

Center for Cognitive Science

University at Buffalo, State University of New York

Wednesday, November 20, 2002

280 Park Hall

North Campus

2:00 pm – 4:00 pm

Michael Noonan, PhD

Departments of Psychology and Biology

Canisius College, Buffalo, NY

“Evidence of cognitive processes in killer whales: A program of research underway at Marineland of Canada”

Killer Whales are characterized by long lives, complex social structures and one of the largest brains of any species on earth. This talk will present findings from a program of study on Killer Whales underway at Marineland of Canada that suggest a degree of convergence in the cognition of cetaceans with that of primates/humans.

The talk will concentrate on recently completed work that assessed the whales' ability to make “relative numerosness judgments” as an index of their ability to cope with quantity as a stimulus dimension. The findings show that these animals can indeed cope with quantitative discriminations in this way and in fact show their abilities in this regard to meet or exceed that shown by any other non-human species. Furthermore, analysis of their errors during task acquisition suggest a “Piagetian” pattern analogous to that shown by human children.

The talk will then include preliminary reports of work underway on mirror self recognition in killer whales, and on left-right asymmetry in response preference, both of which also imply convergence with primate/human cognition. The talk will end with new behavioral evidence suggestive of “intentionality” on the part of the whales and a discussion of how this additional, typically-human trait might be experimentally verified in Killer Whales.

Refreshments will be available

Everyone is welcome to attend!

<http://wings.buffalo.edu/cogsci/html/2002fall.htm>