**Predicting the occurrence of a non-native warm water fish species, smallmouth bass (*Micropterus dolomieu*), in Ontario lakes under future climate change scenarios**

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Climate change is predicted to increase the surface water temperatures of Ontario lakes, and subsequently increase the number of thermally-suitable lakes for warm water fish species, such as smallmouth bass. The northward shift of smallmouth bass (SMB) populations is proposed to have profound implications on native fish populations through predation and competition pressure. This study aims to investigate the lake morphometry, water chemistry, climatic and biotic factors that are important in determining the current and potential future distribution of smallmouth bass under scenarios of climate change. We used data collected by the Ministry of Natural Resources on 9885 lakes in Ontario to develop a logistic regression model to predict the occurrence of smallmouth bass. Preliminary analysis suggests that mean July air temperature is an important predictor of smallmouth bass occurrence in Ontario lakes, suggesting that smallmouth bass prefer regions with higher July air temperatures. With additional suitable habitat becoming available for this warm water fish species under scenarios of climate change, smallmouth bass are predicted to shift their range northward and potentially competing with greater numbers of native coolwater and coldwater fish populations. It is important to study where smallmouth bass may occur in the future to help protect these regions from possible invasion.