GENOME SEQUENCING

The Complete Genome Sequences of 29 Species of Ducks (Anatidae, Anseriformes)

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Biodiversity Genomes

We present genome sequences of 29 species of ducks from 8 genera. Illumina sequencing was performed on tissue from wild-collected museum 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.

Methods

Tissues from single, wild-collected individuals were used for this study.

DNA extraction was performed using the Qiagen DNEasy genomic extraction kit using the standard process. Paired-end sequencing libraries were constructed using the Illumina TruSeq kit according to the manufacturer's instructions. The libraries were sequenced on an Illumina Hi-Seq platform in paired-end, 2 × 150bp format. 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 v3.15.4 (Bankevich et al. 2012) followed by a finishing step using Zanfona (Kieras, O'Neill, and Pirro 2021).

Results and Data Availability

All raw read data and assembled genomes are available on Genbank:

Species	Accession	Specimen_voucher
Amazonetta brasiliensis	JBBYHF000000000	UAM Bird:14628
Anas acuta	JAYRCF000000000	ANSP tissue:28083
Anas aucklandica	JBCATX000000000	ANSP skin:77177
Anas bahamensis	JBBYHN000000000	UAM Bird:36736
Anas bernieri	JAUEKP000000000	SHbern_V68VBK8SIL
Anas capensis	JAUELN000000000	REW671
Anas carolinensis	JBCAUC000000000	ANSP skin:189308
Anas crecca	JAYJLT000000000	ANSP tissue:27782
Anas flavirostris	JBCATY000000000	UAM Bird:24711
Anas georgica	JAUBNX000000000	KGM274
Anas poecilorhyncha	JBCJKG000000000	ANSP skin:128732
Anas puna	JBBYGV000000000	UAM Bird:38306
Anas zonorhyncha	JBCAUD000000000	ANSP skin:85306
Lophonetta specularioides	JAUJPM000000000	KGM821
Mareca americana	JAXIUU000000000	ANSP tissue:22592

Species	Accession	Specimen_voucher
Mareca falcata	JBBYGQ000000000	UAM Bird:21189
Mareca penelope	JAYRCD000000000	ANSP tissue:27964
Mareca sibilatrix	JAVKLD000000000	REW261
Sibirionetta formosa	JBCAUB000000000	UAM Bird:28790
Spatula clypeata	JBCATZ000000000	ANSP skin:190948
Spatula discors	JAUJPJ000000000	REW001
Spatula querquedula	JAUJPN000000000	UWBM 36215
Spatula rhynchotis	JAVKLC000000000	UWBM 78156
Spatula smithii	JAWDEW000000000	REW674
Spatula versicolor	JBBYHG000000000	UAM Bird:17529
Speculanas specularis	JAUJTY000000000	KGM271
Tachyeres brachypterus	JAULBN000000000	REW330
Tachyeres leucocephalus	JAVDPI000000000	KGM823
Tachyeres patachonicus	JBBYHP000000000	UAM Bird:20714

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