



CWSF 2007 - Truro, Nova Scotia



Biography

I am a fourteen year old student from Prince Edward County, Ontario attending a pre-IB Program at Moira High School in Belleville. I have attended three previous Canada Wide Science Fairs at which I won two bronze and one gold medals. My previous projects examined a milk-based treatment for mildew in watermelons, and an environmentally safe treatment for Vincetoxicum rossicum, an invasive weed. I participate on my school's programming, math, soccer, ski and badminton teams and on student council and volunteer at the YMCA. I am attending the Deep River Science Academy this summer. I enjoy waterskiing, windsurfing and freeskiing.

Connor Emdin

Predicting E. coli induced beach closures using artificial neural networks.

Division:	Engineering & Computing Sciences / None
Category:	Intermediate
Region:	Quinte
City:	Picton, ON
School:	Moira S.S.
Abstract:	Lengthy water quality tests result in beaches which remain open while E. coli levels may be dangerously elevated. Neural network and multiple regression models were developed to predict E. coli levels at eight Ontario beaches from local hydrometeorological data. Neural network models achieved more accurate predictions with a co-efficient of determination of 0.92, than those of multiple regression models with a co-efficient of 0.0029.

Awards	Value
The Actuarial Foundation of Canada Award - Intermediate	\$750
The University of Western Ontario Scholarship	\$1 000
Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: University of Western Ontario	
Bronze Medal - Earth & Environmental Sciences - Intermediate	\$300
Sponsor: Petro-Canada	
Total	\$2 050



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