

DATA MANAGEMENT PLAN

1. Data and Materials Produced

- A. The first reference genome assembly for the Scleractinian coral, *Porites divaricata*.
- B. The first collection of HiFi long read sequences for *Porites divaricata*.
- C. The first collection of methylation data (mdRAD seq and WGBS) from *Porites divaricata* (from 200 samples of native and transplanted mangrove and reef environments).
- D. R Code for the incorporation of genomic and experimental trait data for use in multiple-matrix animal models.

2. Standards, Formats, and Metadata

- A. All field data and daily protocols will be stored in a written notebook that remains in the Matz lab.
- B. Raw sequence reads for methylation will be stored in compressed fastq format.
- C. Processed reads for methylation data will be stored as compressed R data bundles (.RData).
- D. Statistical and computational pipelines will be recorded as annotated R scripts.

3. Data Sharing

- A. The data will be published in high-impact research journals.
- B. Raw data, R code, and scripts will be made available as supplementary resources in the corresponding publications.
- C. R Code and scripts of bioinformatics pipelines will be made freely available on the PI's and Sponsoring scientist's GitHub page (P.I. - <https://github.com/kscavo23> ; Sponsoring scientist: <https://github.com/z0on>).
- D. All sequencing data will be released prior to publication and posted on the Matz lab website (<http://matzlab.weebly.com/data--code.html>) for unrestricted use as part of the Matz lab's policy of rapid data sharing.
- E. The complete *Porites divaricata* reference genome assembly and all sequencing data will be submitted to GenBank and NCBI's sequencing read archive (SRA).
- F. All data will be freely available to any interested party upon publication.

4. Archiving, Storage, and Preservation

- A. Notebooks with written data will be kept in the Matz laboratory at the University of Texas at Austin.
- B. Digital data stored on personal laptops will be backed up continuously using MacBook's iCloud.
- C. All data and manuscript files will be synchronized with UT's approved online storage (UTBox).
- D. Acquired data will be subject to the University of Texas' intellectual property and data management policies.