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I-CReST 2025: 078-059 – Bridging Biodiversity and Community Engagement Through iNaturalist: Campus-Based Citizen Science Projects

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ABSTRACT

This study explores the outcomes of two campus-based citizen science initiatives, Khazanah Alam Campus Challenge (2023) and Biodiversity Conservation & Climate Change Project (2024), organised by Al-Bukhari Library, Universiti Teknologi MARA (UiTM) Jengka Campus, Pahang. Designed to promote biodiversity awareness and civic engagement, these initiatives utilised iNaturalist, a mobile-based citizen science platform, to involve students, faculty, and local communities in real-world biodiversity monitoring. The programs were conducted in collaboration with non-governmental organisations (NGOs) and partner universities, with significant participation from ORBID (Organisation Biodiversity Club), whose members contributed as active citizen scientists. Participants engaged in observing and recording flora and fauna around the campus environment, fostering experiential learning and strengthening environmental stewardship. Drawing solely from iNaturalist data, the two initiatives recorded a total of 1,299 observations, identifying 638 unique species, contributed by 68 observers and verified by 268 global identifiers. The findings reveal high species richness, especially among plants and insects and underscore the effectiveness of digital citizen science platforms for localised ecological engagement. This paper highlights the evolving role of academic libraries in bridging science, technology, and community participation. By integrating open science tools with place-based learning, the initiatives demonstrate meaningful alignment with the Sustainable Development Goals (SDG 13: Climate Action, SDG 15: Life on Land, and SDG 17: Partnerships for the Goals). The experience affirms the potential of collaborative, tech-enabled approaches to cultivate biodiversity literacy and participatory conservation in higher education settings.

Keywords: Citizen Science; iNaturalist; Biodiversity; Academic Libraries; SDG