



**DALHOUSIE  
UNIVERSITY**  
*Inspiring Minds*

# DEPARTMENT OF BIOLOGY 2009 – 2012 STRATEGIC PLAN

October, 2009

## Introduction

The Department of Biology maintains a prominent international research profile, offers large, high quality undergraduate and graduate teaching programs and participates effectively in the governance of Dalhousie University through administrative service. The Department is a cornerstone of the Faculty of Science and it contributes disproportionately to the favourable reputation enjoyed around the world by Dalhousie. Although Biology is an exceptionally productive department essential to the success of the university as a whole, it has been some time since the direction and scope of the department were considered. The need for critical self-examination and development of a strategic plan became pressing in the context of changing personnel and expertise within the Department, shifting expectations of the student body and other stake holders, and the financial fortunes of the Faculty of Science which prevent budget increases required to cope with general operating expenses and replacement of departing personnel.

The following document constitutes the Strategic Plan prepared by the Department of Biology, Dalhousie University and ratified at a Committee of the Whole Meeting on October 2<sup>nd</sup>, 2009. This document, generated through the efforts of the Chair Advisory Committee with the able assistance of Mr. Jim Neale, Human Resources, benefited greatly from a one day, wide ranging workshop attended by approximately thirty members of the Department of Biology where many of the ideas contained in the Plan were proposed. In addition, Mr. Neale interviewed a large number of individuals and groups, both on and off the campus, whose impressions and suggestions helped to shape this Strategic Plan.

Development of a Strategic Plan and acting on the ideas it contains offer an important opportunity for the Department of Biology to move forward in a more effective and efficient manner. The potential exists for the Department to have an even greater role in the Faculty of Science, to improve the outcomes for our students, and for each departmental member to gain substantially more from his or her work.

# The Environment In Which the Department of Biology Expects to Operate

## **Factors That Might Present Opportunities for the Department**

- oceans, ecology and health are high profile subjects and areas of strategic importance to Dalhousie and research granting agencies
- increasing emphasis on interdisciplinarity and collaboration across programs and institutions
- growing interest in combination degrees at both the undergraduate and graduate levels
- Dalhousie's reputation and location continue to be primary attractors for students and faculty
- appointment of an Associate Dean of Research

## **Factors That Might Present Challenges for the Department**

- an array of financial challenges at institutional and faculty levels
- increasingly challenging to attract quality students
- other departments are providing courses that overlap/compete with Biology's
- inadequate facilities negatively impact recruitment and retention of students, curriculum, research productivity and cohesion within the department
- structural impediments to collaboration between departments (e.g. ERBA and funding formulae for complement levels)
- insufficient incentives (credit system) for teaching outside the traditional program
- shifting agenda and priorities of research funding agencies
- strategic grants becoming increasingly restrictive
- a changing student profile – higher expectations and willingness to move
- uncertain impact of recession on enrolments – history suggests we can see temporary increases of up to 12% but we may experience significant drops afterwards
- elimination of mandatory retirement

## **Strengths the Department Can Leverage to Advantage in the Future**

- a national and international reputation for excellence, particularly in the ecology/marine area - our research will continue to be relied upon to shape public policy/regulations
- considered to be the premier research intensive program in Atlantic Canada - its expertise, programs and facilities benefit the other departments, the Faculty, Dalhousie and other institutions
- the undergrad program continues to attract a large group of excellent students interested in living things, health and nature conservation
- general perception that there is capacity for 15% more undergraduate students, 3+ graduate students per researcher and additional post doctoral fellows
- well positioned to expand contributions to important research areas – the environment, sustainability, health and genomics
- an instructor complement that provides an experiential and personalized educational program and enables the professoriate to concentrate on quality research and teaching
- established and productive relationships with a range of agencies and institutions
- experiential programs have high potential to draw additional students, particularly in the marine area
- a relatively stable faculty complement anticipated for the next 5 years

## Our Mission

*Develop and communicate a comprehensive understanding of the biological world through research, teaching and outreach.*

## Our Vision

As the premier research intensive Biology program in Atlantic Canada, we are recognized regionally, nationally and internationally for...

- research excellence;
- advancing the understanding and stewardship of the biological world;
- providing a comprehensive and modern educational experience, producing graduates who excel;
- our effective use of interdisciplinary and collaborative approaches; and
- our supportive, cohesive and dynamic learning and working environment.

## Our Guiding Principles

**We are guided in our decisions and activities by the principles of**

- ✓ academic freedom – preserving the right of faculty members to define and pursue what is scientifically worthwhile
- ✓ academic rigour
- ✓ teaching excellence and a broad academic scope
- ✓ strategic choices that are based on the long term interests of the department
- ✓ an evolutionary perspective
- ✓ the value of creating original knowledge and the research intensive experience
- ✓ critical thinking

## Our Strategic Goals *(in approximate order of priority)*

1. Enhance the undergraduate experience;
2. Strengthen the graduate program;
3. Enrich our scholarly climate;
4. Expand the capacity of the Department to realize our vision;
5. Improve outreach.

## Strategic Goals, Key Initiatives and Possible Activities

### Goal #1 - Enhance the undergraduate experience

#### 1.1 Refresh the undergraduate curriculum

*Possible Activities:*

- i. Maintain an optimal balance of sub-disciplines within the Department
- ii. define learning outcomes the program will be designed to achieve
- iii. structure the program to achieve the desired outcomes, provide clear progression, be efficient in its delivery and give students a high quality experience (this will result in enhancements to the 2<sup>nd</sup> year core)
- iv. integrate core competencies such as analytical thinking, writing, math/stats
- v. increase the number of 4<sup>th</sup> year courses cross-listed with the graduate program
- vi. institute a 2<sup>nd</sup> year marine science course
- vii. pursue partnerships with other academic units to enhance program offerings, seek economies and enhance interdisciplinarity

#### 1.2 Strengthen experiential components

*Possible Activities:*

- i. Seek ways to increase involvement in research
- ii. consider splitting honours into 6 and 12 credit options
- iii. consider lab-only courses
- iv. explore merits of conducting full term field courses in the fall
- v. explore integration of SEASIDE into the Biology Department

#### 1.3 Enhance supports for students

*Possible Activities:*

- i. develop a centre for students
- ii. strengthen engagement and sense of community

### Goal #2 - Strengthen the graduate program

#### 2.1 Enhance the learning experience

*Possible Activities:*

- i. increase graduate course offerings
- ii. improve supervision of graduate students by adjuncts

#### 2.2 Increase attractiveness/conditions for graduate students

*Possible Activities:*

- i. pursue improved financial support – through departmental and Faculty initiatives
- ii. continue to lobby for adjustments to university policies and provincial funding
- iii. attract students from other countries, and especially countries with scholarship programs for study abroad
- iv. institute innovative recruitment strategies using existing graduate students and travelling professors

### **Goal #3 - Enrich our scholarly climate**

3.1 Stimulate a stronger sense of engagement, community and cohesion

*Possible Activities:*

- i. explore enhancements to departmental seminar series
- ii. have an annual departmental retreat

3.2 Improve supports for faculty

*Possible Activities:*

- i. ensure sufficient credit for teaching/supervision of graduate students and service activities
- ii. enhance mentorship and financial support for new faculty

### **Goal #4 - Expand the capacity of the Department to realize our vision**

4.1 Seek improvements to facilities and equipment

*Possible Activities:*

- i. install emergency power and security appropriate for research requirements
- ii. continue to advocate within the Faculty and university for major improvements
- iii. take better advantage of existing space, equipment and other resources
- iv. pursue funding opportunities for shared facilities and equipment

4.2 Seek efficiencies – find relief from current workload that will enable pursuit of new directions

*Possible Activities:*

- i. match faculty to curriculum
- ii. streamline the committee structure, composition and practices
- iii. expand contributions from graduate students, PDF's, adjuncts, others

4.3 Optimize complement

*Possible Activities:*

- i. develop and adhere to appointment priorities based on analysis of future requirements - maintaining balance of streams/sub-disciplines
- ii. improve policy/process for pursuing/selecting research chairs

4.4 Expand our resource base

*Possible Activities:*

- i. increase enrolments to make full use of existing capacity
- ii. make full use of existing revenue sources
- iii. pursue alternative sources of revenue
- iv. capitalize on any opportunity to improve base budget

### **Goal #5 - Improve Outreach**

5.1 Raise the profile of our current contributions

*Possible Activities:*

- i. catalogue and profile our research and how it has impacted policy and practice
- ii. improve and regularly update the web site

5.2 Strengthen engagement with schools and community groups

5.3 Strengthen engagement of alumni