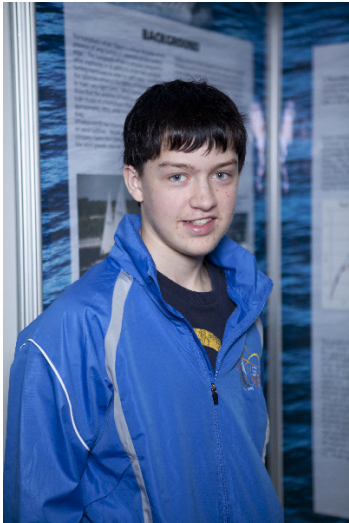


CWSF 2013 - Lethbridge, Alberta



Malcolm Mann

Tubercles on Sailboat Rudders: A Whale of an Idea?

Challenge: Innovation

Category: Junior

Region: South Shore

City: Lunenburg, NS

School: Bluenose Academy

Abstract: Tubercles are the small bumps on the leading edge of the fins of humpback whales which improve their mobility. This project investigates whether adding tubercles to sailboat foils can improve the lift and increase the stall angle of the foil. After construction of suitable foils with and without tubercles, testing was performed in both a home-made flow tank and in a river.

Biography

My name is Malcolm Mann. I am a grade 8 student at Bluenose Academy in Lunenburg, Nova Scotia. At school I am very involved in sports such as hockey, volleyball and badminton. I am also a member of both the school Junior Concert Band and Jazz Band. I play on a Bantam AA hockey team with players representing the South Shore of Nova Scotia. In the summer I enjoy dinghy sailing at the local yacht club and on my family's boat. In future, I hope to attend university although I do not know in what field of study. I got inspiration for my project from thinking of experiments that involved things I love doing. For other students thinking of doing a project, I would say do a project on something that really intrigues you.

Awards

Value

Carlson Wagonlit Award - Junior Sponsor: Carlson Wagonlit Travel	\$500
Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	\$300
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 800