

**Student Project Report to the University of Hawaii Marine Option
Program**

***An Investigation of Increases in Environmental Knowledge through
Service Learning***

Duration

March 19, 2005- March 26, 2005

Project Supervisor

Regina Woodrom Luna, MA Candidate, Ecological Anthropology, University of Hawaii
at Manoa

Project Leaders

Aaron Steurer
Shelley Steele

Project Members

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Advisors

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Manoa

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Introduction

Throughout the school year of 2004-2005 Break Through Adventures student leaders and project coordinators Aaron Steurer and Shelley Steele prepared and made arrangements for 10 UHH student volunteers to travel to the island of Oahu and participate in a study by Regina Luna of UHM conducting surveys of people and places to gather data about beliefs and attitudes about sea turtles as a pilot study on Human and Sea Turtle Interaction in the State of Hawaii. Students also participated in a variety of service learning and cultural learning experiences prior to and during the duration of the Break Through Adventures environmental service alternative spring break trip.

Student volunteers were selected through an application and interview process in the fall semester of 2005 to participate in this project for BTA (Break Through Adventures).

Aaron Steurer and Shelley Steele coordinated the selection process with the assistance of project advisors, as an alternative spring break environmental service learning project.

All student leaders and volunteers participated in mandatory trainings for cultural diversity and conflict resolution, first aid and safety, as well as environmental stewardship and service prior to service project.

Funding for this project was provided through the University of Hawaii at Hilo Service Learning Department, the Research Corporation of the University of Hawaii, as well as student fundraising and participant fees. Housing was provided by the Wesley Foundation on Oahu and transportation by the University of Hawaii at Manoa.

Methods and Materials

Break Through Adventures Background Information

Break Through Adventures is a service learning program that gives students at the University of Hawaii at Hilo the opportunity to participate in environmental service projects throughout the state of Hawaii. The mission and values of Break Through Adventures are as follows:

Mission

To offer alcohol and other drug-free Service-Learning eco-adventures to the diverse population of the UH system, in order to promote empowered citizenship, environmental sustainability, and an appreciation for the Hawaiian culture.

Values

1. Integrity
2. Respect
3. Ohana
4. Diversity
5. Empowered Citizenship
6. Service- Learning
7. Eco- Adventure
8. Alcohol and Other Drug- Free
9. Hawaiian/Polynesian Culture
10. Sustainability

Trip Planning Leadership and Design

Trip leaders worked closely with the project supervisor and advisors to make all logistical arrangements for efficient and productive coordination of project including preparing budgets and securing financial resources, making sure housing, food and air/ ground transportation needs were met, preparing itinerary of service and learning activities, selecting project members, conducting and monitoring attendance of mandatory pre service trainings and monthly meetings with project members and leading reflection activities during and after the project. Aaron Steurer and Shelley Steele also participated in a Leadership and Service Training with all BTA student leaders with the Kahoolawe Island Restoration Commission prior to trip and were First Aid/CPR certified to help ensure the safety of all project members during the project.

Itinerary

A period of 24 hours of direct environmental service and project training during the week of spring break in 2005 was volunteered by each participant. As a group a total of 288 hours of direct service was performed. The following itinerary includes time for project training, direct service, travel to project location and survey sites, service and cultural learning activities, as well as group meetings and fun team building activities.

Saturday March 19, 2005

8am-5pm Air and ground travel from Hilo to Honolulu
5pm-6pm Group meeting and reflection on team dynamics

Sunday March 20, 2005

8am-5pm Island Orientation and trip to USS Arizona Memorial at Pearl Harbor
5pm-6pm Group meeting and reflection on expectations

Monday March 21, 2005

8am -12pm Green Sea Turtle biology and survey conduction training with Regina Luna
12pm -5pm N. Shore Laniakea Sea Turtle foraging ground Interview Questionnaire
5pm- 6pm Group meeting and reflection on environmental service

Tuesday March 22, 2005

8am-3pm Haleiwa shops significant honu merchandise survey and interviews of managers and owners
3pm-6pm Dole Pineapple Plantation and Pali Lookout

Wednesday March 23, 2005

8am- 4pm N. Shore Laniakea Sea Turtle foraging ground Interview Questionnaire
4pm-10pm Polynesian Cultural Center Luau and Coral Reef Adventure IMAX

Thursday March 24, 2005

5am-8am Fish Auction
8am-4pm Waianae parking lot survey
4pm-8pm Group Appreciation Bar BQ

Friday March 25, 2005

8am-2pm Tour of HIMB at Coconut Island
5pm-6pm Group meeting and reflection on things learned about the environment

Saturday March 26, 2005

8am-12pm Travel from Honolulu to Hilo

Service Activity

As a part of a pilot study on human and sea turtle interaction in the state of Hawaii by Regina Woodrom Luna, BTA members conducted surveys of individuals, businesses with turtle merchandise and vehicles with significant sea turtle emblems. This study of the global significance of the Sea Turtle is a part of Regina Luna's MA program in the field of Ecological Anthropology at the University of Hawaii at Manoa. The objective of her study is to learn what beliefs make sea turtles so special to some people and the significance of this project is that it will contribute to the understanding of human and sea turtle interactions in the state of Hawaii. This study will be used in marine conservation programs and could potentially be used as a resource for legislators when making regulations on sea turtle and human interactions.

Surveys were conducted in groups of two student volunteers; with 12 participants we had 6 groups conducting surveys. Approximately two surveys were conducted per hour when doing individual surveys of beliefs and attitudes, five per hour when surveying businesses with significant sea turtle merchandise, and 45 vehicles surveyed per hour for documentation of sea turtle decals.

- Approximately 108 individual surveys of beliefs and attitudes were conducted in a period of nine hours of direct service.
- Approximately 150 businesses with significant sea turtle merchandise were surveyed in a period of five hours of direct service.
- Approximately 1620 vehicles were surveyed in a period of six hours of direct service.

Marine Science and Education: Service and Cultural Learning Activities

- Hawaii Institute of Marine Biology facilities and grounds tour on Coconut Island
- Coral Reef Adventure IMAX at the Polynesian Cultural Center
- Fish Auction

Results

Assessments of environmental knowledge gained by participants during this experience were made through the conduction of individual written reflections as well as a group reflection and activity following a week of marine science education and environmental service activities. Students completed anonymous reflections as an assessment tool for knowledge of things learned about the environment after the service learning experience. The goal of this project was to educate students about Hawaii's unique marine environment and empower students to make a difference through participation in environmental service learning activities. After returning to Hilo all Break Through Adventure student volunteers were recognized with a final group reflection and awards activity and slideshow.

Conclusion

Through this experience project leaders Aaron Steurer and Shelley Steele learned valuable insights into trip planning and leadership, marine science education and research, environmental service and stewardship, Hawaiian culture and also the importance of the reflection process in service learning. We believe that the participants had a meaningful and in some cases transformational experience during this service learning experience. As can be assessed from individual and group environmental reflections there was an increase in students' environmental knowledge and changes in awareness and attitudes towards environmental issues and how individuals can make a positive impact on the environment by becoming more active and responsible citizens.

Project Personnel: Aaron Steurer

Personal Data

- Aaron C. Steurer
- Hokulani St, Hilo, HI 96720
- Male
- Born February 9, 1982, Kansas City, Kansas

Post- High School Academic Background

- 2000-2005 University of Hawaii at Hilo, Hawaii; Bachelor of Arts Liberal Studies: Recreation Management

Coursework and Grades Relevant to Proposed Project

- Education 310: Introduction to Education (A)
- Marine Science 100: Marine Option Program Seminar (CR)
- Marine Science 201/201L: Oceanography/ Oceanography Lab
- Marine Biology and Marine Biology Lab
- Marine Statistics
- QUEST

Experience Relevant to Proposed Project

- CPR/First Aid Certified
- Certified Scientific Diver
- September 2003- May 2005: UHH Break Through Adventures Volunteer and Student Leader
- August 2003- May 2005 Volunteer Experience: Kahoolawe Island Restoration Commission, MOP Turtle Tagging, US Fish and Wildlife wetlands restoration and turtle fence maintenance on Maui

Project Personnel: Shelley Steele

Personal Data

- Shelley A. Steele
- PO Box 6756, Kamuela, HI 96743
- Female
- Born October 29, 1979, Oklahoma City, Oklahoma

Post- High School Academic Background

- 2003-2005 University of Hawaii at Hilo, Hawaii; Bachelor of Arts Liberal Studies: Environmental Education
- 1999-2001 Oklahoma City Community College, Oklahoma; Associates of Arts Diversified Studies: Child Development

Coursework and Grades Relevant to Proposed Project

- Anthropology 315: Ecological Anthropology (B)
- Biology 156 and 156L: Natural History and Conservation of the Hawaiian Islands Biology 156 (B+) Biology 156L (A-)
- Education 310: Introduction to Education (A)
- Education 314: Educational Media and Technology (A)
- Education 350: Developmental Concepts of Learning (A)
- Education 494S: Science for Elementary Teachers (A)
- Geography 328: Cultural Geography (A)
- Geography 494: Environmental Impact Statement (A)
- Geography 387: Literature of the Environment (A)
- Geology 100: Environmental Geology (A)
- Marine Science 100: Marine Option Program Seminar (CR)
- Marine Science 201: Oceanography (B)
- Marine Science 282: Global Change (C+)
- Marine Science 434: Teaching Marine Science (A-)
- Natural Resources 410: Fundamentals of Environmental Education (A)

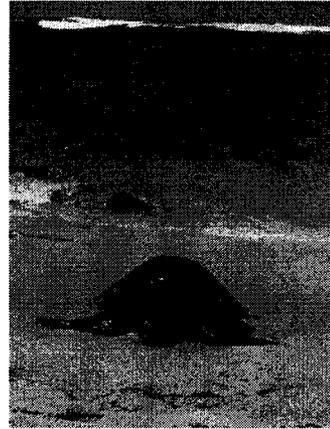
Experience Relevant to Proposed Project

- September 2003- May 2005: Program Coordinator for UHH Break Through Adventures
- October 2001- May 2005 Volunteer Experience: Over 4,000 hours through a variety of projects in 7 states including two ten month terms of service through Americorps, Earth Day Fair Exhibitor Chair, Get the Drift and Bag It Beach Clean Up, Kahoolawe Island Restoration Commission, Mokupapapaa Coral Reef Discovery Center evening tide pool program design, MOP Turtle Tagging, South Point Beach Clean Up, UHH Student Service Corps leader and volunteer , US Fish and Wildlife wetlands restoration and turtle fence maintenance on Maui

Photo Documentation of Activities:



*Student Participants at the
Polynesian Cultural Center*



Green Sea Turtle at Laniakea



Oahu Fish Auction



Coconut Island

Aaron Steurer
Marine Option Program
Statement of Learning
Spring 2006

The Marine Options Program (MOP) offers a variety of unique and constructive educational experiences not only exclusive to Hawaii, but also to issues that occur around the world. Upon completion of the program, not only was my knowledge expanded, but my enthusiasm to contribute and lend a helpful hand in sustaining the natural beauty of the environment, especially Hawaii's, was also increased. MOP opened my eyes to what really goes on in the oceans around the world and especially here in Hawaii.

Some of the discussions in the seminar class discussed such issues as Marine Life Conservation Districts like Wai Opae, Hawaii's endangered, invasive, and introduced species, cruise ships and modern whaling, the North West Hawaiian Islands and issues such as the Arctic National Wildlife Refuge (ANWR) debates. Not only is it beneficial to have discussions about current affairs, but to have a class specific to environmental issues that occur in your surroundings. It gives the opportunity to both students as well as community members to gain awareness in growing concerns around their areas. Then people, like myself, can take action and help the environment in which we inhabit.

Not only was MOP an intriguing class to attend, it also led to an assortment of accomplishments for me. I gained my scientific divers certification through QUEST, received an exclusive tour of Coconut Island on Oahu, compiled surveys about the global significance of the green sea turtle, and best of all, the opportunity to star in the John Coney Band! Upon completion of the MOP program, I gained knowledge in a variety of issues not only local to Hawaii, but concerns that frequent around the globe. I enjoyed these opportunities and experiences that MOP gave me and plan to use them in contributing to the preservation of the marine environment the best I can. In my current situation, I have the opportunity to educate people that visit the Fairmont Orchid about the marine environment and the sea life here in Hawaii, and my ultimate goal I obtained from MOP is that no matter where I am, I can share my knowledge of what I learned from the Marine Options Program.

Shelley Steele
Marine Option Program
Statement of Learning
Spring 2006

As a Marine Option Program (MOP) student I learned about Hawaii's unique coastal habitats and inhabitants. Through hands on projects and engaging learning experiences I gained skills and knowledge that have been very helpful in my pursuing opportunities involved with Marine Science Education. I enjoyed many activities such as helping out with the design of an evening tide pool educational program at Mokupapapaa Coral Reef Discovery Center (CRDC), attending public meetings for fishing regulations in the Northwestern Hawaiian Islands (NWHI), participating in Green Sea Turtle tagging at Punaluu beach, co-coordinating an environmental service project doing surveys about the global significance of the green sea turtle, and touring Coconut Island to learn more about research projects in Marine Biology.

MOP helped prepare me for teaching about the marine environment through the variety of experiences it offered including MOP seminar, interdisciplinary coursework, and hands on projects. MOP was also a model for me in developing an environmental education liberal arts degree and was an important part of my marine science education at UHH. The experience of learning about the ocean and the things that live in it while being able to explore the marine environment in MOP gave me an increased awareness of the significance of marine ecosystems to the global environment. Participation in MOP has led me to a career in marine science conservation education and a given me a life long appreciation for the world's oceans.

MOP helped me to achieve my goals of becoming an informal educator and inspired me to concentrate on Marine Science in particular. I am presently using some of the skills I learned as a MOP student as an education specialist at a dolphin interaction facility located on the Big Island of Hawaii teaching people of all ages about the marine environment. I really enjoyed participating in MOP activities and I plan to further my education into graduate studies focusing on marine science and environmental education.

Project Proposal

Aaron Steurer and Shelley Steele

An Investigation of Increases in Environmental Knowledge through Service Learning

The goal of the proposed project of Aaron Steurer and Shelley Steele was to recruit 10 University of Hawaii at Hilo student volunteers to participate in marine science education and environmental service activities during the spring break of 2005 that would lead to an increase in environmental knowledge of participants and promote global conservation and stewardship through active learning.

This goal was accomplished by a group of 10 student volunteers and 2 project leaders, Aaron Steurer and Shelley Steele, who traveled to Oahu from March 19-26, 2005 to conduct surveys for a study of the global significance of the sea turtle and learn more about the marine environment and Hawaii's culture through a variety of service learning activities.

Preparations for this trip began in August 2004 at the University of Hawaii at Hilo Student Corps Office through the University of Hawaii at Hilo's Break Through Adventures Alternative Spring Break program. Aaron Steurer and Shelley Steele were involved with this environmental service and cultural education program from the fall of 2003 to spring of 2005. In preparation for the completion of requirements for a Marine Option Program Certificate logistical arrangements were made to offer the opportunity for 10 student volunteers to participate in this project.