

SDG 14: Life Below Water

UST College of Science in collaboration with UST Senior High School spearheaded the project entitled “Biodiversity and Ecological Integrity of the River Basins of San Narciso and San Felipe, Zambales”. The project aims to address issues with the surge of construction activities to facilitate sand mining at the mouth of Santo Tomas River. While it boosts local economic growth due to the product getting exported to other Asian countries, there is a need to address the implications of such construction activities. One of the dangers it may pose is the loss of biodiversity. Another one is the destruction of Pawikan nests which are located in the sands of the River. The project also aims to evaluate the ecological integrity of lotic systems.

UST College of Science thru the project “Caring for our Common Home through an Environmental Expedition integrating the Role of Service-Learning 2023 (CCHEERS2023)” utilized what they learned in theory and apply it in practice in the province of La Union. The activity fosters practical application, technical skills, and experience thru actual fieldwork in terrestrial and aquatic ecosystems. In San Fernando Botanical Garden, the involved party will determine floral species and create a guide book that would serve as a pillar of knowledge for the community. It will pave the way for better Promotion of environmental science through active fieldwork to support sustainable utilization of ecosystem resources through environmental management and biodiversity.

Mr. John Claude Renan B. Salluta, M.Sc., a research assistant of the UST Taal PEER Program, won the Best Oral Presentation (Graduate Category) with his paper entitled “Macroinvertebrate assemblages and functional traits in ashfall-impacted littoral zones of Lake Taal after the Taal Volcano eruption in January 2020”. The said research was part of the NRCP-funded Taal Post-eruption Ecological Research (PEER) Program under Asst. Prof. Jonathan Carlo A. Briones, Ph.D. of the Department of Biological Sciences of the College of Science and the Research Center for the Natural and Applied Sciences, in collaboration with Prof. Francis S. Magbanua of the University of the Philippines – Diliman. The research focuses on Philippine freshwater micro- and macroinvertebrates, the feeding ecology of the endemic *Sardinella tawilis* of Lake Taal and methane dynamics in tropical lakes.

The UST College of Science in collaboration with UST Zooplankton, Ecology, Systematics and Systematics and Limnology (ZESL) research group and UST AGOS held a lecture on Sea snakes last July 25, 2023. The lecture esteemed speakers were Dr. Christina Zdenek and Dr. Chris Hay from University of Queensland. The lecture covered (1) Phylogeny and evolutionary history [of sea snakes], (2) unique marine adaptations, (3) sea snake venom composition and potential medical applications, (4) conservation challenges and habitat preservation, (5) human-snake conflict mitigation strategies, and (6) the exceptional case of the freshwater Lake Taal Sea Snake.

The UST College of Science and UST Senior High school organized a special screening of a documentary film titled “Bakawan”. Directed and narrated by Professor Lemuel V. Aragon, PhD from the Institute of Environmental Science and Meteorology of the UP Diliman. The documentary tackles the issue of vanishing mangroves in Quezon Province.

UST AGOS researchers conducted an ocular, initial water quality assessment, and sampling of benthos and zooplankton at the province of Marinduque last September 2023. This was spearheaded by the Marinduque Council of Environmental Concerns (Macec Marinduque), in collaboration with the Philippine Misereor Partnership Inc. (PMPI) through the UST-SIMBAHAYAN Community Development Office.

UST hosted the 3rd Forum on Crocodiles in the Philippines. Different Abstracts were presented, centralized in these 4 themes. (1) Natural history and ecology, (2) Husbandry, veterinary and health, (3) Human-crocodile coexistence, and (4) Conservation research and management of crocodiles in the Philippines. Abstract submission was until 15 September 2023, and the forum was held on 8-10 November 2023.