

GENOME SEQUENCING

A Draft Genome Sequence of *Dorometra sesokonis* (Antedonidae, Comatulida, Crinoidea, Echinodermata)

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Biodiversity Genomes

We present the complete genome sequence of *Dorometra sesokonis*. Genome sequencing was performed on genetic material from a single wild-collected individual. The sequence reads were assembled using a de novo method followed by a finishing step. The raw and assembled data are publicly available via GenBank.

Introduction

Dorometra sesokonis is a brooding feather star found in the coral reefs of the Ryukyu Islands in southwestern Japan, unique for its paedomorphic features, simultaneous hermaphroditism, and external larval brooding (Obuchi, Kogo, and Fujita 2009). We present the assembled genome sequence of this species.

Methods

A single specimen of *D. sesokonis* was collected from Sesoko Island (Okinawa, Japan; 26.654996 N, 127.85235 E) at a depth of ~13 m. DNA extraction was performed from distalmost pinnules, using the Qiagen DNAeasy genomic extraction kit using the standard process. A paired-end sequencing library was constructed using the Illumina TruSeq kit according to the manufacturer's instructions. The library was sequenced on an Illumina Hi-Seq platform using a 150-bp pair-end chemistry.. The resulting fastq files were trimmed of adapter/primer sequences and low-quality regions with Trimmomatic v0.33 (Bolger, Lohse, and Usadel 2014). The trimmed sequence was assembled by SPAdes v2.5 (Bankevich et al. 2012) followed by a finishing step using Zanfona (Kieras, O'Neill, and Pirro 2021).

Results and Data Availability

All data, including raw reads and assembled genome sequence, are available via GenBank.

Raw sequence data

<https://www.ncbi.nlm.nih.gov/sra/?term=SRR12278769>

Assembled genome sequence

<https://www.ncbi.nlm.nih.gov/nucleotide/JAOTQE000000000>

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