ERGA Assembly Report

v24.10.15

Tags: ERGA-BGE

TxID	3229215	
ToLID	icSteAust9	
Species	Stenosis austini	
Class	Insecta	
Order	Coleoptera	

Genome Traits	Expected	Observed
Haploid size (bp)	244,271,591	238,605,915
Haploid Number	10 (source: ancestor)	10
Ploidy	2 (source: ancestor)	2
Sample Sex	XX	XX

EBP metrics summary and curation notes

Obtained EBP quality metric for collapsed: 7.7.Q74

The following metrics were automatically flagged as below EBP recommended standards or different from expected:

. Kmer completeness value is less than 90 for collapsed

Curator notes

- . Interventions/Gb:
- . Other observations: "Sample is recorded as female, and the X chromosome was identified from synteny with Dailognatha quadricolis (icDaiQuad1.1). Assembly was performed with hifiasm using HiC data with the --h1/--h2 parameters. The collapsed p_ctg was selected based on N50/N90 and L50/L90 stats."

Quality metrics table

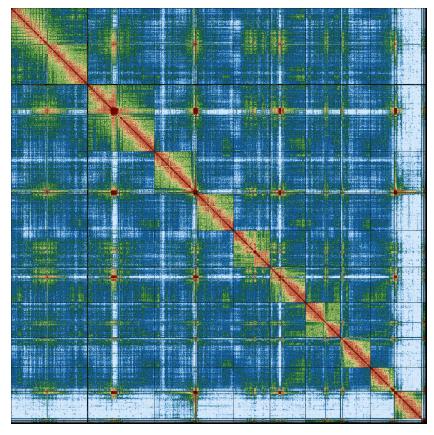
Metrics	Pre-curation collapsed	Curated collapsed
Total bp	240,587,923	238,605,915
GC %	34.47	34.48
Gaps/Gbp	29.1	88.01
Total gap bp	1,400	4,200
Scaffolds	46	30
Scaffold N50	21,101,840	21,101,840
Scaffold L50	6	4
Scaffold L90	12	9
Contigs	53	51
Contig N50	16,021,784	16,021,784
Contig L50	6	6
Contig L90	14	14
QV	72.2782	74.3038
Kmer compl.	79.2986	79.2301
BUSCO sing.	97.8%	98.5%
BUSCO dupl.	0.6%	0.6%
BUSCO frag.	0.4%	0.0%
BUSCO miss.	1.2%	0.9%

Warning! BUSCO versions or lineage datasets are not the same across results:

BUSCO: 5.8.3 (euk_genome_min, miniprot) / Lineage: endopterygota_odb10 (genomes:56, BUSCOs:2124)

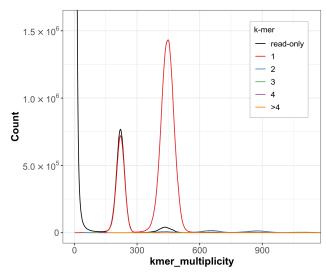
BUSCO: 6.0.0 (euk_genome_min, miniprot) / Lineage: endopterygota_odb10 (genomes:56, BUSCOs:2124)

HiC contact map of curated assembly



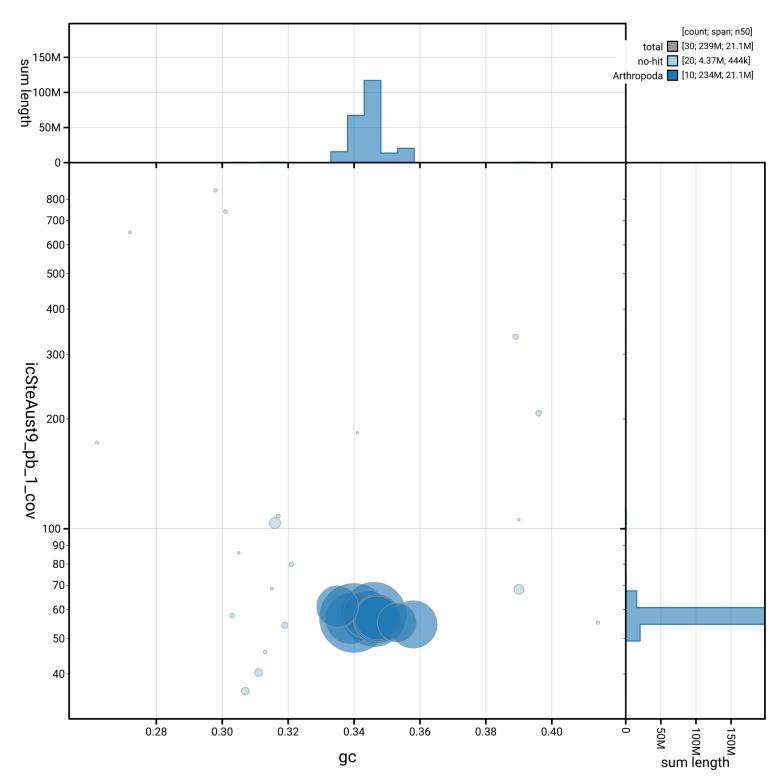
collapsed [LINK]

K-mer spectra of curated assembly



Distribution of k-mer counts per copy numbers found in asm

Post-curation contamination screening



collapsed. Bubble plot circles are scaled by sequence length, positioned by coverage and GC proportion, and coloured by taxonomy. Histograms show total assembly length distribution on each axis.

Data profile

Data	PacBio HiFi	Arima HiC v2
Coverage	54x	375x

Assembly pipeline

```
- hifiasm-hic
    |_ ver: 0.25.0-r726
    |_ key param: --h1
    |_ key param: --h2
- purge_dups
    |_ ver: 1.2.5
    _ key param: NA
- tiara
    |_ ver: 1.0.3
    _ key param: NA
- sanger-tol/blobtoolkit
    |_ ver: 0.8.0
    _ key param: NA
- YaHS
    _ ver: 1.2a.2
    | key param: NA
- NBIS/Earth-Biogenome-Project-pilot
    _ ver: 99c8937
    _ key param: NA
```

Curation pipeline

```
- sanger-tol/curationpretext
|_ ver: 1.4.2
|_ key param: NA
- sanger-tol/agp-tpf-utils
|_ ver: 35ea45d
|_ key param: NA
```

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Date and time: 2025-09-15 20:04:18 CEST