Transforming our relationship with nature is key to a sustainable future

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The University of Tunis El Manar (UTM) demonstrates a steadfast commitment to achieving SDG 15: Life on Land through an integrated approach encompassing research, education, and collaboration with key stakeholders. By spearheading cutting-edge research, UTM advances biodiversity conservation, ecosystem restoration, and sustainable land management.

Research initiatives at UTM extensively address biodiversity across multiple dimensions. Animal studies focus on species documentation, diversity restoration, and mitigation of ecosystem degradation caused by anthropogenic activities, including deforestation, urban expansion, hunting, and pollution, as well as natural climate phenomena like desertification and floods. Complementing this, plant studies explore resilience to environmental stressors, such as water scarcity, soil salinization, and the use of saline or treated wastewater for irrigation, offering practical solutions for sustainable agriculture. Microbial research highlights the pivotal role of microorganisms in maintaining ecosystem balance, with findings contributing to ecological stability and sustainable resource management.

UTM delivers innovative educational programs that equip students with essential skills to tackle environmental challenges. Furthermore, the university fosters collaboration with civil society organizations and environmental stakeholders, enabling the implementation of impactful projects and ensuring collective efforts toward preserving terrestrial ecosystems.

1. Fungal Diversity – A National Achievement

A notable and unique achievement of the University of Tunis El Manar is its leadership in studying macromycete fungi diversity in Tunisia's forests. Researchers conducted the first national inventory of these fungi in collaboration with the National Gene Bank and international partners. The study documented 268 species, including seven globally recognized as rare, and led to the establishment of the first national herbarium of macromycetes. Beyond biodiversity assessment, researchers explored the potential exploitation of these resources.

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Studies investigated the nutritional value of fungi and the valorization of bioactive molecules they produce. These molecules have demonstrated promising biotechnological applications, particularly in removing environmental pollutants and enhancing the nutritional value of animal feed. This work highlights the multifaceted importance of fungal diversity for environmental sustainability, ecological balance, and practical applications in agriculture and industry.

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2. Strengthening Regional Collaboration for Biodiversity and Climate Resilience

The University of Tunis El Manar, in collaboration with the *Groupement de Développement Agricole Sid Amor*, actively participated in two workshops held in Jordan: *"Strengthening Biodiversity Resilience in a Changing Climate"* (September 22–27, 2024) at the Azraq Eco-Lodge and *"Biodiversity – Nature's Blueprint for Climate Adaptation"* (September 28–30, 2024) at the Royal Academy for Nature Conservation, Ajloun Forest Reserve.During these events, Prof. Atef Jaouani showcased impactful initiatives led by the *Groupement de Développement Agricole Sid Amor* alongside the University of Tunis El Manar's significant research findings in biodiversity conservation and climate adaptation. Key highlights included innovative strategies to enhance ecosystem resilience, promote sustainable land management, and address climate-induced biodiversity challenges.

Publications 61
Citations 444
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