

# Qualimap Analysis Results

*BAM QC analysis*

*Generated by Qualimap v.2.2.1*

*2016/10/23 13:47:13*

# 1. Input data & parameters

## 1.1. QualiMap command line

```
qualimap bamqc -bam
/home/vdp5/data/cambodia_samples/sequences_bam/OM244.sorted.bam.ba
m -nw 400 -hm 3
```

## 1.2. Alignment

Command line:	bwa mem -M /home/vdp5/data/salvador_vivax_asia_2016/first-SAMEA2376790/pvivax_sal1_SAMEA2376790.fasta /home/vdp5/data/cambodia_samples/sequences_gz/OM244-BiooBarcode22_CGTACG_R1.fastq.gz /home/vdp5/data/cambodia_samples/sequences_gz/OM244-BiooBarcode22_CGTACG_R2.fastq.gz
Draw chromosome limits:	no
Analyze overlapping paired-end reads:	no
Program:	bwa (0.7.15-r1140)
Analysis date:	Sun Oct 23 13:47:13 EDT 2016
Size of a homopolymer:	3
Skip duplicate alignments:	no
Number of windows:	400
BAM file:	/home/vdp5/data/cambodia_samples/sequences_bam/OM244.sorted.bam.

	bam
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## 2. Summary

### 2.1. Globals

Reference size	23,958,997
Number of reads	3,319,500
Mapped reads	2,182,558 / 65.75%
Unmapped reads	1,136,942 / 34.25%
Mapped paired reads	2,182,558 / 65.75%
Mapped reads, first in pair	1,094,701 / 32.98%
Mapped reads, second in pair	1,087,857 / 32.77%
Mapped reads, both in pair	2,140,280 / 64.48%
Mapped reads, singletons	42,278 / 1.27%
Read min/max/mean length	30 / 100 / 99.9
Duplicated reads (estimated)	240,629 / 7.25%
Duplication rate	8.19%
Clipped reads	251,076 / 7.56%

### 2.2. ACGT Content

Number/percentage of A's	63,340,058 / 30.06%
Number/percentage of C's	41,951,797 / 19.91%
Number/percentage of T's	63,527,398 / 30.15%
Number/percentage of G's	41,863,585 / 19.87%
Number/percentage of N's	17,394 / 0.01%
GC Percentage	39.78%

## 2.3. Coverage

Mean	8.8029
Standard Deviation	9.1652

## 2.4. Mapping Quality

Mean Mapping Quality	58.68
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## 2.5. Insert size

Mean	781.11
Standard Deviation	24,402.68
P25/Median/P75	318 / 338 / 348

## 2.6. Mismatches and indels

General error rate	1.63%
Mismatches	3,265,301
Insertions	70,106
Mapped reads with at least one insertion	3.04%
Deletions	79,311
Mapped reads with at least one deletion	3.43%
Homopolymer indels	62.48%

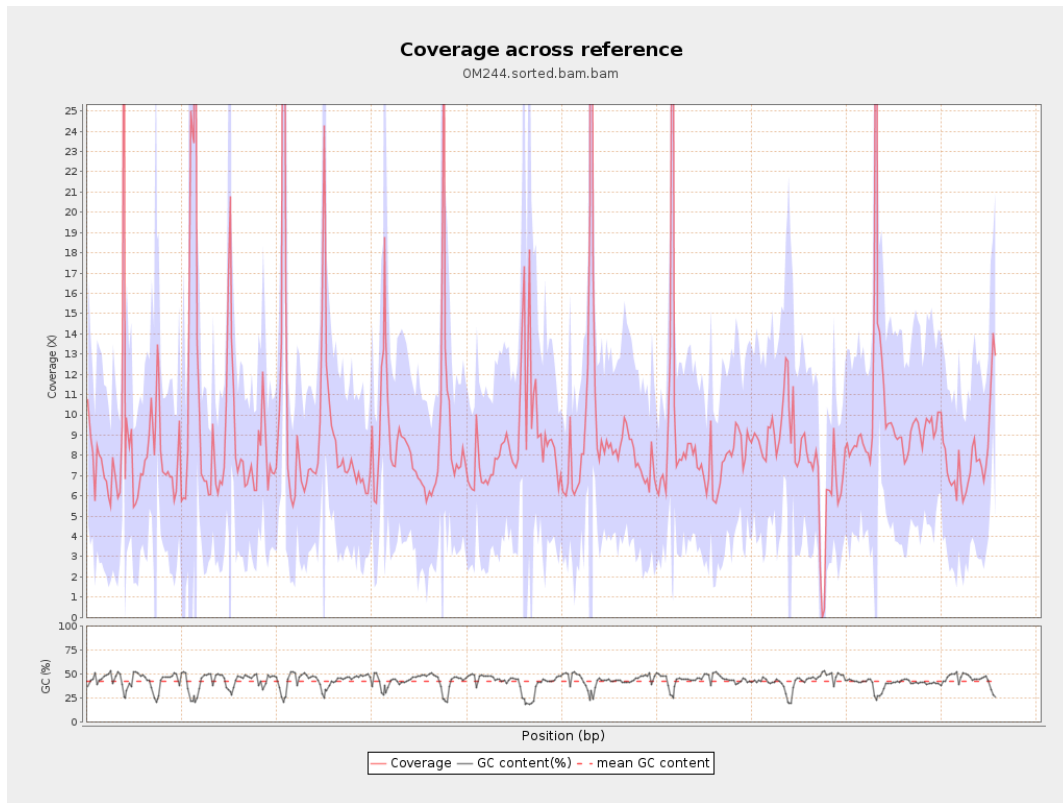
## 2.7. Chromosome stats

Name	Length	Mapped bases	Mean coverage	Standard deviation

gi 1074120478 emb LT615256.1	977217	7859681	8.0429	6.8084
gi 1074120682 emb LT615257.1	860454	6793262	7.895	6.1812
gi 1074120865 emb LT615258.1	989719	9671441	9.7719	12.9786
gi 1074121086 emb LT615259.1	935450	9488034	10.1427	16.3295
gi 1074121301 emb LT615260.1	1432239	14013427	9.7843	11.5259
gi 1074121615 emb LT615261.1	1080962	10085605	9.3302	9.9297
gi 1074121871 emb LT615262.1	1545099	12589177	8.1478	4.2826
gi 1074122235 emb LT615263.1	1585108	13780066	8.6935	7.7607
gi 1074122590 emb LT615264.1	2122358	17666470	8.324	5.1998
gi 1074123050 emb LT615265.1	1754192	15725506	8.9645	7.8881
gi 1074123421 emb LT615	2150147	19989012	9.2966	15.9146

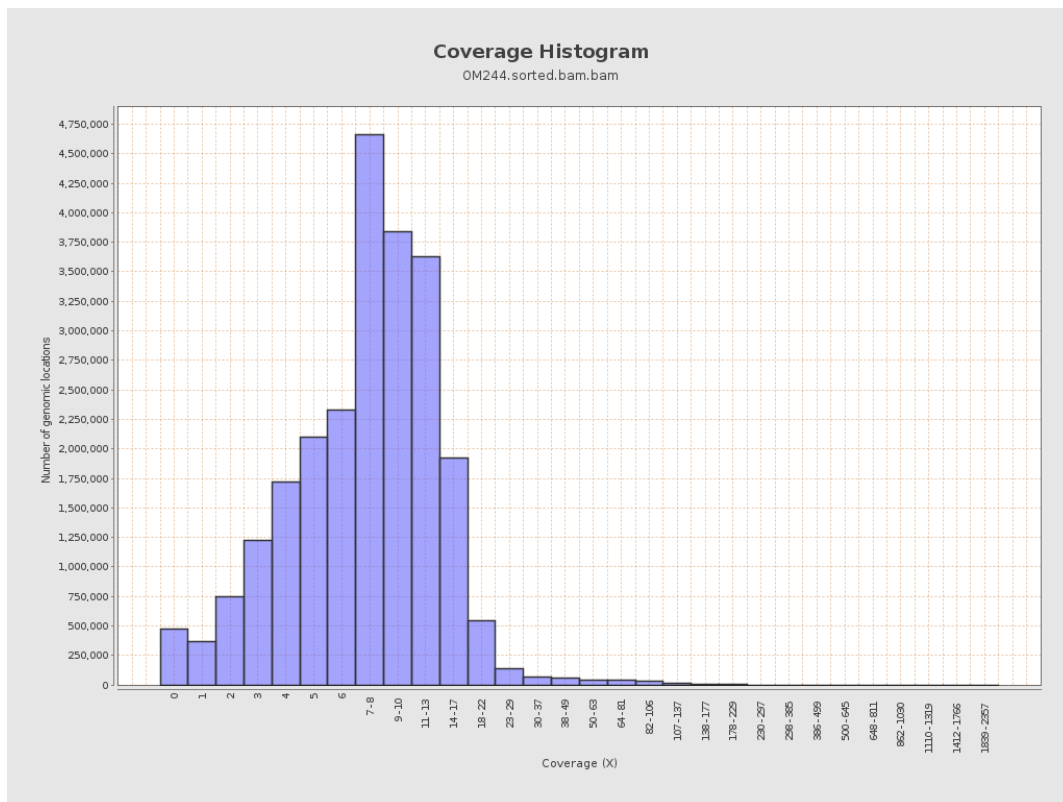
266.1				
gi 107412389 8 emb LT615 267.1	3031036	25739066	8.4918	4.9282
gi 107412458 8 emb LT615 268.1	2359348	19653823	8.3302	10.2712
gi 107412506 5 emb LT615 269.1	3135668	27854835	8.8832	4.2221

### 3. Results : Coverage across reference

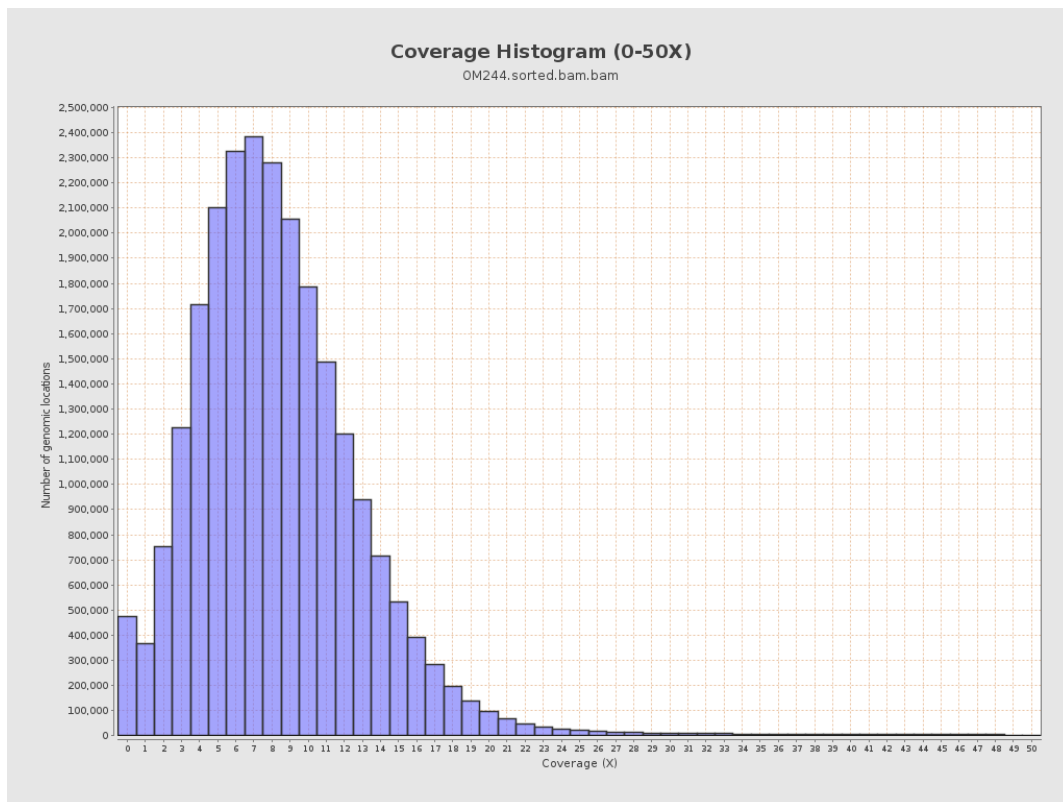




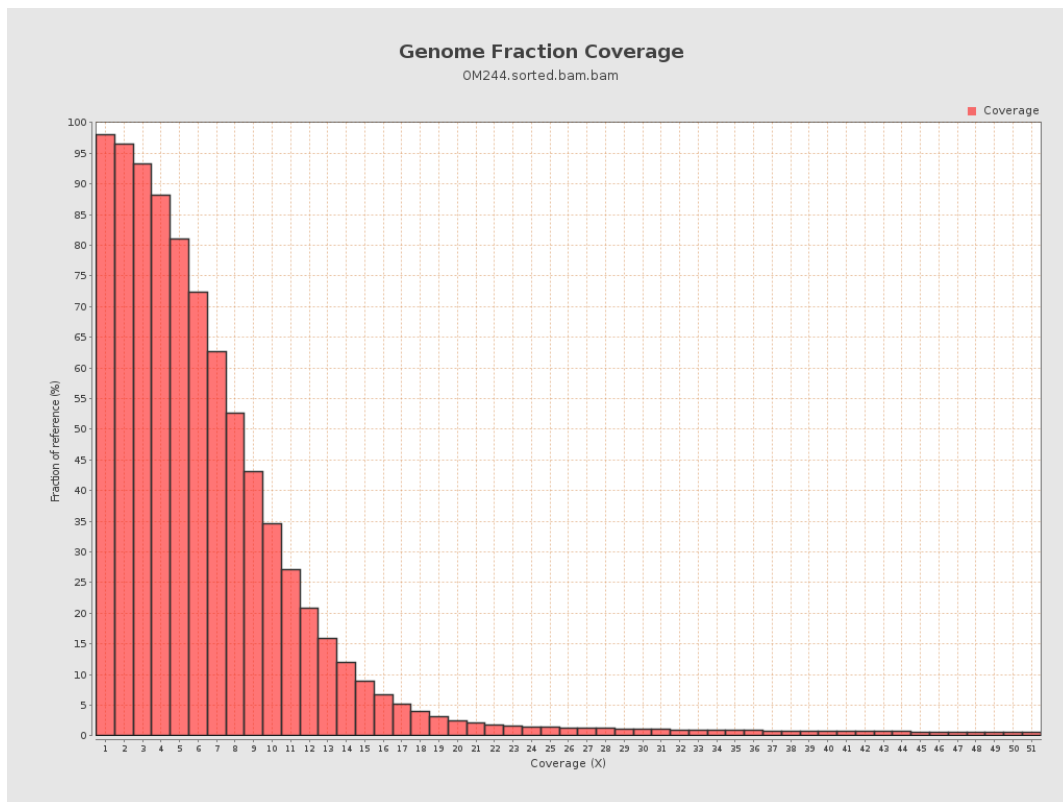
## 4. Results : Coverage Histogram



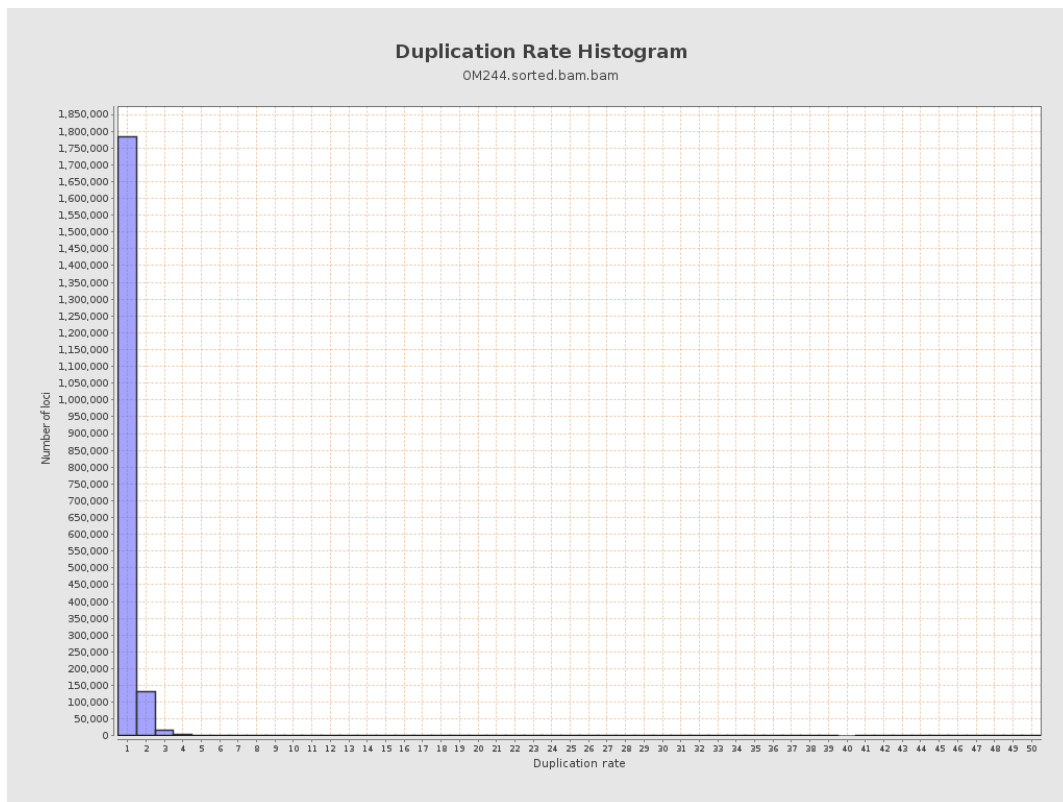
## 5. Results : Coverage Histogram (0-50X)



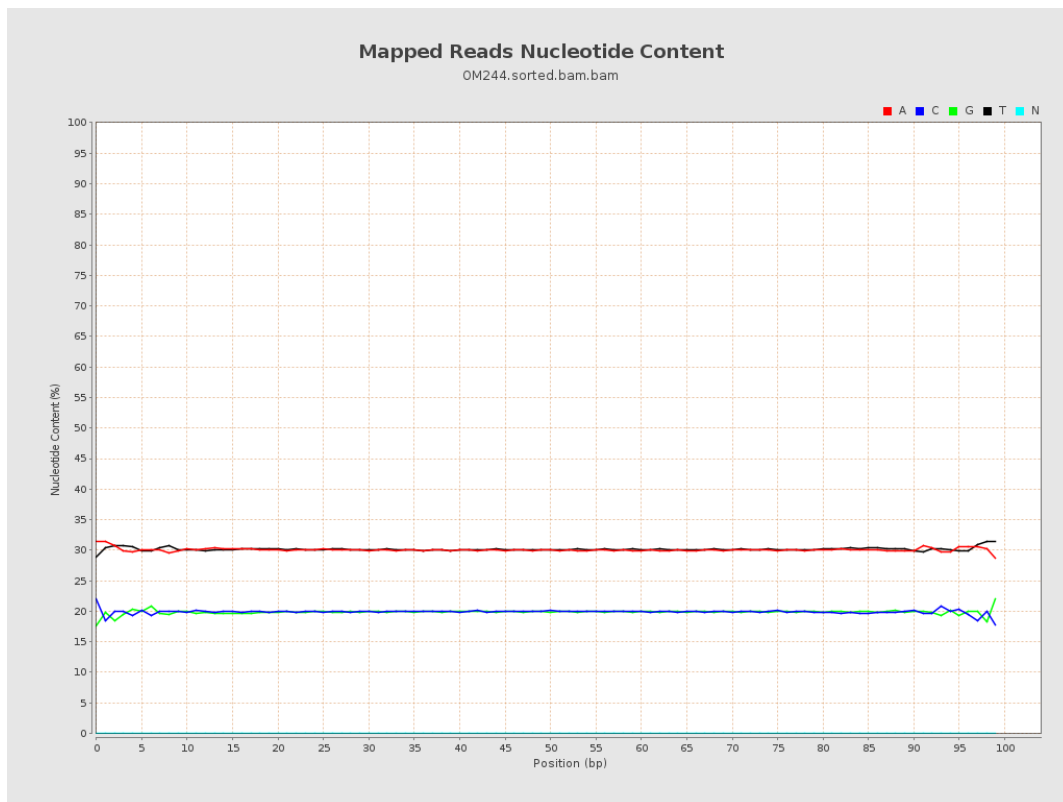
## 6. Results : Genome Fraction Coverage



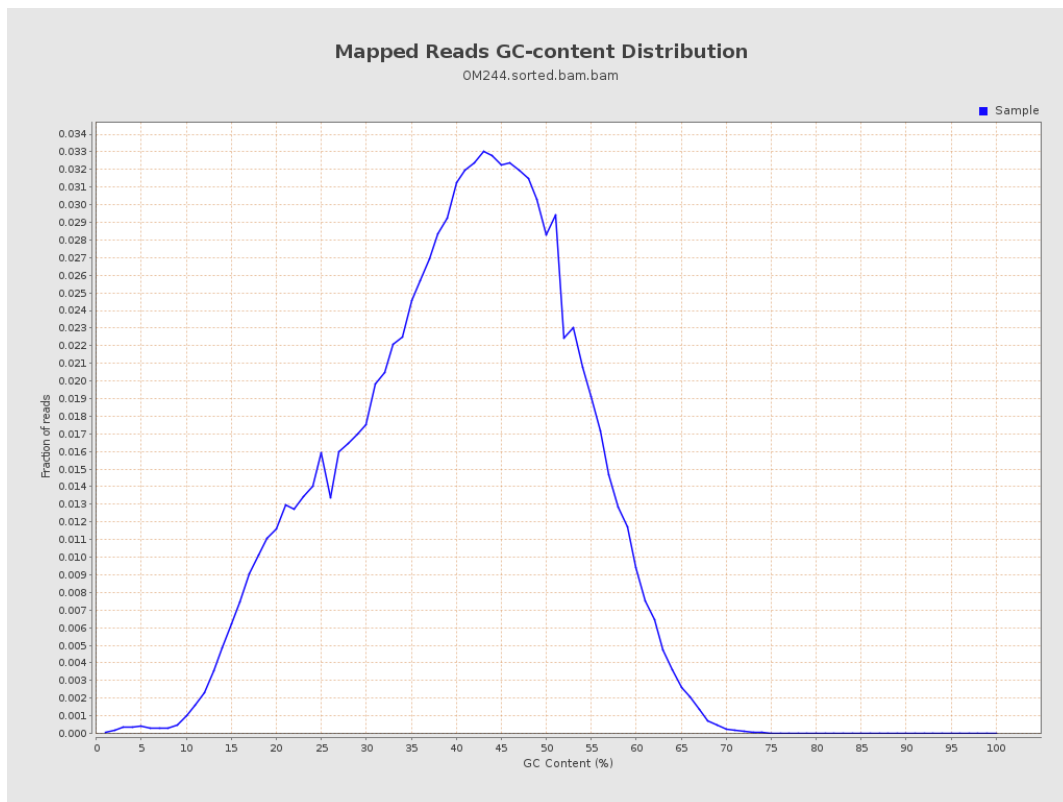
## 7. Results : Duplication Rate Histogram



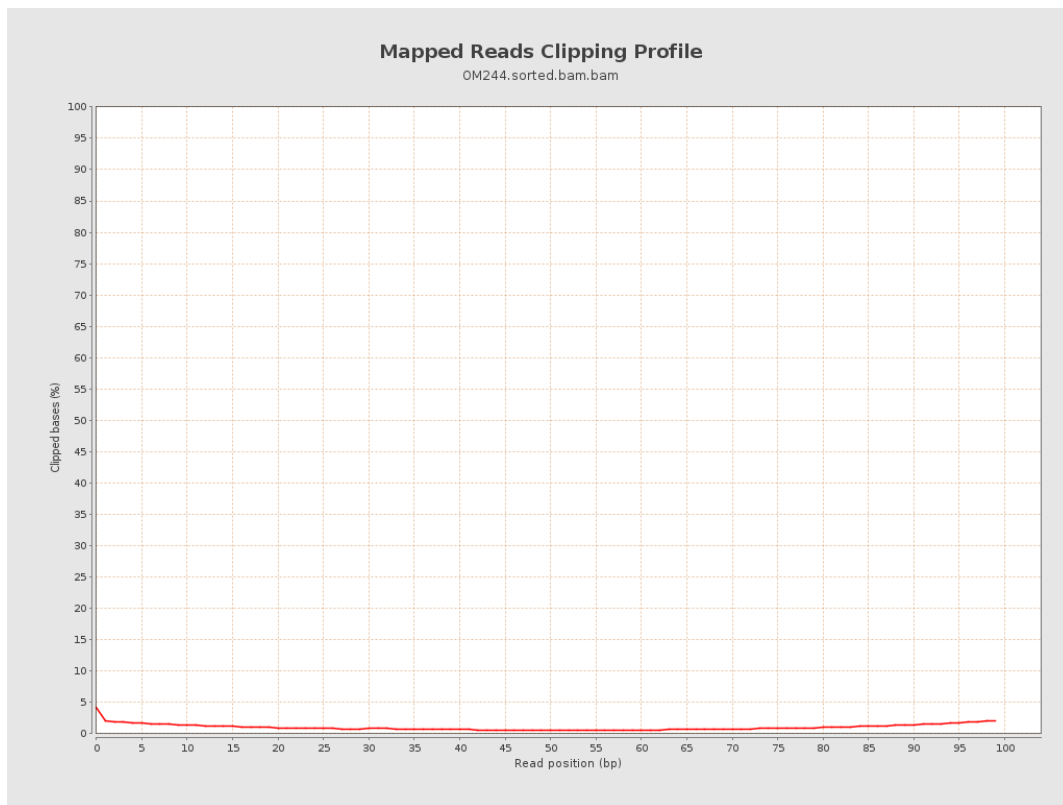
## 8. Results : Mapped Reads Nucleotide Content



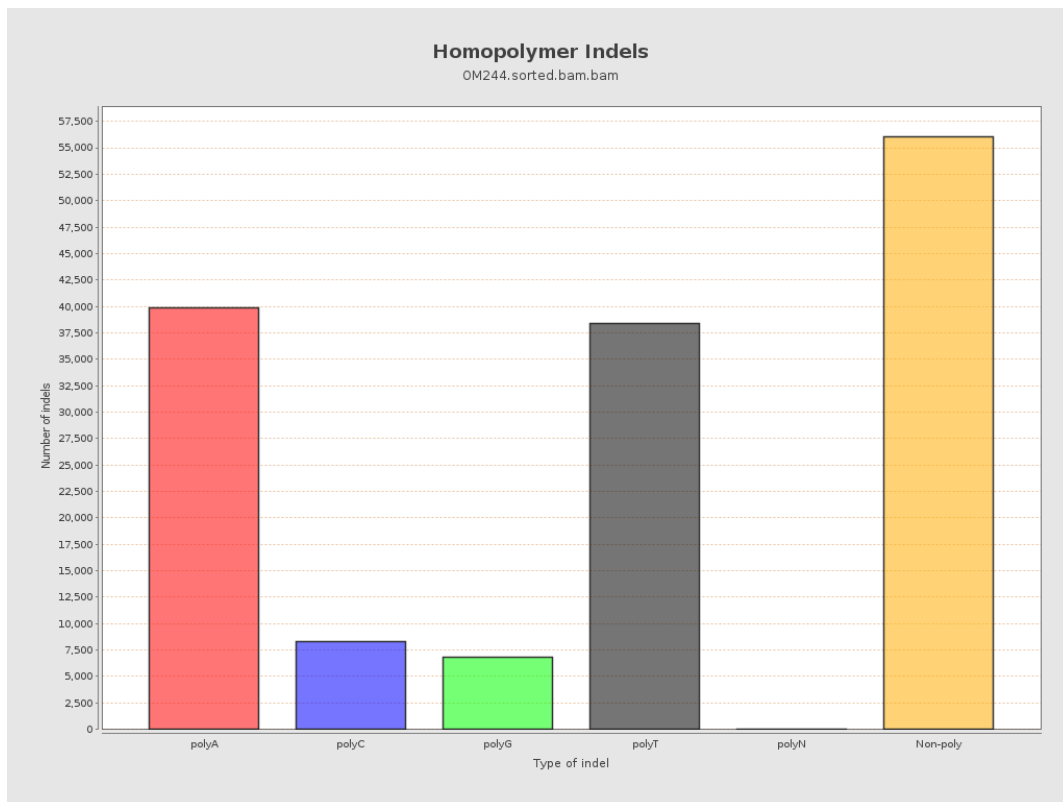
## 9. Results : Mapped Reads GC-content Distribution



## 10. Results : Mapped Reads Clipping Profile

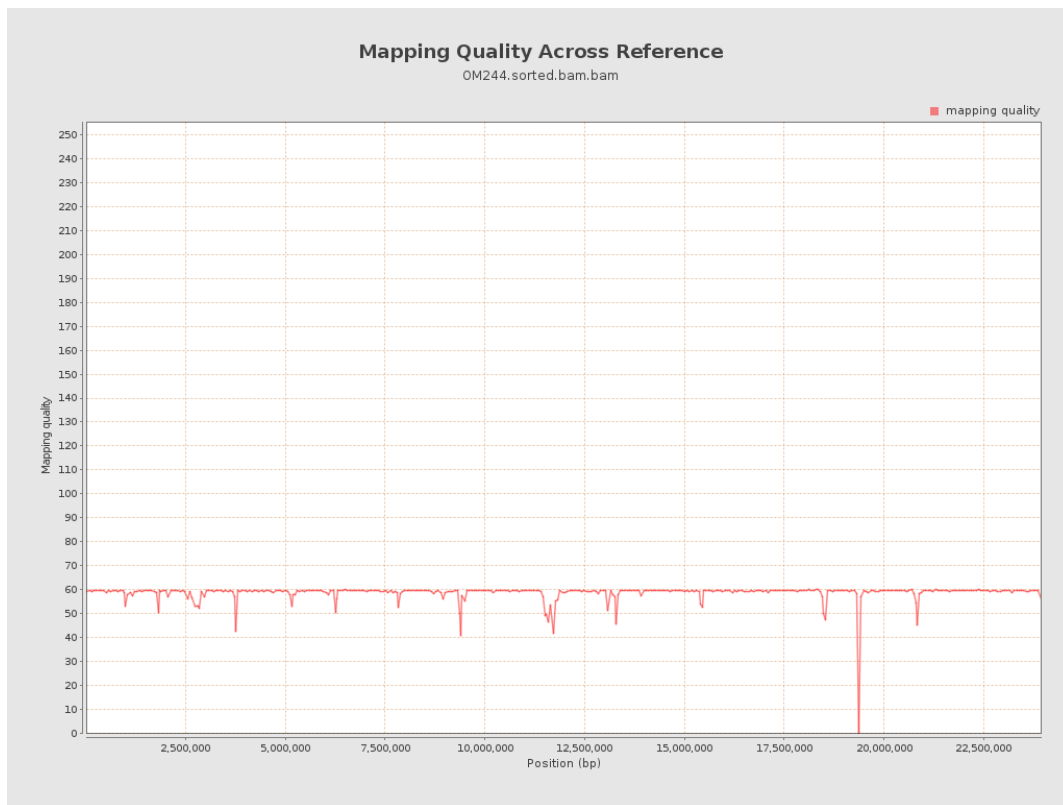


## 11. Results : Homopolymer Indels

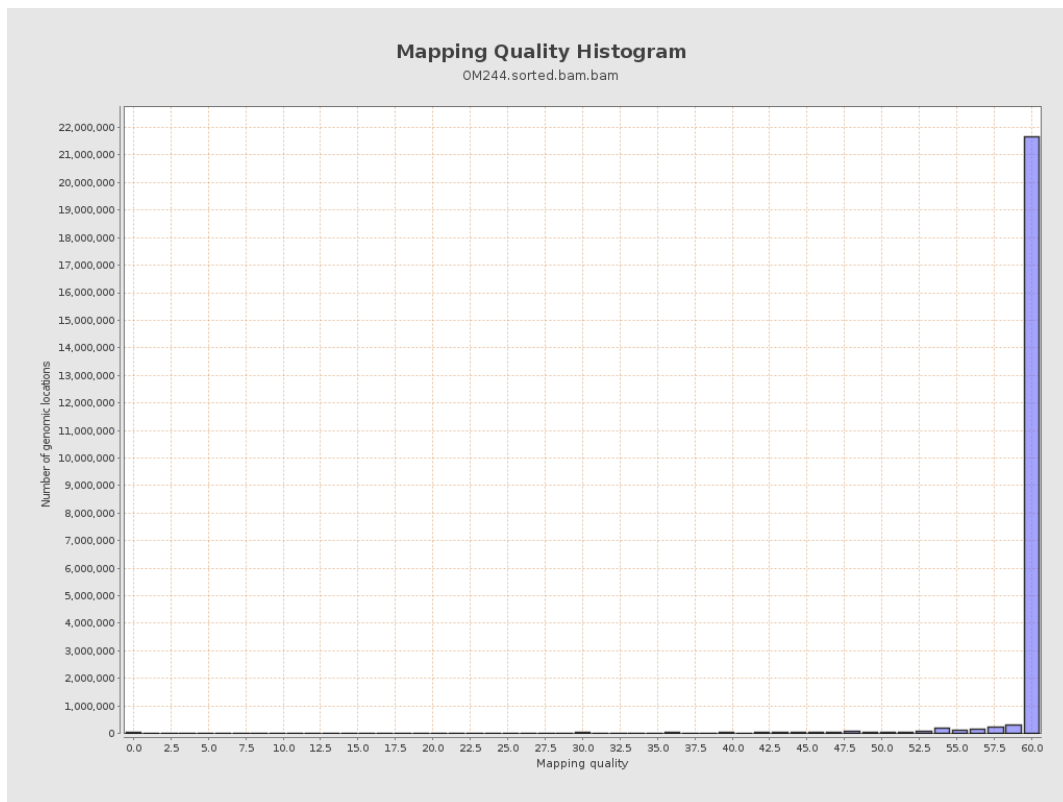




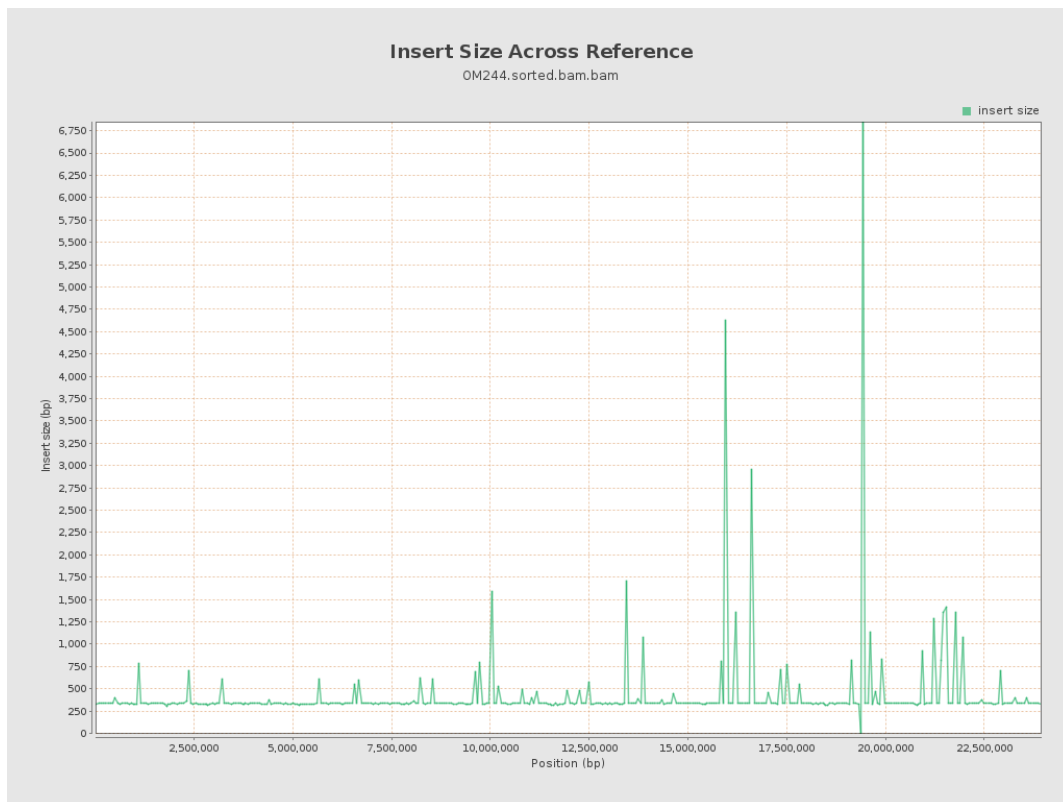
## 12. Results : Mapping Quality Across Reference



## 13. Results : Mapping Quality Histogram



## 14. Results : Insert Size Across Reference



## 15. Results : Insert Size Histogram

