**Effect of chronic wastewater exposure on aggression in the round goby**

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Municipal wastewater often contains a complex mixture of contaminants, many of which are not removed by conventional treatment methods. Physiological impacts have been observed in fish downstream from wastewater treatment plants but little is known about how wastewater exposure affects behaviour. We assessed the effect of chronic wastewater effluent exposure on aggression and resource contests in the invasive round goby (*Neogobius melanostomus*), a highly aggressive species. We exposed 57 round goby (24 males, 33 females) for 4 weeks to one of three concentrations of effluent: 100% (high dose), 50% (intermediate dose), and 0% (control dose). Fish were then tested using a resident-intruder paradigm. Our results show that males decreased submissive behaviours at higher doses, while females did not. However, exposure did not influence the total number of aggressive acts or contest duration. Interestingly, females had significantly longer contests with more aggressive bouts than did males across all doses. Our study suggests that effluent exposure may be affecting contest behaviour in subtle ways; exposed fish appear unable to effectively assess when to submit to a larger intruding fish. Additionally, our findings show sex differences in aggression in the round goby, a novel result as female aggression has not been studied before.