

# Qualimap Analysis Results

*BAM QC analysis*

*Generated by Qualimap v.2.2.1*

*2023/05/29 21:25:18*

# 1. Input data & parameters

## 1.1. QualiMap command line

```
qualimap bamqc -bam
/proj/uppstore2018210/Aalpina/working/Kate/Working/F2/MarkDuplicates/115
3
.nodup.bam -nw 400 -hm 3
```

## 1.2. Alignment

|                                       |   |
|---------------------------------------|---|
| BAM file:                             | /proj/uppstore2018210/Aalpina/worki<br>ng/Kate/Working/F2/MarkDuplicates/<br>1153<br>.nodup.bam   |
| Program:                              | bwa (0.7.17-r1188)  |
| Analyze overlapping paired-end reads: | no  |
| Command line:                         | bwa mem -M -t 8 -R<br>@RG\tID:\$unit\tPL:Illumina\tLB:LibA\t<br>SM:\$sample<br>/proj/uppstore2018210/Aalpina/data/r<br>eference/GCA_900128785.1_MPIPZ.<br>v5_genomic.fa<br>/proj/uppstore2018210/Aalpina/data/r<br>awdata/P26207/P26207_407/02-<br>FASTQ/220902_A00621_0737_BHM<br>GCVDSX3/P26207_407_S382_L004<br>_R1_001.fastq.gz<br>/proj/uppstore2018210/Aalpina/data/r<br>awdata/P26207/P26207_407/02-<br>FASTQ/220902_A00621_0737_BHM<br>GCVDSX3/P26207_407_S382_L004<br>_R2_001.fastq.gz |
| Size of a homopolymer:                | 3   |
|                                       |   |

|                            |                               |
|----------------------------|-------------------------------|
| Number of windows:         | 400                           |
| Analysis date:             | Mon May 29 21:25:18 CEST 2023 |
| Draw chromosome limits:    | no                            |
| Skip duplicate alignments: | no                            |

## 2. Summary

### 2.1. Globals

|                              |                     |
|------------------------------|---------------------|
| Reference size               | 311,642,060         |
| Number of reads              | 51,339,530          |
| Mapped reads                 | 46,592,687 / 90.75% |
| Unmapped reads               | 4,746,843 / 9.25%   |
| Mapped paired reads          | 46,592,687 / 90.75% |
| Mapped reads, first in pair  | 23,349,645 / 45.48% |
| Mapped reads, second in pair | 23,243,042 / 45.27% |
| Mapped reads, both in pair   | 45,010,198 / 87.67% |
| Mapped reads, singletons     | 1,582,489 / 3.08%   |
| Read min/max/mean length     | 30 / 151 / 148.18   |
| Duplicated reads (flagged)   | 8,744,504 / 17.03%  |
| Clipped reads                | 10,878,075 / 21.19% |

### 2.2. ACGT Content

|                          |                        |
|--------------------------|------------------------|
| Number/percentage of A's | 1,969,298,166 / 30.74% |
| Number/percentage of C's | 1,234,204,571 / 19.27% |
| Number/percentage of T's | 1,971,983,184 / 30.79% |
| Number/percentage of G's | 1,230,165,675 / 19.2%  |
| Number/percentage of N's | 21,556 / 0%            |
| GC Percentage            | 38.47%                 |

### 2.3. Coverage

|                    |          |
|--------------------|----------|
| Mean               | 20.6073  |
| Standard Deviation | 212.2009 |

## 2.4. Mapping Quality

|                      |       |
|----------------------|-------|
| Mean Mapping Quality | 43.84 |
|----------------------|-------|

## 2.5. Insert size

|                    |                 |
|--------------------|-----------------|
| Mean               | 277,553.63      |
| Standard Deviation | 2,539,186.97    |
| P25/Median/P75     | 367 / 477 / 624 |

## 2.6. Mismatches and indels

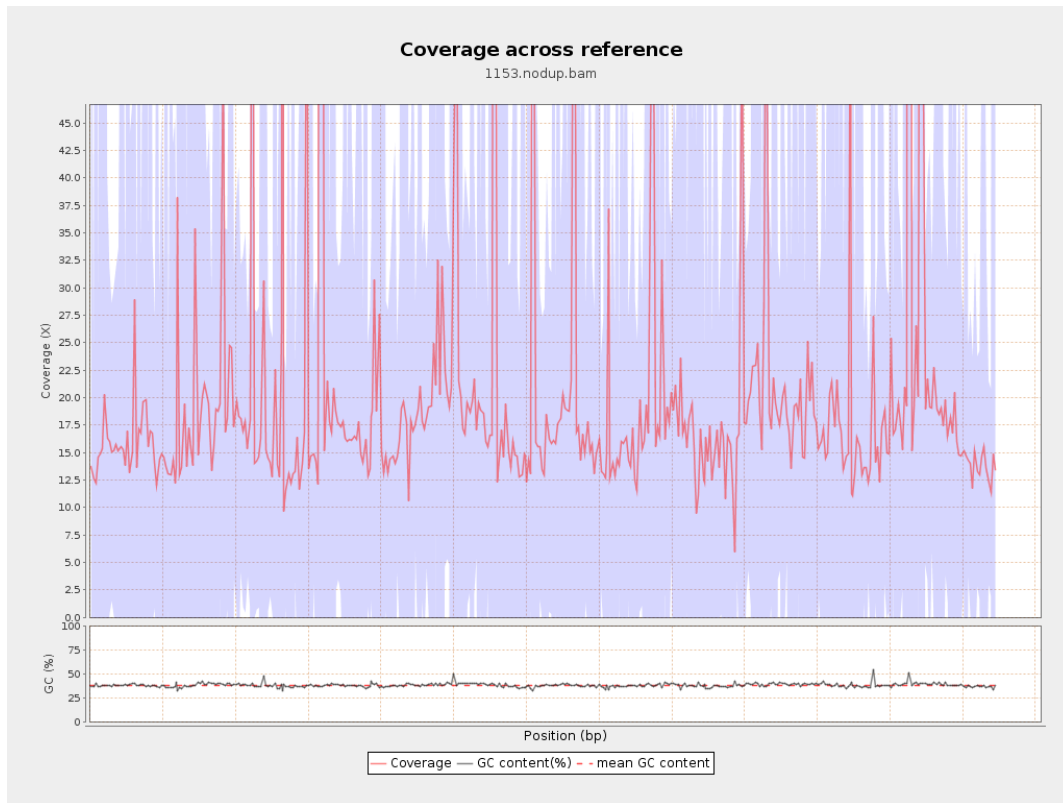
|  |             |
|--|-------------|
| General error rate                       | 2.4%        |
| Mismatches                               | 141,079,023 |
| Insertions                               | 4,615,964   |
| Mapped reads with at least one insertion | 8.84%       |
| Deletions                                | 4,421,247   |
| Mapped reads with at least one deletion  | 8.44%       |
| Homopolymer indels                       | 56.99%      |

## 2.7. Chromosome stats

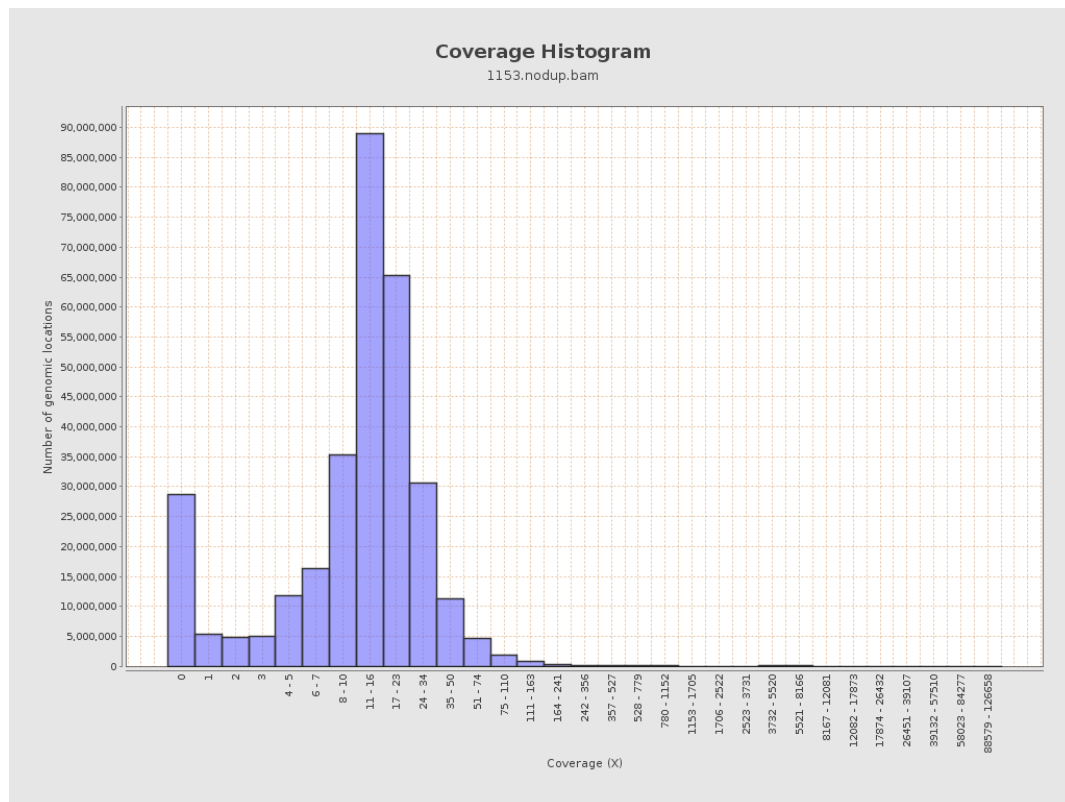
| Name       | Length   | Mapped bases | Mean coverage | Standard deviation |
|------------|----------|--------------|---------------|--------------------|
| LT669788.1 | 29724344 | 460193755    | 15.482        | 76.3951            |
|            |          |              |               |                    |

|            |          |            |         |          |
|------------|----------|------------|---------|----------|
| LT669789.1 | 36598175 | 763386685  | 20.8586 | 225.3035 |
| LT669790.1 | 30422129 | 735696744  | 24.1829 | 287.5075 |
| LT669791.1 | 52758100 | 1096579832 | 20.7851 | 224.812  |
| LT669792.1 | 28376109 | 569763145  | 20.079  | 234.9998 |
| LT669793.1 | 33388210 | 622094636  | 18.6322 | 130.389  |
| LT669794.1 | 50579949 | 995079193  | 19.6734 | 173.0827 |
| LT669795.1 | 49795044 | 1179297829 | 23.683  | 252.2644 |

### 3. Results : Coverage across reference

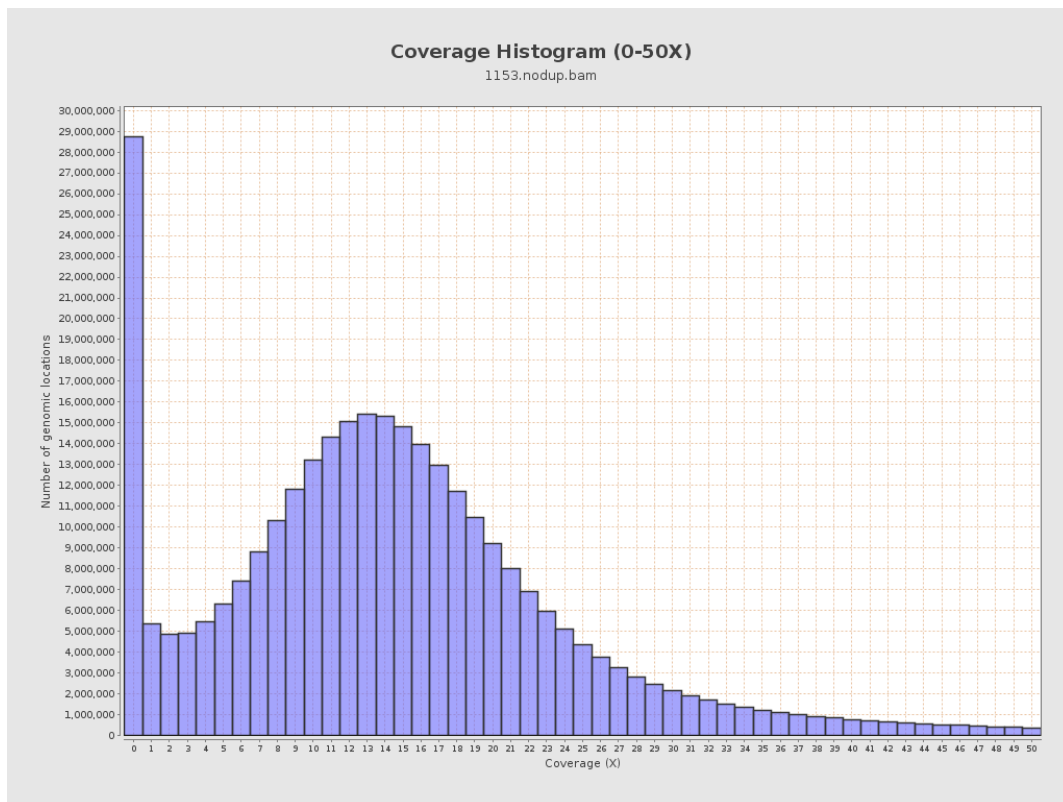


## 4. Results : Coverage Histogram

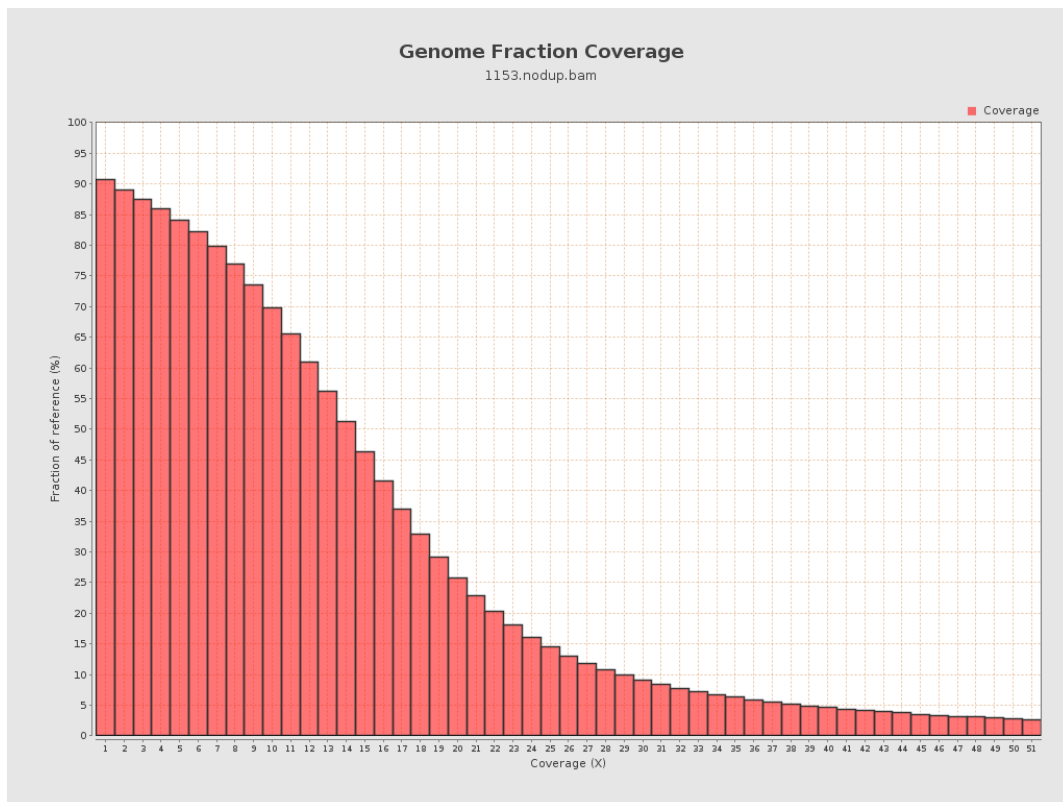




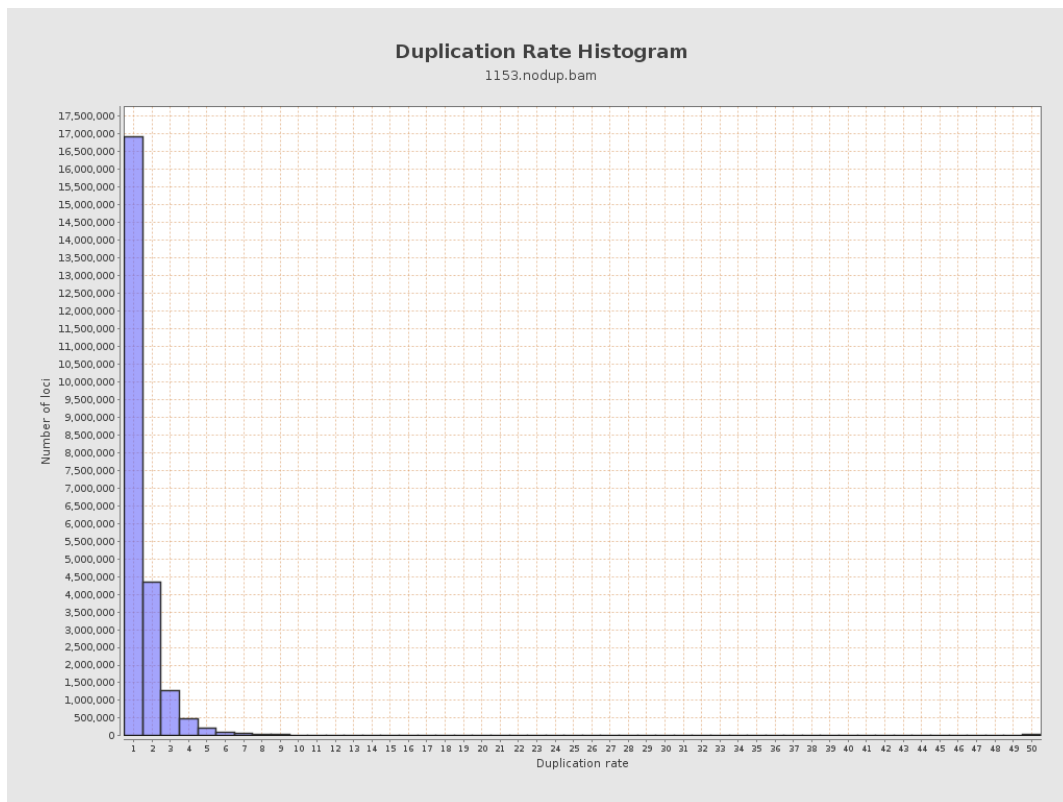
## 5. Results : Coverage Histogram (0-50X)



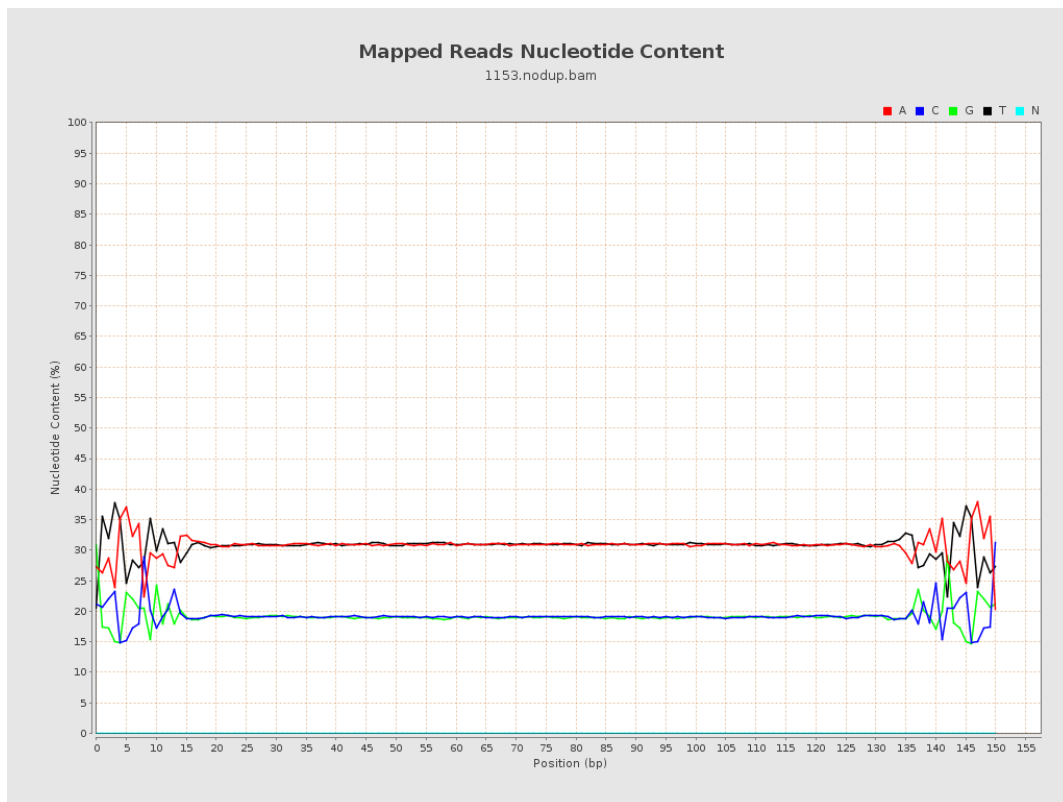
## 6. Results : Genome Fraction Coverage



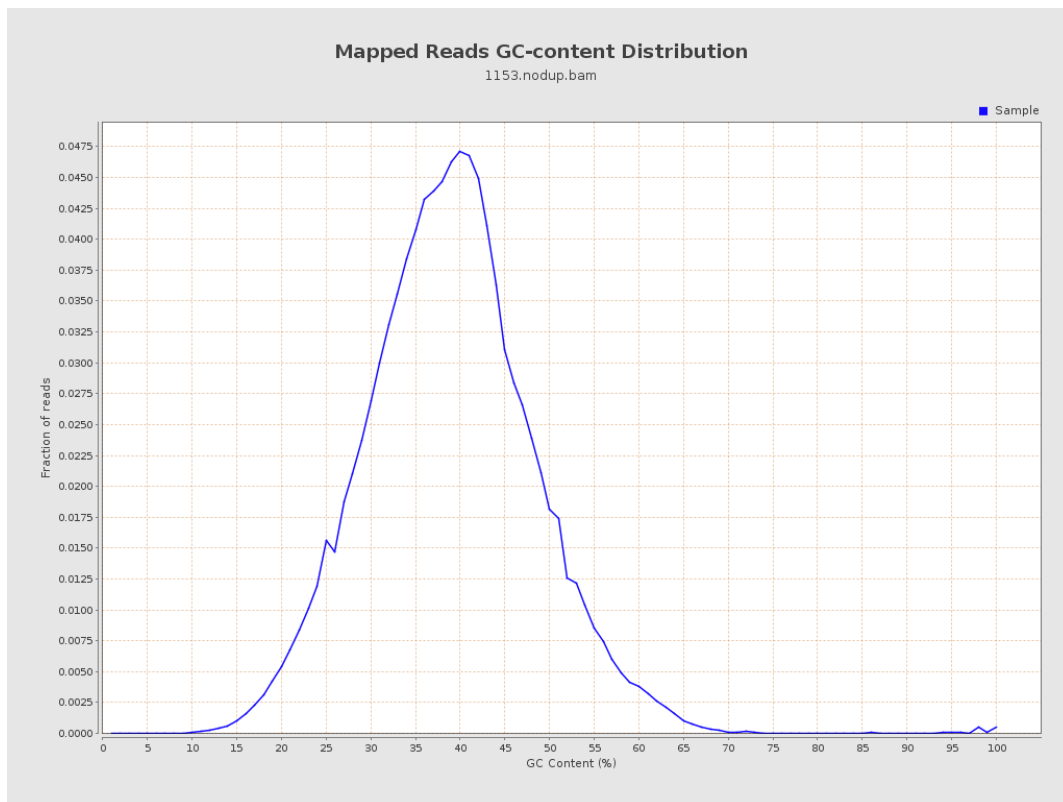
## 7. Results : Duplication Rate Histogram



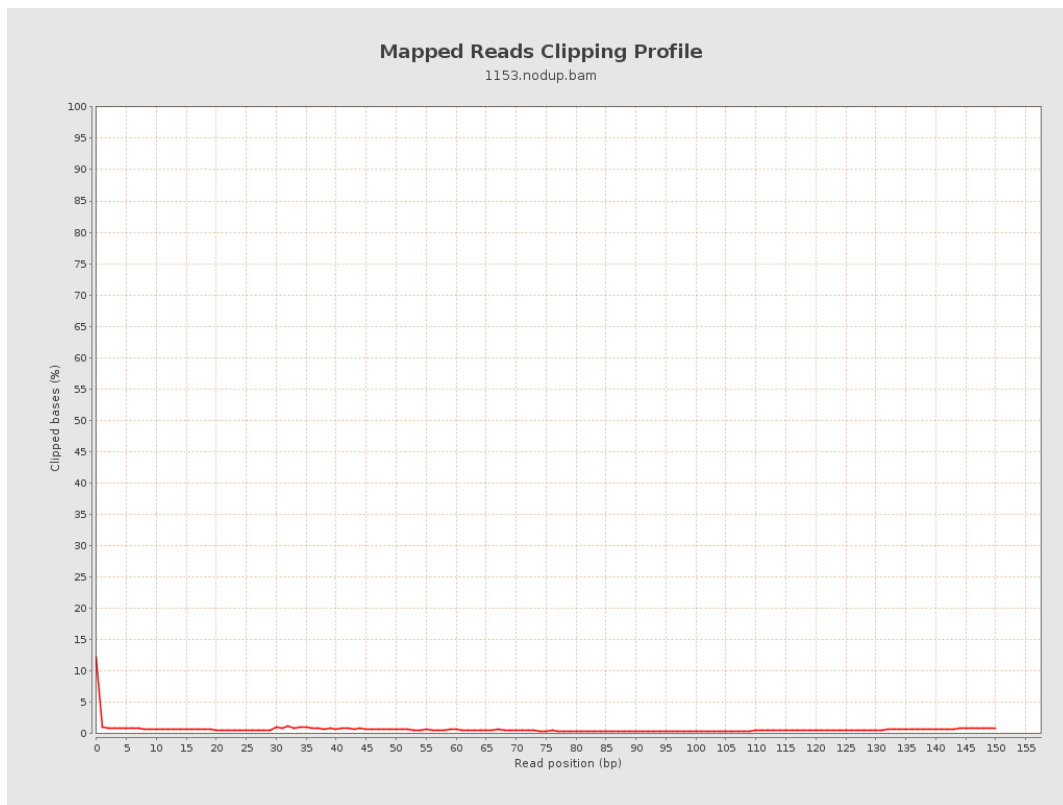
## 8. Results : Mapped Reads Nucleotide Content



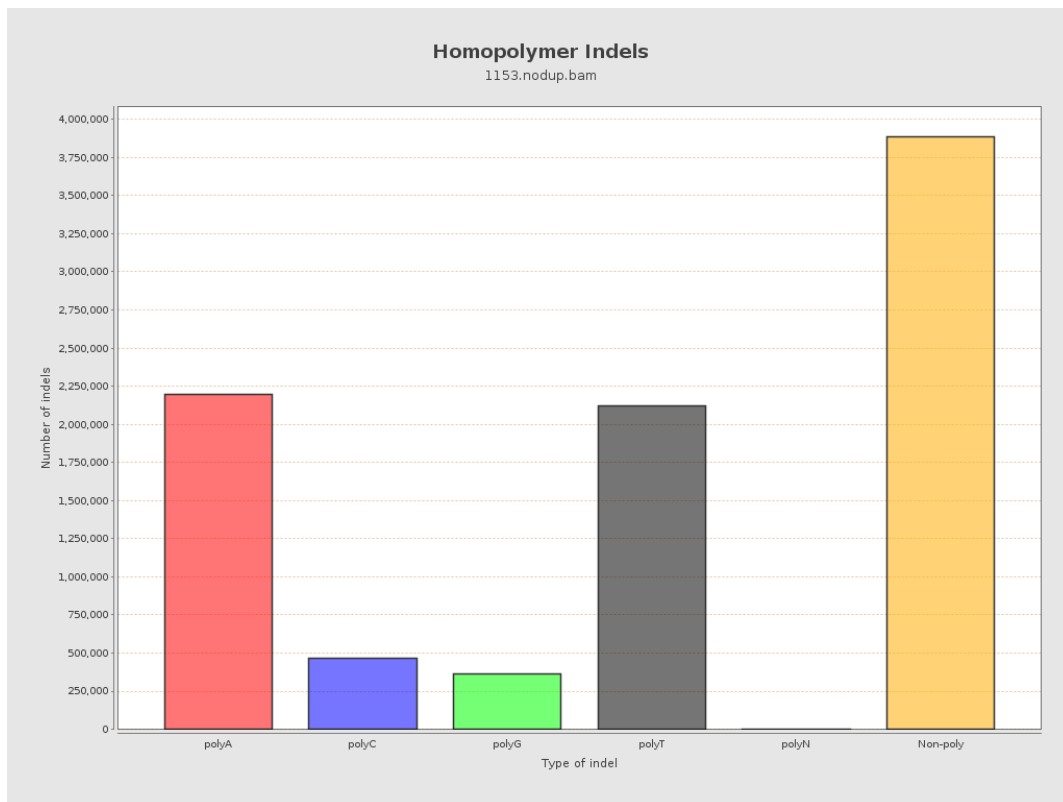
## 9. Results : Mapped Reads GC-content Distribution



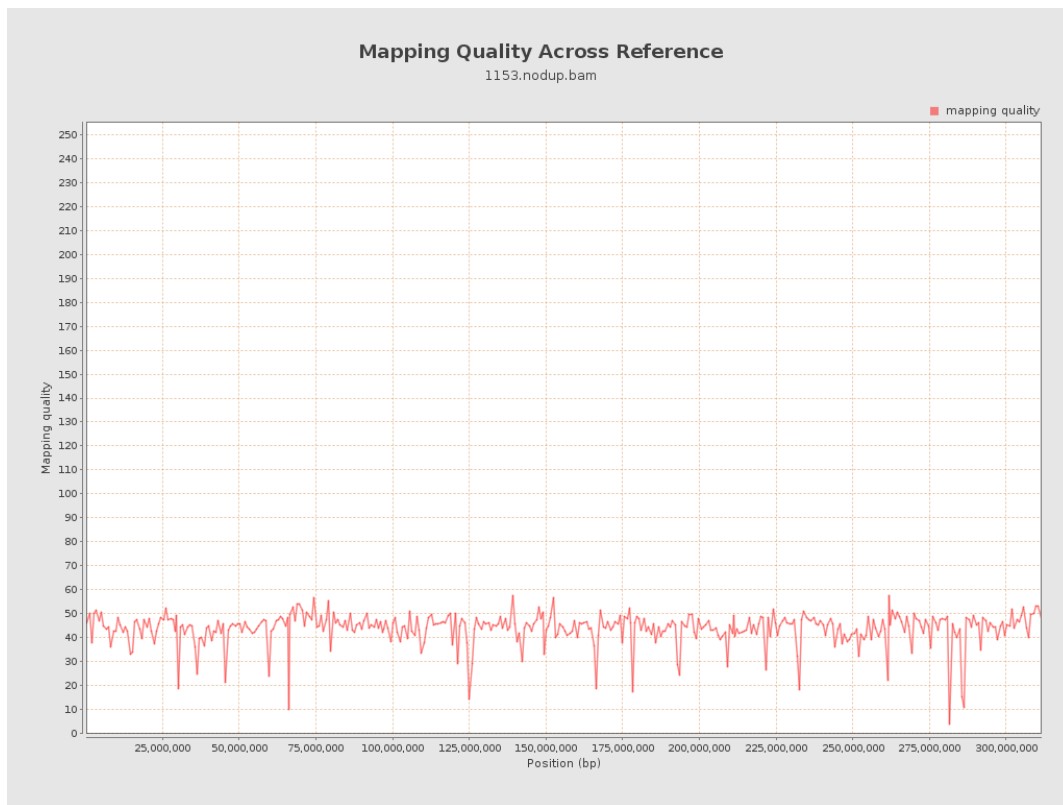
## 10. Results : Mapped Reads Clipping Profile



## 11. Results : Homopolymer Indels

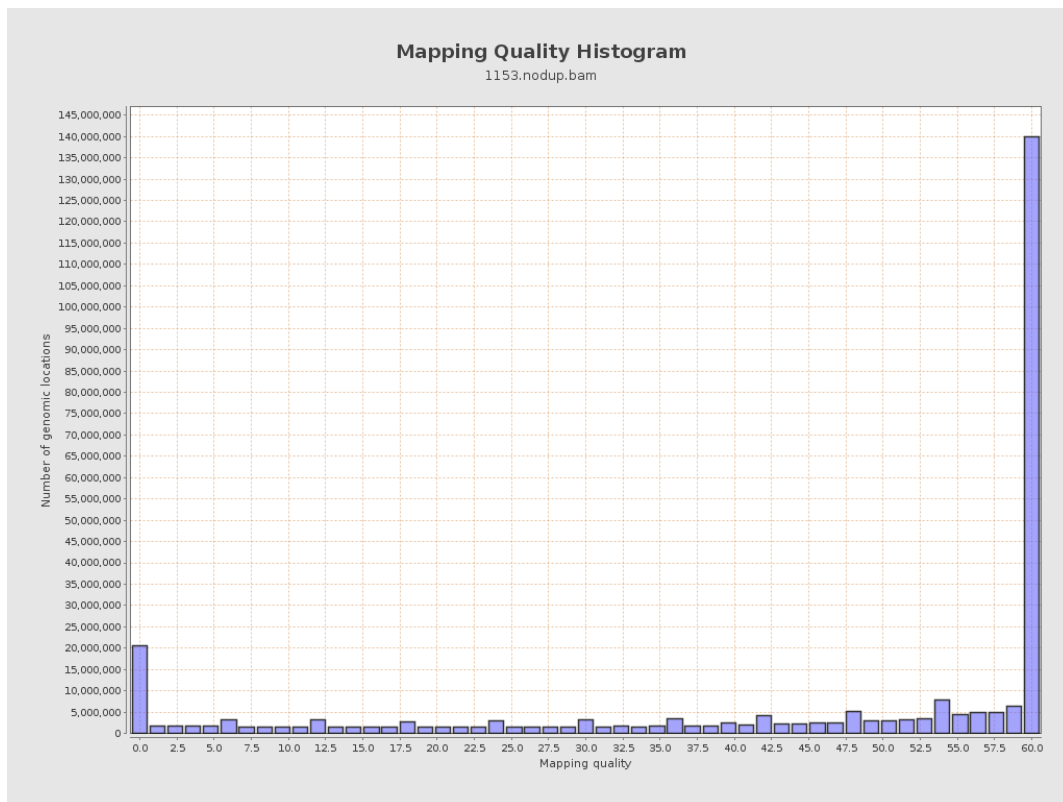


## 12. Results : Mapping Quality Across Reference

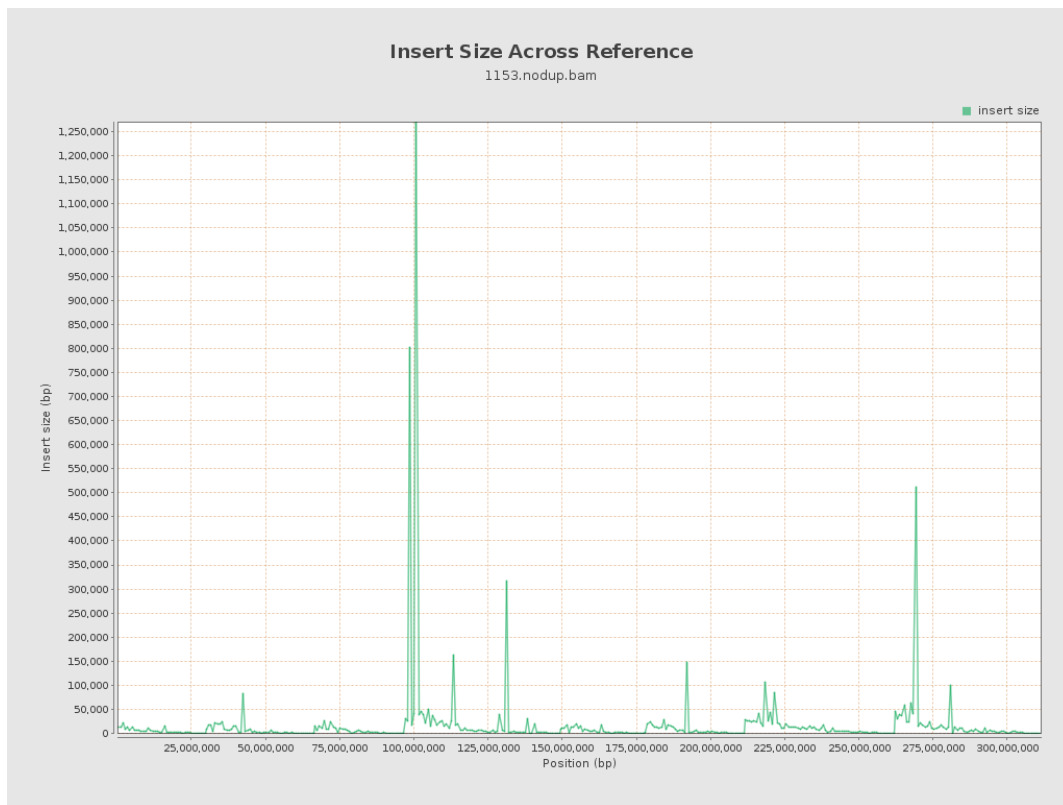




## 13. Results : Mapping Quality Histogram



## 14. Results : Insert Size Across Reference



## 15. Results : Insert Size Histogram

