**Application of species distribution models for the management of the European fire ant**

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Sightings of the non-native invasive European fire ant (*Myrmica rubra*) have been reported across North America in recent years as most North American records of this species date from the last ten years, implying that their populations in North America are fast expanding. Devoid of competitors and natural enemies in North America, *M.rubra* is expected to continue to expand its ranges from coast to coast. Once an invasive species is established in its introduced range, it is very costly if not impossible to eradicate. It is, therefore, vital to develop cost effective methods to prevent the spread of invasive species before populations reach peak levels and result in permanent damage to ecological systems. Ecological niche/species distribution models are often used in invasion biology to identify susceptible areas. They allow us to be vigilant and minimize and prevent possible future damage caused by invasion. Several different species distribution modelling algorithms were used to evaluate potential geographic distribution areas for *M.rubra* on 3 different scales (local/GTA, regional/southern Ontario, and continental/North America) for better prevention and mitigation of this non-native invasive ant and to determine areas that need to be vigilant for future invasions.