

# Smelling the difference: hermit crab responses to predatory and nonpredatory crabs

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treatments were analysed using SuperANOVA (Ver. 1.11, Abacus Concepts, Berkeley, CA, U.S.A.). Two individuals with hiding times of zero were excluded from the analysis (one from *Cancer* video, one from *P. geoffiana* effluent + video) because a true 'zero' hiding time was too difficult to score reliably.

#### *Experimental Noise*

Hermit crabs and the stimulus crabs (*C. prodigiosa* and *P. prodigiosa*) were collected from the field, held in fresh running sea water except for a few minutes at a time when effluent was being collected or when hermit crabs were being tested. All crabs were provided with food throughout their stay in the laboratory (as noted above) and were released back into the field after tests were done. These experiments were conducted with invertebrates, for which Animal Use Protocols are not required by the Canadian Council on Animal Care.

#### RESULTS

Log transformation normalized the distribution of hiding times and also homogenized the variances (Fig. 1; see two-factor ANOVA results below for details). Mean hiding times varied by a factor of



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