

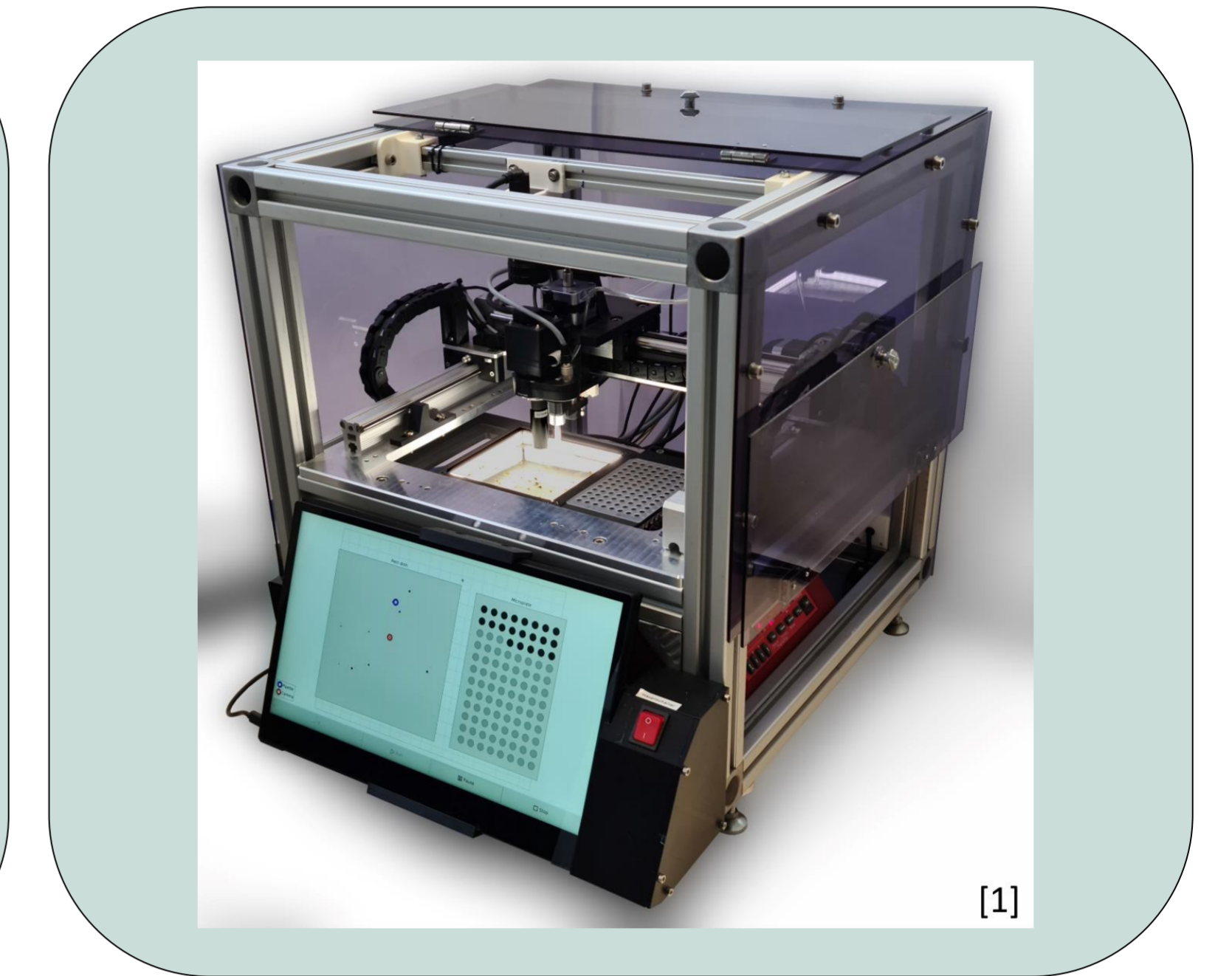
# Advancing Biodiversity Research with AI-Driven Automation

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## Introduction

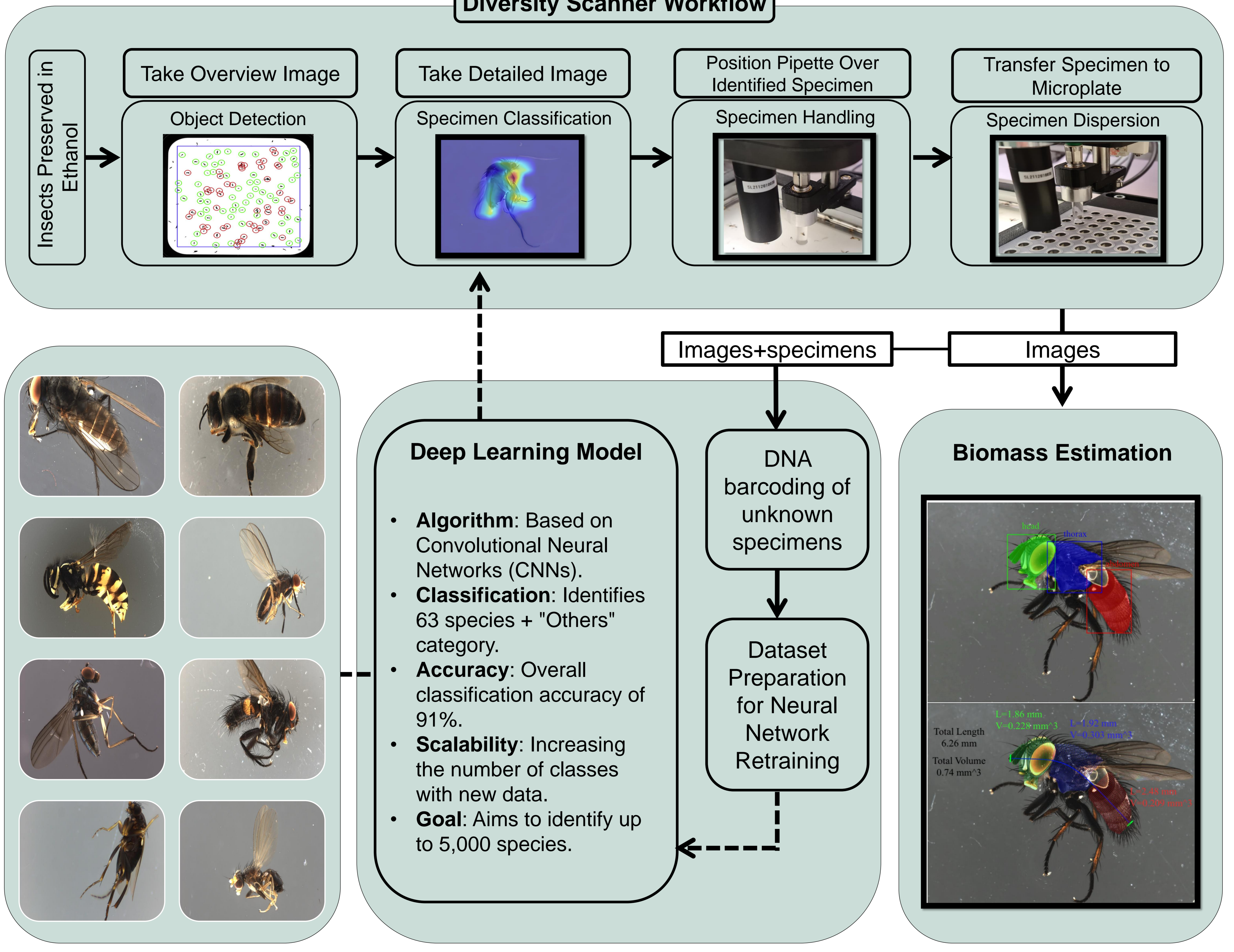
### DiversityScanner 4K

- **Enhanced Speed and Efficiency:** Utilizing robotics and AI, the DiversityScanner 4K rapidly evaluates insect trap samples.
- **Precision Classification:** High-resolution imaging and deep learning techniques ensure accurate classification of specimens at the family and species levels.
- **Robotic Automation:** Streamlined processes with robotic arms and an automated syringe pump for sorting specimens into a 96-well microplate.
- **Robust Data Collection:** Generates a comprehensive dataset for machine learning, with the goal of identifying 5,000 species without sequencing.



## Projects Overview

### Diversity Scanner Workflow



### References

1. Wuehrl et al. (2022). DiversityScanner: Robotic handling of small invertebrates with machine learning methods. MER, 22, 1626-1638. <https://doi.org/10.1111/1755-0998.13567>