

ECOSEARCH- A MARINE ECOLOGY & CONSERVATION FIELD COURSE: The Andaman Islands



Lacadives
LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS, INDIA



The Andaman and Nicobar Island's Environmental Team
Centre for Island Ecology

A Marine Awareness and SCUBA Diving Program for Students

Summary

EcoSearch is a program designed to introduce high school and university students to the world of applied research, marine ecology and conservation and SCUBA diving. It involves understanding the research methods involved in assessing biodiversity, the ways in which ecosystems sustain themselves, and the consequences of human impact. Students learn about biodiversity and the distribution of organisms in coastal habitats and the factors that threaten these fragile systems.

Through this program in the Andaman & Nicobar Islands, students learn about and use various methods of data collection and observation in coral reefs, intertidal zones and mangroves and collect and analyse raw data. They study the relationships between these ecosystems and culminate their projects with essays incorporating their research data.

EcoSearch is a collaborative effort of 3 organisations, described in detail below, to engage students in a very unique program. Students will also emerge from the program as Certified Divers—an accreditation that is internationally recognised and is valid for a lifetime.

A) Organizations Involved

Reef Watch Marine Conservation (RWMC) is a Non-Government Organization (NGO) with an Education and research-based agenda on **marine conservation and environment**. Established in 1993 as an education and research organization, RWMC is dedicated to the protection of India's marine heritage. RWMC's efforts have put many coral species and marine fauna under the Wildlife Protection Act. In May 2007, Reefwatch was nominated as a **Member of the National Board for Wildlife, Government of India**.

Reefwatch is collaborating with **Lacadives, Mumbai**, one of India's premier dive operators since 1992. Lacadives has trained both national and international visitors over the last 2 decades, and has successfully conducted joint programs with RWMC for scientists, NCC Cadets, Navy officers and students. **Lacadives** will safely conduct the SCUBA diving Training programs for the students.

ANET (Andaman and Nicobar Environmental Team) is the Andaman Islands' leading research organization based in Wandoor, near Port Blair. It has successfully conducted marine ecology tours for students and visitors, and conducts extensive research in the region. Set in a beautiful tropical rainforest, ANET offers the perfect setting, infrastructure and expertise to engage students in this program.

B) Brief Program Description

Ecosearch's mission is

- To encourage marine conservation awareness and education about our coastal and reef ecosystems
- To introduce students to field research and encourage them to think analytically about data and conservation issues
- To encourage a sense of adventure and curiosity among students
- To teach students scuba diving and snorkeling in a safe environment
- To enhance team building and leadership and collaboration among students

The program involves Students and RWMC team members visiting Wandoor Island in the Andaman and Nicobar Islands. Here students undergo Snorkeling and Scuba Diving lessons that require them to demonstrate high degrees of discipline and adherence to safety measures. This will help develop a sense of team spirit and leadership. Students will learn about island ecology, coral reef ecosystems, turtle nestings, tide patterns and global warming. On successfully completing the program, the students will return as certified CMAS /PADI SCUBA divers.

Once certified, students will spend 4 days doing research in the coral reefs, utilizing their newly acquired scuba skills. They will be supervised by marine biologists and dive instructors. Students will be divided into groups, with each group conducting a particular research project that will culminate in a written report.

These reports will be posted on the Reefwatch Web site, and the best ones will be chosen for written publication

Research

- 1) Understanding the marine and coastal systems in the A&N islands
- 2) Relationships within coral reefs
- 3) Understanding adaptations required to survive the intertidal environment
- 4) Identifying flora and fauna
- 5) Studying mangrove ecosystems

Snorkeling and Scuba Diving

Snorkeling and SCUBA Diving are 'buddy' sports, since they are practiced in pairs or in groups with an instructor. Both these sports provide an opportunity to explore marine ecosystems and their inhabitants up close: coral reefs, fish, sea stars, rays, mollusks, and turtles, among others.

SNORKELLING

Snorkeling involves swimming at the water's surface with a diving mask, a J-shaped tube called a snorkel, and usually swim fins. It is a popular recreational activity, and is also employed by SCUBA divers when near the surface.



SCUBA DIVING

SCUBA stands for **Self Contained Underwater Breathing Apparatus**. Scuba diving involves swimming underwater while using self-contained breathing equipment. By carrying a source of compressed air, the SCUBA diver is able to stay underwater longer than while snorkeling or free-diving.



SCUBA diving is used as a team building and leadership activity. Here, communication and understanding among divers are extremely important. Throughout the course, individuals are guided and instructed by Lacadives' internationally trained instructors and Dive Masters. **Safety is our main concern, so following instructions and adhering to the rules are critical.**

Research Activities

The activities include guided research and discussions about marine and island ecology by the ANET field biologists, presentations and short films. The team will be taking walks through the mangrove areas and in the tropical rain forests in which they will be living during the program

Program Activities

- The program involves training sessions/dives in the Lacadives Dive Centre in the Andaman group of islands. The training includes,
- Two confined water sessions
- 4 Open water dives of 45mins each thereafter an hour of Diving theory in the evenings
- The dives are done from 8.00am to 2.00pm (depending on the tides these could change depending on the time of year).
- Marine Ecology and field studies will be conducted for the group as per the tentative schedule below

Course Overview

- Dive certification
- Island and Reef Ecosystems: diversity and distribution of organisms in coastal habitats and the factors that threaten these fragile systems.
- Coastal Management: policies, resource management processes and local livelihoods.
- Field Methods in Marine Science: The art of scientific questioning and understanding the various methods of data collection across coral reefs and intertidal zones.

We look forward to your participation in Ecosearch!

