

**SUZUETTE S. SOOMAI**

**BSc Honours (Zoology), University of the West Indies, 1991**  
**Master of Philosophy (Zoology), University of the West Indies, 1995**  
**Master of Marine Management, Dalhousie University, 2009**

**INTERDISCIPLINARY PhD PROGRAM**

**TITLE OF THESIS:** Elucidating the Role of Scientific Information in Decision-making for Fisheries Management

**TIME/DATE:** Friday, October 30<sup>th</sup> at 2:00pm

**PLACE:** Room 3107, The Mona Campbell Building, 1459 LeMarchant Street

**EXAMINING COMMITTEE:**

Dr. Michael Fogarty, Woods Hole Oceanographic Institution (External Examiner)

Dr. Peter Wells, Marine Affairs Program and School for Resource and Environmental Studies, Dalhousie University (Reader)

Dr. Boris Worm, Department of Biology, Dalhousie University (Reader)

Dr. Elizabeth M. De Santo, Department of Environmental Studies, Franklin & Marshall College and Interdisciplinary PhD Program, Dalhousie University (Reader)

Dr. Bertrum MacDonald, School of Information Management, Dalhousie University (Supervisor)

**DEPARTMENTAL REPRESENTATIVE:** Dr. William Barker, Interdisciplinary PhD Program, Dalhousie University

**CHAIR:** Dr. David Westwood, PhD Defence Panel, Faculty of Graduate Studies

**ABSTRACT**

While protocols may exist within governmental organizations for the production of scientific advice, the information pathways, i.e., how it is produced, communicated, and used in policy contexts is not fully understood. The research addressed this knowledge gap by asking: What role(s) does fisheries scientific information fulfill in policy- and decision-making for fisheries management? Questions were asked in the context of fisheries science and management, information management, and public policy within case studies of three inter-related organizations with different jurisdictional and geographic scales of governance: Canada Department of Fisheries and Oceans (DFO), Northwest Atlantic Fisheries Organization (NAFO), and the Food and Agriculture Organization of the United Nations (FAO).

Through internships, research was conducted using qualitative methods and included interviews of 78 key actors, e.g., scientists and managers, direct observations of 15 science and management meetings, and content analysis of scientific reports and publications. The textual data was analyzed based on coding of themes related to theoretical perspectives of the science-policy interface and information use in policy contexts.

The leading drivers in the information pathways in the organizations include: the demand for scientific advice; national, regional, and international policy development and organizational collaboration and networking; and trade in fish and fish products. The common enablers to information flow include the attributes of information and organizational structures that facilitate iterative communication among actors. The principal barriers include the dispersed organizational structures, the absence of formalised communication processes, austerity measures, inadequate communication tools; political and trade aspects related to the fishing industry; and scientific uncertainty related to ecosystem approaches to fisheries management (EAF).

A well-defined process for producing scientific and management advice – as seen in DFO and NAFO – is a key factor in producing credible, relevant, and legitimate information for operational decision-making. FAO functions as a boundary organization as it bridges science and policy-making communities in its member countries. Trade-offs in the attributes of information facilitate information flow at the interface to meet the objectives of the organizations. Non-governmental organizations, the fishing industry, and civil society are increasingly important actors in the information pathways. EAF requires collaborative models of decision-making and information use.