

ERGA Assembly Report

v24.10.15

Tags: ERGA-BGE

TxID	40178
ToLID	bAleGra1
Species	Alectoris graeca
Class	Aves
Order	Galliformes

Genome Traits	Expected	Observed
Haploid size (bp)	1,015,215,291	1,120,883,897
Haploid Number	39 (source: direct)	40
Ploidy	2 (source: ancestor)	2
Sample Sex	ZZ	ZZ

EBP metrics summary and curation notes

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

- . Observed Haploid Number is different from Expected

Curator notes

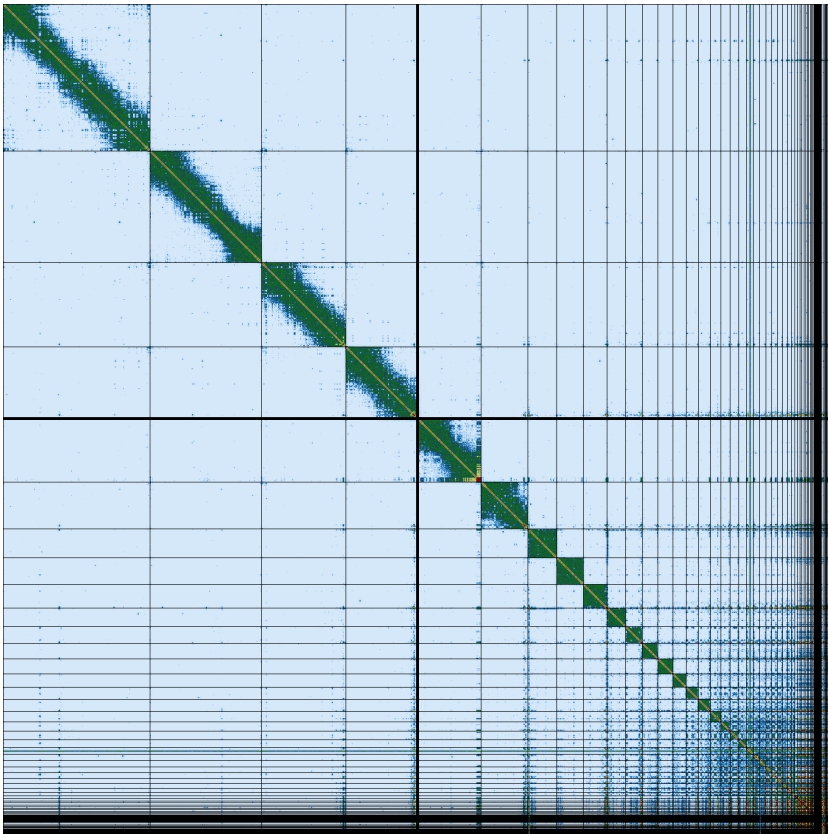
- . Interventions/Gb: None
- . Contamination notes: "No presence of contaminants. Mitochondrial genome was removed from the assembly"
- . Other observations: "Z chromomomes are chromosomes 5 in both haplotypes, curation was done on combined haplotypes, large repeat region in chr5 (77M-84M) in both haplotypes - contig placement are ambiguous; there should be 8 more microchromosomes; purging was manually done to avoid removing of large fractions of microchromosomes, guided by purge_dups dups.bed file, According to <https://www.cibtech.org/sp.ed/jls/2014/03/JLS-186-S3-212-AFSHIN-USING-POPULATION.pdf> the haploid chromosome number should be 48, whereas GOAT reports 39"

Quality metrics table

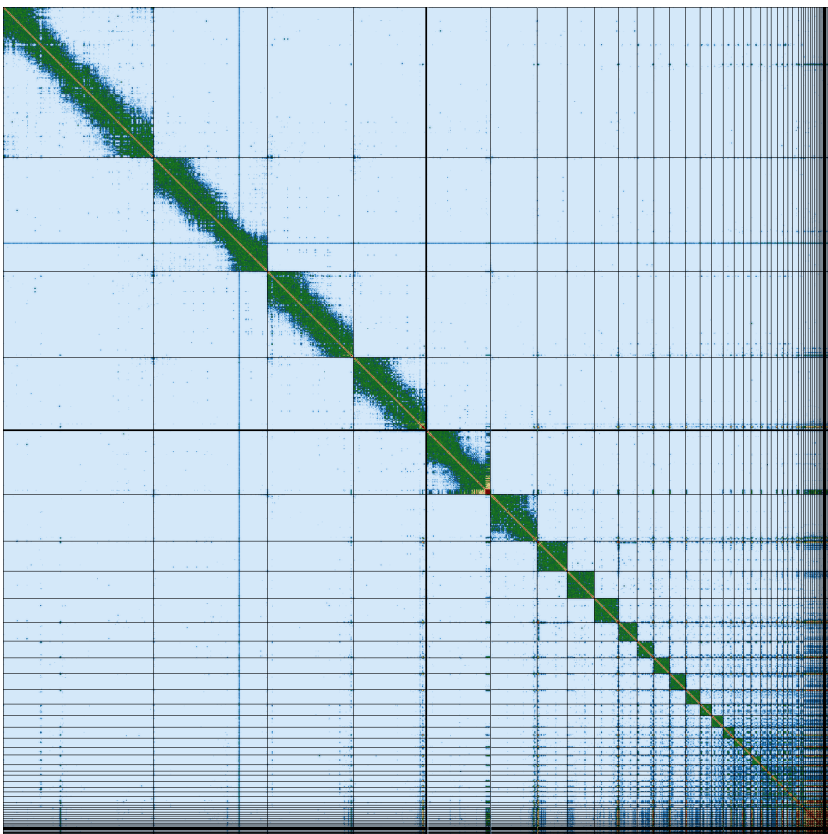
Metrics	Pre-curation hap1	Pre-curation hap2	Curated hap1	Curated hap2
Total bp	1,120,904,364	1,103,332,262	1,120,883,897	1,097,305,545
GC %	42.08	41.94	42.07	41.93
Gaps/Gbp	157.02	125.08	177.54	151.28
Total gap bp	17,600	13,800	22,700	19,600
Scaffolds	324	174	288	125
Scaffold N50	78,812,343	95,332,562	84,007,930	95,332,562
Scaffold L50	5	4	5	4
Scaffold L90	23	22	22	20
Contigs	500	312	487	291
Contig N50	22,503,344	24,970,722	22,503,344	24,970,722
Contig L50	11	13	11	13
Contig L90	71	68	72	67
QV				
Kmer compl.				
BUSCO sing.	98.9%	98.7%	99.0%	98.7%
BUSCO dupl.	0.1%	0.1%	0.1%	0.1%
BUSCO frag.	0.1%	0.1%	0.1%	0.1%
BUSCO miss.	0.8%	1.1%	0.8%	1.1%

BUSCO: 5.8.2 (euk_genome_min, miniprot) / Lineage: aves_odb10 (genomes:62, BUSCOs:8338)

HiC contact map of curated assembly



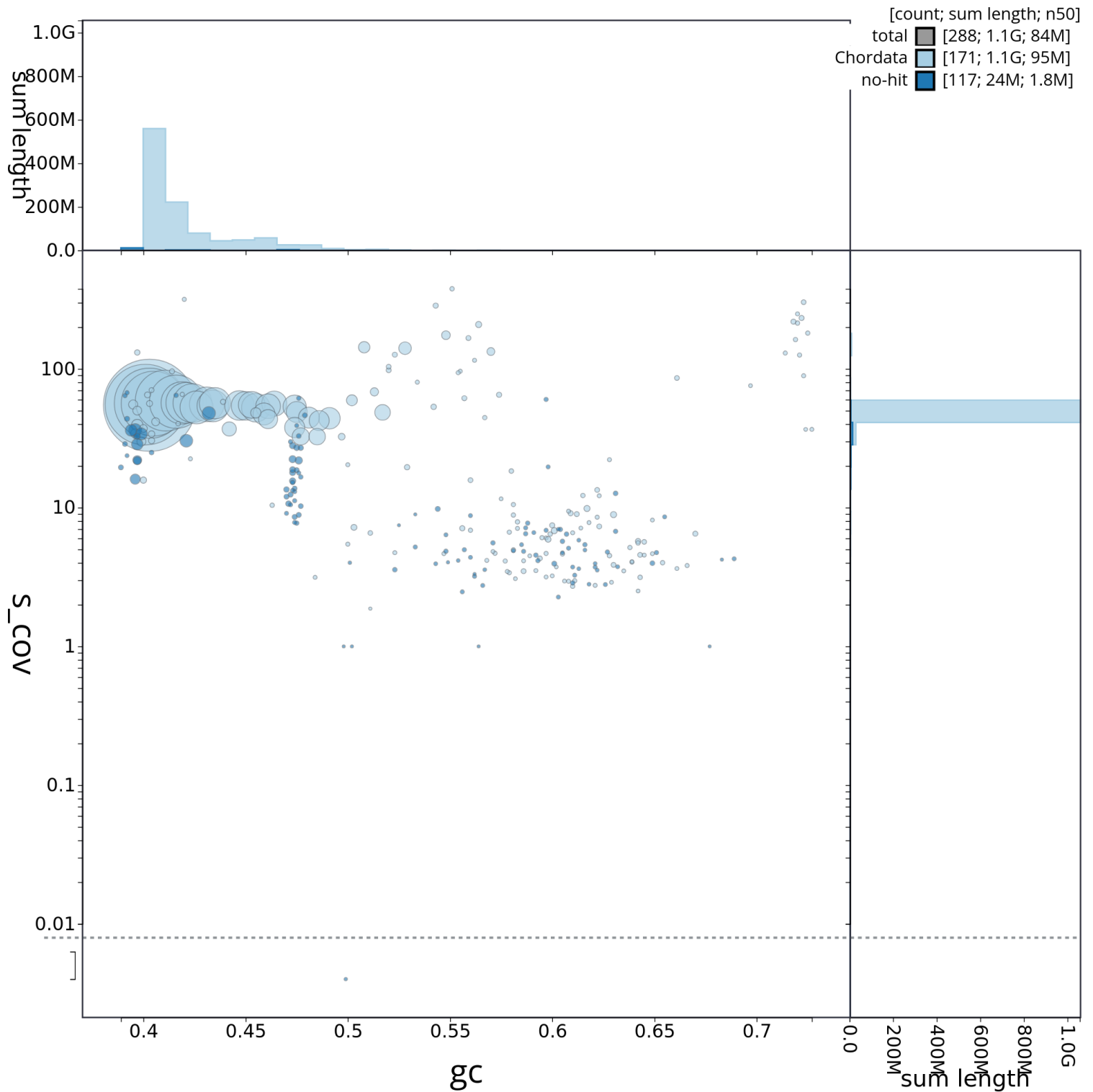
hap1 [\[LINK\]](#)



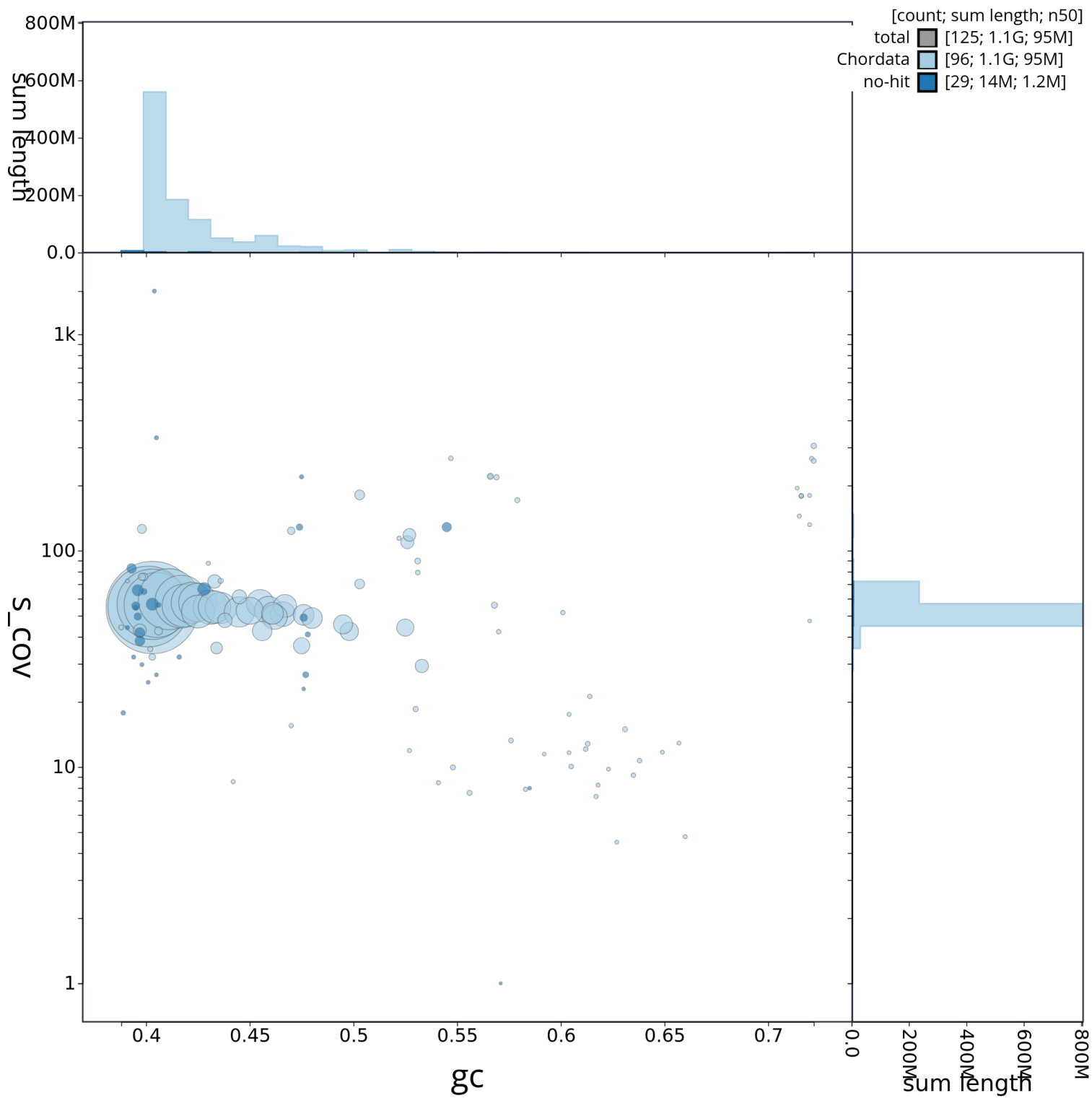
hap2 [\[LINK\]](#)

K-mer spectra of curated assembly

Post-curation contamination screening



hap1. 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.



hap2. 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	HiFi	Bionano	OmniC
Coverage	53x	NA	143x

Assembly pipeline

- **Hifiasm**
 - |_ *ver*: 0.24.0-r703
 - |_ *key param*: HiC
 - |_ *key param*: 13
- **purge_dups**
 - |_ *ver*: 1.2.5
 - |_ *key param*: NA
- **YaHS**
 - |_ *ver*: 1.2.2
 - |_ *key param*: NA

Curation pipeline

- **GRIT_Rapid**
 - |_ *ver*: 1a3d79a8
 - |_ *key param*: NA
- **HiGlass**
 - |_ *ver*: 0.10.4
 - |_ *key param*: NA

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