



Pole for Doctoral Studies
Center for Doctoral Studies Sciences, Technologies, and Medical Sciences

ANNOUNCEMENT OF DOCTORAL THESIS DEFENSE



Ms. TOUAF Mounia

**Will present their research work with the aim of earning a
Doctorate**

Doctoral program: Biology, Chemistry and Geology

Discipline: Biology

**Specialty: Marine Biology, Marine Ecology, Biodiversity and
Environment**

**On 18/05/2026 at 10H30 at the Thesis Defense Hall, Faculty of
Sciences of Tetouan, UAE
Under the Theme**

**Assessment of Air-Breathing Marine Megafauna Bycatch in
Artisanal and Coastal Fisheries of Morocco: Insights from the
Central Atlantic Coast**

Front of the jury composed of :

First Name & Last Name	Establishment	Designation
Pr. MOUKRIM Abdellatif	Hassan I University of Settat	President
Pr. BELQAT Boutaina	FS of Tetouan, UAE	Reviewer
Pr. BEN EL CAID Mohamed	FS of Agadir, UIZ	Reviewer
Pr. LIBIAD Mohamed	FS of Tetouan, UAE	Reviewer
Pr. BENNAS Nard	FS of Tetouan, UAE	Examiner
Pr. TAHERI Ahmed	FS of Tetouan, UAE	Examiner
Dr. BENHARDOUZE Wafae	Hassan II High School of Tetouan , MENPS	Guest
Pr. AKSISSOU Mustapha	FS of Tetouan, UAE	Supervisor

Host Research Structure: Laboratory Ecology, Systematics and Biodiversity Conservation (LESCB), URL- CNRST N°18

Abstract



Bycatch is a major threat to vulnerable marine species worldwide, contributing to population declines and hindered recovery. Moroccan waters are important fishing grounds, hosting large industrial, coastal, and artisanal fleets. Prior research has focused on bycatch in the Mediterranean, leaving a data gap along the Atlantic coast.

This thesis provides the first integrated, multi-taxa assessment of air-breathing megafauna bycatch along Morocco's central Atlantic coast. It combines a characterization of the artisanal fishery and the coastal fishery with a mixed-methods approach—using participatory monitoring program with captains from the coastal fleet (demersal longliners, demersal trawlers, and pelagic purse seiners), and interview-based surveys across both coastal and artisanal fleets—to quantify interactions and risks.

We documented a total of 19 species: three sea turtles (*Caretta caretta*; *Dermochelys coriacea*; *Chelonia mydas*), five small cetaceans (*Steno bredanensis*; *Tursiops truncatus*; *Stenella coeruleoalba*; *Delphinus delphis*; *Orcinus orca*), and eleven seabirds (*Morus bassanus*; *Larus fuscus*; *Larus audouinii*; *Larus genei*; *Larus melanocephalus*; *Larus michahellis*; *Caloncteris borealis*; *Gulosus aristotelis*; *Rissa tridactyla*; *Hydrobates pelagicus*; *Stercorarius skua*). For the coastal fleet, loggerhead turtles suffered significant mortality, with high bycatch rates in demersal trawlers and pelagic purse seiners (0.0221 captures/day and 0.0144 captures/day, respectively). For the artisanal fleet, driftnets were the most harmful gear across all taxa followed by trammel nets and gillnets, with interview data estimating annual bycatch of approximately 90 turtles, 93 small cetaceans, and 78 seabirds. Fishers also reported significant financial losses from net damage (caused by sea turtles and small cetaceans) and from depredation (by small cetaceans).

This work establishes a crucial baseline, revealing that both major fleet segments contribute substantially to the bycatch of protected species, and provides science-based evidence to guide urgent conservation and management measures.

Keywords: Interactions, bycatch, sea turtles, small cetaceans, seabirds, coastal fisheries, artisanal fisheries, central Atlantic coast, Morocco.