GENOME SEQUENCING

The Complete Genome Sequence of *Cymbopogon citratus* (Poaceae, Poales), Lemon Grass

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Cymbopogon citratus, commonly known Lemon Grass, is a tropical plant native to Maritime Southeast Asia. The species has simple, bluish-green leaves with linear white margins. *Cymbopogon citratus* is abundant in the Philippines and Indonesia where it is traditionally used in cooking. The dried leaves can also be brewed into a tea, either alone or as a flavoring in other teas. We present the complete genome sequence of this species. The raw data and assembled sequences are available in Genbank.

Methods

A single cultivated plant was used for this study. DNA extraction was performed 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 in paired-end, 2 × 150bp 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 v1.0 (Kieras 2021) to make additional contig joins based on conserved regions in related species.

Results

Raw and assembled data is publicly available via GenBank:

Raw genome data

https://trace.ncbi.nlm.nih.gov/Traces/?view=run_browser&acc=SRR11229723

Assembled genome

https://www.ncbi.nlm.nih.gov/nuccore/JAOBBA000000000

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Bolger, Anthony M., Marc Lohse, and Bjoern Usadel. 2014. "Trimmomatic: A Flexible Trimmer for Illumina Sequence Data." *Bioinformatics* 30 (15): 2114–20. https://doi.org/10.1093/bioinformatics/btu170.

Kieras, M. 2021. *Zanfona, a genome finishing process for use with paired-end short reads*. https://github.com/zanfona734/zanfona.