

2024 年度
創発的研究支援事業 年次報告書【公開版】

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役職名	Independent research Scientist (Science and Technology Associate)
研究課題名	Modeling plant adaptation in face of climate change using genomics and epigenomics of stress tolerant Mangrove trees 環境変動とマングローブのエピゲノム動態
研究実施期間	2024 年 4 月 1 日～2025 年 3 月 31 日

研究成果の概要

In the second year of my JST-FOREST project, I extracted high-quality DNA from three additional Okinawan mangrove species and completed whole-genome sequencing using PacBio HiFi long-read technology. Genome assembly and annotation of these species are planned for the next stage.

My main focus this year was analyzing DNA methylation patterns and transcriptomic responses in *Bruguiera gymnorhiza* as part of an ongoing study on epigenetic stress memory. I completed the methylation and gene expression analyses, and am currently preparing figures and writing the manuscript to share these findings. The goal is to better understand how mangroves retain molecular memory of past environmental stress, and how this affects their gene regulation.