Course on the use of drones and their application in cetacean research

EDMKATUB Association

EDMAKTUB is a non-profit association dedicated to the study, dissemination and conservation of the marine environment. It focuses mainly on the study of cetaceans. It dedicates most of its efforts to scientific research projects, but also carries out educational programs to increase public awareness of the marine environment.

This course aims to provide participants with comprehensive training in the field of unmanned aerial vehicles (UAVs or drones), providing theoretical knowledge about them, theoretical and practical training focused on the use of drones at sea and their application in the study of cetaceans. Providing participants with practical experience in this emerging field of research, being able to obtain advanced training from experts with more than 8 years of experience in this field.

Schedule of the course

The course on the use of drones and their application in cetacean research lasts one week, within the framework of the Rorqual Project. It consists of an intense immersion in the use of drones with 7 days of lectures and practical training both on land and at sea.

The general schedule for the course is:

Day 1

Reception at the flat around 18-19h in the evening. Close contact will be maintained with the participants by the person in charge to facilitate the arrival at the flat. Basic information, tasks and responsibilities related to the flat will be explained upon arrival. There will also be a general presentation about the EDMAKTUB association and the Fin Whale Project.

Day 2

We will start with the theoretical part of drones, with an introductory talk about unmanned aerial vehicles (UAVs) and some legislation about them.

The characteristics of drones for application in the study of cetaceans will be discussed.

Flight protocol at sea. What you need to know to be able to fly over the sea. Key points to obtain good images for research.

Identification technique using the drone. Theoretical and practical.

Drone practice on land.

Day 3

Protocol on board. Going out to sea. Putting into practice what has been learnt.

Day 4

Behavioral study analysis using the drone. Theoretical and practical.

An analysis of individual counts and group structures. Theoretical and practical.

Morphometry and body condition study techniques. Theoretical and practical.

Day 5 & 6

Going out to sea. Putting into practice what has been learnt.

Day 7

Closing of the course and collection of the flat.

The course schedule may vary depending on the weather conditions to which the drone practices and the sea trips are subject.

Content of the course

First of all, some general talks will be held:

- Presentation of the EDMAKTUB Association and the Rorcual Project. Explanation of the creation, purpose and objectives of the association and the Rorcual Project. Summary of the preliminary results. Brief presentation of the different lines of research.
- Protocol on board. Explanation of the different tasks to be carried out on board. Regulations. Sighting protocol: effort and data collection.
- Unmanned Aerial Vehicles (UAVs). General introduction to drones and basic regulations.

Use of drones at sea

- Setting up the drone. Take-off and landing from the boat.
- Orientation at sea. Location of the animal, positioning of the drone. Location of the boat.
- Guidance of the drone from the vessel.
- Sample collection and implementation of tracking devices.

Photo-identification

- Image requirements for good photo-identification.
- Creation of a catalogue for photo-identification of individuals.
- Fin whale. Case study.

Behavior & Population studies

- Requirements of the images to be able to carry out a behavioral study.
- Use of Boris as a program to analyze videos.
- Analysis of the number of individuals and group structure of a group.

Morphometrics & Body condition

- Requirements of the images to be able to carry out morphometry and body condition study.
- Use of the MorphometriX programme and the CollatriX programme.
- Analysis of the results.

If you want to gain knowledge and experience in the study of cetaceans using drones, this course is perfect for you. You will be able to get started or acquire an advanced level in this field to boost your scientific career in the field of cetacean research.

How to participate

Fill in the form you will find in our website Drone course - EDMAKTUB

Dron course: **Contribution of 900 euros**.

**** This contribution includes accommodation and basic living expenses. It also includes all the material necessary to follow the course as well as the scientific surveys with the boat.**

For more information, you can contact us by e-mail at info@edmaktub.org or by WhatsApp at +34 655879180.

We are waiting for you!