



THE THIRD TRAINING ON ECOHYDROLOGY IN NORTH AFRICA "CARETTA-TRAIN"

August, 17th - 18th, 2026 - INSTM, Monastir - TUNISIA



**Toward a Marine Biodiversity Conservation for
Sustainable Coastal Management**

The National Institute of Marine Sciences and Technologies (INSTM), Tunisia



The Third Training on Ecohydrology in North Africa “CARETTA-TRAIN”

Main theme: Toward a Marine Biodiversity Conservation for Sustainable Coastal Management

Host: The National Institute of Marine Sciences and Technologies (INSTM), Tunisia

Partners: Institut de Recherche pour le Développement (IRD) & UNESCO-IHP Ecohydrology Programme (Paris, France)

Date: August 17th & 18th, 2026

Location: The National Institute of Marine Sciences and Technologies, Center of Monastir – Tunisia

Training rationale and objectives

The world is facing unprecedented environmental challenges driven by climate change, biodiversity loss, increasing pressures on water resources, pollution and the growing vulnerability of coastal communities. These challenges are particularly acute in the Mediterranean region, recognized as one of the world’s major biodiversity hotspots and among the areas most vulnerable to climate change.

The UNESCO Intergovernmental Hydrological Programme (IHP) promotes integrated approaches through Ecohydrology that simultaneously consider water, ecosystems, biodiversity, and human well-being. This transdisciplinary approach uses the interactions between hydrological and ecological processes to enhance ecosystem resilience, improve water security, and support sustainable development.

Located on the central-eastern coast of Tunisia, Ghedhabna area represents an outstanding example of a Mediterranean coastal socio-ecological system. The site comprises sandy beach, dune system, coastal forest, *Posidonia oceanica* meadow and nearshore marine habitats. Together, these ecosystems support high biodiversity and provide essential ecosystem services, including shoreline stabilization, carbon sequestration, nursery and nesting habitats, nutrient cycling, water regulation, natural protection against coastal erosion and local livelihoods.

The ecological significance of Ghedhabna has recently been reinforced by the discovery of a nesting site for the loggerhead sea turtle (*Caretta caretta*), one of the Mediterranean’s flagship species. This discovery highlights the site’s potential as a living laboratory for ecohydrological assessment and biodiversity monitoring. The interrelationships between hydrological processes, ecosystem functioning, biodiversity conservation, and local livelihoods



make Ghedhabna particularly suitable for the implementation of integrated management approaches promoted by UNESCO-IHP. The site offers the opportunity to demonstrate how Nature-based Solutions and ecosystem-based management can contribute simultaneously to biodiversity conservation, climate adaptation, sustainable tourism, and community well-being.

In 2026, UNESCO celebrates several important milestones, including 60 years of Water Sciences at UNESCO, 50 years of the Intergovernmental Hydrological Programme (IHP), 30 years of UNESCO Ecohydrology, and 20 years of UNESCO Ecohydrology Demonstration Sites. Within this framework, CARETTA-TRAIN 2026 is proposed as a capacity-building initiative that contributes to these global efforts while showcasing Tunisia's commitment to integrated coastal ecosystem management.

Named after *Caretta caretta* (loggerhead sea turtle), CARETTA-TRAIN symbolizes the close relationship between biodiversity conservation, ecosystem resilience, water resources management, and sustainable development in Mediterranean coastal ecosystems.

The objectives of the CARETTA-TRAIN course

The overall objective of CARETTA-TRAIN is to strengthen scientific, technical, and managerial capacities in coastal ecohydrology, biodiversity conservation, and sustainable coastal management through an interdisciplinary and field-based training programme. Specific objectives are to:

- Promote understanding of the interactions between hydrological processes, biodiversity, ecosystem services, and human activities in coastal environments.
- Enhance knowledge of UNESCO Ecohydrology principles and their application to coastal ecosystem management.
- Introduce participants to the UNESCO-IHP Standard for Nature-based Solutions and ecosystem-based adaptation approaches.
- Strengthen capacities in biodiversity monitoring and assessment, particularly for sea turtle conservation.
- Foster understanding of Integrated Coastal Zone Management (ICZM) as a governance framework for sustainable coastal development.
- Explore the role of sustainable tourism and ecosystem services in supporting local livelihoods and resilience.
- Encourage interdisciplinary collaboration among scientists, practitioners, students, institutions, and local stakeholders.

Topics

The programme combines theoretical sessions, and practical field activities covering the following topics:

- Ecohydrology: an interdisciplinary approach for sustainable water and ecosystem management.



- UNESCO Ecohydrology Demonstration Sites and lessons learned.
- The Mediterranean Sea as a biodiversity hotspot: the case of Ghedhabna Beach.
- Nature-based Solutions and ecosystem-based approaches for coastal resilience.
- Biodiversity resilience to environmental change: lessons from sea turtles.
- Coastal ecohydrology and ecosystem monitoring: the case of the UNESCO Ecohydrology DEMOSITE of Ghar El Melh Lagoon.
- Sustainable ecosystem management for tourism and local development.
- Integrated Coastal Zone Management (ICZM) for balancing conservation and socio-economic needs.
- Biological invasions under climate change.

Expected outcomes

By the end of the training, participants will be able to:

1. Understand the interactions between hydrological processes, biodiversity, ecosystem functioning, and ecosystem services in Mediterranean coastal environments.
2. Apply UNESCO-IHP Ecohydrology principles and Nature-based Solutions to address challenges related to biodiversity conservation, climate adaptation, and sustainable development.
3. Acquire practical skills in biodiversity monitoring and ecosystem assessment, including sea turtle nesting surveys and threat evaluation.
4. Assess the impacts of environmental pressures such as marine litter, biological invasions, climate change, and human activities on ecosystem resilience.
5. Understand and apply Integrated Coastal Zone Management approaches for sustainable coastal governance.
6. Strengthen their capacity for interdisciplinary collaboration, stakeholder engagement, and science-based decision-making.
7. Contribute to the implementation of UNESCO-IHP objectives and the Sustainable Development Goals through integrated management of water resources, biodiversity, and coastal ecosystems.

Target group / who can apply

The training is intended for:

- Early-career researchers and scientists.
- Graduate and doctoral students.
- Environmental practitioners and conservation professionals.
- Staff of water, environment, fisheries, and coastal management institutions.
- Representatives of non-governmental organizations.
- Protected area managers.
- National and local government authorities involved in environmental governance.



Important dates:

- **Monday 13 July 2026:** deadline for the applications for the training course.
- Selected trainees will be covered for meals and local transportation from the INSTM Monastir Center to the Ghedhabna site, while accommodation and external transport are not covered by the committee.

Application: CV & Motivation letter to be sent to Dr. Olfa Chaieb Email:

olfa.chaieb@instm.rnrt.tn