



# CMAS

CONFÉDÉRATION MONDIALE  
DES ACTIVITÉS SUBAQUATIQUES

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WORLD UNDERWATER FEDERATION

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**CMAS Scientific & Sustainability  
Committee**

**Conservation Biology Course  
(CBC)**

**2018**

The non-professional CMAS Scientific Specialty Courses (SSC) combines the expertise of marine and freshwater scientists, underwater geologists and archaeologists, diving officers, administrators, legislators, individual divers, from different parts of the world scientific diving community. Due to the increasing importance of underwater conservation a new course and standard has been developed by marine scientist from different countries.

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This CMAS Conservation Course is based on the work of John GEURTS (President of the CMAS European Scientific Committee) and his team with Rob KOOL, Anne LAMMERS, Tim BUTTER, Floor DRIESSEN, Wendy HOEVENAARS, Marco FAASSE, Gerard van de VELDE, Stavros KANIKLIDES.

# Conservation Biology Course

Minimum 2 days

6 theoretical teaching units (TTU)

2 practical teaching units (PTU)

2-4 dives

## 1.1. Aim of course

- to introduce divers to marine and fresh water life
- to introduce important underwater animal and plant groups and their biology
- to learn about coherency in biological network
- to learn about the effects and threats of different actors on the underwater world
- to learn about the eco systems in different well-known diving areas in the world
- to become aware of the effects of your own presence in the ecosystem you visit
- to show the non-diver what is going on in the underwater environment
- to become an ambassador in preserving the underwater environment

## 1.2. Student performance objectives

By the end of the course the diver should

- be familiar with the basic of the biological system
- be able to identify important threats to the environment
- be able to dive without bringing important damage to the environment
- be able to show the world by pictures or waste removal the impact of contamination of the environment

## 1.3. Prerequisites for participants

- age of 14 years
- CMAS \* or equivalent
- valid medical certificate

## 1.4. Instructor/student ratios in open water

- depending on the visibility and diving level

## 1.5. Instructor requirements

- CMAS\*\* diving licence and 100 dives
- academic background in conservation biology, or
- several years' professional experience in conservation biology
- teaching abilities
- a high sensibility for sustainable diving
- teaching abilities
- a high sensibility for sustainable diving

## 1.6. Speciality Course requirements:

- adequate lecture place
- adequate dive sites
- save diving places and conditions for practising waste removal
- identification books for underwater biology
- knowledge of the latest progress in environmental issues

### 1.7. Theoretical teaching units

- taxonomy of the underwater world, the use of scientific names and classification
- major groups of living organisms
- the moving world and the gulf streams
- biodiversity, threats, action Conservation
- humans as a cause of environmental problems: climate change i.e. global warming, sea level rise, acidification, debris, litter, ghost nets, fishing long lines, aquacultures, marine mining, oil drilling, toxic chemicals, offshore wind turbines,
- worldwide diving: on different famous dive areas the ecology, diving, threats and protection. kelp forest, coral, sea grass, tropics, isolated areas, fresh water.
- neobiota and invasive species
- sustainable diving

### 1.8. Practical teaching units

- observations and sampling depending on the dive site
- skills to dive and anchor without damaging the environment
- skills to safely remove waste from the water

### 1.9. Certification

- control of success by the instructor
- all divers having successfully completed all components of the course will be issued with the appropriate CMAS Conservation Course Card
- the brevet is valid permanently

All questions should be addressed to the  
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