

## Force Field for Super Aliens: Advances in application and testing of a permanent antifouling coating

Zebra mussels and Quagga mussels are an expensive problem for the power and clean water industry. Over time the mussels expand their geographic coverage and adapting to become more robust. The evolved “super mussel” is threatening waterways throughout Canada. A viable solution requires a long lasting solution that mitigates zebra mussel attachment without inducing adverse environmental impact. Jacquelyn™ is a permanent metal coating that inhibits zebra mussel attachment through ionic surface action without relying on copper leach. It is applied through a customized thermal spray process. This paper outlines the initial development process, case studies highlighting the performance and environmental efficacy of the material, and recent coupon testing performed.