# Results

#### *Experimental infection*

The caging experiment successfully infected our treatment fish. Control fish that stayed in the laboratory had no alive parasite, which indicate that the praziquantel treatment was effective. The two most abundant species found in the experimentally infected fish were trematodes causing the blackspot disease (Trematoda: *Apophallus sp.* and *Uvulifer sp.*; min-max: 0- 62; median: 9) and the bass tapeworm (Cestoda: *Proteocephalus ambloplites*; min-max: 0 - 36 ; median: 4). The most abundant species of trematode causing blackspots was *Apophallus sp*. (Binning, Lanthier, unpublished data), but *Uvulifer sp.* was found more frequently inside the muscles (MG, personal observations).Experimentally fish gained in mean 8.347 blackspots, and were found on the fines, body, gills and inside the muscles. Bass tapeworm were mostly found in the liver, stomach and digestive tract, occasionally around the spleen (parasite count: 9), and rarely on the gills (parasite count: 3) or the heart (parasite count: 2). Unknown nematode species were found rarely in the body cavity (alive parasite count: 4).

#### *Repeatability*

The average repeatability across trial was 0.178 (95% CI: 0.04 to 0.33) for boldness; 0.261(95% CI: 0.12 to 0.41) for exploration; and 0.308(95% CI: 0.16 to 0.45) for activity. Repeatability did not differ between treatment for boldness (p-value = 0.959), exploration (p-value: 0.483) and activity (p-value:0.69).To estimate if repeatability was different from 0, we choose 0.05 as a thresold since the values can’t be 0 in the distribution. Average repeatability was not significantly different from 0.05 for boldness (p-value = 0.04), exploration (p-value = 1.875^{-4}) and activity (p-value = 0)).

#### *Behavioural syndrome*

summary(model2)

#### *Effect of parasite*

#### *Boldness*

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| Fig. 1— Repeatbility of behavioural traits |

Repeatability

Trait

Group\_C

95\_CI

0.975\_(C)

Group\_E

0.025\_(E)

0.975\_(E)

p\_value

log\_Boldness

0.175

0.013

0.363

0.170

0.003

0.376

0.959

Exploration

0.289

0.111

0.470

0.189

0.004

0.410

0.483

log\_Activity

0.346

0.169

0.516

0.289

0.052

0.492

0.690

**?(caption)**