

Qualimap Analysis Results

BAM QC analysis

Generated by Qualimap v.2.2.1

2016/10/23 11:49:23

1. Input data & parameters

1.1. QualiMap command line

```
qualimap bamqc -bam
/home/vdp5/data/cambodia_samples/sequences_bam/KP063.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/KP063-BiooBarcode_26_ATGAGC_R1.fastq.gz /home/vdp5/data/cambodia_samples/sequences_gz/KP063-BiooBarcode_26_ATGAGC_R2.fastq.gz |
| Draw chromosome limits: | no |
| Analyze overlapping paired-end reads: | no |
| Program: | bwa (0.7.15-r1140) |
| Analysis date: | Sun Oct 23 11:49:22 EDT 2016 |
| Size of a homopolymer: | 3 |
| Skip duplicate alignments: | no |
| Number of windows: | 400 |
| BAM file: | /home/vdp5/data/cambodia_samples/sequences_bam/KP063.sorted.bam.b |

am

2. Summary

2.1. Globals

| | |
|------------------------------|---------------------|
| Reference size | 23,958,997 |
| Number of reads | 16,783,434 |
| Mapped reads | 12,193,402 / 72.65% |
| Unmapped reads | 4,590,032 / 27.35% |
| Mapped paired reads | 12,193,402 / 72.65% |
| Mapped reads, first in pair | 6,120,695 / 36.47% |
| Mapped reads, second in pair | 6,072,707 / 36.18% |
| Mapped reads, both in pair | 11,979,037 / 71.37% |
| Mapped reads, singletons | 214,365 / 1.28% |
| Read min/max/mean length | 30 / 100 / 99.82 |
| Duplicated reads (estimated) | 4,751,354 / 28.31% |
| Duplication rate | 38.23% |
| Clipped reads | 1,145,640 / 6.83% |

2.2. ACGT Content

| | |
|--------------------------|----------------------|
| Number/percentage of A's | 336,231,174 / 28.44% |
| Number/percentage of C's | 254,652,589 / 21.54% |
| Number/percentage of T's | 337,530,634 / 28.55% |
| Number/percentage of G's | 253,982,976 / 21.48% |
| Number/percentage of N's | 97,077 / 0.01% |
| GC Percentage | 43.02% |

2.3. Coverage

| | |
|--------------------|---------|
| Mean | 49.402 |
| Standard Deviation | 29.1005 |

2.4. Mapping Quality

| | |
|----------------------|-------|
| Mean Mapping Quality | 58.78 |
|----------------------|-------|

2.5. Insert size

| | |
|--------------------|-----------------|
| Mean | 1,424.55 |
| Standard Deviation | 37,890.68 |
| P25/Median/P75 | 265 / 351 / 435 |

2.6. Mismatches and indels

| | |
|--|------------|
| General error rate | 0.96% |
| Mismatches | 10,606,752 |
| Insertions | 276,370 |
| Mapped reads with at least one insertion | 2.17% |
| Deletions | 370,292 |
| Mapped reads with at least one deletion | 2.9% |
| Homopolymer indels | 66.55% |

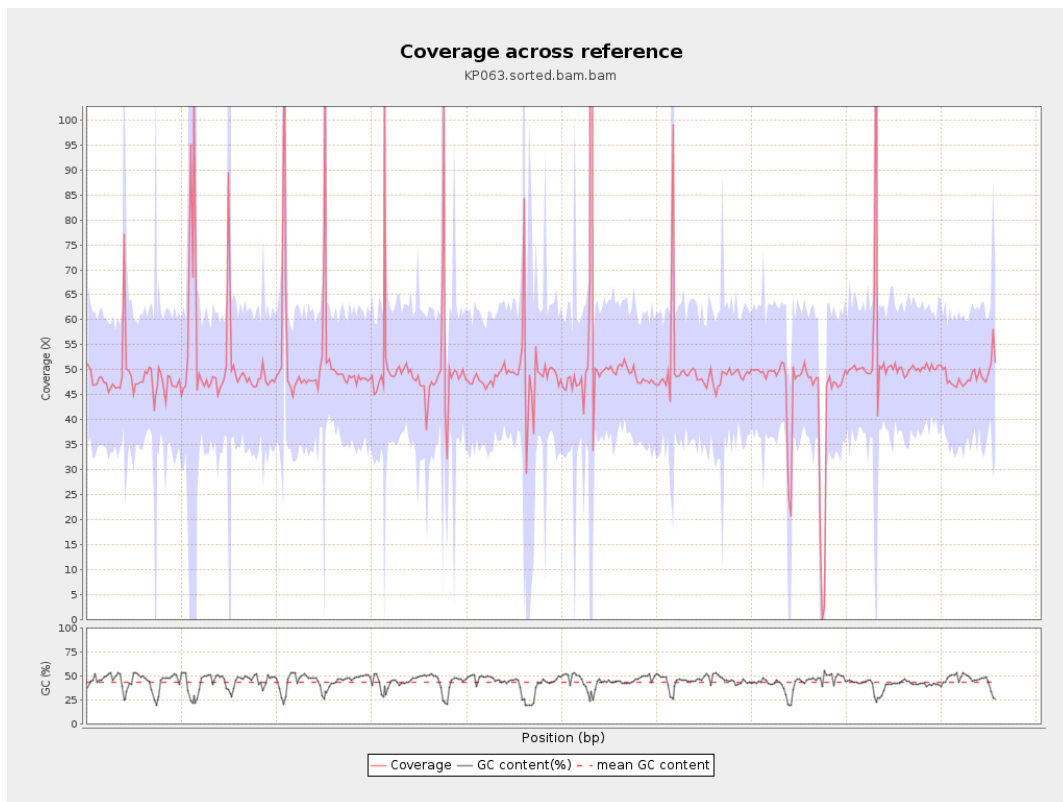
2.7. Chromosome stats

| Name | Length | Mapped bases | Mean coverage | Standard deviation |
|------|--------|--------------|---------------|--------------------|
| | | | | |

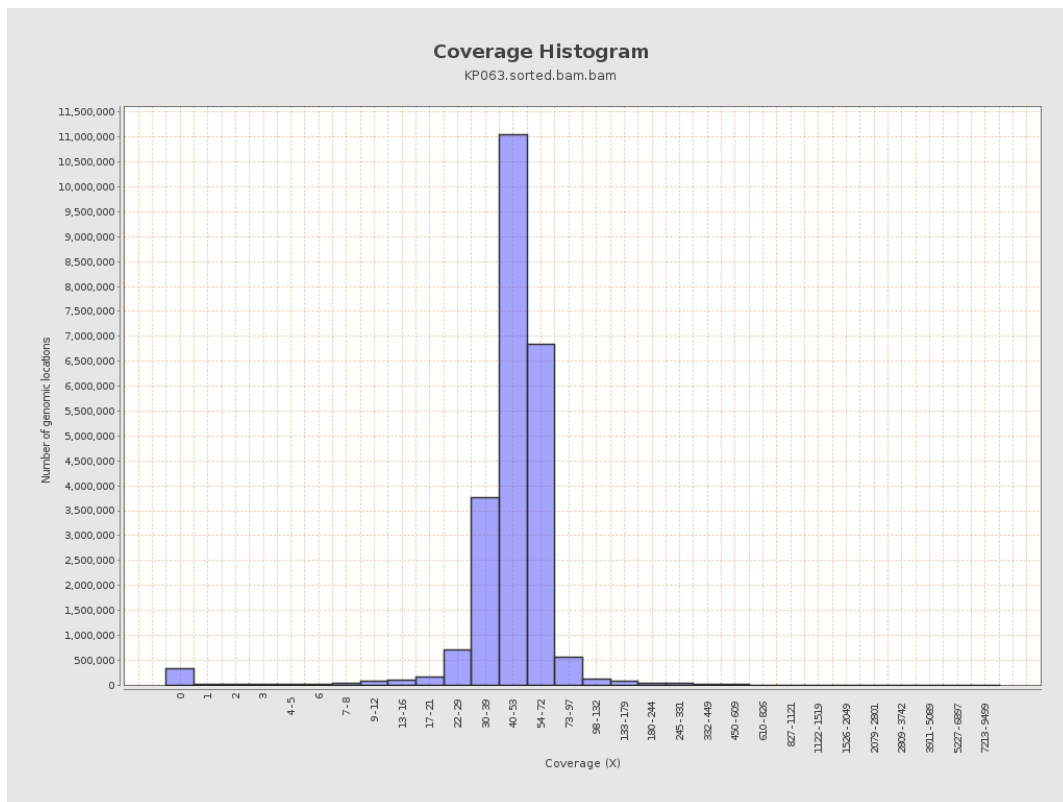
| | | | | |
|------------------------------|---------|-----------|---------|---------|
| gi 1074120478 emb LT615256.1 | 977217 | 47011923 | 48.108 | 13.5715 |
| gi 1074120682 emb LT615257.1 | 860454 | 41769077 | 48.5431 | 21.2179 |
| gi 1074120865 emb LT615258.1 | 989719 | 51905270 | 52.4445 | 38.8305 |
| gi 1074121086 emb LT615259.1 | 935450 | 48350391 | 51.6868 | 41.0102 |
| gi 1074121301 emb LT615260.1 | 1432239 | 71693511 | 50.0569 | 23.1607 |
| gi 1074121615 emb LT615261.1 | 1080962 | 55356590 | 51.2105 | 24.6774 |
| gi 1074121871 emb LT615262.1 | 1545099 | 75848694 | 49.0899 | 14.8901 |
| gi 1074122235 emb LT615263.1 | 1585108 | 80099849 | 50.5327 | 25.7661 |
| gi 1074122590 emb LT615264.1 | 2122358 | 103347097 | 48.6945 | 17.9935 |
| gi 1074123050 emb LT615265.1 | 1754192 | 83857734 | 47.8042 | 26.6795 |
| gi 1074123421 emb LT615 | 2150147 | 110121666 | 51.2159 | 63.3323 |

| | | | | |
|--------------------------------------|---------|-----------|---------|---------|
| 266.1 | | | | |
| gi 107412389 8 emb LT615 267.1 | 3031036 | 149519381 | 49.3295 | 15.1771 |
| gi 107412458 8 emb LT615 268.1 | 2359348 | 109275267 | 46.3159 | 29.513 |
| gi 107412506 5 emb LT615 269.1 | 3135668 | 155466304 | 49.58 | 12.167 |

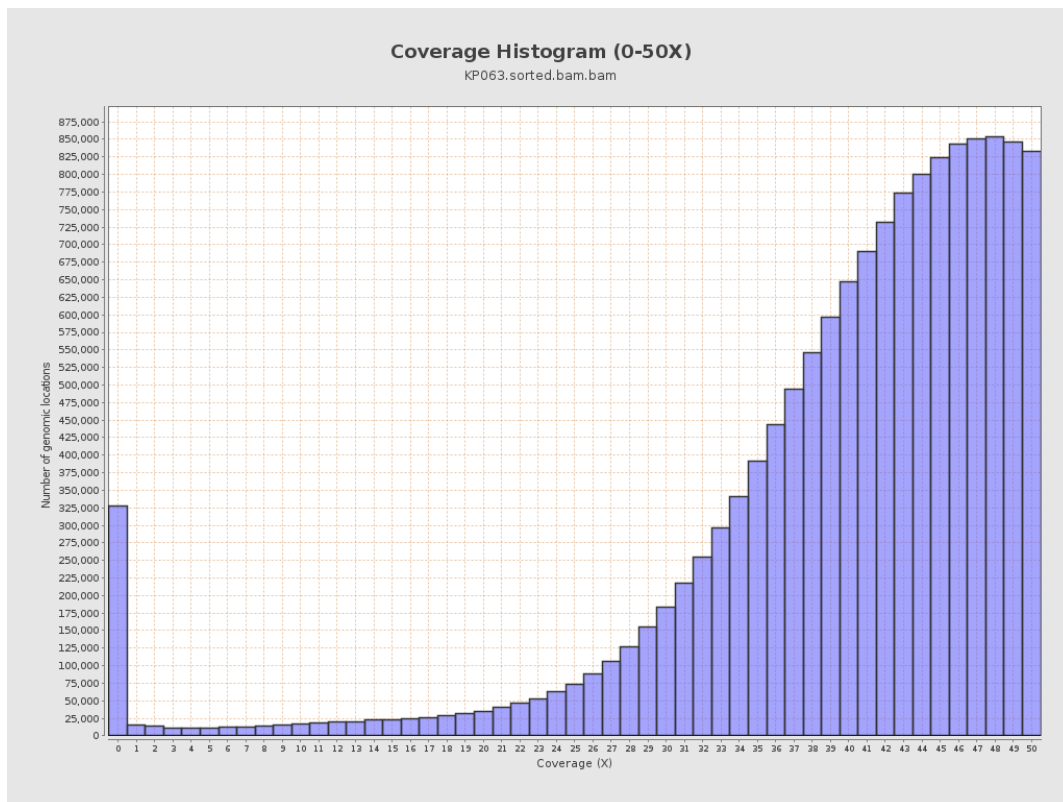
3. Results : Coverage across reference



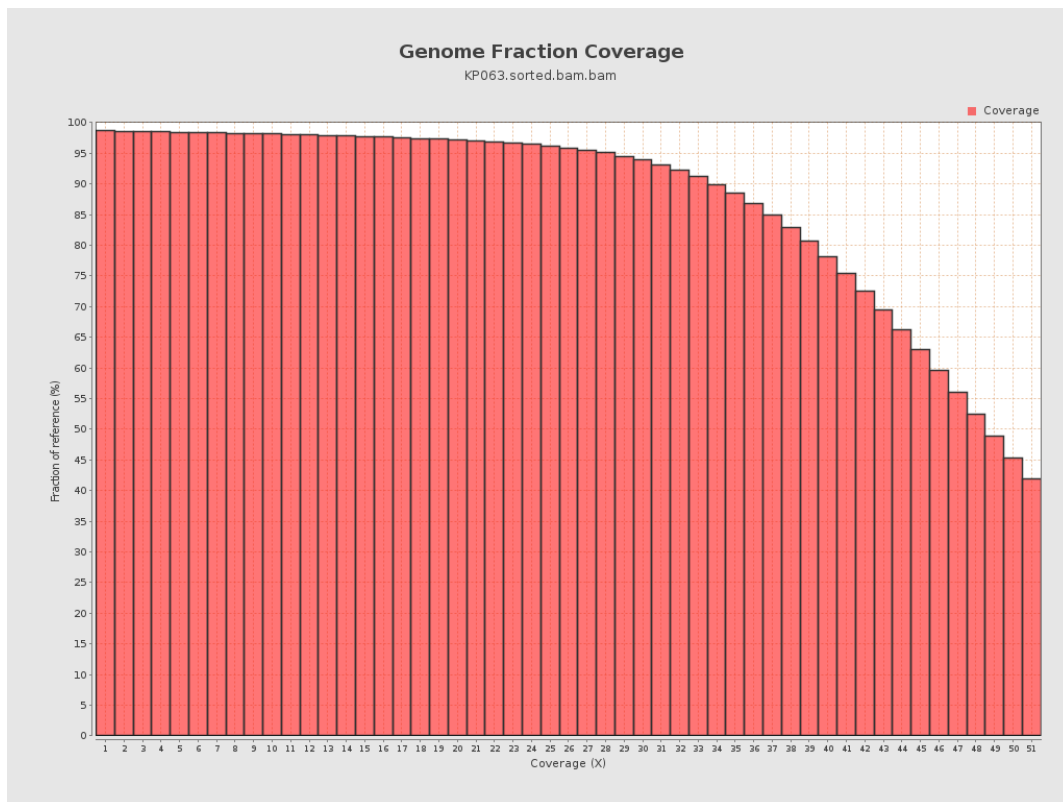
4. Results : Coverage Histogram



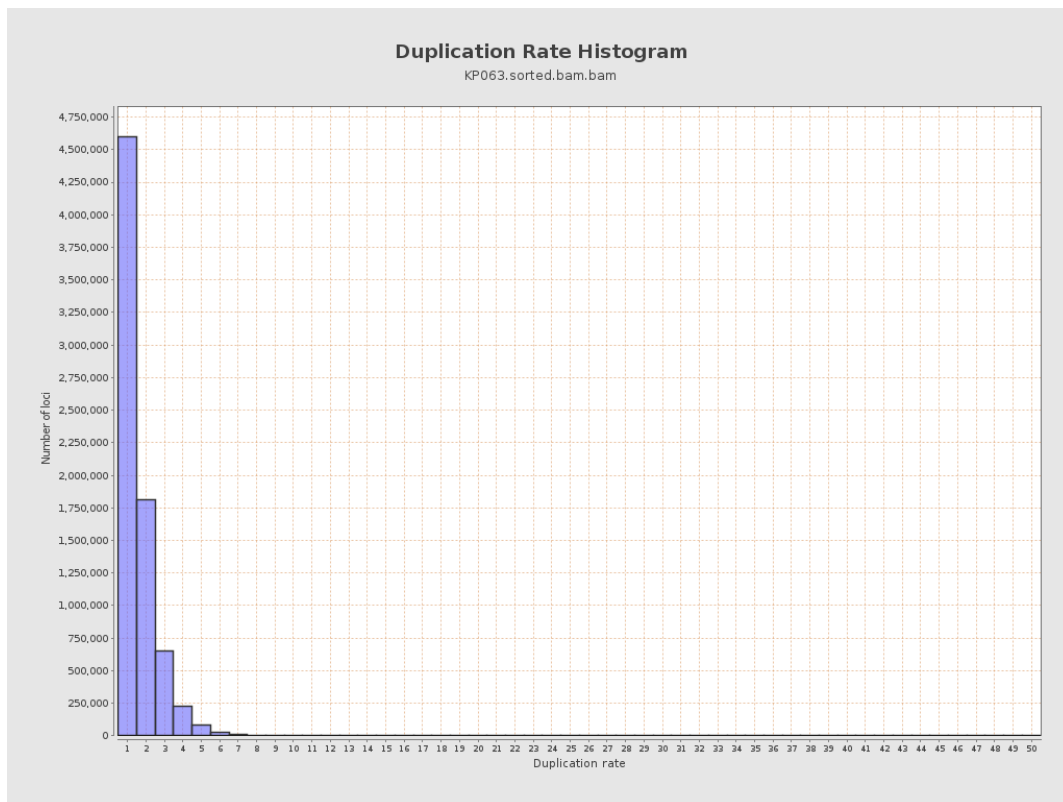
5. Results : Coverage Histogram (0-50X)



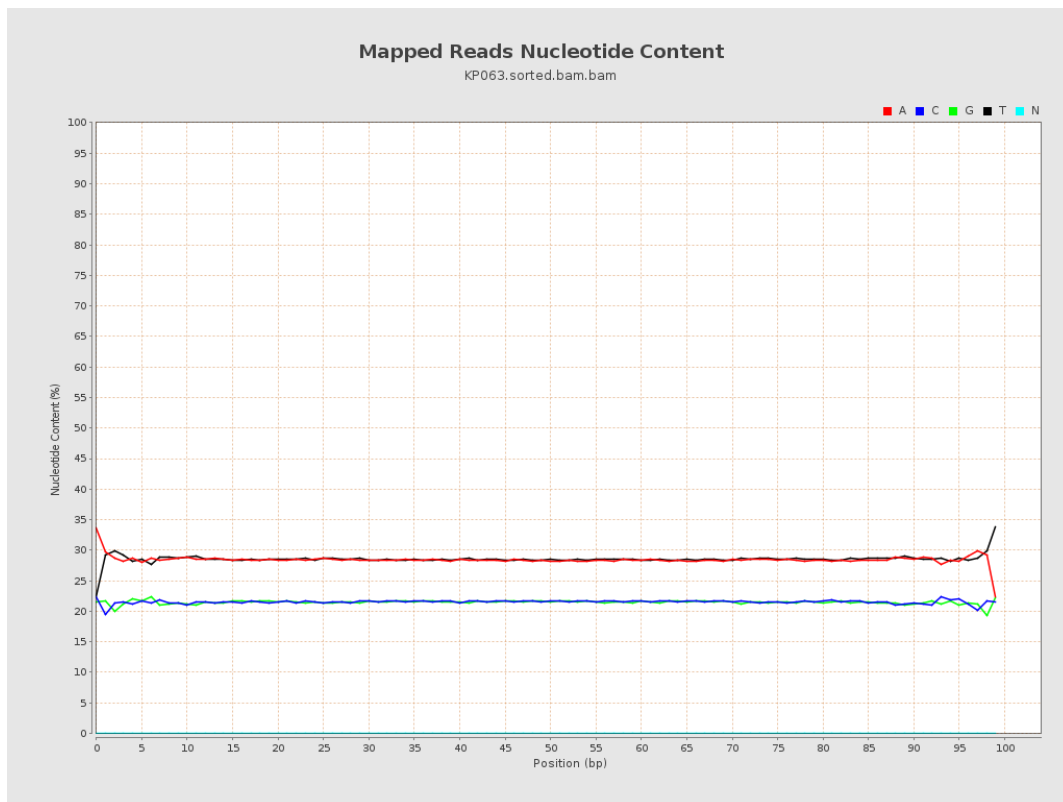
6. Results : Genome Fraction Coverage



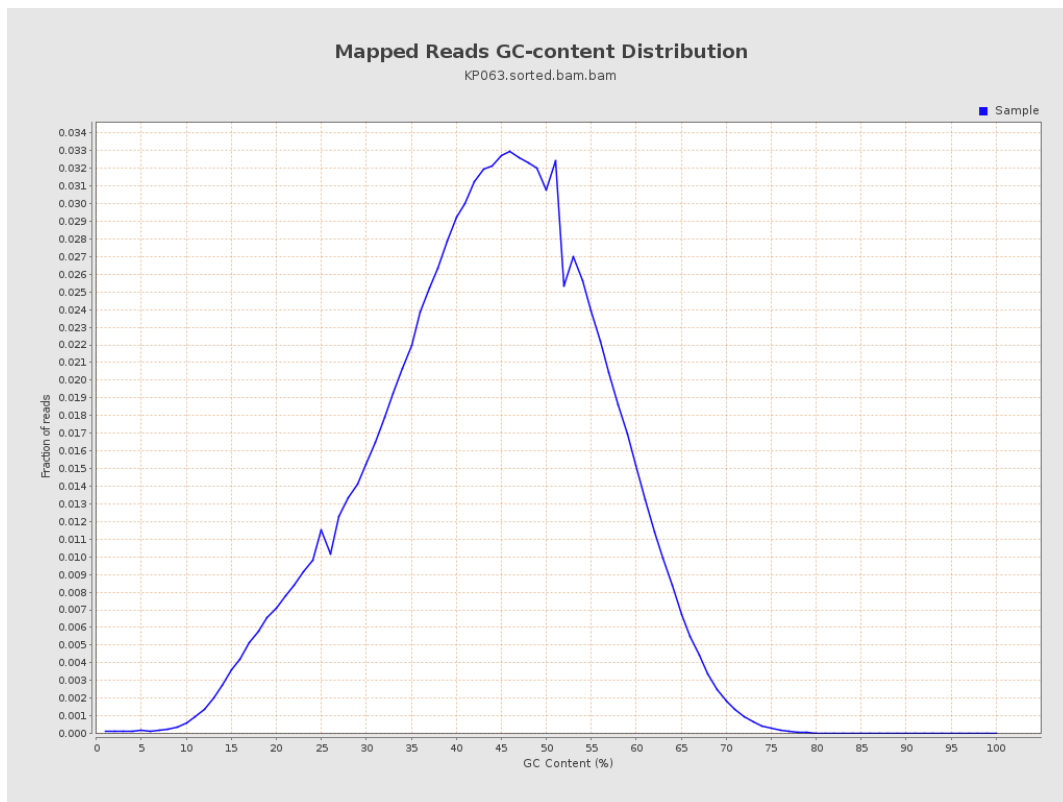
7. Results : Duplication Rate Histogram



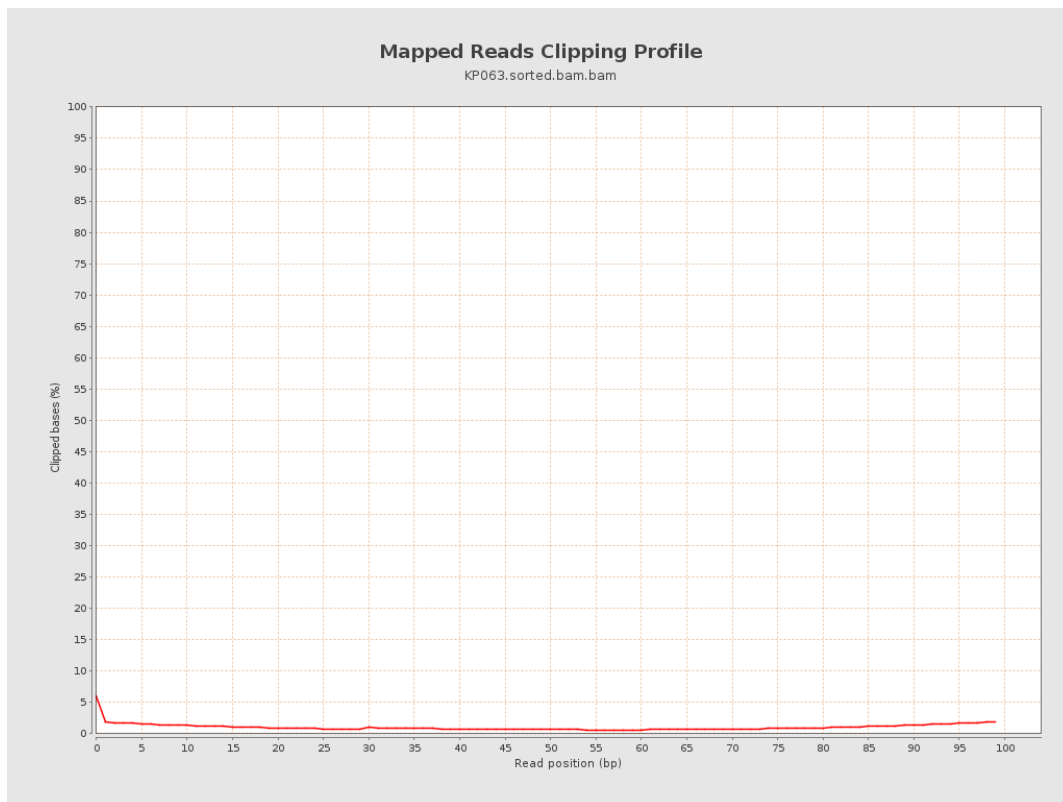
8. Results : Mapped Reads Nucleotide Content



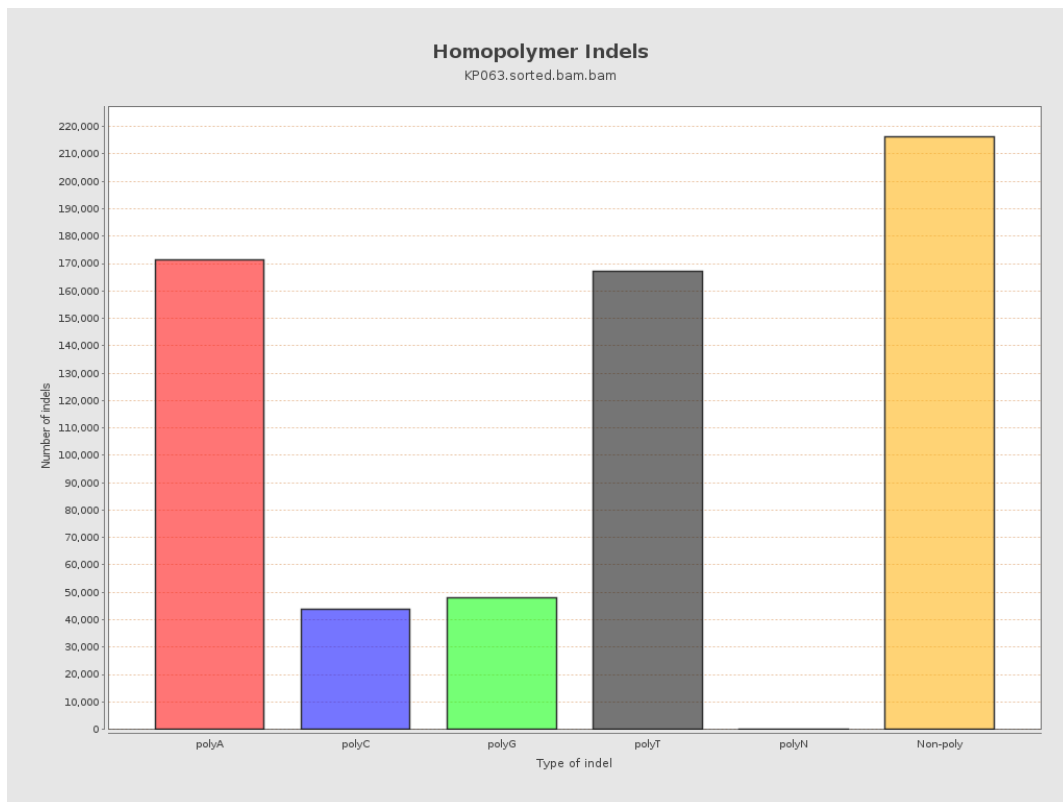
9. Results : Mapped Reads GC-content Distribution



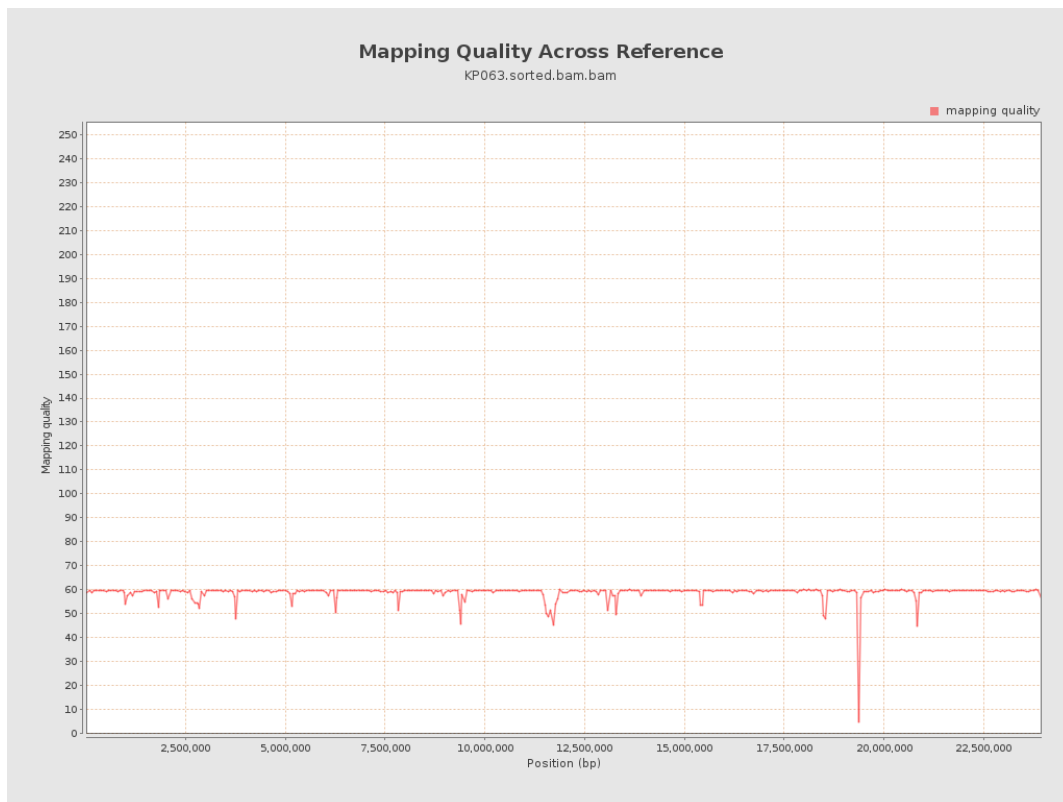
10. Results : Mapped Reads Clipping Profile



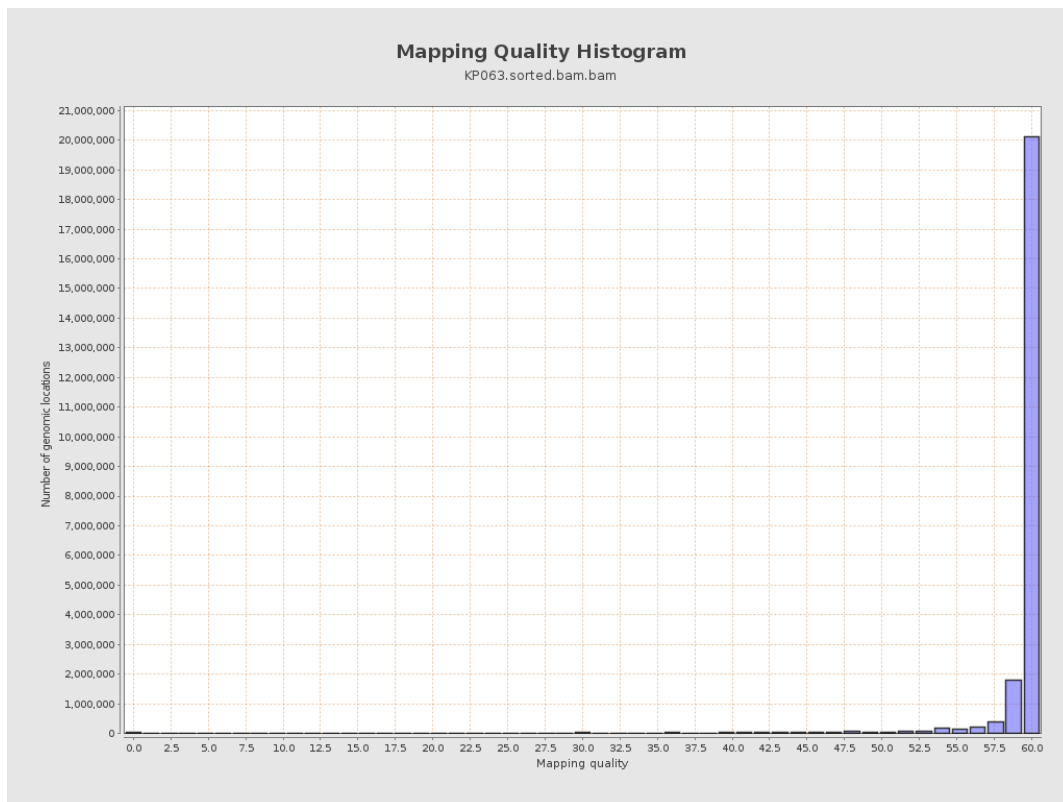
11. Results : Homopolymer Indels



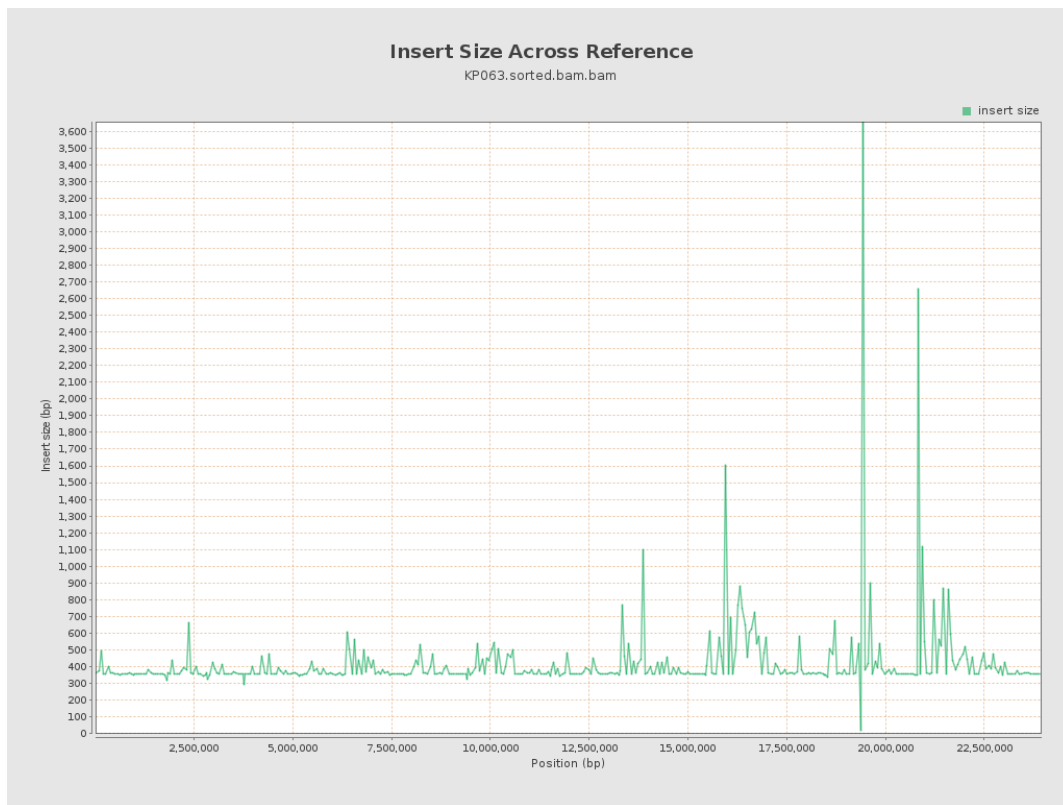
12. Results : Mapping Quality Across Reference



13. Results : Mapping Quality Histogram



14. Results : Insert Size Across Reference



15. Results : Insert Size Histogram

