

# **Observe It, Draw It: Scaffolding Children's Observations of Plant Biodiversity with an Interactive Drawing Tool**

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## ***ABSTRACT ORIGINAL***

Observation is common for children to connect with nature, increasing their knowledge and awareness of biodiversity. However, it is challenging for them to make and document their observations due to a lack of observation and drawing skills. Therefore, we designed an interactive drawing tool, Bio Sketchbook, which scaffolds children in systematic observation, observational drawing, and knowledge acquisition. It can recognize plant species and generate contour drawings from children's photographs, guiding them to observe and draw multi-dimensional plant features with a digital magnifier and in-context biological information. Our in-situ user study with 19 children revealed that Bio Sketchbook provided an engaging experience and effectively supported children in recording and retaining biodiversity information and in balancing observations with screen time. Additionally, Bio Sketchbook intervened in children's interaction with plants by prompting observational behaviors, encouraging them to directly touch and establish rapport with plants, and arousing their interest and knowledge of plants. © 2023 ACM.