

**ANNUAL REPORT: June 1, 2009 – May 31, 2010**  
**(i.e., Summer 2009, AY 2009-2010)**  
**DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY**  
**SUNY-ESF**

**NAME:** John D. Castello

**I. INSTRUCTIONAL ACTIVITIES**

1. Regular Course Offerings

<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>	<u>No. of Lab. Sections</u>
SUMMER:EFB 345 (with Teale)	Forest Health	3	10	CLBS
FALL:EFB 303 (with Nakas)	Intro Env. Micro	4	54	2
SPRING:EFB 340	Forest/Shade Tree Pathology	3	47	3
EFB 217 (with Teale)	Peoples, Plagues, Pests	3	167	0
EFB 494	Senior Synthesis Forest Health	1	2	NA
EFB 495	Undergrad Teaching Exp.	3	2	NA

**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. EFB courses currently listed with service-learning components include: 416/6/1, 486, 518, 521, 532, 446/646.

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

<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>
EFB 999	PhD research	2	1
EFB 899	MS research	6	1
EFB 498	Independent Study	3	1

3. Continuing Education and Extension (short courses, workshops, etc.)

4. Guest Lecture Activities

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
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**II. STUDENT ADVISING**

A. Number of undergraduates for whom you are the student's official advisor 25 and unofficial advisor \_\_\_\_\_

B. Graduate Students: (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**

Som Mukherjee PhD 1/1/00  
Jon Cale MS 1/1/09

**CO-MAJOR PROFESSOR**

Steve Letkowski (MS) Started September, 2006. Degree requirements completed 8/31/09. Thesis title: Beech Bark Disease: The Relationship Between Scale Infestation and Neonectria formation in an Aftermath Forest. Co-major Prof with S. A. Teale.

**MEMBER, STEERING COMMITTEE** (other than those listed above)

Paul Bryant  
Moses Cucura  
Zeynep Kocer- Ph.D. Major Prof is Dr. S.O. Rogers at BGSU, Bowling Green, OH  
Ram Veerapaneni, Ph.D, Major Prof is Dr. S.O. Rogers at BGSU, Bowling Green, OH

**CHAIRMAN OR READER ON THESIS EXAMS, ETC.**

Chair, MS defense examination for Lindsay Cray (4/10)

**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)

-McNulty, S.A., Castello, J.D., and Teale, S.A. 2009. The influence of American beech thickets on biodiversity in the northern hardwood forest. USDA Forest Service, Northern States Resource Cooperative. May 22, 2009. \$34,785.

Start date: October 1, 2009. Duration: 1 year. Funded.(Cale)

- Teale, S.A., Castello, J.D., Millar, J.G. 2009. Fungal attractants for Sirex noctilio and its parasitoids. USDA Forest Service. \$40,000. Start date: January 1, 2010. Duration: 1 year. Funded.

-Identification and characterization of viruses from New Zealand surface waters (5%) (Mukherjee).

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

Teale, S.A., Castello, J.D., Millar, J.G. 2009. Fungal attractants for parasitoids of Sirex noctilio. USDA Forest Service. May 31, 2009. \$74,343. Start date: August 1, 2009. Duration: 1 year. Declined.

-Castello, J.D. 2009. Metagenomics of Viruses in Glacial and Accretion Ice. NSF. Office of Polar Programs. June 8, 2009. \$226,945. Start date: January 1, 2010. Duration: 3 years. Declined.

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

-Teale, S.A., Letkowski, S.K., Matusick, G., Stehman, S.V., and Castello, J.D. 2009. Quantitative, nondestructive, assessment of beech scale (Hemiptera: Cryptococcidae) density using digital image analysis of wax masses. *Env. Entomol.* 38:1235-1240.

-S.A. Teale And I are coediting a textbook on forest health for Cambridge University Press. The book manuscript is due on August 1, 2010.

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)

**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

American Phytopathological Society

3. Other Professional Activities

a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
International J. Forestry Research	1 (7/28/09)

Other (books, symposia, etc.)

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
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<u>Agency</u>	<u>No. of proposals</u>
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Other

Reviewed dossier of Dr. Lori Eckhardt, Auburn University, for promotion to Associate Professor (September, 2009).

c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
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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

- Member of EFB Promotion and Tenure Committee, December 1, 2008 for three year term.
- Coordinator of EFB Forest Health major.
- Associate Chair: January 1, 2010-present
- Chair, Ad Hoc Committee to develop recommendations for undergraduate program in Environmental Health at SUNY-ESF.
- Coordinator for EFB annual spring awards ceremony, May 15, 2010

B. College-level

C. University-wide, including Research Foundation

**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 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, which I'll continue to award based on your contributions to the department and college this reporting period.

I continue to work hard to enhance the Forest Health major within EFB, of which I am the coordinator. This past year (2008-2009), three students graduated from the major. Despite the losses to graduation, the major appears healthy. We now have approximately 17 students in the major as of late May (2010). I completed development of an assessment plan for the major, which has been implemented. EFB 494, a senior synthesis course for forest health majors is now being taught. Enrollment in EFB 340, Forest and Shade Tree Pathology, has remained at around 50 students. Enrollment in EFB 345-Forest Health, at CLBS has maintained an enrollment of 8-14 students during the past 3-4 years as well.. I attribute this increase to enhanced interest in Forest Health at ESF.

Enrollment in the new course cotaught with Dr. S.A. Teale for the second time this past spring semester called 'Peoples, Plagues, and Pests ' (EFB 217) has increased by 50% to 167 students.

Dr. S.A. Teale and I will complete our textbook on Forest Health for Cambridge University Press in July. The manuscript will be submitted on August 1, 2010.

My research program is expanding in new directions. I submitted three proposals this year. One proposal (with S. McNulty and S.A. Teale) involving beech bark disease is a continuation of recent efforts with Dr. Teale working on this disease. One student (S.K. Letkowski) just completed his MS degree on this research topic this past year. J. Cale will switch from an MS into a PhD program this fall to expand his work on beech bark disease in collaboration with S.A. Teale and M. Johnston at the Ranger School. One paper has been published from this work already, and a second is in preparation. A second proposal on fungal isolation from *Sirex noctilio* has been submitted to the USDA Forest Service (with S.A. Teale).

**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)**

I plan to teach the four courses that I now teach, and hopefully enrollments will continue to increase. I am particularly hopeful for EFB 217, and want to reach the 200 student plateau next spring. In addition, I will teach a part of EFB 202 at CLBS this summer (2010) for the first time in about 3-4 years. So next year I will be teaching five courses for the Dept of EFB.

I also plan to continue the research projects detailed above. I plan to write another proposal on BBD with S.A. Teale and M. Johnston at the Ranger School this coming fall semester to fund J. Cale's PhD work.

I am anxious to submit the forest health textbook manuscript to Cambridge University Press in August. Production is scheduled to begin in August, and the book should appear in print in April of 2011.

I am cohosting the 51<sup>st</sup> annual meeting of the Northeast Forest Health Workshop in June 2010 with George Hudler of Cornell University.

**B. PROJECTED ACTIVITIES FOR NEXT YEAR**

1. Summer 2010

a. Course(s) to be offered

EFB 202: Microbiology component

EFB 345: Forest Health with S.A. Teale

b. Proposed research activity

continue BBD research at HWF-AEC with S. McNulty and Jon Cale.

initiate Sirex research with S.A. Teale.

finish research on viruses from New Zealand forests with Som Mukherjee.

c. University, professional society, and public service

2. Fall Semester 2010

a. Course(s) to be offered

EFB 303: Intro Env. Microbiology with J.P. Nakas

EFB 494: Senior Synthesis in Forest Health

b. Proposed research activity

BBD research with J. Cale, S.A. Teale, S.A. McNulty, and M. Johnston

c. University, Professional society, and public service

Continue to advance EFB goals in my capacity as Associate Chair

3. Spring Semester 2011

a. Course(s) to be offered

EFB 340: Forest and Shade Tree Pathology  
EFB 217: Peoples, Plagues, and Pests with S.A. Teale

b. Proposed research activity

Initiate new BBD research project if proposal is funded.

a. Course(s) to be offered

b. Proposed research activity

c. University, professional society, and public service