جامعة عبد المالك السعدي
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Université Abdelmalek Essaadi

Pole for Doctoral Studies
Center for Doctoral Studies
Sciences and Technology and Medical Sciences

ANNOUNCEMENT OF DOCTORAL THESIS DEFENSE

Mr Brahim OUBAHAOUALI

Will present his research work with the aim of earning a Doctorate

Doctoral program: Biology, Chemistry and Geology

Discipline: Biology
Specialty: Marine Biology
On 07/07/2025 at 15H00 at the Defense room of the Faculty of Sciences of Tetouan

Under the theme

Study of the spatio-temporal distribution and reproductive biology of the *Octopus vulgaris* (Cuvier, 1797) in the southern Atlantic waters of Morocco.

Front of the jury composed of:

First Name & Last Name	Establishment	Designation
Pr. Said BARRIJAL	FST Tangier, Abdelmalek Essaadi University	President
Pr. Nard BENNAS	FS Tetouan, Abdelmalek Essaadi University	Reviewer
Pr. El Hassan SAKAR	FS Tetouan, Abdelmalek Essaadi University	Reviewer
Pr. Ahmed TAHERI	FS El Jadida, Chouaib Doukkali University	Reviewer
Pr. Mohammed MRANI ALAOUI	FS Tetouan, Abdelmalek Essaadi University	Examiner
Pr. Younes SAOUD	FS Tetouan, Abdelmalek Essaadi University	Examiner
Pr. Mustapha AKSISSOU	FS Tetouan, Abdelmalek Essaadi University	Supervisor

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

Abstract

Octopus vulgaris is one of the most targeted cephalopod species in Morocco for its commercial value and landed weight. Its main fishing area is located in the South Atlantic waters of Morocco, between Sidi Elghazi and Cap Blanc. The study conducted in the southern Atlantic waters of Morocco between the parallels L: 26° 24' N (Sidi Elghazi) and G : 020° 46' N (Cap Blanc), is based on a 3325 series of trawling operations targeting *Octopus* (223510.6 Kg of *Octopus*) by a cephalopod offshore trawler and 600 specimens of *Octopus vulgaris* sampled randomly from landings of coastal trawler and the artisanal fleets (300 for each of the two fleets). The study showed a remarkable abundance of young *Octopus vulgaris* individuals in terms of catches compared to large individuals, whether day or night, with lower yields during the nights. Winter trips produced highest yields than summer trips.

The demographic composition of *Octopus vulgaris* during this period of study showed dominance in weight of young individuals on depth strata at less than 30 meters, with a yield of 35.61kg/h, while large individuals dominate the depth strata at more than 76 meters, with a yield of 11.05kg/h.

The analyze of aspects of the reproductive biology of *Octopus vulgaris* in coastal trawl and artisanal fleets showed that artisanal fleet exploited mainly medium-sized individuals of *Octopus vulgaris* classified as T5 (>1.2–1.5 kg) through to T3 (>2.0–3.0 kg), whereas coastal trawlers tended to exploit smaller individuals in classes T8 (>0.3–0.5 kg) to T6 (>0.8–0.2 kg). The sex ratio of *Octopus vulgaris* is significantly different between landing of coastal trawl and artisanal fleets ($p = 0.043$), being in favor of males in the landings of coastal trawlers (1.14:1 M:F) and in favor of females in the artisanal fleet (0.91:1 M:F). The size at first maturity (dorsal length of the mantle and weight) of the species in the study area is of the order of 14.98 cm and 370.56 g for males and 15.75 cm and 563.08 g for females.

Keywords: *Octopus vulgaris,* Artisanal Fleet, Coastal Trawler Fleet, Sexual Maturity, Southern Morocco, Spatio-Temporal Analysis