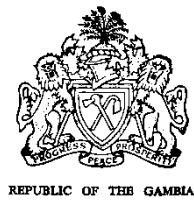


Presentation of Project Involvement

Ba-Nafaa Sustainable Fisheries Project The Gambia

Emily K. Nichols



Upon participation in a competitive application process that stresses applicant skills, adaptability, and cross-cultural understanding; Emily K. Nichols was invited to serve as a U.S. Peace Corps Volunteer with the Environment and Natural Resource Management (ENRM) Sector in The Gambia, West Africa.

She arrived in country on November 5, 2009 and began a comprehensive 10-week Training Program consisting of:

- **Technical Training and Trainee Directed Activities** (100-hours): Covered environmental challenges faced in The Gambia and proactive agro-forestry practices, improved agriculture and horticulture techniques, natural resource management strategies, and environmental education skills.
- **Language Training** (90-hours): Formal and informal Mandinka language lessons enhanced by living with a Mandinka host family. Rated at Intermediate language proficiency level at close of training.
- **Cross-cultural Training** (15-hours): Increased awareness and understanding of Gambian culture, history and politics of the Gambia, Islam in the Gambian context, traditional beliefs and taboos, gender roles, and nonverbal communication.
- **Health Sessions** (15-hours): Included preventative health measures, self-diagnosis, and basic medical treatment.
- **Safety and Security Sessions** (15 hours): Emphasized a lifestyle that reduces risk at home, work, and during travels, dealing with unwanted attention, and emergency action plans.

On January 7, 2010, Emily Kate Nichols was sworn in as a United States Peace Corps Volunteer at the residence of the US Ambassador to The Gambia.

Work Summary:

Ms. Nichols was based in the coastal fishing village of Sanyang, located on the south bank of The Gambia, with an approximate population of 10,000. During her service she worked as a Technical Assistant to the Ba-Nafaa Sustainable Fisheries Project. She engaged in project activities with coastal fishing communities, and oyster harvesting communities surrounding the Tanbi Wetlands National Park.

Detailed Project Descriptions

The **Ba-Nafaa Sustainable Fisheries Project** is a 5-year sustainable fisheries initiative. This initiative is a partnership between the United States Agency for International Development (USAID), World Wildlife Fund (WWF), the University of Rhode Island (URI) Coastal Resources Center (CRC), and the Government of The Gambia. It involves collaboration with diverse stakeholders and uses an ecosystem-based approach to support the Government of The Gambia in achieving its fisheries development objectives. The focus of the initiative is on sustainable management of marine and coastal resources shared between The Gambia and Senegal.

Sole Fisheries

Ms. Nichols worked with local fishermen, community fishing centers and landing sites, women fish processors, and other related stakeholders to improve the conditions of artisanal fishing activities in The Gambia. She helped develop a scientific framework to aid The Gambia in meeting requirements for the MSC Certification for Sole fisheries; delivered speeches to various stakeholders on project activities, conservation issues, and strategies; and contributed to the creation of sustainable co-management plans for Sole Fisheries.

Workshops & Trainings

- Participated in five Sole Fisheries Co-Management Workshops. Assisted with the planning, logistics, and execution of the workshops.
- Facilitated two Fisheries Stock Assessment Training classes at the Atlantic Hotel (March 2010 & September 2010). Participants included Department of Fisheries Staff and private sector representatives.
- Participated in Fisheries Stock Assessment Summer Institute Course at the University of Rhode Island (June 2011). Mentored Gambian participants and completed all course requirements including creation of lesson plans and leading reviews of material; team building activities; and presentation of a final project. Received a certificate of completion.
- Created PowerPoint presentations and presented at Co-Management Workshops: Gathering Local Knowledge (March 2010); Sole Fisheries By-Catch Assessment (September 2010); and Presentation of Local Knowledge Findings (May 2011).
- Served as a technical advisor to the National Association of Sole Co-Management (NASCOM) Committee from the time of formation in October 2010 to November 2011.
- Attended and contributed to meetings with LACOM on behalf of NASCOM at the coastal community fishing areas.



Research & Technical

- Conducted one-year data collection activity of daily landings of Sole fish at Sanyang landing site (July 2010-July 2011). Sub-sampled landed sole fish five-days per week, by gathering and recording weights and lengths; sometimes assisted by a local fisherman. Compiled and entered data in Excel and submitted to Department of Fisheries.
- Worked with Ba-Nafaa co-worker to identify 40+ sole by-catch species in the field. Researched life history and biological information of each species. Compiled information and produced a By-Catch Catalog field guide for publication.
- Compiled and entered By-Catch data collected from coastal landing sites during the one-year By-Catch Assessment study for Sole Fisheries. Submitted data to URI to be included in Co-Management Plans for Sole (August 2011).
- Collected otoliths from red and black sole fish at the Atlantic Seafood Company Facility in Banjul (September 2010). Worked with Ba-Nafaa co-worker and Atlantic staff member to cut and remove otoliths from fish, and to determine sex of fish. The otoliths were submitted to URI and will be analyzed to estimate ages of the fish.

- As a team, conducted interviews with local fishermen and other related stakeholders about sole fish and their habitat. March-April 2010 went out to sea with Ba-Nafaa co-worker and fishermen from the villages of Kartong, Gunjur, Sanyang, Batokunku, Tanji, and Bakau. Used a Garmin GPS to record the locations of areas of interest at sea, such as fishing grounds, fish hotspots, and rocky and sandy habitat. Compiled all of the gathered information as Local Environmental Knowledge (LEK).
- Used ArcGIS to create a basemap of The Gambia and a series of coastal maps highlighting the information gathered at sea (LEK). Maps were presented to stakeholders at May 2011 Co-Management Workshop, included in the Sole Management Plans, and included in the LEK report.
- Contributed writing and maps to a LEK Report for publication: The Use of Local Knowledge: Application to the Management of the Sole Fishery in The Gambia: http://www.crc.uri.edu/download/The_Use_of_Local_Knowledge_Sole_508.pdf



Tanbi Estuary Shellfisheries

Ms. Nichols worked with women in the communities throughout Tanbi Estuary, who comprise the TRY Association of women oyster harvesters. She conducted field studies and explored local aquaculture potential; supported TRY Association; and contributed to the creation of sustainable co-management plans for Mangrove Oysters.

- Participated in two Co-Management Workshops (January 2010 & September 2010). Assisted with the planning, logistics, and execution of the workshops.
- Conducted and co-coordinated a one-year study determining settlement dynamics of *Crassostrea gasar*, or mangrove oyster, at three locations within the Tanbi Estuary vicinity (Lamin, Old Jeshuang, and Kubuneh). Conducted monthly fieldwork by boat, with Ba-Nafaa co-worker and fellow Peace Corps Volunteer; occasionally Department of Fisheries staff. Observed and recorded oyster settlement density. Measured and recorded site salinity, dissolved oxygen, and temperature with the use of a refractometer, thermometer, and DO meter. (May 2010-June 2011)

- Entered oyster settlement and environmental data into Excel, managed, and analyzed. Created statistical graphs of environmental parameters, fouling, and oyster density.
- Contributed graphs and writing to scientific paper for publication: Preliminary Report On Sanitary Water Quality, Shellfisheries And Aquaculture of *Crassostrea tulipa* (Lamarck, 1819) In The Tanbi Estuary of Gambia, West Africa. The paper is expected to appear in the Journal of Shellfish Research in March 2012.
- Participated in the June 2010 Water Quality Assessment Training Seminar conducted by Dr. Rice of URI.
- Assisted Dr. Rice and Ba-Nafaa co-worker to set up the water quality testing program for shellfish sanitation in Tanbi Wetland National Park.
- Launched a pilot aquaculture study with Ba-Nafaa co-worker in August 2011. Constructed and installed floating aquaculture baskets along with several women oyster harvesters in the community of Kubuneh, in the Tanbi Estuary vicinity. Conducted four-months of bi-weekly fieldwork by boat, at the site by monitoring the baskets and subsampling the oysters and recording mortality, fouling, and density. Fieldwork was initially assisted by Department of Fisheries staff; as of November 2011, it is carried out solely by Ba-Nafaa.
- Investigated cockle harvesting potential in Kartong village with Dr. Rice, Ba-Nafaa staff, and fellow Peace Corps Volunteer (January 2011). As a team, interviewed local women and visited cockle areas by boat; and assessed the sand banks and water current for suitability for potential cockle survey.
- Mapped oyster bolongs within Tanbi Wetland National Park and Anaheim River that were proposed for closure to harvesting (May 2011). Traveled with Ba-Nafaa co-worker and several women harvesters by boat to the bolongs and used GPS to record the position. Used Google Earth and ArcGIS to create maps of the oyster bolongs. Maps were included in the Oyster Co-Management Plans.



Administrative and Program Support

- Interacted with the University of Rhode Island, WWF, Department of Fisheries, USAID, Department of Parks & Wildlife Management, Ministry of Fisheries and Water Resources, Ministry of Forestry and Environment, local fishing communities, local fishing associations, and Atlantic Seafood Company.
- Served as a significant point of contact for the Ba-Nafaa Project. Communicated with URI on a regular basis and provided project updates and information.
- Helped prepare and plan for URI visits to The Gambia (approximately 10-visits). Was present during all visits and offered assistance with any activity as needed.
- Worked with URI member to create filing system for Ba-Nafaa Project and organized all office paperwork.
- Provided assistance with report writing- Annual, Quarterly, and work plan reports, and technical write-ups.
- Participated in yearly and quarterly budget and programming planning.
- Provided ideas for corrective action.
- Carried out responsibilities and project activities during the Project Manager's three-month leave (July-October 2011).
- Assumed project responsibilities of Ba-Nafaa co-worker while on temporary leave to complete academic studies (August-November 2011).
- Led weekly staff meetings as necessary, and typed and distributed weekly agenda to internal partners.
- Wrote memos, letters, and proposals, for project activities.
- Creation of PowerPoint slides and presentations for project activities.
- Provided troubleshooting assistance with basic computer skills, and Microsoft office to Ba-Nafaa staff members.
- Trained Ba-Nafaa co-worker in the use of GPS.
- Maintained equipment: GPS units, computers, refractometer, and Oxygen meter.



NEWS EXTRA

US ambassador meets oyster women's association

by Fatou Sow

The ambassador of the United States of America to The Gambia, on Friday visited the Try Oyster Women's Association's office at Old Jeshwang in the Kanifing Municipality.

During her meeting with the women, Pamela Ann White, said that the purpose of her visit was to see what the women are doing since that it is what she has been doing in other African countries that she had worked for the past 30 years.

She disclosed that she has discovered that the women who work hard are trying to make a living for their children at all times from the little they gain from the sales of their oyster.

Ambassador White also disclosed that women all over the world work hard daily to take care of their families to make adequate provision for future generation. She assured the women of her partner-



ship and support, for the betterment of every member of the association.

Fatou Sambou, president of the association, said that they are grateful for the Ambassadors' visit and added that they are in the business to upgrade themselves for a better life.

"In the next five years to come, our ambitions are to have our own compounds and to be responsible for payment of our children's school fees," she disclosed.

She thanked Ambassador White for the visit and appealed to her to support their association.

Fatou Janba, coordinator of the association, said that they are very happy that the US Ambassador visited them and described the visit as an encouragement to the association.

She expressed optimism that with the partnership of the US Ambassador they will surely achieve their goals.



Ms. Nichols completed her service with the U.S. Peace Corps on December 7, 2011. Her role as a Technical Assistant to the Ba-Nafaa Project came to a close at this time.