

GENOME SEQUENCING

The Complete Genome Sequences of 5 Species of *Sardinella* (Clupeidae, Clupeiformes)

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Biodiversity Genomes

We present the complete genome sequences of 5 species of *Sardinella*. Illumina sequencing was performed on genetic material from wild-caught specimens. The reads were assembled using a *de novo* method followed by a finishing step. The raw and assembled data are publicly available via Genbank.

Introduction

Sardinella species are found in the Atlantic, Indian and Pacific Ocean. They are abundant in warmer waters of the tropical and subtropical oceans. All 5 species presented here occur in the Indo-Pacific region (Willette et al. 2011; Thomas et al. 2014). Adults are generally coastal, schooling, marine fish but juveniles are often found in lagoons and estuaries. *Sardinella tawilis* is a unique freshwater member among this group, inhabiting the volcanic Taal Lake in the Philippines (Willette, Carpenter, and Santos 2014). Fish of the genus have seven to 14 striped markings along the scales of the top of the head. The paddle-shaped supramaxilla bones are characteristic; they separate *Sardinella* from other genera and their shapes help distinguish species. They have paired predorsal scales and enlarged fin rays.

Methods

DNA extraction was performed using the Qiagen DNAeasy genomic extraction kit using the standard protocol. 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 in paired-end, 2 × 150 bp format. The resulting fastq files were trimmed of adapter/primer sequence 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, is available via Genbank.

TaxName	Raw_reads	Genome
<i>Sardinella gibbosa</i>	SRR24062822	JASCIP000000000
<i>Sardinella lemuru</i>	SRR24061572	JASCQZ000000000
<i>Sardinella tawilis</i>	SRR24061547	JASCQY000000000
<i>Sardinella fimbriata</i>	SRR24061541	JASCQX000000000
<i>Sardinella hualiensis</i>	SRR24060895	JAUCNH000000000

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