I. INSTRUCTIONAL ACTIVITIES

1. Regular Course Offerings

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credit Hrs.</th>
<th>No. Students</th>
<th>No. of Lab.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMER:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FALL: EFB 554 Aquatic Entomology</td>
<td>3</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>SPRING:</td>
<td>EFB 385 Comparative Vertebrate Anatomy</td>
<td>4</td>
<td>28</td>
<td>2</td>
</tr>
</tbody>
</table>

NOTE: PLEASE INDICATE WHICH COURSE(S) HAD A SERVICE-LEARNING COMPONENT AND BRIEFLY EXPLAIN THE NATURE OF THIS COMPONENT. For examples of service-learning in courses, see: http://www.esf.edu/students/service/courses.htm. Service-learning is a form of structured experiential education in which students engage with the community to be active learners, to enrich their sense of civic responsibility, and to explore practical application for course content. Faculty oversight, reflective thinking, and reciprocity are key components of service-learning.

Neither of these courses had a service learning component this year.

2. Non-Scheduled Course Offerings (e.g., 496, 899, 999)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Credit Hrs.</th>
<th>No. Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>498 Independent Research</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>899 Master’s Thesis</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>999 Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spring</td>
<td>495 Teaching Experience</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>499 Honors Thesis/Project</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>899 Master’s Thesis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>999 Doctoral Dissertation</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
3. Continuing Education and Extension (short courses, workshops, etc.)

4. Guest Lecture Activities

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Title</th>
<th>Title</th>
<th>No. of Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFB 210</td>
<td>Diversity of Life</td>
<td>Biology of Aquatic Insects</td>
<td>March 24, 2016</td>
</tr>
</tbody>
</table>

II. STUDENT ADVISING

A. Number of undergraduates for whom you are the student’s official advisor __0___ and unofficial advisor _4____

B. Graduate Students: (list name, degree sought, starting date, month & year; if a degree was completed, please give date and full citation for the thesis or dissertation).

MAJOR PROFESSOR


Ryan Smith, M.S. May 2014; left program February 2016

Harold Nugent, M. S. May 2014 (Target completion August 2016)

Carrianne Pershyn, M.S May 2015

Elizabeth Stieber, M.S. May 2015

Erik Hazelton, M.S. August 2015

Deborah Hummel M.S. May 2016

Michael Connerton, Ph.D. December 1996 (NYDEC Biologist)
CO-MAJOR PROFESSOR

MEMBER, STEERING COMMITTEE (other than those listed above)

Caitlin Slife
Tom Evans

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Zheng Liu

III. RESEARCH COMPLETED OR UNDERWAY

A. Departmental Research (unsupported, boot-legged; title - % time spent)

B. 1. Grant-supported Research (source, subject, amount - total award and current year, award period starting and ending dates; list graduate research assistants supported by each grant)

Current Awards

USDA Forest Service
  Enhanced Effectiveness of Planning and Managing Urban Forest Ecosystems
  8.50 CY; PI
  $67,500
  09/22/2011 - 09/21/2016

National Science Foundation
  Technology Enhancement of Hot Water Extraction
  5.0% CY; Co-PI
  $599,822
  09/01/2012 – 08/31/2016

Honeywell International Incorporated
  Onondaga Lake Biological Assessment and Monitoring
  4.0% CY; PI
  $423,944
  07/01/2013 – 12/31/2016

US Geological Survey
  Restoration of Lake Ontario Native Fish Species
  2.0% CY; PI
  $245,839
07/30/2014 – 08/31/2016

NYS Department of Environmental Conservation
Determining the Provenance and Life Histories of Blueback Herring in the Mohawk River
10.0% CY; PI
$261,072
04/01/2014 – 03/31/2017

NYS Department of Environmental Conservation
Low Gradient Stream IBI
5.0% CY; PI
$80,000
05/16/2015 – 01/01/2017

NYS Department of Environmental Conservation
Biological Condition Estimation for New York State Lakes: Application and Evaluation of Lake Assessment Biological Metrics
2.0% CY; PI
$86,000
08/24/2015 – 08/23/2017

2. Research Proposals pending (include information as in B.1., above).

Pending

NYS Department of Environmental Conservation
Development of Macroinvertebrate Index of Biotic Integrity for Water Quality Assessment of Slow Gradient Alluvial Streams in NYS
5.0% CY; PI
$125,000
09/01/2014 – 08/31/2016

Honeywell International Incorporated
Onondaga Lake Biological Assessment and Monitoring
10.0% CY; PI
$166,272
07/01/2016 – 06/30/2017

University of Puerto Rico
Long-Term Ecological Research (LTER) Program at the Luquillo Experimental Forest and El Yunque National Forest
1.0% CY; Co-PI
$24,000
09/01/2014 – 08/31/2017
NYS Economic Development  
High Tech Match Grant - Acquisition: Cryo Filed Emission Transmission Electron Microscope  
1.0% CY; PI  
$215,000  
09/01/2015 – 08/31/2017

US Geological Survey  
Restoration of Lake Ontario Native Fish Species  
2.0% CY; PI  
$132,623  
09/01/2016 – 08/31/2017

3. Research Proposals submitted, but rejected (include information as in B.1, above)

IV. PUBLICATIONS (Full bibliographic citation, i.e., do not use "with Jones," or "Jones, et al."); please list only publications published, in press, or actually submitted during this reporting period --- do not list manuscripts in preparation).

A. Refereed Publications


B. Non-refereed Publications

C. Papers Presented at Science Meetings (give title, date, occasion, and location)


D. Public Service Presentations (lectures, seminars, etc. to and for the public; give group or occasion, date(s), and attendance)


Ringler, N. H. Update on the Biota and Research on Onondaga Lake, NY. Isaak Walton League of CNY. Syracuse NY. May 7, 2016. ca 12 attending

V. PUBLIC SERVICE

A. Funded Service (include consulting activities)
   1. Government Agencies (Federal, State, Local):
   2. Industrial and Commercial Groups, etc.

B. Unfunded Service to Governmental Agencies, Public Interest Groups, etc.

VI. PROFESSIONAL DEVELOPMENT

A. Professional Honors and Awards (for teaching, research, outreach, etc.)

B. 1. Activities in Professional Organizations (offices held, service as chairman, member, participant or consultant)
   2. Professional Society Membership

AAAS (Fellow)
Sigma Xi
American Fisheries Society
American Institute of Fishery Research Scientists

3. Other Professional Activities
   a. Editorial activity

<table>
<thead>
<tr>
<th>Journal (s)</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology of Freshwater Fish</td>
<td>Associate Editor</td>
</tr>
</tbody>
</table>
b. Reviewer

<table>
<thead>
<tr>
<th>Journal(s)</th>
<th>No. of manuscripts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estuaries and Coasts</td>
<td>1</td>
</tr>
<tr>
<td>Agency</td>
<td>No. of proposals</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

c. Participation (workshops, symposia, etc.)

<table>
<thead>
<tr>
<th>Name of workshop, etc.</th>
<th>Date</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biotechnology Symposium</td>
<td>May 19, 2016</td>
<td>Syracuse NY</td>
</tr>
<tr>
<td>Presentation and Panel discussion: Hill Collaboration in Environmental Medicine and Institute for Environmental Health and Environmental Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bio-Refinery Symposium</td>
<td>May 23, 2016</td>
<td>Syracuse NY</td>
</tr>
</tbody>
</table>

C. Further Education/Re-training Undertaken, Leaves, Workshops, etc.

D. Foreign Travel (Where, When, Purpose)

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department-level

B. College-level

Ex Officio Committee on Research

C. University-wide, including Research Foundation

SUNY/RF Research Council
SUNY/RF Vice Presidents for Research/Officers
SUNY/RF Network of Excellence Co-leader with SUNY Stony Brook, Albany, Binghamton
SUNY Distinguished Academy; SUNY Senate Committee on Research and Graduate Education
Co-Director Hill Collaboration Environmental Medicine with UMU, SU, ESF, VA
Advisory Council, Biotechnology Accelerator
Planning Team, Center of Excellence Biofuels Laboratory
Planning Team, Institute for Environmental Health and Environmental Medicine (2020 Challenge Grant)
Planning Team Onondaga Water research and Education Center

VIII. SUMMARY OF SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS DURING THIS REPORTING PERIOD, ESPECIALLY THOSE MOST NOTEWORTHY AND RELATIVE TO THE COLLEGE’S AND DEPARTMENT’S MISSION.

One paragraph on each of the following (i.e., three paragraphs total) would be most helpful: this past year,
what have you done for our students, department/college, and self professionally? NOTE: The information in this section (along with the supporting specific information elsewhere in this report) should be your strongest case for being considered for a discretionary raise (when available), which I’ll continue to award based on your contributions to the department and college this reporting period.

EFB

The EFB curriculum provided the launch pad for four of our students in the Comparative Vertebrate Anatomy course to enter Veterinary programs in Massachusetts, Arizona, London, and Iowa in Fall 2016. The aquatic/fisheries graduate program is going well, with four M.S. students graduating this year, including solid employment with USGS, Vermont Fish and Wildlife, Parsons, Inc. and U.S. EPA. These students were supported on research assistantships funded by NY Sea Grant and Honeywell. The new CIRTAS lab proved essential in the success of Atlantic Salmon studies; continued work with Atlantic Salmon is anticipated with renewed connections with the Carpenter’s Brook Fish Hatchery, where our young fish from Vermont are currently being held prior to stocking in Onondaga Lake tributaries. Our team published three papers and made five presentations this year. Two new graduate students have been recruited for the upcoming field season for a graduate team of seven.

ESF

In addition to activities in the Office of Research Programs, work on behalf of ESF has included development of the Hill Collaboration in Environmental Medicine, which now has provided $240,000 in seed grant opportunity since 2012. We elected Dr. Don Simpson, Dean of College of Health Science Professions at UMU, as Director of the Institute for Environmental Health and Environmental Medicine (IEHEM). A session at the Biotechnology Symposium May 19th provided a forum to present results from the Hill Collaboration and seek (via panel discussion) new collaborations from our Hill Partners (SU, UMU, VA, ESF) coupled with a stronger interface with IEHEM. The Bio-refinery in the Center of Excellence is now virtually completed, including a 1000 l fermenter and 40’ high distillation column. This provides excellent prospects for faculty from Chemistry, PBE and other departments in research and instruction.

SUNY/RF

The SUNY/RF $1.9 M Networks of Excellence Program is being reduced for the coming years, but several ESF faculty continue to complete projects initiated in the 4E component of that program. Service on the SUNY Senate Research and Graduation Committee was initiated this year, with some headway toward a graduate guide book and new graduate scholarships. Service on the RF Graduate Research Council continued as part of the Vice Presidents/Provosts meetings in NYC. A goal for the coming year is to restructure the Research Council to better serve the research enterprise. Our new RF President, Dr. Jeffrey Cheek (replacing Dr. Tim Killeen, now President of U. Illinois), will begin in early June 2016.

IX. A. FUTURE PLANS, AMBITIONS, AND POTENTIAL CONTRIBUTIONS FOR YOUR OWN PROFESSIONAL DEVELOPMENT AND THE ENHANCEMENT OF THE PROGRAM IN ENVIRONMENTAL AND FOREST BIOLOGY (brief summary)

In addition to the teaching and graduate research programs in EFB, a new assignment will begin this summer and fall in development of the SUNY 2020 Onondaga Lake Water Research Center. This Center will feature the “Onondaga Lake Watershed as the research and educational nucleus for far-ranging contributions to aquatic science and restoration technologies.” While the actual completion of the building is likely two years in the future, there is much to be accomplished with finalizing design of the building, working with our future partners, creating formal ESF policies for off-campus operations, and seeking of additional and long-term financial support for the programs.
B. PROJECTED ACTIVITIES FOR NEXT YEAR

1. Summer 2016
   a. Course(s) to be offered
   
   b. Proposed research activity
      Onondaga Lake and Atlantic Salmon studies with graduate and undergraduate teams, emphasizing long term monitoring, assessment of new structure being added to the littoral zone, and reintroduction of Atlantic salmon to the watershed.
      Development of the new SUNY 2020 Onondaga Lake Water Research Center
   
   c. University, professional society, and public service

2. Fall Semester 2016
   a. Course(s) to be offered
   b. Aquatic Entomology EFB 554
   
   b. Proposed research activity
      Onondaga Lake and Atlantic Salmon studies with graduate and undergraduate teams, emphasizing long term monitoring, assessment of new structure being added to the littoral zone, and reintroduction of Atlantic salmon to the watershed.
      Development of the new SUNY 2020 Onondaga Lake Water Research Center
   
   c. University, Professional society, and public service

3. Spring Semester 2017
   a. Course(s) to be offered
      Comparative Vertebrate Anatomy EFB 385
   
   b. Proposed research activity
      Onondaga Lake and Atlantic Salmon studies with graduate and undergraduate teams, emphasizing long term monitoring, assessment of new structure being added to the littoral zone, and reintroduction of Atlantic salmon to the watershed.
      Development of the new SUNY 2020 Onondaga Lake Water Research Center
c. University, professional society, and public service