UNIVERSITY OF MILANO-BICOCCA

TROPICAL MARINE ECOLOGY INTERNSHIP

12-20 October 2016

Marine Research and High Education Center
Magoodhoo Island - Faafu Atoll – Maldives

Coordinator: Prof. Paolo Galli
References: Davide Seveso - Simone Montano

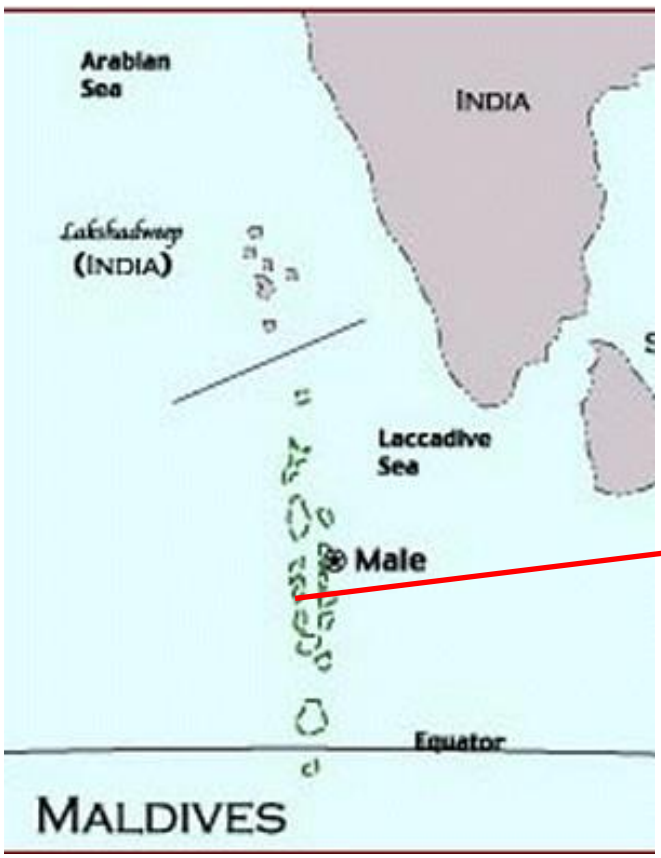
INTRODUCTION

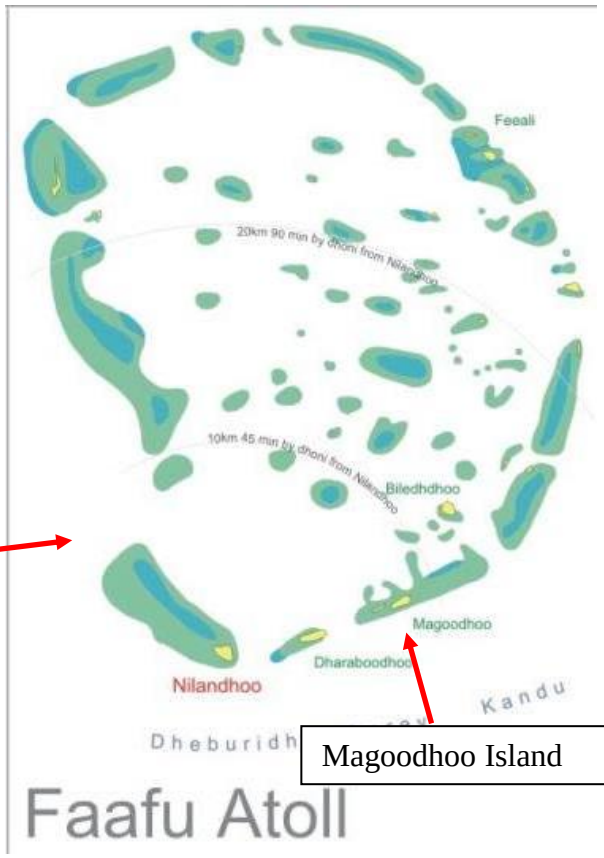
The internship will take place from 12 to 20 of October 2016 in Maldives. The logistic base for the workshop activities will be the Marine Research and High Education Center (MaRHE Center) of Milano-Bicocca University in Magoodhoo Island, Faafu Atoll which is about three hours by speedboat from Malé airport. Field activities will be held on the island and in the sea around.

The main purpose of the internship is to provide practical training and theoretical base of some aspects of the formation and ecology of one of the richest and most interesting tropical marine eco-systems in the world: the hard coral reefs (or coral reefs). We will also consider two other coastal ecosystems closely associated with hard coral reefs such as seagrass beds.

TROPICAL MARINE ECOLOGY INTERNSHIP

The course will consist of a series of lectures and field activities and co-ordinates held by famous Italian researchers with experience working in tropical marine environments. Classes will be held at the advanced training center. All field activities in the sea will be done only snor-keling and is not expected, in any case, and for the duration of the course, that students will immerse themselves with diving equipment.





PROGRAM

Day 1
12.10 Departure from Milano Malpensa to Malé, Maldives

Day 2 Arrival in Malé, Maldives
13.10 Transfer by speedboat to Magoodhoo Island
Accommodation
Dinner
Briefing about next day activities

Day 3
14.10
9.00 snorkeling e water activities
10.30 Briefing about curiosities and problems found. Discussion on the comments received on the field
12.30 Lunch
15.30 Insularity ecologial implications
17.30 systematic and zoning of zoobenthos and madreporic cliffs
19.00 Dinner
21.00 Briefing about next day activities

Day 4
15.10
8.30 Guidance and observations on the morphology, sediments and benthos of Magoodhoo coastal marine environment. Visual sampling along transects (BIONOMIC TRANSECT)
12.30 Lunch
14.30 Discussion and return of data collected on field
16.30 Nondestructive sampling techniques for the coral communities survey
18.00 The Phanerogams
19.30 Dinner
21.00 Briefing about next day activities

Day 5
16.10
8.30 visual sampling along transects (*Point intercept transect and line intercept transect*)
12.30 Lunch
14.30 Discussion and return of data collected on field

17.00 **CORAL DISEASES**
18.30 Introduction to the main families of coral reef bony fishes: ecology and identification on field
20.00 Dinner
21.00 Briefing about next day activities

Day 6
17.10
9.00 visual sampling along transects in the study of the ichthyic fauna (*fish belt transect*)
13.00 Lunch
14.30 Discussion and return of data collected on field
16.30 Madreporic coral reef conservation
18.30 Reef Symbiosis

19.30 Dinner
21.00 Briefing about next day activities

Day 7
18.10

9.30 Practical test (Students, divided in groups, will perform independently, on the basis of the knowledge acquired, a task on field entrusted to them)
13.00 Lunch
14.30 Return of data collected and arrangement of results

18.30 Presentation of work done and final judgments
20.30 Dinner

Day 8
19.10

8.30 – 17.00 excursion to Adhanga island and its uncontaminated reef

Day 9
20.10

Departure from Malè to Milan

CFU will be recognized to all participants

Due to weather conditions or other problems, program may change

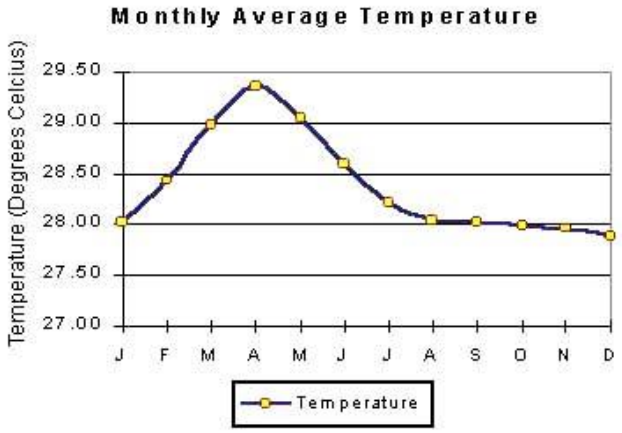
USEFUL INFORMATIONS

DOCUMENTS

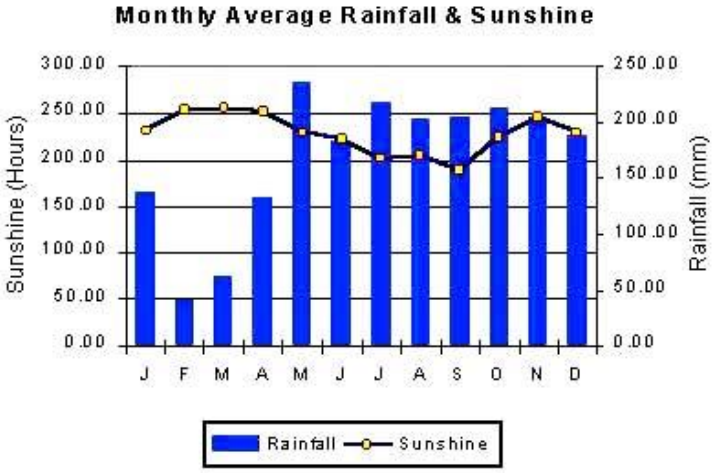
To go to Maldives is necessary to have a **valid passport** (valid for at least six months after the exit from the country).

CLOTHING AND EQUIPMENT

The air temperature is around 28-29°C (Fig 2). The weather is always pleasant, even during the rainy months (Fig 3). Please note that most of the day will be occupied by field activities and seminars and exercises, it is therefore advisable to wear comfortable and sport clothes.
It is recommended to avoid clothing too skimpy since Magoodhoo island is not a tourist resort and local costumes are those of an Islamic country.



Monthly air temperature (°C) recorded in Maldives



Monthly averages of sunny and rainy hours recorded in Maldives

For field activities into the sea is necessary to have, as well as a bathing suit and towel, **the following equipment:**

- mask; snorkel; fins (booties); short wetsuit

It's not possible to rent equipment on site, so you should make sure to have everything you need with you.

ACCOMODATION AND MEALS

The accommodation has been organized at the guesthouse of the Centre, in multiple rooms with bathroom, with full treatment (breakfast, lunch and dinner). Sheets are available, but not towels. The food is prepared according to the local customs and consists, for the most part, of fish, chicken, rice and vegetables prepared in different way.

HEALTH

In Maldives no vaccinations are required for travelers coming from London.

SAFETY

Any field activity presents risks and dangers, and there are some basic rules to be observed in order to minimize these risks.
In the water is necessary to respect the buddy system: working groups will be established, and, within the group, will be established working couples.

EXCHANGE

The Maldivian currency is the Maldivian Rufiyaa. Euro and dollar are accepted in any bank and exchange office.
1 euro = 16 rufyiaa ; 1 dollaro = 13 rufyiaa; 10 rufyiaa = 06 euro; 100 rufyiaa = 6 euro; 10 rufyiaa = 0,8 dollari; 100 rufyiaa = 8 dollari

COST AND REGISTRATION

The cost of the Stage of Tropical Marine Ecology is **1600,00 Euro** per student.

This figure includes:

- flight to / Milan Malpensa / Malé
- boat transfer to/from Malé airport
- transfer for all activities envisaged under the internship program
- room and board at the MaRHE Center of Magoodhoo withfull board treatment and accommodation in multiple room
- lessons and activities provided for the internship program
- expenses for obtaining an entry visa to the Maldives

The figure does **NOT** include:

- any passport renewal expenses
- anything else not specified above

WITHIN August 22, 2016 we need you to:

- Confirm your registration by e-mail sending the registration form duly filled (found below) and the Visa Application Form IM23 (found below) to marhe@unimib.it. You may also bring this documents to Prof. Galli or in the laboratory (2030, U3, 2nd floor).
- Pay the 50% of the fee when registering as a cover for the purchase of the flight tickets and send it by email along with the documents mentioned above.

The remaining amount must be paid within one month before the beginning of the internship. There is no provision in any case the accommodation in single rooms.

Bank Account details:

IBAN : IT87 K056 9601 6280 0000 0200 X71

Headed to:
UNIVERSITA' MILANO-BICOCCA
BANCA POPOLARE DI SONDRIO
AGENZIA DI MILANO AG. n. 29 – BICOCCA Piazza della Trivulziana , 6 – 20126 Milano
VIA DELL'INNOVAZIONE, 13
20126 MILANO
Purpose of payment: STAGE MALDIVE + [NAME and SURNAME]
For more information please contact Davide Seveso (davide.seveso@unimib.it) - Simone Montano (simone.montano@unimib.it) or Prof. Paolo Galli (paolo.galli@unimib.it).

WE ALSO REMIND YOU THAT:

DATES ARE APPROXIMATE AND ARE SUBJECT TO A CHANGE DEPENDING ON THE AVAILABILITY OF THE FLIGHTS.

IN CASE WE ACHIEVE THE MAXIMUM RATE OF PARTICIPANTS, WE WILL PROPOSE A SECOND STAGE DIRECTLY FOLLOWING THE FIRST

REGISTRATION FORM

Tropical Marine Ecology Internship

UNIVERSITY OF MILANO-BICOCCA
FACULTY OF MATHEMATICS, PHYSICS AND NATURAL
Degree in Biological Sciences

FULL NAME (as reported on the passport) _____
PLACE AND DATE OF BIRTH _____
ATTENDING THE _____ YEAR IN _____ (degree course attending)
REGISTRATION NUMBER _____
e-Mail: _____ Tel.: _____

ALLERGY OR FOOD INTOLLERANCE ☐ No ☐ Yes (if so please specify) _____

_____

ALLERGY DRUG ☐ No ☐ Yes (if yes please specify) _____

CHRONIC DISEASE ☐ No ☐ Yes (if yes please specify) _____

HAVE YOU ALREADY PRACTICED SNORKELLING? ☐ No ☐ Yes

ACQUATIC LEVEL ☐ excellent ☐ good ☐ sufficient

ARE YOU AN UNDERWATER PATENTED? ☐ No ☐ Yes
(if yes specify level achieved last patent _____ and teaching _____)

(*For field activities during the internship it is not required any patent, however it is useful to know if the student is patented to evaluate if the participant is already aware of the buddy system and who has experience of work at sea*)

SIGNATURE OF THE STUDENT

_____

INSTRUCTIONS FOR APPLICATION FOR A STUDENT VISA

1. Print out the attached form IM23
2. Fill out (print) the parts that are above "signature of the applicant". Everything else compiles the ministry.
3. Instructions for completion:
    - Box in the upper right corner: "Form no" should be left blank: we think of them.
    - (Tick as appropriate) for students: put the cross on foreign student / teachers do not put any tick
    - Fill in the pane for the passport of the applicant, as required by entering: name, surname, date and place of birth, sex, nationality, number of passport, date of issue and expiration, place of issue.
    - Below the box, fill in:
    - "occupation": write 'student'
    - If you have never been to the Maldives before, of course NOT be mentioned anything related to the last entry into the country, then you must NOT fill in 'date of last entry ...'
    - Full address in the country of citizenship: please insert your residential address in Italian

You will find already pre-filled in two spaces:

- purpose of stay: "... Tropical Marine Ecology and Biology Workshop ..." MaRHE Center
- Full address in the Maldives: "High Marine Research and Education Center, Faafu - Magoodhoo".

4. sign it ("signature of the applicant")
5. the passport photo pasted where indicated
6. scan the document (color .pdf format)
7. Send it to: marhe@unimib.it along with the .pdf of your passport

INSTRUCTIONS ID PHOTO:

- The passport photograph must be passport size, white background and wearing a dark clothes.
- Take 3 passport photos, because you have to carry two more pictures with you, asking you to immigration to Male (to put them in the original file).
- As a precaution, bring a color photocopy of your passport.