



Marine Awareness Camp for Students

Palk Bay, Tamil Nadu



27 – 28 November 2013



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Introduction:

Globally, there have been reports of degrading marine and coastal environments and diminishing biodiversity. Until recently little attention has been paid to this state of affairs. Research and conservation efforts are largely concentrated on economically important species and ecosystems, and enforcement of laws and policies remains an uphill battle. Even on the ground, marine and coastal biodiversity is largely left out of educational curriculums at all levels and there are very few avenues available to students to effectively understand the importance and significance of protecting these environments. As such, youth in India are an underused and underestimated stakeholder in efforts to conserve and protect our marine and coastal environment.

The goal of this camp is to empower youth to take action to protect the marine and coastal environment in Palk Bay, Tamil Nadu, India. The objective is to raise awareness amongst teachers and students of coastal and marine biodiversity and ecosystems, the threats that they face, and the efforts made by the government and national and international institutions to protect our natural resources.

The camp was held at the OMCAR Foundation's Palk Bay Environmental Education Centre. The centre was established to create awareness about the Palk Bay coastal and marine ecosystems, endangered species and sustainable fisheries; it is run by OMCAR (Organization for Marine Conservation, Awareness and Research) Foundation. The centre, ideally located 600km from the beach, is in the Thanjavur district of Tamil Nadu, India.

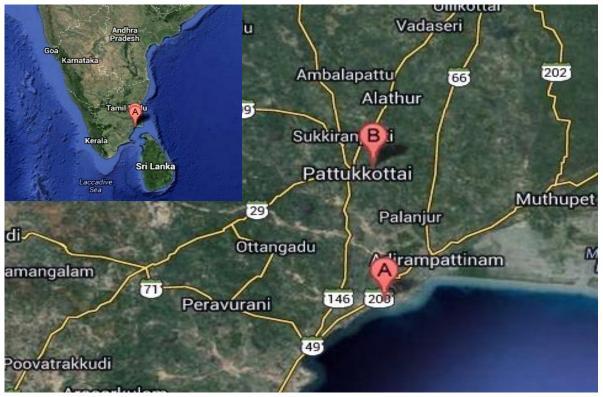


Figure 1. Location of the OMCAR Foundation Palk Bay Center (indicated by "A"). "B" indicates the location of the OMCAR Foundation Administrative Office

Selection of schools and students:

Schools were selected from adjacent coastal villages to maximize the number of students from fisher communities. OMCAR staff visited the eight local schools to inform them about the camp, and requested the school headmasters to select five students from each school to attend. The students were selected based on their performances in previous environmental events organized by OMCAR Foundation. In total 50 students and 7 teachers from 5 schools (in Karaiyur, Aripurakkarai, Kollukkadu, Mallipattinam, and Thokkalikadu) participated in the camp as indicated below. The Thokkalikadu school sent 30 students instead of the stipulated five. However, since three schools were unable to send any students, the extra 25 students were easily accommodated.

Detailed Programme

Inaugural Session

Commander Manish Agarwal (Naval Detachment of Mallipattinam) inaugurated the camp, together with Mr. Sendhilnathan(Dean of Anna University, Pattukkottai campus), Ms. Nisha D'Souza (Small Grants Officer, Mangroves for the Future) and Mr. Balasubramanium(Sub Inspector of Tamil Nadu Marine Police, Sethubhavachattiram).

Day 1 - 11.00am

Dr. V.Balaji, director of OMCAR Foundation presented his field experience in mangrove and seagrass ecosystems of Palk Bay. He showed field photos and videos of coastal and underwater habitats from along the local coast, to explain how their functioning and diversity provide important services to the local communities, including sustainable fisheries.

Day 1 - 11.45 pm

Dr.V.Balaji has explained about scuba diving equipments, its functioning mechanism and how it is used for marine conservation research in Palk Bay.

Day 1 - 12.00 pm

A documentary from the BBC Blue Planet series was shown to the participants.

Day 1 - 12.30 pm

The use of scuba diving equipment was demonstrated to the school students. The need for conservation of coastal and marine habitats in Palk Bay, and the various equipment and techniques used in researching underwater habitats were shown and explained to students.

Day 1 - 1.00 pm

Lunch was served to participants on dining tables funded by MFF for the event.

Day 1 - 2.00 pm

Exhibition: Marine Fish found in Palk Bay

100 photographs of locally found and economically important fish were exhibited to students to highlight the diversity of marine fish catch in Palk Bay. The students were asked to notice and document characteristic morphological features.

Day 1 - 2.00 pm

Exhibition Marine Research Equipment

Refractometers, wind meters, seechi discs, habitat mapping echo sounders for seagrass research, acoustic recorders for dugong research, and different types of underwater cameras were exhibited and interactively explained to the students by the OMCAR team.



Day 1 - 3.00 pm

Exhibition: Marine Planktons

Various marine planktons were exhibited under microscopes to explain their importance in the marine food chain, and in maintaining healthy marine and coastal ecosystems.

Day 1 - 3.00 pm

Exhibition: Adaptations of Mangroves and their Significance

Mangrove leaves and roots were exhibited to students under microscopes to explain how their unique morphological adaptations help mangroves to survive under extreme conditions.



Day 1 - 3.00 pm

Exhibition: Shells found in Palk Bay

Locally found marine shells were collected and exhibited to students to create awareness about the molluscan biodiversity of marine habitats of Palk Bay.

Day 1 - 4.00 pm

Visiting Mangrove Nursery and Mangrove Plantation

Students paid a visit to the OMCAR mangrove nursery. Field staffs and volunteers explained about mangrove nursery raising techniques. The students planted mangrove seeds in the nursery after learning about soil preparation techniques. The seeds will be kept in the nursery until monsoon 2014.

Day 1 – 4:30 pm

Solar Power as an Alternative Energy Source to Fuel Wood

Students cooked vegetables and eggs on solar cookers in afternoon, to demonstrate how solar energy can be used in coastal villages instead of mangrove wood, for cooking.

Day 1 - 5.00 pm

Beach Walk

Students walked down to the local beach to observe and discuss wave, current and winds patterns.



Day 1 - 6.00 pm

Students participated in a drawing competition. They were asked to illustrate their impressions of marine and coastal habitats based on their learnings throughout the day.

Day 1 - 7.00 pm

Camp Fire

As a wind down to the day, students shared stories and songs around the camp fire.

Day 2 - 9.00 am

Field Trip to Muthupet Mangrove Forest

The students visited Muthupet Mangrove Reserve Forest under the guidance of the Tamil Nadu Forest Department. Students learned about local mangroves, lagoons and forest management systems. Forest Watcher, Mr. Velayutham explained how mangrove forest conservation and management is carried out in Muthupet and the importance of the mangroves to the local communities. The students returned to the center for lunch following 4 hours in the mangroves.



Day 2 – 3:00 pm

The camp ended with an active discussion between the students, teachers, OMCAR Foundation and MFF India about the threats that faced coastal and marine ecosystems in Palk Bay and around the villages from where the children hailed. Several children strongly expressed their dedication to protecting these ecosystems. The students articulated what other related subjects that they would like to learn about with many expressing a desire for a library, where they could read and learn about marine and coastal ecosystems and biodiversity.

Camp programme

Day 1.

| | Event | Description | Time | | |
|----|--|--|-----------------|--|--|
| 1. | Camp Inauguration Tea Break | Students, Teachers, Professors, Navy, Marine Police Officers and IUCN representatives will be invited. - 15 minutes | 9 am – 10.45 am | | |
| 2. | LCD presentation about Marine Ecosystems – local, national and international experience | Marine field research and visit photos from local coast will be shown to the students comparing international and national scenario | 11 am – 12 pm | | |
| | Marine Life Documentary Show | One hour documentary showing coral reefs, mangroves and sea grass beds | 12 pm – 1 pm | | |
| | | Lunch Break – 1 hour | | | |
| 3. | Demonstrations a. Microscopic demonstration of mangrove leaves, roots and marine planktons. b. Demonstration of Palk Bay shells. c. Marine Conservation Field Research Equipments (Echosounder, underwater | This hands on demonstration Will create interest on Marine life research and conservation approach to students. | 2pm – 3 pm | | |
| | cameras, scuba gears, acoustic device, salinity and pH measuring devices, DGPS etc.,) | | | | |
| 4. | Mangrove Nursery Raising Training | Students will learn about mangrove nursery raising techniques and its importance. | 3 pm – 4 pm | | |
| | Tea Break – 15 minutes | | | | |
| 5. | Beach Walk | Field trip organized to explain about restored mangroves by OMCAR and a walk into adjacent beach. | 4.15 pm – 6 pm | | |
| | Drawing Competition | Students will draw marine And coastal nature – with Conservation theme | 6 pm – 7 pm | | |
| | Camp Fire and Cultural Activities | Students will be asked To prepare dramas, stories And songs, before coming | 7 pm – 8 pm | | |

| To the event. | |
|---------------|------------|
| Dinner | 8pm – 9 pm |

Day 2.

| | Event | Description | Time |
|---|--|---|--------------|
| 1 | Field Trip to Muthupet Mangrove Reserve Forest | Students will ride in a boat into Muthupet mangroves and lagoon. Board walks into mangrove forest would be an interesting part of this tour. Participants can learn the value of such forest ecosystem to local fishery. Interactions with forest department officials and local fishers will be organized inside the forest. | 6 am to 1 pm |
| | | Lunch | |
| 2 | Group Discussion | Students will discuss with teachers as groups to further sharing and continue to carry the conservation message to other students – using OMCAR Palk Bay Centre as a platform. | 2pm – 3 pm |
| | Feedback and Review of learning experience by participants | | 3.15 – 4 pm |
| | Group Photo | | 4 pm |
| | Certificate Issue and Closing Ceremony | Best drawings and cultural Performers will receive prizes, while all other participants will Receive certificates and small Memento. | 4 pm – 5 pm |

Annex 2

A list of participants who attended the camp

| | Designation | Department/Institution |
|---------------------------|-----------------------|---|
| Guests | | |
| Shri. Maneesh Agarval | Commander | Mallipattinam Naval detachment, Indian Navy |
| Dr. Sendhilnathan | Dean | Anna University (Pattukkottai Campus) |
| Ms. Nisha D'Souza | Small Grants Officer | Mangroves For Future |
| Shri. Balasubramanium | Sub Inspector | Marine Police Station, S.B.Chattram |
| | | |
| Teachers | | |
| T.Subash Chandra Boss | Teacher | Government Middle School, Karaiyur |
| S. Vinoth Paulraj | Teacher | Government Middle School, Karaiyur |
| P.Balasubramanian | Teacher | Government Middle School, Aripurakkari |
| S.Prema | Teacher | Government Middle School, Kollukkadu |
| S.Satheesh Manoharan | Teacher | Government Middle School, Mallipattinam |
| S.Helen Anbu Selvi | Teacher | Government Middle School, Thokkalikadu |
| E.Selvam | Teacher | Government Middle School, Thokkalikadu |
| | | |
| OMCAR Staffs | | |
| Dr.V.Balaji | Director | OMCAR Foundation |
| G.Murugesan | Coordinator/Finance | OMCAR Foundation |
| | Officer | |
| M.Mohanraj | Environmental | OMCAR Foundation |
| | Education Officer | |
| R.Veerakumar | Office Manager | OMCAR Foundation |
| M.Rajendran | Mangrove | OMCAR Foundation |
| | Nursery/Site | |
| | Manager | |
| T.Sivalingam | Palk Bay Centre | OMCAR Foundation |
| | Manager | |
| T.Kalimuthu | Field Assistant | OMCAR Foundation |
| Volunteers | | |
| T.Murugesan | Student | K.M.College |
| S.Sivaguru | Student | K.M.College |
| K.Thayumanavan | Student | K.M.College |
| | | |
| Students - Government Mid | dle School – Karaiyur | 1 |
| K. Sathish | | |
| K.Thangadurai | | |
| K.Vigneswaran | | |
| M.Dharmaraj | | |
| M.Nagarajan | | |

| Students - Government Middle S | chool – Aripurakkarai | |
|--|-----------------------|---|
| B.Kamal | | |
| A.Surendar | | |
| M.Balakumar | | |
| S.Kaarthick | | |
| J.Kalidoss | | |
| | | |
| Students - Government Middle S | chool – Kollukkadu | |
| K.Kannadasan | | |
| A. Sribalan | | |
| V.Kalaivaani | | |
| P.Arul jesy | | |
| S.Siva | | |
| 5.51Va | | |
| Students - Government Middle S | chool – Mallinattinam | 1 |
| K.Kavya | | |
| N.Deepika | | |
| K.Kunaseelan | | |
| S.Vijayasanthi | | |
| G.Kathiravan | | |
| G.Kathiravan | | |
| Chudanta Causana ant Middle C | | |
| Students - Government Middle S S.Adaikkalam | | |
| | | |
| S.Udayakumar | | |
| S.Dilipkumar | | |
| V.Madan | | |
| K.Ramamoorthy | | |
| M.Akesh | | |
| J.Akesh | | |
| V.Arirasu | | |
| S.Vijayaragavan | | |
| R.Karthick | | |
| N.Vignesh | | |
| N.Selvendran | | |
| M.Abinath | | |
| V.Surya | | |
| P.Vinoth | | |
| S.Vineeth | | |
| M.Madavan | | |
| R.Niraimathi | | |
| S.Vinotha | | |
| P.Thrisha | | |
| N.Devikarani | | |
| A.Abirami | | |
| D.Sandhya | | |
| D.Sahuliya | | |

| D.Kayalvizhi | |
|------------------|--|
| R.Priyadharshini | |
| S.Vishnupriya | |
| R.Devadharshini | |
| G.Priya | |
| A.Devi | |