

ERGA Assembly Report

v24.10.15

Tags: ERGA-BGE

| | |
|---------|----------------------|
| TxID | 3086104 |
| ToLID | qqLeiSuba9 |
| Species | Leiobunum subalpinum |
| Class | Arachnida |
| Order | Opiliones |

| Genome Traits | Expected | Observed |
|-------------------|-----------------------|-------------|
| Haploid size (bp) | 674,105,690 | 578,300,861 |
| Haploid Number | 10 (source: ancestor) | 11 |
| Ploidy | 2 (source: ancestor) | 2 |
| Sample Sex | unknown | unknown |

EBP metrics summary and curation notes

Obtained EBP quality metric for collapsed: 6.7.Q46

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

- . Observed Haploid Number is different from Expected
- . Kmer completeness value is less than 90 for collapsed

Curator notes

. Interventions/Gb: 40

. Contamination notes: "Sequences of Pseudomonadota (which include symbionts of many arthropod species) were present in 14 scaffolds of this organism. Scaffold_13 and scaffold_14 and especially long regions of similarity to to sequences of bacteria from this phylum. We also found eight other small scaffold with strong similarity to either chordata or mollusca which were also filtered out without detriment to the BUSCO or merqury QV. All sequences were removed from the yaha scaffolded assembly and are not present in the curated pretext and assembly."

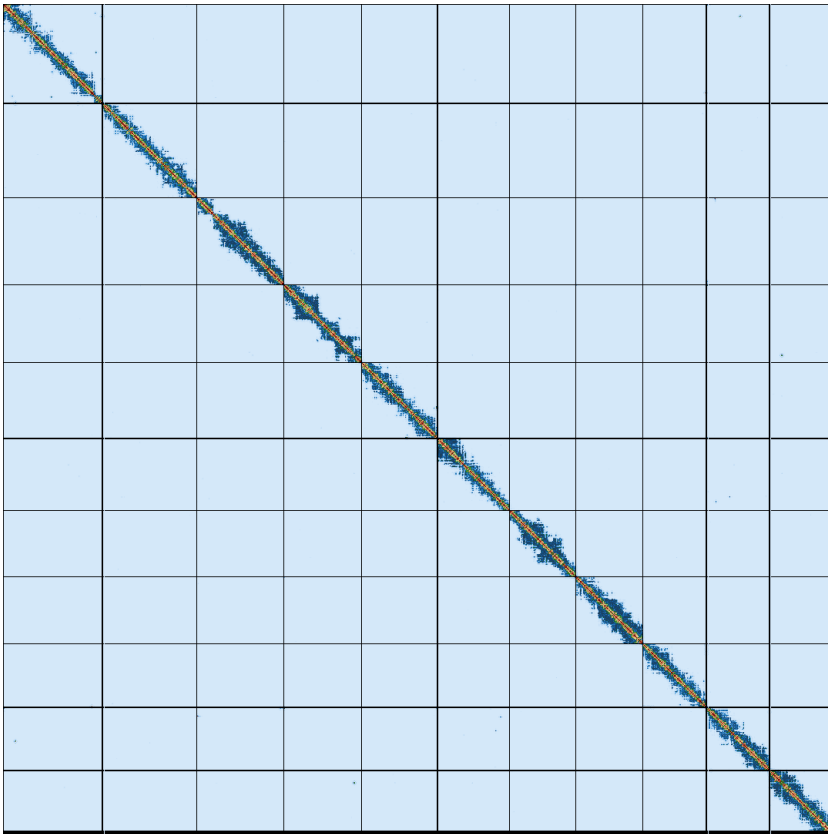
. Other observations: "This is the second version of the EAR report for this species which resulted in a new assembly after addressing the changes and suggestions provided by the reviewers. The curation was generally straightforward and the HiC signal along the diagonal quite strong as we produced a lot of HiC data assuming the genome size to be larger than what it turned out to be. The sex of the specimen was set to unknown in our lims system. We were not able to detect any lower coverage super_scaffolds and therefore were not able to detect the sex chromosome. The curated assembly stats (gfastas, busco and merqury), the pretext file and the blobplot were generated from the assembly after filtering out for the scaffold-containing contaminants."

Quality metrics table

| Metrics | Pre-curation collapsed | Curated collapsed |
|--------------|---------------------------|----------------------|
| Total bp | 584,641,086 | 578,300,861 |
| GC % | 36.54 | 36.37 |
| Gaps/Gbp | 354.06 | 382.15 |
| Total gap bp | 41,400 | 44,200 |
| Scaffolds | 74 | 44 |
| Scaffold N50 | 52,294,751 | 52,575,036 |
| Scaffold L50 | 5 | 5 |
| Scaffold L90 | 11 | 10 |
| Contigs | 281 | 265 |
| Contig N50 | 5,187,333 | 5,243,763 |
| Contig L50 | 35 | 34 |
| Contig L90 | 128 | 123 |
| QV | 46.3203 | 46.5446 |
| Kmer compl. | 88.4393 | 88.4034 |
| BUSCO sing. | 95.5% | 95.8% |
| BUSCO dupl. | 0.6% | 0.3% |
| BUSCO frag. | 1.8% | 1.8% |
| BUSCO miss. | 2.1% | 2.1% |

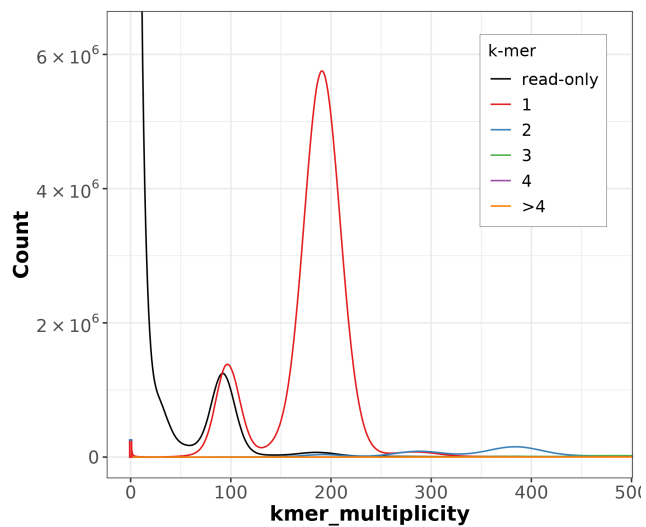
BUSCO: 5.4.0 (euk_genome_met, metaeuk) / Lineage: metazoa_odb10 (genomes:65, BUSCOs:954)

HiC contact map of curated assembly

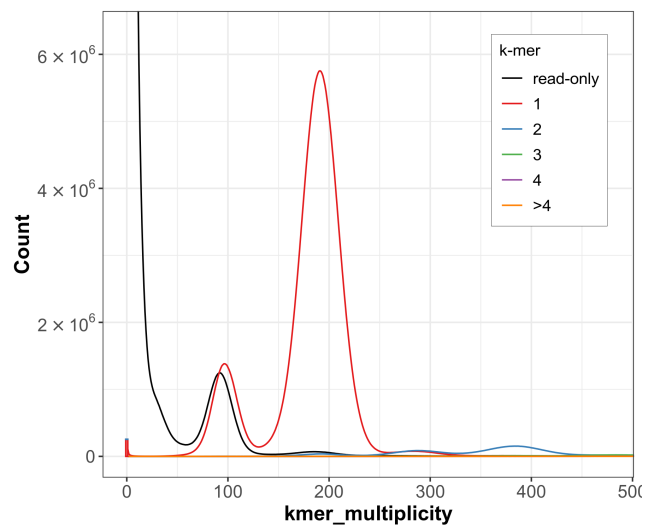


collapsed [\[LINK\]](#)

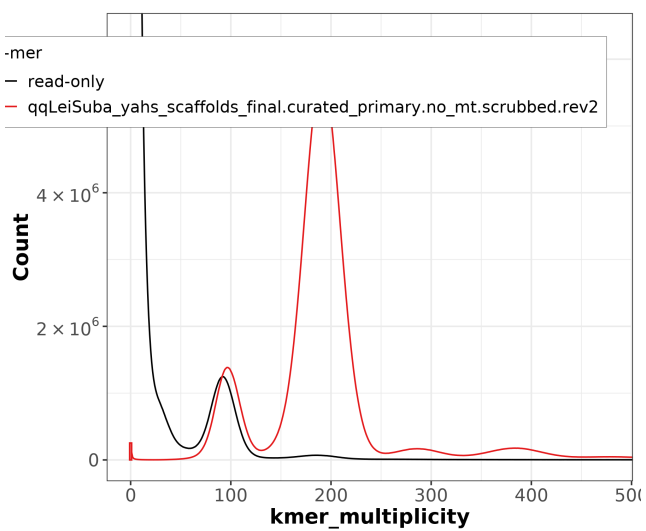
K-mer spectra of curated assembly



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

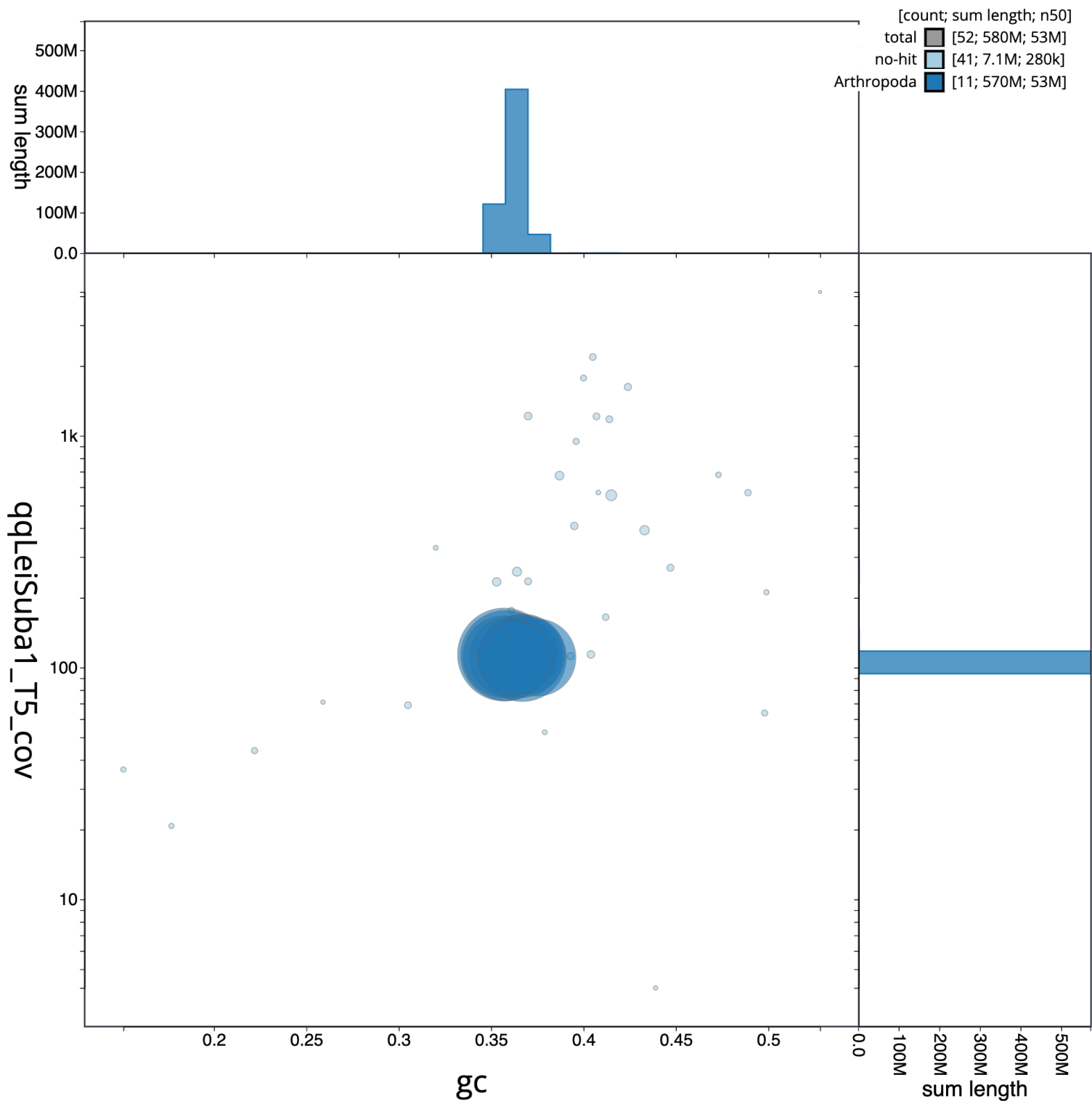


Distribution of k-mer counts per copy numbers found in asm



Distribution of k-mer counts coloured by their presence in reads/assemblies

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 | ONT | Illumina | OmniC |
|----------|------|----------|-------|
| Coverage | 115x | 140x | 210x |

Assembly pipeline

- **Trim_galore**
 - |_ *ver*: 0.6.7
 - |_ *key param*: --gzip
 - |_ *key param*: =q 20
 - |_ *key param*: --paired
 - |_ *key param*: retain_unpaired
- **Filtlong**
 - |_ *ver*: 0.2.1
 - |_ *key param*: NA
- **nextdenovo**
 - |_ *ver*: 2.5.0
 - |_ *key param*: NA
- **hypo**
 - |_ *ver*: 1.0.3
 - |_ *key param*: NA
- **purge_dups**
 - |_ *ver*: 1.2.6
 - |_ *key param*: NA
- **YaHS**
 - |_ *ver*: 1.2a
 - |_ *key param*: NA

Curation pipeline

- **PretextView**
 - |_ *ver*: 0.2.5
 - |_ *key param*: NA
- **GRIT_Rapid**
 - |_ *ver*: 2.0
 - |_ *key param*: NA

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