
| Legend | |
| \* | Manipulative study |
| ¤ | Non-manipulative study |
| ~ | Value not specified in paper, circumstantial information provided in paper informs an estimated value. Accuracy of estimations vary. |
| gl/f | glochidia per fish |
| gl/fg | glochidia per gram of fish |
| dpi | days post infestation |
| (W) | Wild caught fish |
| (H) | Hatchery reared fish |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mussel species | Fish species | Specific behavior | Glochidia load | Against | DPI | +/-/0 | p | Correlation Coefficient | n= | Paper |
| *Margaitifera margaritifera* | *Salmo trutta* (H) | Swimming performance | High infestation level: 906 ± 156 gl/fg | Control \* | 1 dpi | 0 | >0.05 | / | 12 | Taeubert & Geist 2013 |
| Swimming performance / body length | 0 |
| Swimming performance | High medium infestation level: 353 ± 91 gl/fg | 0 | 16 |
| Swimming performance / body length | 0 |
| Swimming performance | Low medium infestation level: 113 ± 20 gl/fg | 0 |
| Swimming performance / body length | 0 |
| Swimming performance | Low infestation level: 113 ± 20 gl/fg | 0 |
| Swimming performance / body length | 0 |
| Swimming performance | Between 0gl/fg and 906 ± 156 gl/fg | Glochidial load \* | - | 0,004 | -0,469 | 36 |
| Swimming performance / body length | - | 0,002 | -0,5 |
| Feeding rate | 25.1±5.7 gl/fg | Control \* | ~57dpi | - | 0,017 | / | 10 | Österling et al, 2014 |
| Starvation feeding rate | - | <0.05 |
| satiated feeding rate | - | <0.05 |
| Close feeding | 0 | >0.05 |
| Distant feeding | - | <0.05 |
| Average distant feeding | - | 0,025 |
| Foraging | 326.7 ± 187.9 gl/f | Control \* | 14 dpi | 0 | >0.05 | / | 60 | Höglund, 2014 |
| 28 dpi | 0 |
| 42 dpi | 0 |
| 56 dpi | 0 |
| 70 dpi | 0 |
| Over 70 days | 0 |
| Foraging efficiency (spitting food) | - | 0,01 |
| Activity levels | 14 dpi | 0 | >0.05 |
| 28 dpi | 0 |
| 42 dpi | 0 |
| 56 dpi | 0 |
| 70 dpi | 0 |
| Over all 70 days | 0 |
| Foraging alone | Low infection 0.71 ± 0.59 gl/f High infection 202 ± 58 gl/f | Control \* | ~8 dpi | 0 | >0.05 | / | 40 | Sunnerstam, 2013 |
| Foraging in competition | 0 |
| Foraging alone | Low infestation ¤ | ~62 dpi | - | 0,013 | 12 |
| Foraging in competition | - | 0,035 |
| *Salmo trutta* (W) | Body Temperature | Infested with 8527±2970 gl/l for 15 mins | Control \* | Observed over ~330 | - | <0.0161 | / | 49 | Horkey et al, 2019 |
| Body Temperature site 1 | ~87 dpi | 0 | >0.05 |
| ~177 dpi | 0 | >0.05 |
| ~269 dpi | - | 0,0486 |
| ~330 dpi | 0 | >0.05 |
| Body temperature site 2 | ~87 dpi | 0 | >0.05 |
| ~177 dpi | + | 0,0135 |
| ~269 dpi | 0 | >0.05 |
| ~330 dpi | 0 | >0.05 |
| Body temperature site 3 | ~177 dpi | 0 | >0.05 |
| Movement (relocation) | Observed over ~330 | - | <0.0001 |
| Movement (longitudinally) | + | <0.0251 |
| Movement (distance) | 0 | >0.05 |
| Home range size | - | <0.0167 |
| Diel movement | ~87 dpi | 0 | >0.05 |
| ~177 dpi | 0 |
| ~269 dpi | 0 |
| ~330 dpi | + | <0.0001 |
| Observed over ~330 | + | <0.0205 |
| Day diel movement | Observed over ~330 | ~ 0 | / |
| Twilight diel movement | ~ + |
| Night diel movement | ~ + |
| Foraging | 1 to 309 gl/f | Control ¤ | ~50 dpi | 0 | >0.05 | / | 28 | Filipsson et al, 2016 |
| Activity Level | 0 |
| Interactions initiated | 0 |
| Foraging | Glochidia load ¤ | - | 0,02 | -0,61 | 14 |
| Activity Level | - | 0,005 | -0,7 |
| Interactions initiated | - | 0,004 | -0,72 |
| Prey consumed homogenous habitat competition | High infestation > 100 gl/f Low infestation <30gl/f | Low Infestation ¤ | ~30 dpi | 0 | / | / | 28 | Gustavsson 2019 |
| Prey consumed complex habitat competition | 0 |
| Activity Level homogenous habitat competition | 0 |
| Activity Level complex habiat competition | 0 |
| Interactions initiated homogenous habitat competition | 0 |
| Interactions initiated complex habitat competition | + |
| Water velocity | / | Control \* | 65 - 75 dpi | 0 | 0,06 | / | 62 | Andersson, 2018 |
| Water depth | 0 | 0,32 |
| Substrate size | - | 0,02 |
| Distance Moved | High infestation > 226 ± 24 Low infestation <18±15 | Low Infestation ¤ | ~100 dpi | + | 0,03 | / | 33 | Freitt, 2016 |
| Water depth | 0 | >0.05 |
| Water velocity | 0 |
| Substrate size | 0 |
| Distance from shore | 0 |
| *Ptychobranchus occidentalis* | *Etheostoma caeruleum* (W) | Moves to capture food | 73.5 ± 35.4 initially attached. 13.2 ± 11.8 juveniles recovered by 20 DPI | Control \* | 2 dpi | 0 | > 0.05 | / | 20 | Crane et al, 2011 |
| 8 dpi | - | 0,03 |
| 14 dpi | 0 | > 0.05 |
| 20 dpi | - | 0,017 |
| 28 dpi | - | 0,033 |
| Prey consumed | 2 dpi | 0 | > 0.05 |
| 8 dpi | 0 |
| 14 dpi | 0 |
| 20 dpi | 0 |
| 28 dpi | 0 |
| *Venustaconcha pleasii* | Moves to capture food | 31.5 ± 23.7 initially attached. 13.2 ± 16.7 juveniles recovered by 22 DPI | Control \* | 14 dpi | ~0 | / | / | 44 |
| Moves to capture food under predation stress | ~ + |
| Prey consumed | 14 dpi | ~ 0 | / |
| Prey consumed under predation stress | ~ + |
| *Anodonta anatina* | *Squalius cephalus* | Activity Level | trial 1: 67.8 ± 20.5 gl/fg trial 2: 48.9 ± 5.9 gl/fg | Control \* | ~4 dpi | - | 0,0331 | / | 140 | Horky et al, 2014 |
| ~7 dpi | - | 0,0331 |
| ~12 dpi | 0 | >0.05 |
| Migration levels | trial 1: 75.6 ± 37.7 gl/fg trial 2: 66.5 ± 42.0 gl/fg | Observed over 30 days | - | <0.0261 | 743 |
| Temperature of migration | + | < 0.0013 |
| Distance from river bank | 32.9 ± 12.6 gl/fg | Observed over 30 days | + | < 0.0098 | 40 |
| Rate of movement | 0 | >0.05 |
| Timing of activity | 0 |
| Reaction to environmental variation | 0 |
| 38 potential assorted species | 4 Families: Centrarchidae, Ictaluridae, Sciaenidae, Catostomidae | Upstream migration | / | Observation ¤ | ~ 56 dpi | + | <0.001 | / | 89 | Irmscher & Vaughn 2015 |
| *Margaritifera laevis* | *Oncorhynchus masou masou* | Upstream migration | 48+29 gl/f | Control \* | ~50 dpi | 0 | / | / | 215 | Terui et al, 2017 |
| Small fish upstream migration | - | / |
| Big fish Upstream migration | + | / |
| *Sinanodonta woodiana* | *Cyprinus carpio* 4+ (H) | Movement | Infested at 4570 ± 1889 gl/l for 15 minutes in 15 liters | Control \* | 4 dpi | - | <0.0312 | / | 22 | Slavik et al, 2017 |
| 8 dpi | 0 | >0.05 |
| Night movement | 0 |
| Day movement | 0 |