



Conservation and Biology of Protected Species Using Remote Sensing Capabilities at ECSU

A Performance Report for
Award No: NA03OAR4810134

for the Period from
January 30, 2006 – December 31, 2006

Elizabeth City State University

EEP Category:
Program Development and Enhancement

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Elizabeth City State University

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This performance report includes the following sections:

Section I B Status of Award Activities (goals and objectives)

Section II B Success Stories

Section III – Education & Outreach Activities

Section I: Status of Award Activities Re: NOAA Environmental Entrepreneurship Program Award # NA03OAR4810134 - Conservation and Biology of Protected Species Using Remote Sensing Capabilities at ECSU. This section summarizes the status of MSI (and partner institutions) in meeting goals and objectives outlined in the Environmental Entrepreneurship Program (EEP) award. The section is organized in the same format as the award and include the following information:

1. Status of goals/objectives accomplished, as outlined in original EEP proposal.

The *Conservation and Biology of Protected Species Using Remote Sensing Capabilities at ECSU* project is designed to increase the number of persons with minority backgrounds who pursue careers as entrepreneurs or research scientists using remote sensing technology. We hope to accomplish two complementary objectives with this project.

Objective #1: To provide undergraduate students at Elizabeth City State University with instruction, hands-on training and research experience in the use of remote sensing while providing NOAA and other laboratories with summer interns who are able to make a significant contribution to ongoing research projects.

Objective #2: To provide educational and training opportunities in the study of protected species behavior using remote sensing.

Accomplishments

- Entrepreneurship Seminars: June 12-16, 2006.
- Distinguished Lecture on Remote Sensing: featuring Dr. Ken Jezek on March 7, 2006
- Distinguished Lecture on GRID computing: featuring Dr. Geoffrey Fox on October 19, 2006
- Two interns were placed at the NOAA north-east regional office in Gloucester, Massachusetts.
- GIS and ArcView training provided June 1 – June 6, 2006

- Internship Roundtable on October 24, 2006
 - EPP/BEEP Entrepreneurship business seminar November 2, 2006
2. **Status of benchmarks due during the performance period. MSI should specify any anticipated challenges, delays, difficulties or problems that may impede timely completion of projects or activities.**
- none
3. **Status of special award conditions (if applicable) due during the performance period.**
- none
4. **Status of any partnership agreements, student learning agreements or deliverables to be generated as part of this award. These should be included as an attachment.**
- The official MOU with NMFS was completed. The following is a partnership agreement that was development. A one paragraph exert from the agreement is copied below but the entire agreement can be found at the end of this report.

UNITED STATES DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 STUDENT CAREER EXPERIENCE PROGRAM (SCEP) AGREEMENT WITH
 ELIZABETH CITY STATE UNIVERSITY

A. Purpose: This agreement is the basis for developing mutual understanding and respective responsibilities between the Department of Commerce (the "Department") and Elizabeth City State University (the "University") in the employment of students for the Student Career Experience Program (SCEP). The SCEP Program is a planned, progressive educational program that provides for the -integration of a student's academic studies and Federal work experience with the potential of non-competitive conversion into the Federal career service. This agreement is consistent with guidance contained in the Code of Federal Regulations, Section 213.3202.

Section II: Success Stories

The MSI should report on notable "success stories" during the performance period. The report must be detailed enough to provide EPP/MSI with a clear understanding of what was accomplished during the performance period. This should include specifically how the project is advancing the goal of the EEP which is "to strengthen the capacity of MSI's to foster student careers, entrepreneurship opportunities and advanced academic study in NOAA-related sciences". The MSI should report on the information noted below for "Program Development and Enhancement" or "Environmental Demonstration" depending upon the particular type of financial assistance award for which you were approved.

Program Development and Enhancement:

1. **How has the MSI strengthened its outreach, education, training, and applied research capabilities to prepare students in NOAA-related sciences?**
 - GIS and Remote Sensing training has been provided to students. GIS and ArcView Training was provided to students June 1-6, 2006.

2. **How has the MSI fostered or strengthened partnerships with NOAA programs, facilities and laboratories (and other partners) through cooperative education opportunities?**
 - The MSI has fostered partnerships with NOAA programs and laboratories through cooperative education opportunities that include establishing an arrangement with the Northeast Regional Office of the National Marine Fisheries Service of NOAA, whereby students could come work there for up to six months per year while enrolled at ECSU. A Memorandum of Agreement to allow students to come to NMFS as part of a cooperative educational program was signed. NMFS will hire students for up to six months per year and could renew them for subsequent years. This opportunity would not be limited to computer sciences. NMFS has summer interns who worked on fishery management problems, data analysis, endangered species and marine mammals. CONTACT: Dr. Kevin Chu 978-281-9237 kevin.chu@noaa.gov or Marla Trollan (978-281-9388) or Sarah Gurtman (978-281-9368)
 - One student, Anthony Anderson will graduate Dec. 9, 2006 and will begin immediately to work at the NMFS as a result of the MOU and his internship there at NMFS.

3. **What new courses, web-based instruction, curriculum, or training seminars etc. were developed?**
 - ECSU has a new concentration in remote sensing at the masters degree level. The new graduate courses in remote sensing include
 - RS 501: Geophysical Remote Sensing 03
 - RS 502: Geographic Information Systems and Geophysical Signal Processing 03
 - RS 503: Digital Image Processing and Analysis 03
 - RS 504: General Analytic Methods of Remote Sensing 03
 - RS 505: Geophysical Modeling 03
 - RS 506: Microwave Remote Sensing Principles and Applications 03

Environmental Demonstration:

- NOT APPLICABLE TO THIS PROJECT

Section III: Education and Outreach Efforts

1. **How many students were recruited and selected to participate in internship, mentoring, training or hands-on applied research opportunities (including names of students, classification and major) and what specific arrangements were made for student placement with partners?**
 - Two students were recruited and selected to participate in internships, mentoring and hands-on applied research opportunities at NOAA north-east regional office in

Gloucester, Massachusetts. NOAA has indicated their intent to hire Anthony Anderson after graduation in December 2006.

Anthony Anderson
Senior - Computer Science

Timothy Harrell
Senior - Computer Science

2. What projects will students participate in, and what is the scope of the project?

Massachusetts Young-of-the-Year Bottom Trawl Survey

Mentor: Dr. David Stevenson

Project Description: Designating essential fish habits are important because they protect specific species of fish from becoming extinct. To help aid the process the project took a look at young of the year species in the north east region of the United States. Of interest were factors that will affect the numbers of young-of-the-year (YOY) juveniles caught in each survey and the environmental variables that could be correlated with geospatial data on catch rates (number of fish per tow).

3. How many students participated in entrepreneurial training courses, workshops, conferences or seminars (including title, names of students, classification and major)?

- On November 2, 2006, the NOAA Environmental Entrepreneurship Program (EEP) and the Walter R. Davis School of Business and Economics co-sponsored a guest speaker for ECSU business and research students. This event was part of the Black Executive Exchange Program's (BEEP) two day visit to Elizabeth City State University. Twenty one students participated. The names, classification and majors are indicated below.

The BEEP, sponsored by the National Urban League, is a program to help African American college students excel. BEEP sponsors business men and women from corporations and government agencies to lecture at Historically Black Colleges and Universities (HBCU's). The lectures are centered on such issues as leadership, communication, and management. The BEEP-ECSU campus visit was coordinated by Mrs. Roberta Shaw, Internship Coordinator at ECSU.

<http://nia.ecsu.edu/ur/0607/061102beep/beep2006.htm>

BEEP Entrepreneurship Seminar Participants

<u>Student</u>	<u>Major</u>	<u>Classification</u>
Tiwana Walton	CS	Freshman
Lovell Pendleton	CS	Freshman
Carmichael, Bryce	CS	Sophomore
Fields, TreAsia C.	Math/Cs	Sophomore
Carrie Williams	CS	Sophomore
Akeem Archer	CS	Sophomore
Kevin Reynolds	Math	Sophomore

Brittney Lynch	Math	Sophomore
Frink, Kaiem	CS	Junior
Gregory Brown	CS	Junior
Wade, Unquiea	CS	Sophomore
Smalls, Jr Lee	CS	Sophomore
Joco, Willie A.	CS	Freshman
Jamika Baltrop	CS	Sophomore
Campbell, Brian	CS	Juniors
Mitchell, Jerome	CS	Juniors
William, Karitsa	math	grad student
Anderson, Anthony	CS	Senior
Dr. Linda Hayden	CS	faculty
Smith, Eunice	Math	faculty
Mr. Gooden	Tech	faculty

4. **How many students participated in site visits to NOAA programs, laboratories and facilities (including names of NOAA staff, students and faculty, NOAA partner facility and description of training opportunities)?**

Two students **participated in site visits** to the Northeast Regional Office of the National Marine Fisheries Service: Anthony Anderson and Timothy Harrell.

5. **How many students advanced to pursue careers, advanced study, or entrepreneurship opportunities?**

Six students, who have received support graduated. This is a correction to the last report. Students received several fellowship offers but accepted those below.

<u>Student</u>	<u>Major</u>	<u>Graduate School Enrollment/ career info</u>
Joanelle Baptiste	Math	Pursuing M.S. Norfolk State University
Napoleon Paxton	CS	Pursuing PhD at UNC at Charlotte
Tracey Ward	CS	Completed M.S. at NCAT
Anthony Anderson	CS	Hired at NMFS
Eunie Smith	Math	Completed MS in Math at ECSU
Karitsa Williams	CS/Math	Currently pursuing MS in Math at ECSU

6. **Report on any local, regional or national media (i.e., television, radio, print, Internet) efforts.**

- None to report this period

7. **Report on all outreach activities (i.e., workshops, conferences, seminars, briefing materials). List all participants including students, faculty, senior administrators, partner organizations or institutions.**

- Entrepreneurship seminars were held for students June 12-16m 2006. Below is a listing of the seminar topics and a listing of the 13 students who participated.

June 12	2:30-3:50	Introduction to Entrepreneurship	Sanjay Mishra
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June 12	4:00-6:00	Who should be an Entrepreneur?	Neal Sharma
June 13	2:30-3:50	Business Plans	Sanjay Mishra
June 13	4:00-6:00	Understanding an Opportunity	Lesa Mitchell
June 14	2:30-3:50	EASI case—Analyzing a business plan	Sanjay Mishra
June 14	4:00-6:00	EASI case—Analyzing a business plan	Sanjay Mishra
June 15	2:30-3:50	How to “build” and opportunity	Rob Herrington
June 15	4:00-6:00	How do you know you have a great idea?	Suresh Ramamurthi
June 16	2:30-3:50	Support for developing your ideas	KU, KTEC
June 16	4:00-6:00	Wrap Up: Questions, follow-up	Sanjay Mishra

June 12-16, 2006 Entrepreneurship student participants

STUDENT	CLASSIFICATION	MAJOR
Shrae, Ashley	Junior	Math
Ratliff, Monica	Soph	Biology
Scott, Devin	Junior3.2	Criminal Justice
William, Karitsa	Grad	CS
Vance, Keila	Senior	CS
Bass, Lyteasha	Senior	Biology
Smith, Amber	Fresh	Math
Tubbs, Ryan	Fresh	Engineering
Tucker, Michael	Soph	Mech Eng
Smalls, Jr Lee	Fresh	CS
Carmichael, Bryce	Fresh	CS
Wade, Unquiea	Fresh	CS
Arthur, Cheniece L.	Soph	CS

- The 2006 Internship Roundtable was held on October 24, in Lester Hall. This year's Internship Roundtable brought new faces and internship experiences to 36 students at ECSU including areas from remote sensing and computer robotics to geology internships in the desert. Several students presented their 2006 summer experiences and explained the methods they used in obtaining these internships.

Other students brought new research experiences to the table for the summer of 2007. These included the where, when, and how's of applying for internships and the requirements needed up front.

Ms. Sandra Gibson, of ECSU Career Service, spoke on the opportunities and resources provided by her office. She encouraged the students to "seek out" these opportunities and to ask questions of those who have experienced the process.

<http://nia.ecsu.edu/ur/0607/061024ot/2006roundtable.html>

Internship Roundtable Name	24-Oct-06 Major	Lester Hall 116 Classification
Gregory Brown	Computer Science	Junior
Kaiem Frink	Computer Science	Junior
Anthony Anderson	Computer Science	Senior

Deshawn Flectcher	Computer Science	Sophomore
Quinisha Balsler	Computer Science	Sophomore
Robert Coverdale	Computer Science	Freshman
Lisa Lynch	Computer Science	Freshman
Lovell Pendleton	Computer Science	Freshman
Adrin Diggs	Computer Science	Freshman
Shandala Leay	Computer Science	Freshman
John Howell	Business Administration	Sophomore
Unquiea Wade	Computer Science	Sophomore
Jerome Mitchell	Computer Science	Senior
Brian Campbell	Geology	Junior
Cheniece Arthur	Computer Science	Junior
Natasha Cox	Music	Freshman
Hampton Watson	Business Administration	Junior
Mary Harrell	Business Administration	Sophomore
Chanel Dennis	Biology	Freshman
Renaldo Paxton	Physical Education	Sophomore
Latoria Cotton	Social Work	Sophomore
Shannon Scarbourough	Accounting	Sophomore
Shenika Miles	Business Administration	Freshman
Kamisha Blount	Education	Freshman
Ashely Berryman	Computer Science	Freshman
William Hollie	Computer Science	Sophomore
Titus Stepney	Computer Science	Junior
Larry Wilson	Computer Science	Freshman
Walter Turner	Computer Science	Sophomore
TreAsia Fields	Mathematics	Sophomore
Kevin Reynolds	Mathematics	Sophomore
Brandi Brehon	Mathematics	Senior
Travis Capehart	Computer Science	Freshman
Gary Jones	Computer Science	Freshman
Christopher Allen	Computer Science	Sophomore
Karitsa Williams	Math/Remote Sensing	Graduate

- On March 7, 2006, the Northeastern North Carolina Chapter of the IEEE-Geoscience and Remote Sensing Society held its Spring Distinguished Lecture Series with Dr. Kenneth Jezek of Ohio State University as the guest speaker. There were 42 participants. Dr. Jezek is the Principal Investigator on the RADARSAT-1 Antarctic Mapping Project at the Byrd Polar Research Center. His presentation was titled "Antarctica: Its Ice, Land and Ocean as viewed by RADARSAT-1". No information is available on the classification and major of the participants.

March 7, 2006 Distinguished Lecture Participants

Jeffrey A. Wood	Melinda Kennon	Ken Jezek
Santen W. Gibram	Kaiem Frink	Karitsa Williams
Alfred J. Lewis	Kenneth Joyner	Brandi Brehon
Freda McBride	Kevin Remiks	Jameson Gibbs
Ali Khan	Kathleen Fischer	Gregory Brown
Shayla Brooks	Chris Perry	Steve Hale
Anne Garland	Danielle Wright	Linda Hayden
Charles Luther	Malcolm Lecompte	Joal Hathaway
Jerome Mitchell	George Hurtt	Francisco San Juan
Darnell Johnson	Karen Graham	Kevin Reynolds
Eunice Smith	Barry Rock	Uniquiea Wade
Bryce Carmichael	Jason Long	Devoe Levine-Leung
Charles Palin Jr.		
Carrie Williams		

- On October 19, 2006, the Center of Excellence in Remote Sensing Education and Research (CERSER) continued the Distinguished Lecture Series with Dr. Geoffrey Fox of Indiana University as the guest speaker. Dr. Fox is the Director of Community Grids Laboratory; Pervasive Technology Laboratories at Indiana University. Dr. Fox is currently working with the Minority Serving Institutions in the development of a Cyberinfrastructure. A major part of this development is the use of Grid technologies to build collaboration systems and their application in distance education. This technology includes a Web based structure for audio-video conferencing. His presentation was titled "Implementation of a Polar Science TeraGrid Gateway for SAR and other CReSIS Data Sets".

Dr. Willie Gilchrist, Chancellor, ECSU, opened the meeting with a greeting to guests and a welcome from the University. Dr. Gilchrist is currently serving as Interim Chancellor at ECSU and threw his full support behind the programs here as his youngest son graduated from Dr. Hayden's program.

The Lectures Series was followed by a meeting of the Northeastern North Carolina Chapter of the IEEE Geoscience and Remote Sensing Society (GRSS). Dr. Linda Hayden, Assistant Dean of the School of Mathematics, Science and Technology and President of the NE NC Chapter of IEEE-GRSS greeted the guests.

http://cerser.ecsu.edu/06events/061019dls/dls_lecture.html

October 19, 2006 Distinguished Lecture Participants

Jasmin Rivers	Joal Hathaway	Derrick Wilkins
Jocelyn Fry	Jeff Wood	Jinchun Yuan
Shalina Zlove	William Porter	Darnell Johnson
Illiana Thomas	Lee Hayden Jr.	Keisha Wilkins
Chevelle Fields	Geoffrey Fox	Kuchumbi Hayden
Bryce Carmichael	Prasad Gogineni	Jermaine Moore

Amber Eure
Angela Faust
Kordaries Berry
Michael Pugh
Jeff Hendiux
Krishna Kulkarni
Jamiim Luttamaguzi
Carrie Williams
Antonio Staton
Jamika Baltrop
Ebony Addison

Gary Webber
Alex Ramirez
Andrea Lawrence
Constance Bland
Charles Luther
Lloyd Mitchell
Andrew Harris
Linda Hayden
Lura Ngwdinmbi

Adrian Hargrove
Bernard Redcross
Hien Tran
Brian Campbell
Lee Smalls Jr.
Kaiem Frink
Elenia Riddick
Maxine Mason

**UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
STUDENT CAREER EXPERIENCE PROGRAM (SCEP) AGREEMENT WITH
ELIZABETH CITY STATE UNIVERSITY**

A. Purpose: This agreement is the basis for developing mutual understanding and respective responsibilities between the Department of Commerce (the "Department") and Elizabeth City State University (the "University") in the employment of students for the Student Career Experience Program (SCEP). The SCEP Program is a planned, progressive educational program that provides for the -integration of a student's academic studies and Federal work experience with the potential of non-competitive conversion into the Federal career service. This agreement is consistent with guidance contained in the Code of Federal Regulations, Section 213.3202.

B. Academic Programs: This program applies to students who are pursuing a Baccalaureate degree or graduate degree at Elizabeth City State University.

C. Student Eligibility: The prospective SCEP student must:

1. Be enrolled and recommended by a University official.
2. Be at least 16 years old.
3. Be a U.S. citizen or owe allegiance to the U.S.
4. Meet the Department's policy on employment of relatives.
5. Meet security or fitness requirements.
6. Meet the qualification standards of the position.
7. Satisfy the work performance standards and scheduling requirements of the Department.

D. Appointments: Students receive appointments in the excepted service under the Schedule B Authority, Sections 213.3202 (b) in the Code of Federal Regulations and are titled Student Trainees. Appointments may not extend beyond 120 calendar days after satisfactory completion of academic requirements and 640 hours of study-related work experience requirements.

E. Promotions and Pay Increases are contingent upon the student's meeting qualification standards for the higher grade, performance management and position classification requirements of the Department, and supervisory recommendations.

F. Terminations: A student's appointment may be terminated at any time for any of the following:

1. Resignation,

2. Change to a field of study that will not qualify the student for a career position in the Department,
3. Suspension, expulsion, or withdrawal from the University,
4. Failure to maintain academic standards,
5. Medical disability,
6. Administrative reasons (e.g., budget constraints, lack of work, misconduct), or
7. Unsatisfactory performance.

G. Pay and Benefits: Students are paid in accordance with established pay schedules.

Students earn sick and annual leave at specified rates.

Participation in a retirement system is mandatory for all students. Federal regulations determine the system providing coverage.

Students are eligible for health and life insurance coverage if they hold appointments exceeding one year and expect to be in work status at least one-third of the time before completion of the work-study program.

Payment of travel and transportation between the duty station and school may be offered.

Students may be eligible for transit subsidy.

H. Work Schedules: Full-Time, Part-Time, Alternating.

Each work experience must be planned to be consistent with the student's academic studies or career goals and be designed to meet the minimum 640 hours of study-related work experience required for conversion.

Part-time students must work a minimum of 16 hours per week with at least a half-time academic course load.

Student work schedules should not interfere with their academic schedules.

Work schedules may not be confined to summer or vacation periods exclusively.

I. Performance Appraisals are required for SCEP students consistent with Department's Performance Management System.

J. Employment after completion of SCEP: Within 120 calendar days after completing the educational requirements, the student may be non-competitively promoted and/or converted to a term, career, or career-conditional appointment.

To be eligible for conversion, students must have satisfactorily completed the 640 hours of study-related work experience requirements of the Federal SCEP.

Trainees disqualified from continuing in the SCEP or who have not converted must be terminated.

Employment by the Department after the completion of SCEP is not guaranteed

K. EEO Considerations: Full consideration will be given to all qualified applicants without regard to race, color, creed, religion, national origin, sex, age, political affiliation, disability, marital status, or affiliation with an employee organization.

L. Agency Responsibilities:

1. Designate a staff member to maintain liaison with the University.
2. Inform the University of work experience opportunities and provide adequate job descriptions promptly.
3. Establish work schedules consistent with the University's academic calendar that enable students to complete the co-op program.
4. Orient the student to Department's mission, policies and procedures.
5. Select appointees referred by schools in accordance with EEO principles.
6. Process all personnel actions and keep necessary records related to students.
7. Provide progressive and diversified SCEP experiences to prepare the student for occupations in which they have an interest.
8. Conduct appraisals and counsel students regarding their performance.
9. Notify the school of changes in the student's status.

M. Educational Institution Responsibilities:

1. Designate a representative to work with the employing office's SCEP Coordinator.
2. Inform eligible students of employment opportunities.
3. Refer interested and qualified candidates to the employing office without discrimination, including veterans discharged under honorable conditions.
4. Coordinate work and study in a manner that will expand the student's educational development.
5. Provide the SCEP Coordinator with all required student application forms.
6. Monitor academic progress and inform the employing office of any changes in students' status.

N. Student Responsibilities:

1. Adhere to the employing office's work schedule and SCEP policies and procedures.
2. Assume personal and professional responsibility for actions and activities.
3. Meet academic, performance, and conduct standards established by the University and the employing office.
4. Provide the employing office and school SCEP coordinators with periodic progress reports on the quality of work and study assignments.
5. Notify the school and employing office of changes in their status.

O. The conditions of this Agreement conform to Federal regulations and are subject to change by Legislation, Executive Order, Office of Personnel Management or Departmental policy. Changes which are not required by new laws or regulations will occur only by mutual consent of NOAA and the institution and will be made by written amendment to this agreement.

This agreement becomes effective when signed by both parties. It will be in effect indefinitely unless terminated or if one of the following conditions are met:

1. Mutual consent of both parties.
2. By either party upon 30 days written notice.
3. If there have been no students from the institution employed in the agency for two years.

P. Approvals

Agency Official Signature

SCEP Coordinator
Title

Date

Institution Official Signature

Title

Date

Q. Administrative Contacts

Agency Contact Name

Telephone Number

Address

Address

Address

Institution Contact Name

Telephone Number

Address

Address

Address