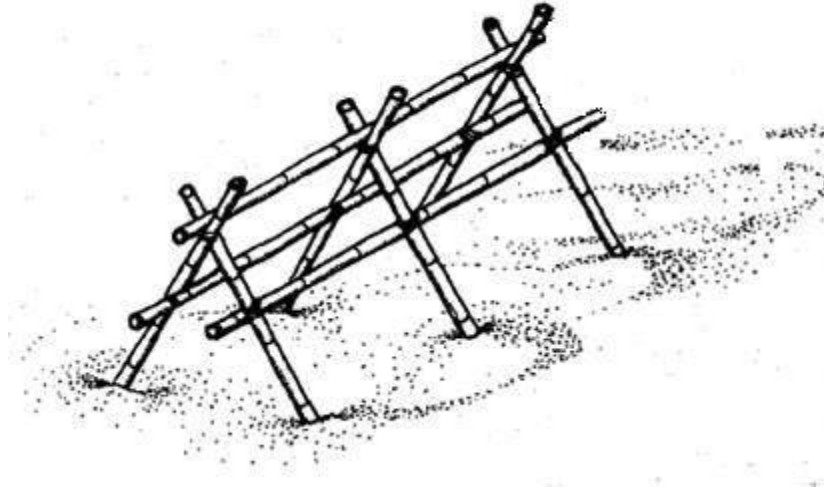


Pilot Ba Nafaa Oyster Culture Project
Women's Oyster Harvesters Association (TRY)
of the Tanbi Wetlands



By:

Daniel Theisen
University of Maryland
Department of Animal Science
dtheisen@umd.edu
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A partnership of:
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Coastal Resources Center, University of Rhode Island
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Introduction

The oyster fishery of the Tanbi Wetlands is dominated by woman gathers, many of which are first and second generation Jolas, which have migrated from Guinea Bissau and the Casamance. It is unknown if the increased effort of these women is in any way responsible for the condition of the fisheries. What is known, however, is that they have organized into groups and appear to be potentially very good stewards for both the oysters and the mangroves. Their enthusiasm is infectious and their energy limitless. They have already agreed to delay this year's season until March to allow for increase growth of the oysters. It is important that aquaculture of oysters be developed for many reasons, first to protect wild mature oysters as a source of spat, second to protect the mangrove from damage during the harvest of the wild stocks and finally, the culture of oyster has the potential to improve the food security of the area and especially that of the oyster women of the Tanbi Wetlands.

Participants

Coordinator - Fatou Janha Mboob

Site	President	Site	President
Faji Kunda	Amie Jatta	Kubuneh	Fatou Sambou
Lamin	Kumba Jassey	Mandinary	Isatou Jassey
Jeshwang	Bintou Colley	Abuko	Anna Jaita

Goals

- Train the oyster women of Tanbi Wetland on construction and management of support lattice, strings and trays.
- Determine the best method, location and time of year to collect spat.
- Determine the best method and area for grow-out.
- Develop management techniques
 - Cleaning of strings
 - Thinning and transfer of spat to trays
 - Inverting strings to assure that spat sets on strings uniformly
 - Etc...

Materials and methods

There are 9 groups of women in the TRY Oyster Harvesting Association. These 9 groups were combined into 6 clusters, for training and information gathering purposes. These clusters are listed above and the following methodology was repeated at every site.

A lattice rack was constructed at each cluster and from this support, oyster strings are attached. These racks and strings will be used to train the TRY members in both construction of the lattice supports and management of the string. Management of the strings will be reinforced monthly (possibly semi monthly), when Babanding Kanyi visits to inspect each site and attach a monthly experimental string.

- **Description of the supports (lattice) for hanging strings.**
The lattice method is intermediate between stake and rack culture (see figure on cover). The lattices are constructed of bamboo poles 5-9 cm in diameter, in the form of an inverted "V" and tied together with galvanized wire and rope. The structure has

3 horizontal bamboo poles 4 meter in length from which the strings are attached. The lower two horizontal poles are approximately at the low tide mark, with the upper horizontal pole at the high tide mark.

- **Description of strings** (TRY strings)
Using a mechanical punch, holes are put in old oyster shells. These shells are then strung on ropes 5 shell per string for the lower horizontal bamboo poles and 10 shells per string for the upper pole. By varying the water depth of the shells and documenting spat counts and growth, proper management techniques should evolve.
- **Description of strings** (experimental strings)
Experimental strings have 10 shells and are of the longer upper pole type. A new string is tied to the rack monthly and observed. By monitoring the monthly experimental strings both the spawning seasonal profile and the optimum time to begin will be determined.
- **Description of trays**
Design of the trays has yet to be determined. The trays need to be built before thinning so that excess spat can be transferred to the trays for grow-out. As oyster culture evolves in The Gambia trays may become the preferred grow-out technique with the strings being used for spat collection and as a secondary grow-out method.
- **Descriptions of (6) sites**
 - Describe nearby mature oyster populations, in terms of abundance and distance from lattice
 - Describe substrate (sandy vs muddy)
 - Describe currents

After the initial (year one) growth and spat setting data is collected, site descriptions will then be used when selecting future sites, either as a grow-out site or for spat collection.

- **Management of strings** (monthly activities)
 - TRY strings
 - Record keeping
 - Taking water quality (temperature salinity etc)
 - Measuring and counting spat
 - Cleaning
 - Thinning and transferring young oysters to trays. When the young oyster reaches 3cm the shells are thinned to 8-10 young oysters per shell with the excess being grown-out in trays.
 - Flipping or inverting strings. If spat setting or growth is not uniform, strings should be flipped or their location (upper and lower poles) changed.
 - Experimental strings
 - Record keeping
 - Taking water quality (temperature salinity etc)
 - Measure and count the number spat, indicate the number of spat per shell and the position of each shell on the string. These strings should be cleaned but not flipped or thinned

Discussion

The rack

Methods used in oyster culture are as diverse as are the localities where oysters are being cultured. The method use with by the TRY women was just meant as a beginning; as oyster culture in Tanbi Wetlands evolves so too will the structures and methods. Having said this, the design chosen is sturdy and should serve well as training activities and information gathering continues. In the meantime, sources for better and less expensive building materials will be researched. It is hoped that information gained over the next year will serve us as we expand in the future.

Even as this report is being written the TRY women's groups have increased from 9 to 15 and these additional groups have yet to be included into a cluster. Therefore, it is probable that an additional cluster or two will be formed during year one and additional trainings will need to take place and support lattices will need to be built

Year two

Using knowledge gained from year one, in year two the focus becomes expansion from string culture to the tray culture. As oyster culture evolves in The Gambia trays should become the preferred grow-out technique with the strings being used for spat collection and as a secondary grow-out method.

And beyond

For aquaculture of oysters in the Tanbi Wetlands to be successful many different disciplines must get involved. On the biological and technical side I think this project (year one) is a good start, but in the future I would like to see a moratorium on the sale of wild oyster with only cultured oyster allow to be sold and the oyster women of the Tanbi Wetlands to only legal sellers. This would protect mature oyster as a source of spat while at the same time protecting the mangroves. A moratorium would also create a demand for oysters which would be an incentive for the expansion of the culture of oyster in The Gambia. In the short time I have been working with these women I have been very impressed, I can imagine no one better to be the caretakers of the Tanbi Wetlands.

“The women oyster harvesters’ producer association does not constitute a Community Fisheries Center as is found at the coastal landing sites. However, under the Fisheries Act of 2008, they can be organized into a community-based management committee responsible for management of the oyster fishery in the Tanbi wetlands, which can also be designated as a special management area for the purpose of oyster fisheries management. The Fisheries Act also allows for the allocation of property rights (Section 11) and catch share allocations.” Taken from BaNafaa work plan year one

As for the author

I intend, through email, to continue working with Ousman, Babanding and Fatou in anyway they need me to, especially with regards to tray design. When I return of the University of Maryland I will seek out oyster workshops whenever possible and hope to ready when the oyster women of the Tanbi Wetlands need me.

Special Thanks

Anna Mbenga Cham
Lamin Seine
Buba Manjang
Gibril Gabis
Yaya Suware
Alieu Jatta

Department of Fisheries
Department of Parks and Wildlife Management
Department of Parks and Wildlife Management
BaNafaa Project
BaNafaa Project - driver
BaNafaa Project - driver

Finally, if the project is to be successful, it will be due the efforts of Fatou Janha Mboob, Ousman Drammeh, Babanding Kanyi and most of all the women of the Tanbi Wetlands...Thank you



Professional Volunteer Dan Theisen
with members of TRY – The Women’s Oyster Harvesters Association