

ANNUAL REPORT: June 1, 2012 – May 31, 2013
(i.e., Summer 2012, AY 2012-2013)
DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY
SUNY-ESF

NAME: Jim Nakas

I. INSTRUCTIONAL ACTIVITIES

1. Regular Course Offerings

	Course No.	Title	Credit Hrs.	No. Students	No. of Lab. Sections
SUMMER:	None				
FALL:	EFB 303	Microbiology (with Castello)	4	60	2
	EFB 301	Latin for Scientists	1	49	-
	EFB 999	Doctoral Thesis Research	10	2	-
	BTC 498	Research Problems/Biotechnol.	3	1	-
SPRING:	EFB 403	Microbiol. Dis. Fish/Wldlife	1	18	-
	EFB 796	Microbiol. Dis. Fish/Wldlife	1	1	-
	EFB 505	Microbial Ecology	2	21	-
	EFB 999	Doctoral Thesis Research	10	2	-

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.

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

Course No.	Title	Credit Hrs.	No. Students
EFB 999	See Above		

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

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None

4. Guest Lecture Activities None

<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 _12_ and unofficial advisor __?__

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

- 1.) Wenyang Pan, PhD, Started in January 2008, PhD March 2013: Production and Characterization of Short-chain-length Polyhydroxyalkanoates (SCL-PHAs) homopolymer and copolymers from renewable wood-based resources and cheese whey permeate.
- 2.) Rosanna Stoutenburg, PhD, Started June 2008, PhD April, 2013: The Effects and Mitigation of Lignocellulosic Hydrolysate Inhibitors of Ethanol Production by *Scheffersomyces (Pichia) stipitis*.

CO-MAJOR PROFESSOR

MEMBER, STEERING COMMITTEE (other than those listed above)

- 1.) Ryan Tappel, PhD, Nomura (MP)

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

- 1.) Chairman on 2 thesis defenses
- 2.) Examiner on 1-2 thesis defenses

III. RESEARCH COMPLETED OR UNDERWAY

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

Emeritus

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)

Emeritus

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

Emeritus

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

Emeritus

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

- 1.) Pan, W., J.A. Perrotta, A.J. Stipanovic, C.T. Nomura, and J.P. Nakas. 2012. Production of polyhydroxyalkanoates by *Burkholderia cepacia* ATCC 17759 using a detoxified sugar maple hemicellulosic hydrolysate. *J. Indus. Microbiol. Biotechnol.* 39: 459-469.
- 2.) Zhu, Chengjun, C.T. Nomura, J.A. Perrotta, A.J. Stipanovic, and J.P. Nakas. 2012. The effect of nucleating agents on physical properties of poly-3-hydroxybutyrate (PHB) and poly-3-hydroxybutyrate-co-3-hydroxyvalerate (PHB-co-HV) produced by *Burkholderia cepacia* ATCC 17759. *Polymer Testing* 31: 579-585.
- 3.) Pan, W., C.T. Nomura, and J.P. Nakas. 2012. Estimation of inhibitory effects of hemicellulosic wood hydrolysate inhibitors on PHA production by *Burkholderia cepacia* ATCC17759 using response surface methodology. *Bioresource Technology* 125: 275-282.
- 4.) Zhu, C., J.P. Nakas, and C.T. Nomura. 2013. Production and characterization of polyhydroxyalkanoates from biodiesel glycerol. *J. Appl. Polym. Sci.* (accepted for publication).
- 5.) Stoutenberg, R.O., and J.P. Nakas. 2013. Effects of specific lignocellulosic hydrolysate inhibitory compounds on *Pichia stipitis* and hydrolysate-adapted strains RS01-03. *Lett. Appl. Microbiol.* (in review).
- 6.) Nakas, J.P., C. Zhu, J.A. Perrotta, and C.T. Nomura. 2013. Methods for producing polyhydroxyalkanoates from biodiesel-glycerol. Submitted to US Patent and Trademark Office 11/23/2011. (US Pat. Appl. No.13/303,856), revised and submitted 6/18/2013.

B. Non-refereed Publications

None

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

1.) Pan, W. and J.P. Nakas. Production and Characterization of Short-chain-length Polyhydroxyalkanoates (SCL-PHAs) homopolymer and copolymers from renewable wood-based resources and cheese whey permeate, June, 2012, Am. Soc. Microbiol., Los Angeles, CA.

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

None

V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

1. Government Agencies (Federal, State, Local):

None

2. Industrial and Commercial Groups, etc.

None

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

None

VI. PROFESSIONAL DEVELOPMENT

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

None

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

None

2. Professional Society Membership

American Society for Microbiology

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

1.) Bioresource Technology

1

2.) Biotechnology Progress (an ACS Journal)

1

3.) J. Polymers and the Environment

1

- | | |
|-----------------------------|---|
| 4.) BioResources | 1 |
| 5.) Biotechnology for Fuels | 1 |

<u>Agency</u>	<u>No. of proposals</u>
None	

Other

- c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
None		

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

None

- C. Foreign Travel (Where, When, Purpose)

None

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

- A. Department-level

- B. College-level

Resigned from Director, Institutional Biosafety Committee
 Removed as member, Radiation Safety Committee

- C. University-wide, including Research Foundation

Relieved as Director, SUNY Center for Applied Microbiology

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.

Rather than drone on here, let's just insert the publications/patent app.

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)

Flyfishing Only

B. PROJECTED ACTIVITIES FOR NEXT YEAR –Flyfishing Only

1. Summer 2013

- a. Course(s) to be offered
- b. Proposed research activity
- c. University, professional society, and public service

2. Fall Semester 2013

- a. Course(s) to be offered
- b. Proposed research activity
- c. University, Professional society, and public service

3. Spring Semester 2014

- a. Course(s) to be offered
- b. Proposed research activity
- c. University, professional society, and public service

