

# Qualimap Analysis Results

*BAM QC analysis*

*Generated by Qualimap v.2.2.1*

*2016/10/23 12:45:18*

# 1. Input data & parameters

## 1.1. QualiMap command line

```
qualimap bamqc -bam
/home/vdp5/data/cambodia_samples/sequences_bam/OM099.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/OM-099_TGACCA_R1.fastq.gz /home/vdp5/data/cambodia_samples/sequences_gz/OM-099_TGACCA_R2.fastq.gz
Draw chromosome limits:	no
Analyze overlapping paired-end reads:	no
Program:	bwa (0.7.15-r1140)
Analysis date:	Sun Oct 23 12:45:18 EDT 2016
Size of a homopolymer:	3
Skip duplicate alignments:	no
Number of windows:	400
BAM file:	/home/vdp5/data/cambodia_samples/sequences_bam/OM099.sorted.bam.bam

## 2. Summary

### 2.1. Globals

Reference size	23,958,997
Number of reads	79,031,423
Mapped reads	12,607,613 / 15.95%
Unmapped reads	66,423,810 / 84.05%
Mapped paired reads	12,607,613 / 15.95%
Mapped reads, first in pair	6,304,696 / 7.98%
Mapped reads, second in pair	6,302,917 / 7.98%
Mapped reads, both in pair	12,001,783 / 15.19%
Mapped reads, singletons	605,830 / 0.77%
Read min/max/mean length	30 / 100 / 99.95
Duplicated reads (estimated)	4,590,755 / 5.81%
Duplication rate	32.07%
Clipped reads	1,627,654 / 2.06%

### 2.2. ACGT Content

Number/percentage of A's	349,777,948 / 29.28%
Number/percentage of C's	246,462,788 / 20.63%
Number/percentage of T's	352,840,524 / 29.54%
Number/percentage of G's	245,470,042 / 20.55%
Number/percentage of N's	40,906 / 0%
GC Percentage	41.18%

## 2.3. Coverage

Mean	49.9104
Standard Deviation	89.5186

## 2.4. Mapping Quality

Mean Mapping Quality	57.89
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## 2.5. Insert size

Mean	831.72
Standard Deviation	28,977.48
P25/Median/P75	202 / 212 / 225

## 2.6. Mismatches and indels

General error rate	1.09%
Mismatches	12,086,430
Insertions	385,857
Mapped reads with at least one insertion	2.88%
Deletions	433,335
Mapped reads with at least one deletion	3.15%
Homopolymer indels	64.92%

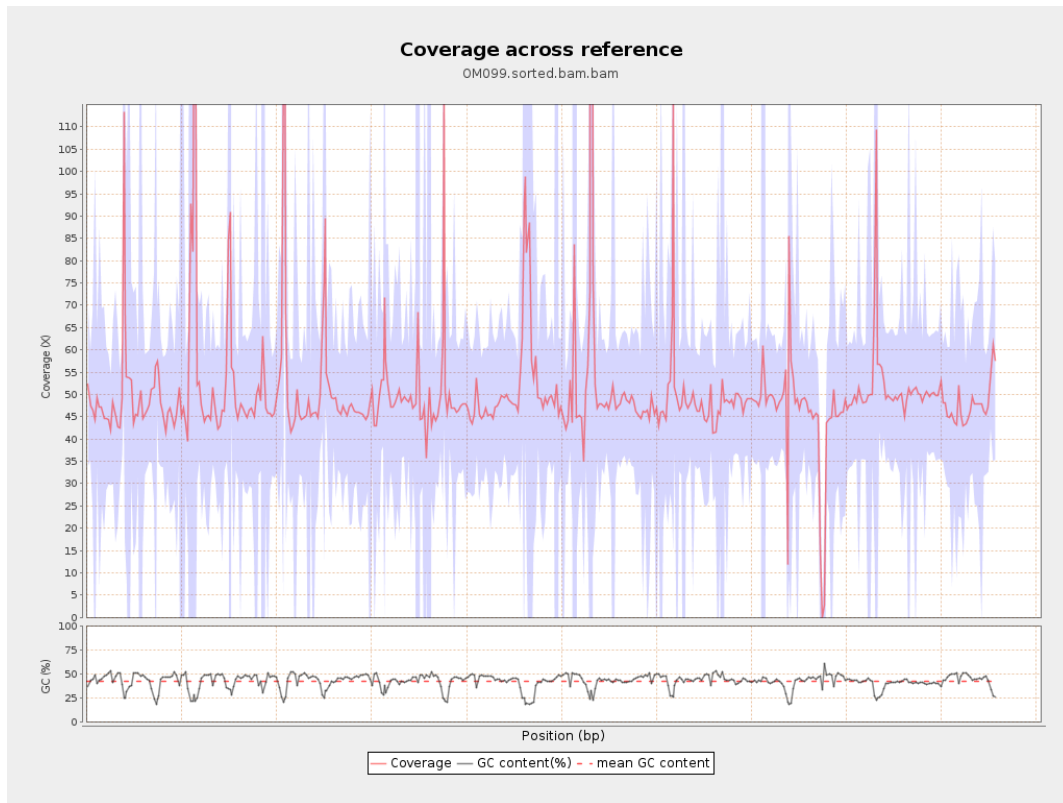
## 2.7. Chromosome stats

Name	Length	Mapped bases	Mean coverage	Standard deviation

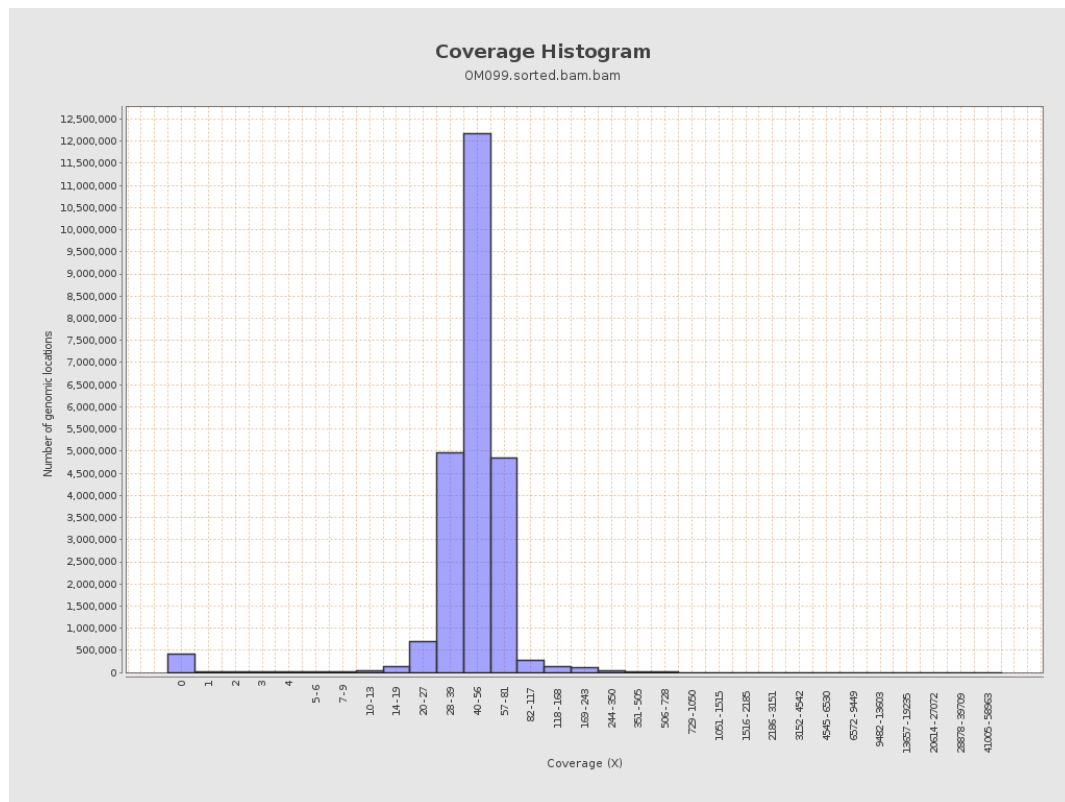
gi 1074120478 emb LT615256.1	977217	46343360	47.4238	27.2511
gi 1074120682 emb LT615257.1	860454	42966433	49.9346	45.25
gi 1074120865 emb LT615258.1	989719	51792368	52.3304	63.4068
gi 1074121086 emb LT615259.1	935450	51504989	55.0591	54.7642
gi 1074121301 emb LT615260.1	1432239	74206961	51.8119	62.2589
gi 1074121615 emb LT615261.1	1080962	55257760	51.1191	41.7442
gi 1074121871 emb LT615262.1	1545099	74146773	47.9884	25.209
gi 1074122235 emb LT615263.1	1585108	78523988	49.5386	123.4405
gi 1074122590 emb LT615264.1	2122358	102879645	48.4742	23.014
gi 1074123050 emb LT615265.1	1754192	94106382	53.6466	256.1085
gi 1074123421 emb LT615	2150147	110449044	51.3681	74.4553

266.1				
gi 107412389 8 emb LT615 267.1	3031036	147995482	48.8267	74.6004
gi 107412458 8 emb LT615 268.1	2359348	111207177	47.1347	37.6525
gi 107412506 5 emb LT615 269.1	3135668	154423747	49.2475	23.5094

### 3. Results : Coverage across reference

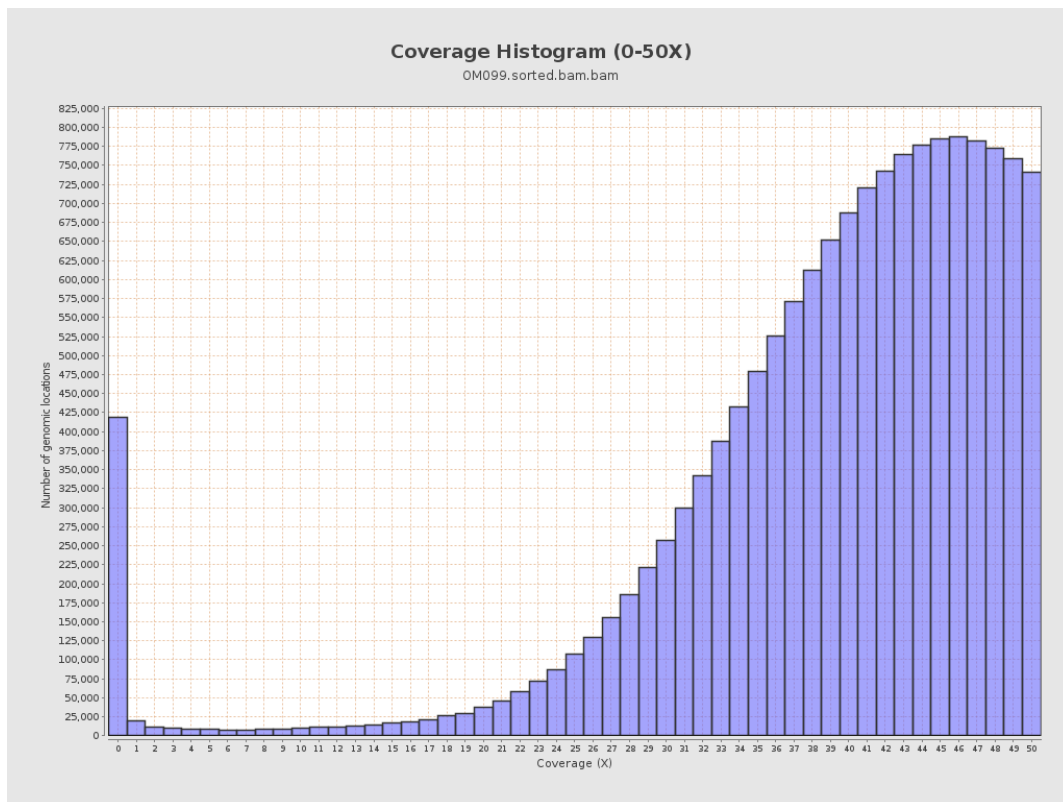


## 4. Results : Coverage Histogram

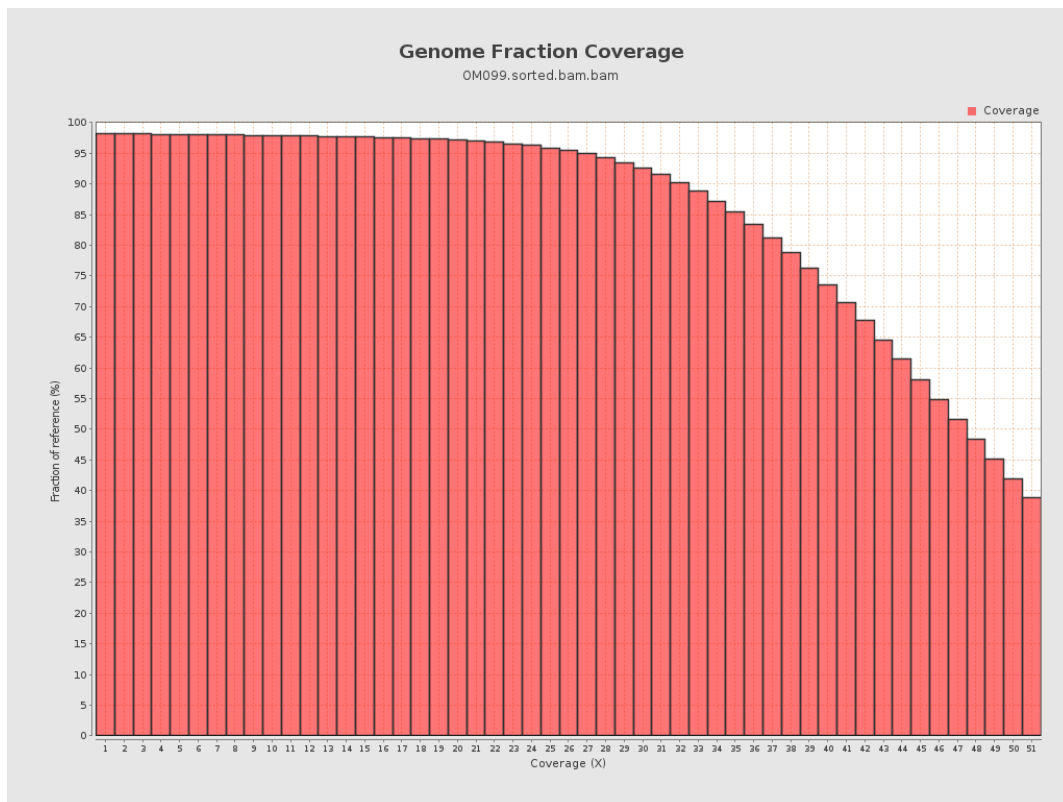




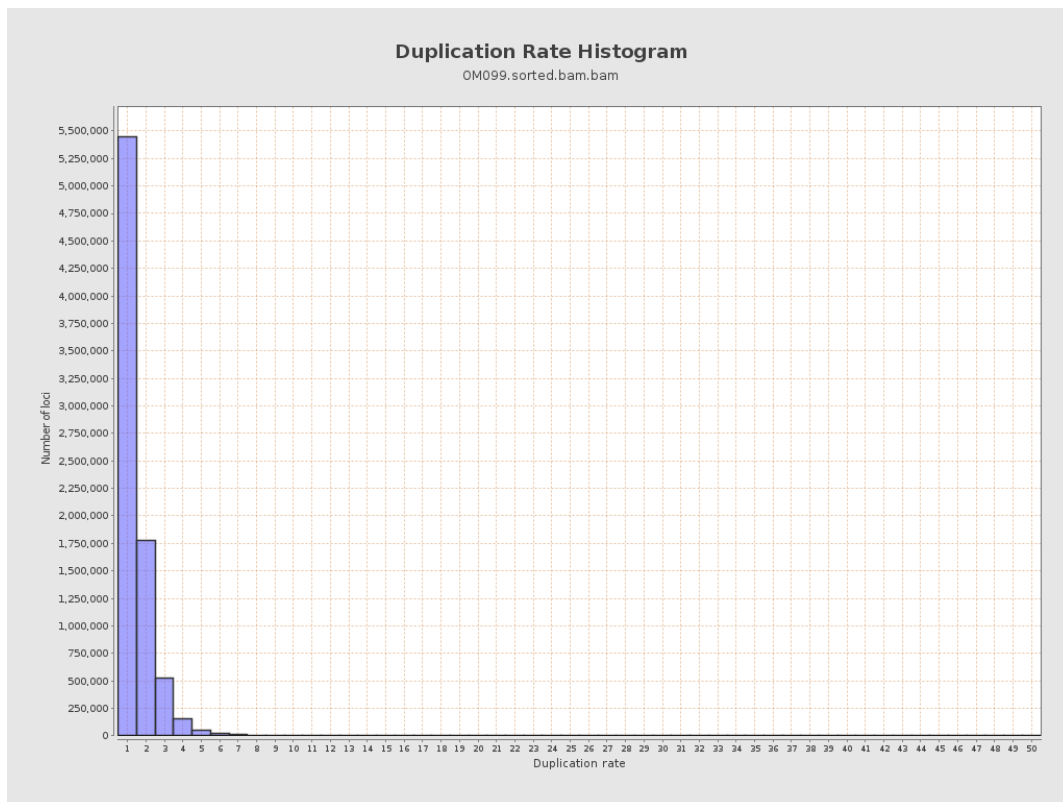
## 5. Results : Coverage Histogram (0-50X)



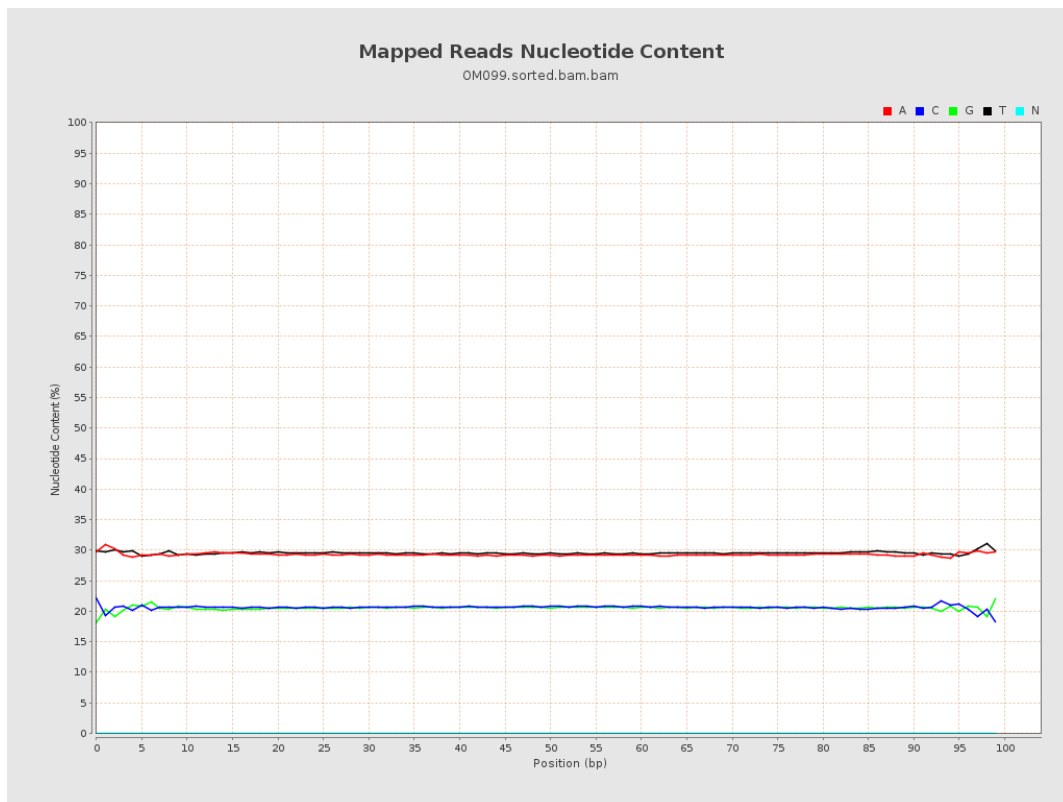
## 6. Results : Genome Fraction Coverage



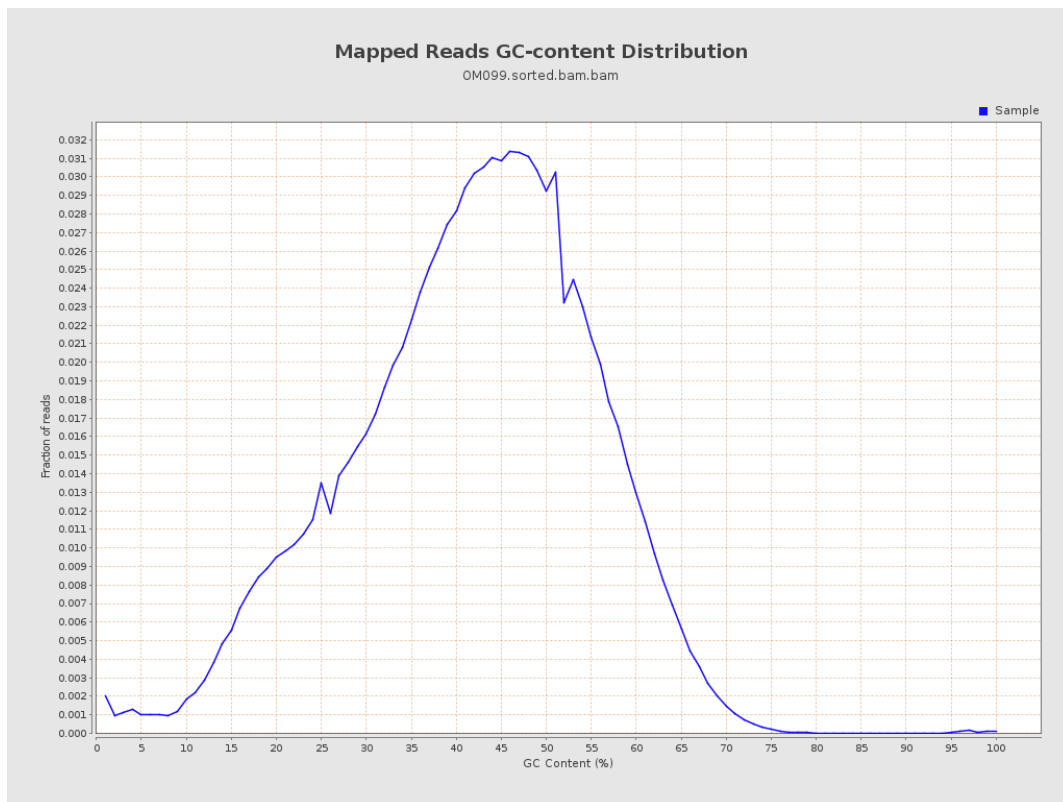
## 7. Results : Duplication Rate Histogram



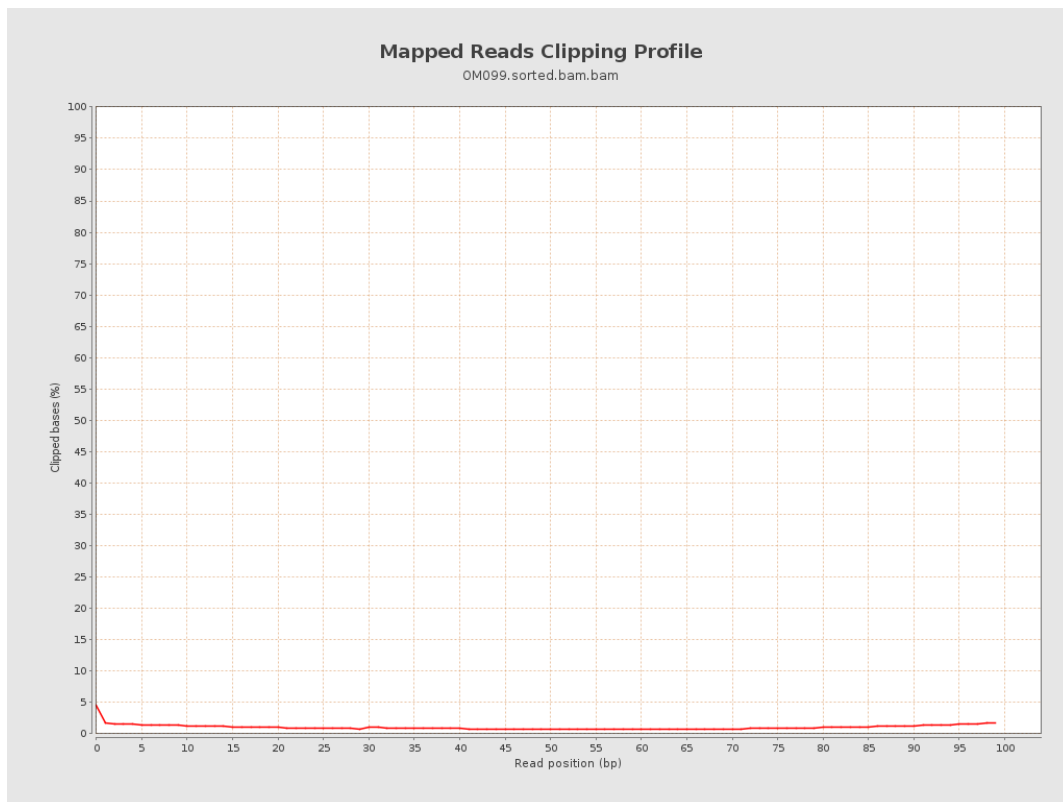
## 8. Results : Mapped Reads Nucleotide Content



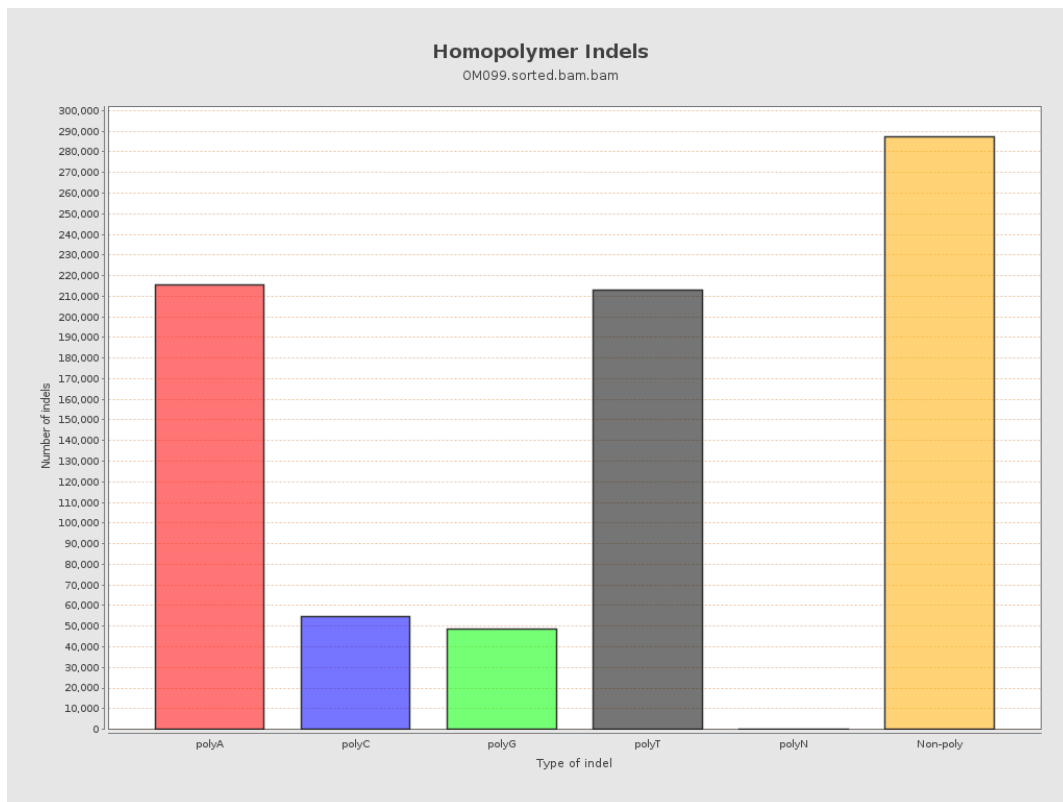
## 9. Results : Mapped Reads GC-content Distribution



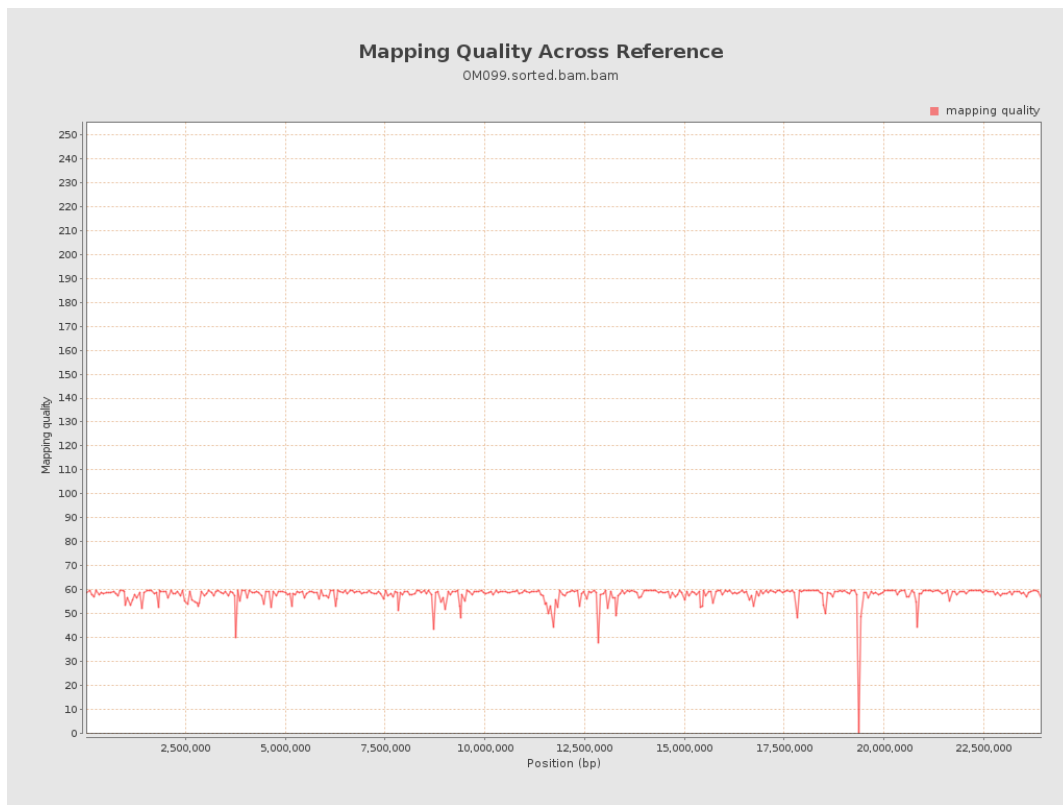
## 10. Results : Mapped Reads Clipping Profile



## 11. Results : Homopolymer Indels

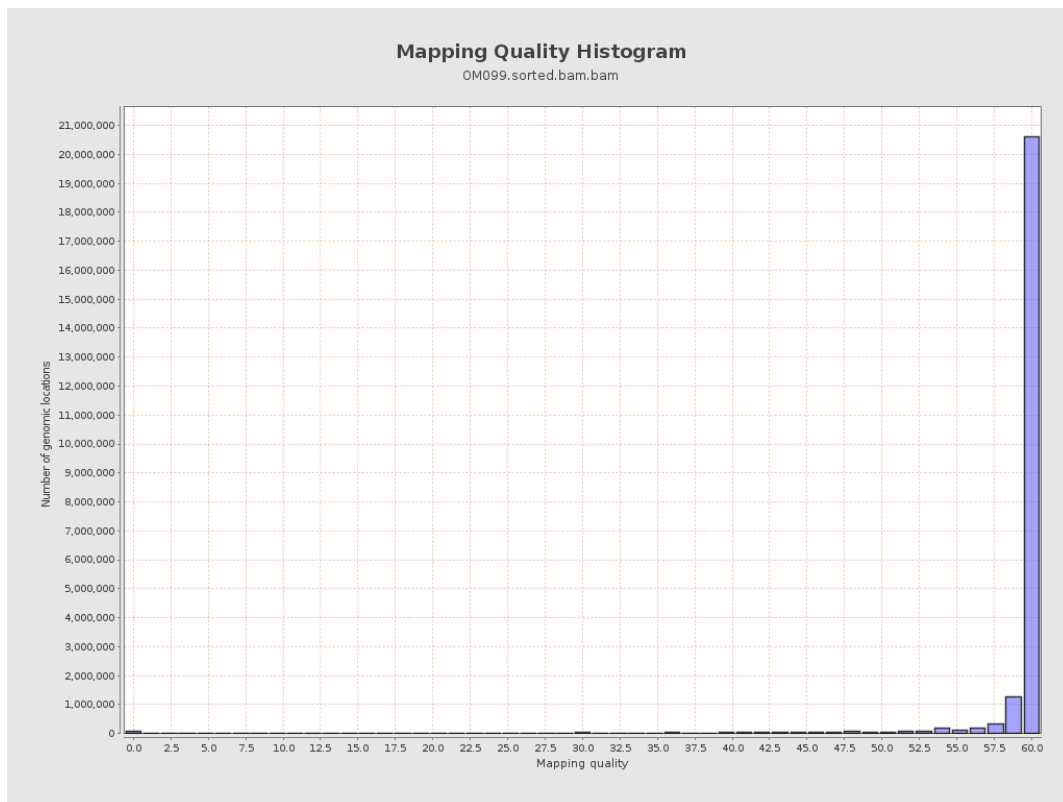


## 12. Results : Mapping Quality Across Reference

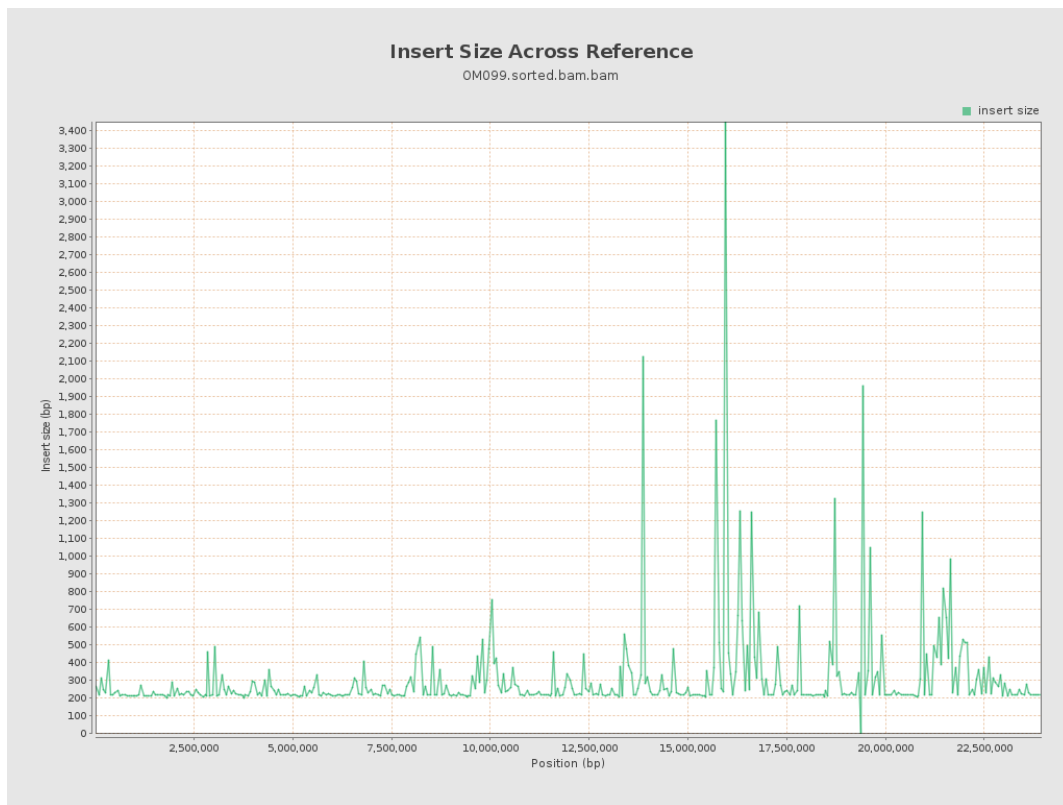




## 13. Results : Mapping Quality Histogram



## 14. Results : Insert Size Across Reference



## 15. Results : Insert Size Histogram

