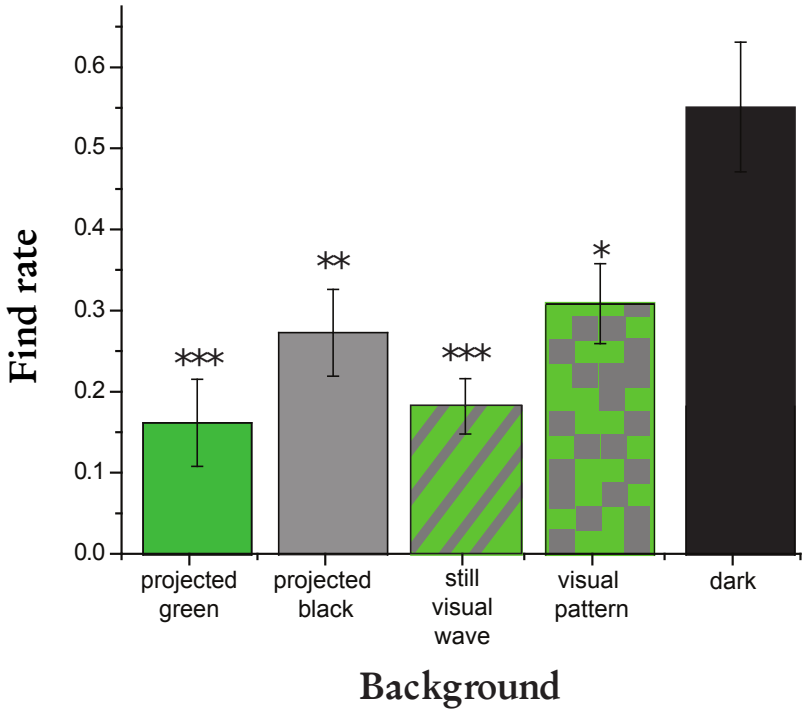

Figure S1. Background light levels affect baseline activity in juveniles. Juvenile leeches were tested for their ability to localize the source of a mechanical disturbance in the water. For all of these tests a wave frequency of 6.Hz was used for each lighting manipulation. Thus, the only change in stimuli available to the animal was light level. These light levels were as follows: projected plain green background (projected green) (N=10, n=99); projected black background (projected black) (N=9, n=88); a projection of a still frame from the 2.Hz visual projection that is not moving (still visual wave) (N=9, n=91); a random pattern on 0.64 cm black and green squares (visual pattern) (N=9, n=90); and complete darkness (dark) (N=11, n=109). Find rates were plotted for each manipulation. Significance was tested using an ANOVA on per-trial data. N indicates the number of groups whereas n indicates the total number of animals tested. Asterisks represent statistical significance: *P<0.05; **P<0.01; ***P<0.001.