

# Pesticide increases transgenerational cost of inducible defenses in a freshwater rotifer

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© 2017, Springer International Publishing Switzerland. In addition to natural stressors such as predation risk, aquatic organisms receive the simultaneous impact of anthropogenic stressors like pollution. In order to advance our understanding of multiple stressor effects, we evaluated the potential costs in the population growth rate derived from the sub-lethal effect of exposure to the pesticide methamidophos and from the expression of morphological defenses front to predation risk, in the rotifer *Brachionus calyciflorus*. Costs were evaluated both in the organisms that were exposed to the stressors and in their offspring. Our hypotheses were (1) plastic morphological defenses under exposure to pesticides have fitness costs, which may be transmitted from the parental to the filial generation, and (2) interactive effects between pesticides and predation are dependent of the mother's age. Our results indicate that pesticide exposure increased the costs, expressed as reduction in populati