

# Qualimap Analysis Results

*BAM QC analysis*

*Generated by Qualimap v.2.2.1*

*2016/10/23 12:17:50*

# 1. Input data & parameters

## 1.1. QualiMap command line

```
qualimap bamqc -bam
/home/vdp5/data/cambodia_samples/sequences_bam/OM074.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/OM074-BiooBarcode10_GATCAG_R1.fastq.gz /home/vdp5/data/cambodia_samples/sequences_gz/OM074-BiooBarcode10_GATCAG_R2.fastq.gz
Draw chromosome limits:	no
Analyze overlapping paired-end reads:	no
Program:	bwa (0.7.15-r1140)
Analysis date:	Sun Oct 23 12:17:50 EDT 2016
Size of a homopolymer:	3
Skip duplicate alignments:	no
Number of windows:	400
BAM file:	/home/vdp5/data/cambodia_samples/sequences_bam/OM074.sorted.bam.

	bam
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## 2. Summary

### 2.1. Globals

Reference size	23,958,997
Number of reads	37,871,978
Mapped reads	2,268,581 / 5.99%
Unmapped reads	35,603,397 / 94.01%
Mapped paired reads	2,268,581 / 5.99%
Mapped reads, first in pair	1,136,652 / 3%
Mapped reads, second in pair	1,131,929 / 2.99%
Mapped reads, both in pair	1,549,657 / 4.09%
Mapped reads, singletons	718,924 / 1.9%
Read min/max/mean length	30 / 100 / 99.93
Duplicated reads (estimated)	1,010,882 / 2.67%
Duplication rate	14.04%
Clipped reads	1,061,411 / 2.8%

### 2.2. ACGT Content

Number/percentage of A's	54,765,467 / 32.7%
Number/percentage of C's	28,819,064 / 17.21%
Number/percentage of T's	55,373,019 / 33.06%
Number/percentage of G's	28,541,317 / 17.04%
Number/percentage of N's	7,419 / 0%
GC Percentage	34.25%

## 2.3. Coverage

Mean	7.001
Standard Deviation	75.7505

## 2.4. Mapping Quality

Mean Mapping Quality	49.21
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## 2.5. Insert size

Mean	7,815.73
Standard Deviation	95,771.46
P25/Median/P75	272 / 284 / 293

## 2.6. Mismatches and indels

General error rate	1.55%
Mismatches	2,309,166
Insertions	105,586
Mapped reads with at least one insertion	4.23%
Deletions	97,739
Mapped reads with at least one deletion	3.79%
Homopolymer indels	49.99%

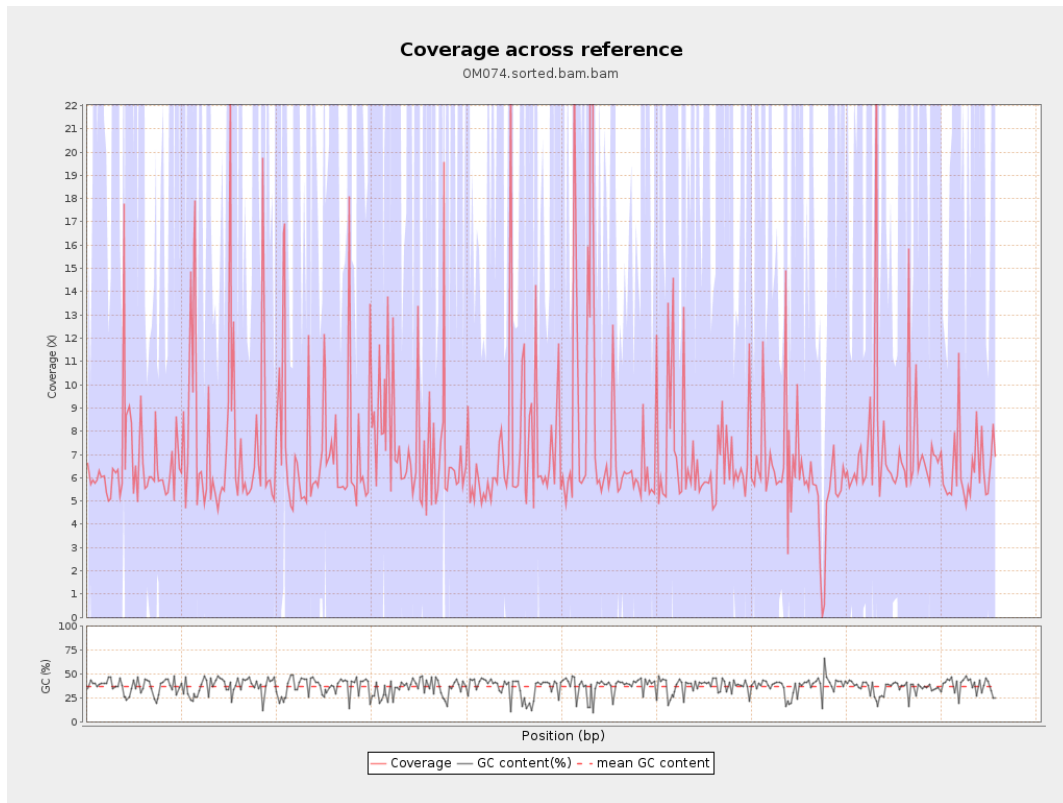
## 2.7. Chromosome stats

Name	Length	Mapped bases	Mean coverage	Standard deviation

gi 1074120478 emb LT615256.1	977217	5947198	6.0859	18.7231
gi 1074120682 emb LT615257.1	860454	5906925	6.8649	36.7822
gi 1074120865 emb LT615258.1	989719	7059071	7.1324	34.075
gi 1074121086 emb LT615259.1	935450	6207312	6.6356	34.5708
gi 1074121301 emb LT615260.1	1432239	11038779	7.7074	79.9771
gi 1074121615 emb LT615261.1	1080962	7139022	6.6043	38.0844
gi 1074121871 emb LT615262.1	1545099	11534904	7.4655	101.4677
gi 1074122235 emb LT615263.1	1585108	11565820	7.2966	77.9791
gi 1074122590 emb LT615264.1	2122358	14389215	6.7798	108.5797
gi 1074123050 emb LT615265.1	1754192	14185923	8.0869	140.177
gi 1074123421 emb LT615	2150147	16263406	7.5639	91.0213

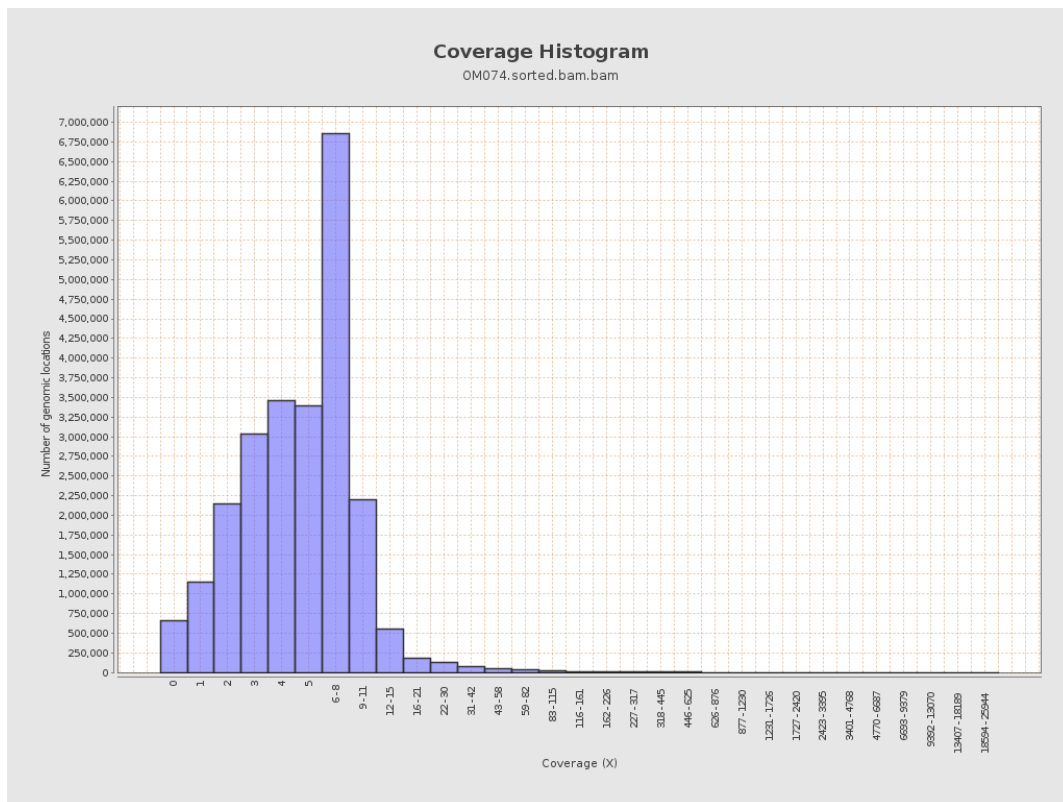
266.1				
gi 107412389 8 emb LT615 267.1	3031036	20631895	6.8069	59.7893
gi 107412458 8 emb LT615 268.1	2359348	14738487	6.2468	31.3983
gi 107412506 5 emb LT615 269.1	3135668	21128115	6.738	47.1074

### 3. Results : Coverage across reference

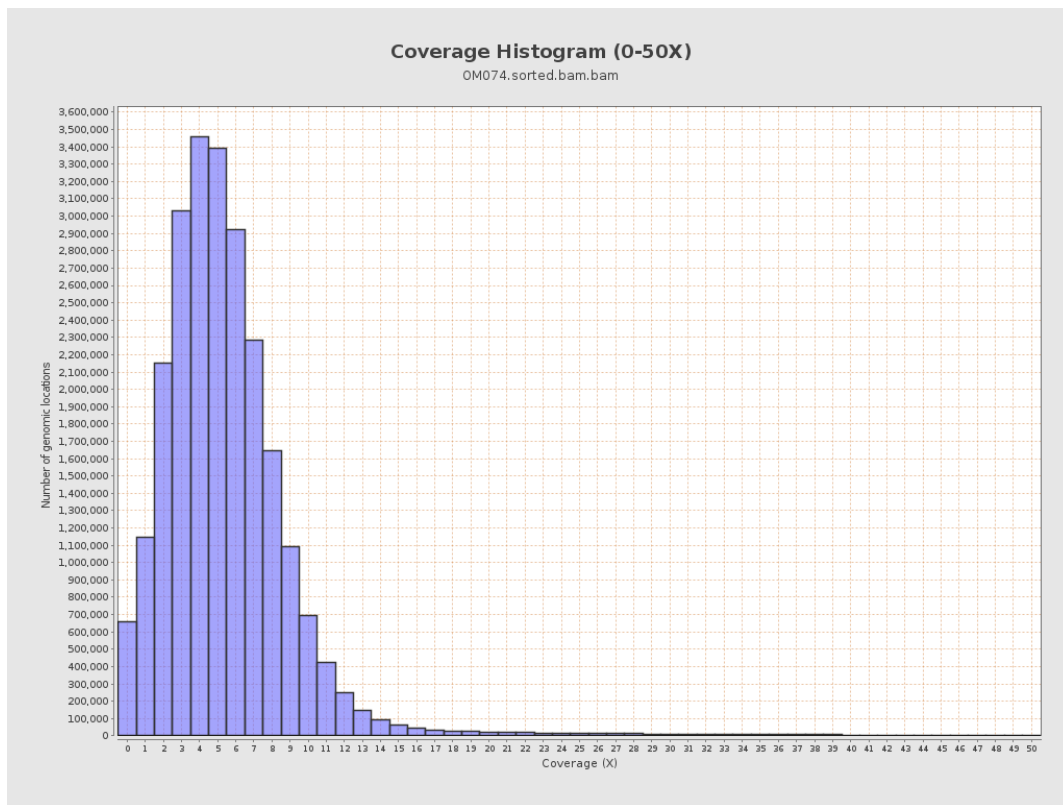




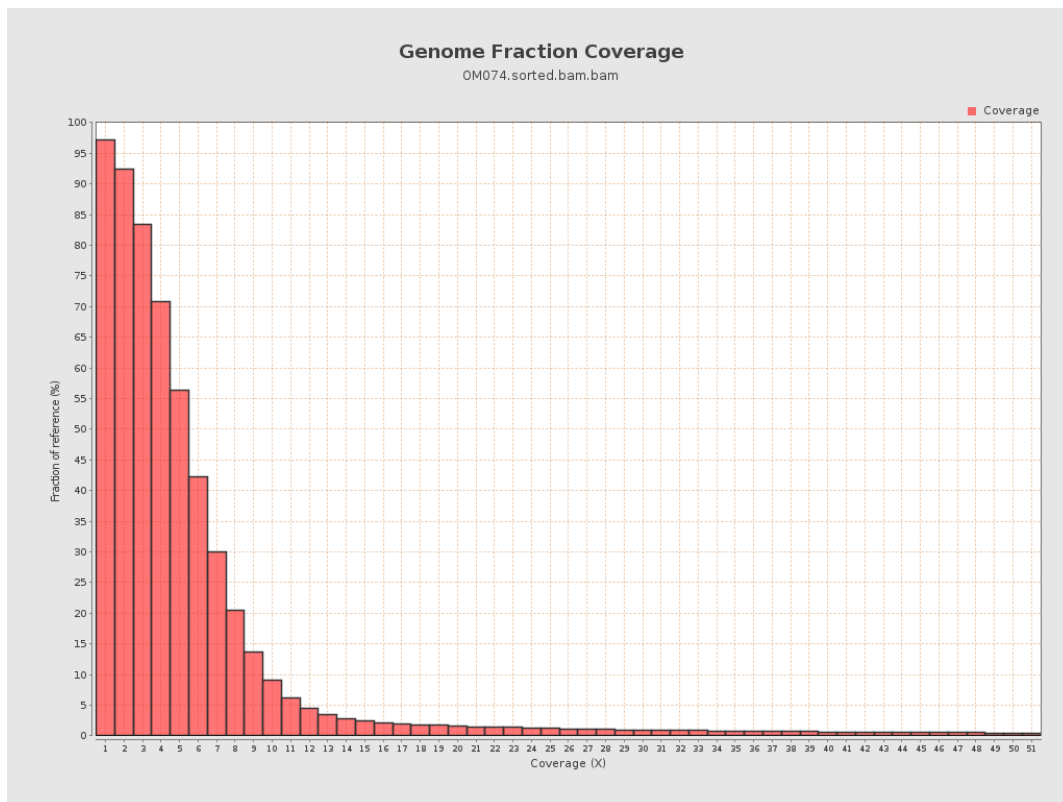
## 4. Results : Coverage Histogram



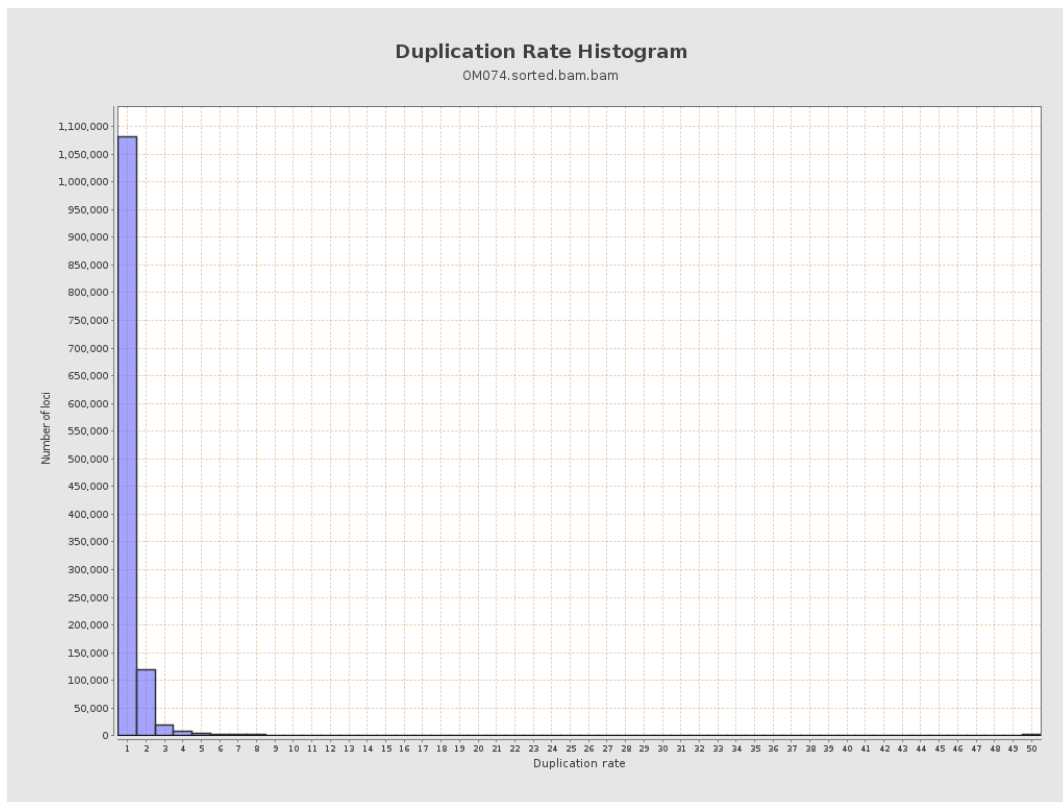
## 5. Results : Coverage Histogram (0-50X)



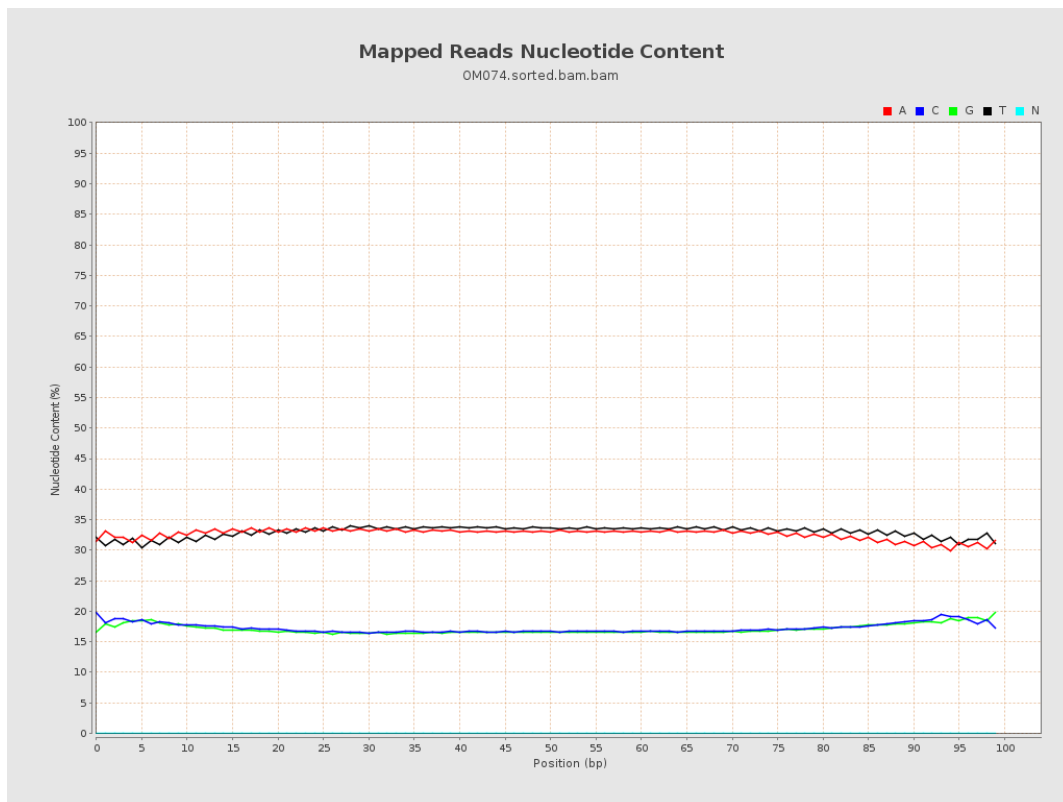
## 6. Results : Genome Fraction Coverage



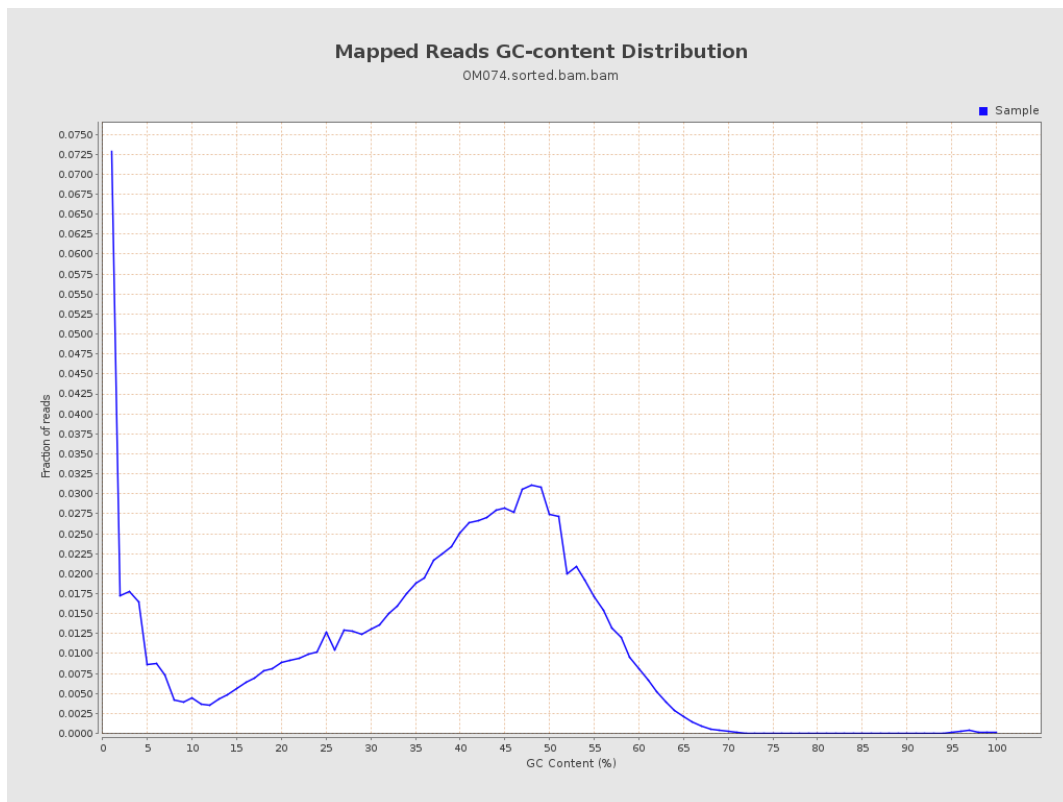
## 7. Results : Duplication Rate Histogram



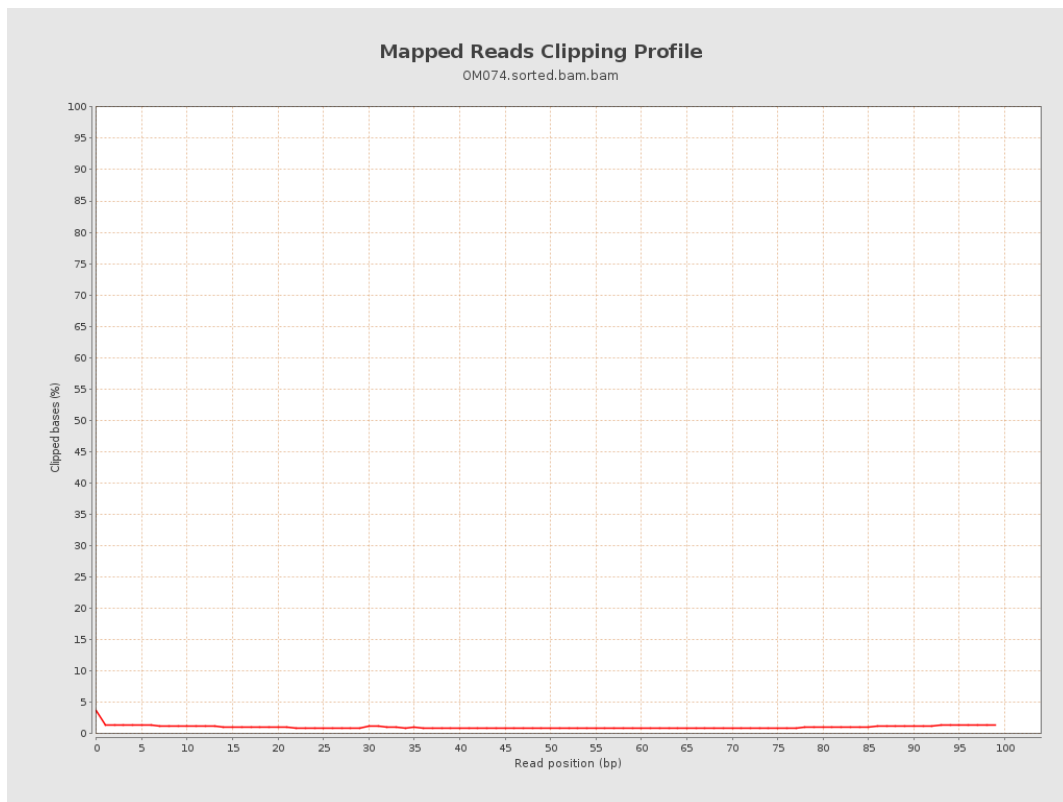
## 8. Results : Mapped Reads Nucleotide Content



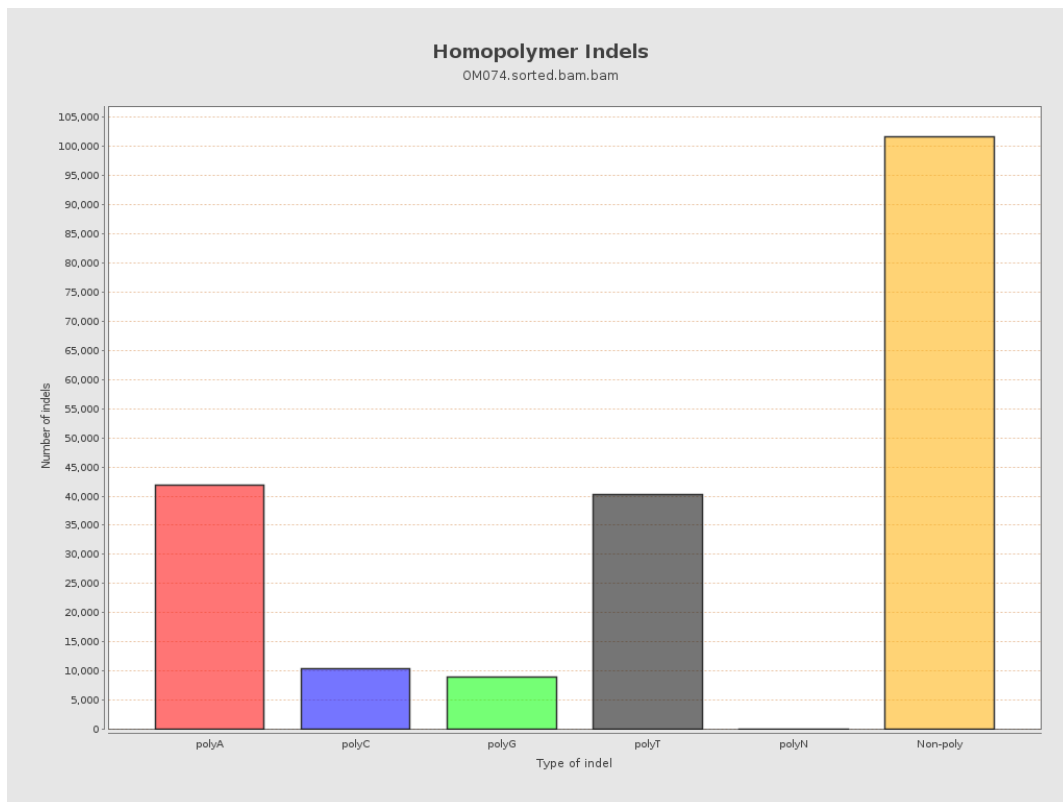
## 9. Results : Mapped Reads GC-content Distribution



## 10. Results : Mapped Reads Clipping Profile

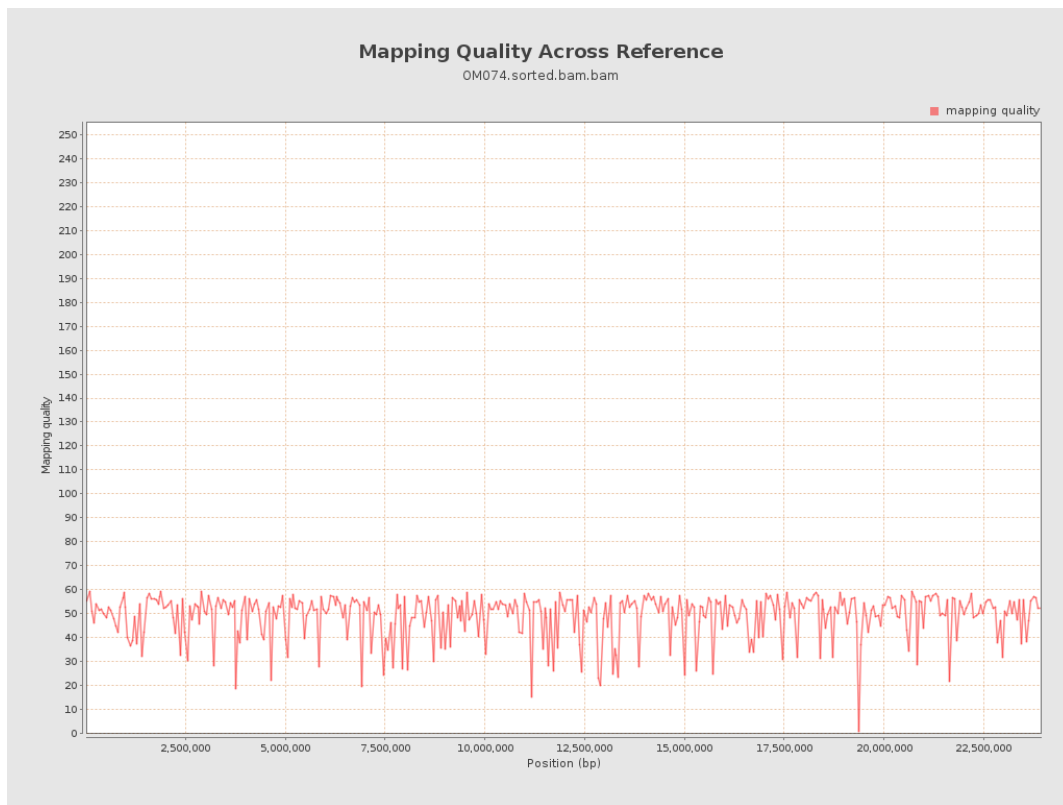


## 11. Results : Homopolymer Indels

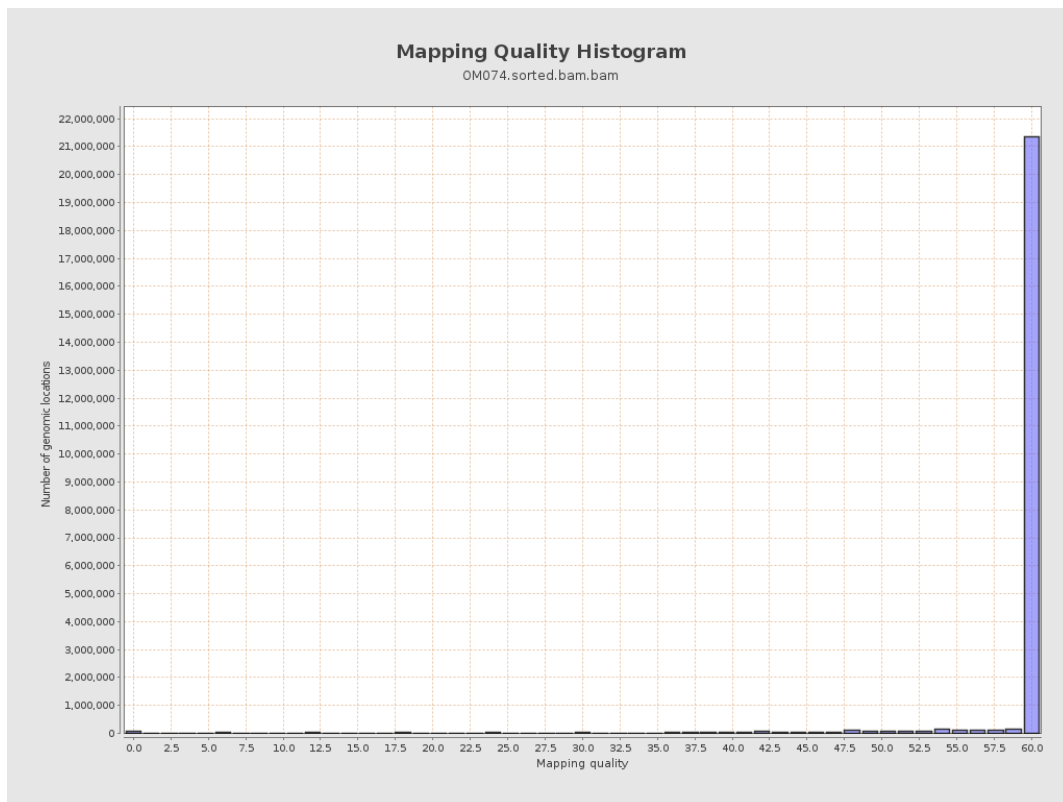




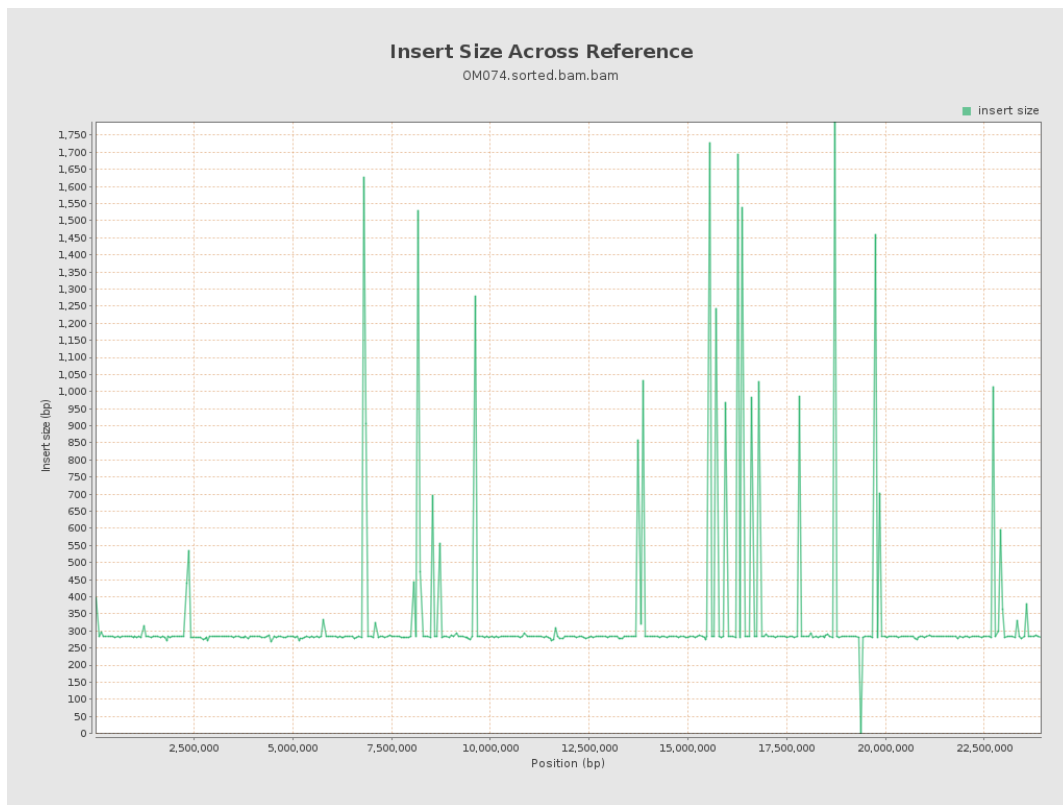
## 12. Results : Mapping Quality Across Reference



## 13. Results : Mapping Quality Histogram



## 14. Results : Insert Size Across Reference



## 15. Results : Insert Size Histogram

