

Assembly Report

Experiment Details

| | |
|-----------------------------------|---------------|
| ExperimentID: | Experiment 68 |
| Sequencing Coverage: | 23 |
| Number of Partitions: | 3 |
| Allowed Mismatch Count in (Base): | 0 |
| Length of Sliding Window: | 67 |

Reads Dataset Details

| | |
|-------------------------------|--------|
| Total Reads Count: | 1212 |
| Total Dataset Size in (Base): | 241272 |
| Valid Read Count: | 1212 |
| Rejected Read Count: | 0 |
| Maximum Read Length: | 201 |
| Minimum Read Length: | 162 |

Reference Genome Details

| | |
|------------------------------------|-------|
| Length of Reference Genome (Base): | 10080 |
| Number of K-mers: | 9880 |
| Length of K-mer | 397 |

Assembly Details

| | |
|---------------------|-------|
| Number of Contigs: | 22 |
| Contig N50: | 976 |
| Contig N90: | 798 |
| Number of Scaffold | 2 |
| Scaffold N50: | 4171 |
| Scaffold N90: | 4171 |
| Mis-assembly Count: | 0 |
| TotalAssembly Size: | 10433 |

Repeat Details

| | |
|--|------|
| Total Reads Count(Non-Repeat) : | 170 |
| Total Reads Count(Repeat): | 218 |
| Retetitive Read Count based on (Partitions Identifier): | 216 |
| Retetitive Read Count (Entire Read Frequency Identifier): | 4 |
| Retetitive Read Count (Contained Read Frequency Identifier): | 3 |
| Total Repetitive Sequences Count | 2952 |
| Total Unique Repetitive Sequences Count | 3 |

| | | | | | | |
|--------------------------|--------|----------------------|--------------|--------|----------------|--------------|
| Total Repeat Size (Base) | | | 8750 | | | |
| Starting | Ending | Repetitive Sequences | Repeat Count | Length | Positions | |
| 1 | 6262 | CGGTCGAAAA | 5 | 350 | | |
| | | ACTGCTGGCA | | | | |
| | | GTGGGGCATT | | | | |
| | | ACCTCGAATCT | | | | |
| | | ACCGTCGATAT | | | | |
| | | TGCTGAGTCC | | | | |
| | | ACCCGCCGTA | | | | |
| | | TTGCGGCAAG | | | | |
| | | TCGTATTCCGG | | | | |
| | | CTGATCACATG | | | | |
| | | GTGCTGATGG | | | | |
| | | CAGGTTTCACC | | | | |
| | | GCCGGTAATG | | | Start Position | End Position |
| | | AAAAAGGCGA | | | 1756 | 2105 |
| | | ACTGGTGGTG | | | 3561 | 3910 |
| | | CTTGGACGCA | | | 3964 | 4313 |
| | | ACGGTTCCGA | | | 5117 | 5466 |
| | | CTACTCTGCTG | | | 5910 | 6259 |
| | | CGGTGCTGGC | | | | |
| | | TGCCTGTTTAC | | | | |
| | | GCGCCGATTG | | | | |
| | | TTGCGAGATTT | | | | |
| | | GGACGGACGT | | | | |
| | | TGACGGGGTC | | | | |
| | | TATACCTGCGA | | | | |
| | | CCCGCGTCAG | | | | |
| | | GTGCCCCGATG | | | | |
| | | CGAGGTTGTT | | | | |
| | | GAAGTCGATG | | | | |
| | | TCCTACCAGG | | | | |
| AAGCGATGGA | | | | | | |
| GCTTTCCTACT | | | | | | |
| TCGGCGCTCT | | | | | | |
| AGGTCAGGCC | | | | | | |

| | | | | | |
|-------------|------|--------------|---|-----|--|
| 1 | 6262 | GATTCATTTCGG | 5 | 350 | |
| | | GATGGTCTGT | | | |
| | | GTGGATTAAAA | | | |
| | | AAAGAGTGTCT | | | |
| | | GATAGCAGCTT | | | |
| | | CTGAACTGGTT | | | |
| | | ACCTGCCGTG | | | |
| | | AGTAAATTTAAA | | | |
| | | ATTTTATTGAC | | | |
| | | TTAGGTCACTA | | | |
| | | AATACTTTAAC | | | |
| | | CAATATAGGCA | | | |
| | | TAGCGCACAG | | | |
| | | ACAGATAAAAA | | | |
| | | TTACAGAGTAC | | | |
| ACAACATCCTC | | | | | |
| AAAGCCTACC | | | | | |
| GGTGACAGTG | | | | | |
| CGGGCTTTTTT | | | | | |
| TTCGACCAAAG | | | | | |
| GTAACGAGGT | | | | | |
| AACAACCATGC | | | | | |
| GAGTGTTGAA | | | | | |
| GTCAGGAGAT | | | | | |
| CCTAAAGGCC | | | | | |
| TGTACCCGTTA | | | | | |
| CCTAGCCAGTT | | | | | |
| GGCATTAAAC | | | | | |
| GTATACGGTAC | | | | | |
| CTAGGCATGTA | | | | | |
| CGTAATCGTAG | | | | | |
| CCTTAGCAATC | | | | | |
| TCCAGTCC | | | | | |

| Start Positio n | End Positio n |
|-----------------------|---------------------|
| 409 | 758 |
| 2228 | 2577 |
| 3182 | 3531 |
| 4730 | 5079 |
| 5529 | 5878 |

| | | | | | | |
|---|------|--|---|-----|-----------------------|---------------------|
| 1 | 6262 | GCTTTTCATTC TGA CTGCAAC GGGCAATATG TCTCTGTGTGG ATTAAAAAAG AGTGTCTGATA GCAGCTTCTG AACTGGTTACC TGCCGTGAGT AAATTAAAATT TTATTGACTTA GGTCACTAAAT ACTTTAACCAA TATAGGCATAG CGCACAGACA GATAAAAATTA CAGAGTACAC AACATCCATGA AACGCATTAGC ACCACCATTAC CACCACCATCA CCATTACCACA GGTAACGGTG CGGGCTGACG CGTACAGGAA ACACAGAAAAA AGCCCGCACCC TGACAGTGCG GGCTTTTTTTTT CGACCAAAGG TAACGAGGTAA CAACCATGCG AGTGTTGAAGT | 5 | 350 | | |
| | | | | | Start Positio n | End Positio n |
| | | | | | 1 | 350 |
| | | | | | 854 | 1203 |
| | | | | | 1295 | 1644 |
| | | | | | 2705 | 3054 |
| | | | | | 4337 | 4686 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| 5910 | 10080 | CGGTCGAAAA | 4 | 350 | <table><tr><th>Start Position</th><th>End Position</th></tr><tr><td>5910</td><td>6259</td></tr><tr><td>7138</td><td>7487</td></tr><tr><td>8386</td><td>8735</td></tr><tr><td>9149</td><td>9498</td></tr></table> | Start Position | End Position | 5910 | 6259 | 7138 | 7487 | 8386 | 8735 | 9149 | 9498 |
|-------------|-------|-------------------|---|-----|--|-------------------|-----------------|------|------|------|------|------|------|------|------|
| | | Start Position | | | | End Position | | | | | | | | | |
| | | 5910 | | | | 6259 | | | | | | | | | |
| | | 7138 | | | | 7487 | | | | | | | | | |
| | | 8386 | | | | 8735 | | | | | | | | | |
| | | 9149 | | | 9498 | | | | | | | | | | |
| | | ACTGCTGGCA | | | | | | | | | | | | | |
| | | GTGGGGCATT | | | | | | | | | | | | | |
| | | ACCTCGAATCT | | | | | | | | | | | | | |
| | | ACCGTCGATAT | | | | | | | | | | | | | |
| | | TGCTGAGTCC | | | | | | | | | | | | | |
| | | ACCCGCCGTA | | | | | | | | | | | | | |
| | | TTGCGGCAAG | | | | | | | | | | | | | |
| | | TCGTATTCCGG | | | | | | | | | | | | | |
| | | CTGATCACATG | | | | | | | | | | | | | |
| | | GTGCTGATGG | | | | | | | | | | | | | |
| | | CAGGTTTCACC | | | | | | | | | | | | | |
| | | GCCGGTAATG | | | | | | | | | | | | | |
| | | AAAAAGGCGA | | | | | | | | | | | | | |
| | | ACTGGTGGTG | | | | | | | | | | | | | |
| | | CTTGGACGCA | | | | | | | | | | | | | |
| | | ACGGTTCCGA | | | | | | | | | | | | | |
| | | CTACTCTGCTG | | | | | | | | | | | | | |
| | | CGGTGCTGGC | | | | | | | | | | | | | |
| | | TGCCTGTTTAC | | | | | | | | | | | | | |
| | | GCGCCGATTG | | | | | | | | | | | | | |
| | | TTGCGAGATTT | | | | | | | | | | | | | |
| | | GGACGGACGT | | | | | | | | | | | | | |
| | | TGACGGGGTC | | | | | | | | | | | | | |
| | | TATACCTGCGA | | | | | | | | | | | | | |
| CCCGCGTCAG | | | | | | | | | | | | | | | |
| GTGCCCCGATG | | | | | | | | | | | | | | | |
| CGAGGTTGTT | | | | | | | | | | | | | | | |
| GAAGTCGATG | | | | | | | | | | | | | | | |
| TCCTACCAGG | | | | | | | | | | | | | | | |
| AAGCGATGGA | | | | | | | | | | | | | | | |
| GCTTTCCTACT | | | | | | | | | | | | | | | |
| TCGGCGCTCT | | | | | | | | | | | | | | | |
| AGGTCAGGCC | | | | | | | | | | | | | | | |

| | | | | | | |
|-------------|-------|--------------|---|-----|--|--|
| 5910 | 10080 | GATTCATTTCGG | 3 | 350 | | |
| | | GATGGTCTGT | | | | |
| | | GTGGATTAAAA | | | | |
| | | AAAGAGTGTCT | | | | |
| | | GATAGCAGCTT | | | | |
| | | CTGAACTGGTT | | | | |
| | | ACCTGCCGTG | | | | |
| | | AGTAAATTTAA | | | | |
| | | ATTTTATTGAC | | | | |
| | | TTAGGTCACTA | | | | |
| | | AATACTTTAAC | | | | |
| | | CAATATAGGCA | | | | |
| | | TAGCGCACAG | | | | |
| | | ACAGATAAAAA | | | | |
| | | TTACAGAGTAC | | | | |
| | | ACAACATCCTC | | | | |
| | | AAAGCCTACC | | | | |
| | | GGTGACAGTG | | | | |
| | | CGGGCTTTTTT | | | | |
| | | TTCGACCAAAG | | | | |
| | | GTAACGAGGT | | | | |
| | | AACAACCATGC | | | | |
| | | GAGTGTTGAA | | | | |
| | | GTCAGGAGAT | | | | |
| | | CCTAAAGGCC | | | | |
| | | TGTACCCGTTA | | | | |
| CCTAGCCAGTT | | | | | | |
| GGCATTAAAC | | | | | | |
| GTATACGGTAC | | | | | | |
| CTAGGCATGTA | | | | | | |
| CGTAATCGTAG | | | | | | |
| CCTTAGCAATC | | | | | | |
| TCCAGTCC | | | | | | |

| Start Positio n | End Positio n |
|-----------------------|---------------------|
| 6730 | 7079 |
| 8014 | 8363 |
| 9552 | 9901 |

| 5910 | 10080 | GCTTTTCATTC | 3 | 350 | <table><tr><th>Start Positio n</th><th>End Positio n</th></tr><tr><td>6359</td><td>6708</td></tr><tr><td>7574</td><td>7923</td></tr><tr><td>8752</td><td>9101</td></tr></table> | Start Positio n | End Positio n | 6359 | 6708 | 7574 | 7923 | 8752 | 9101 |
|--------------|-------|-----------------------|---|-----|---|-----------------------|---------------------|------|------|------|------|------|------|
| | | Start Positio n | | | | End Positio n | | | | | | | |
| | | 6359 | | | | 6708 | | | | | | | |
| | | 7574 | | | | 7923 | | | | | | | |
| | | 8752 | | | | 9101 | | | | | | | |
| | | TGACTGCAAC | | | | | | | | | | | |
| | | GGGCAATATG | | | | | | | | | | | |
| | | TCTCTGTGTGG | | | | | | | | | | | |
| | | ATTAAAAAAG | | | | | | | | | | | |
| | | AGTGTCTGATA | | | | | | | | | | | |
| | | GCAGCTTCTG | | | | | | | | | | | |
| | | AACTGGTTACC | | | | | | | | | | | |
| | | TGCCGTGAGT | | | | | | | | | | | |
| | | AAATTAAAATT | | | | | | | | | | | |
| | | TTATTGACTTA | | | | | | | | | | | |
| | | GGTCACTAAAT | | | | | | | | | | | |
| | | ACTTTAACCAA | | | | | | | | | | | |
| | | TATAGGCATAG | | | | | | | | | | | |
| | | CGCACAGACA | | | | | | | | | | | |
| | | GATAAAAATTA | | | | | | | | | | | |
| CAGAGTACAC | | | | | | | | | | | | | |
| AACATCCATGA | | | | | | | | | | | | | |
| AACGCATTAGC | | | | | | | | | | | | | |
| ACCACCATTAC | | | | | | | | | | | | | |
| CACCACCATCA | | | | | | | | | | | | | |
| CCATTACCACA | | | | | | | | | | | | | |
| GGTAACGGTG | | | | | | | | | | | | | |
| CGGGCTGACG | | | | | | | | | | | | | |
| CGTACAGGAA | | | | | | | | | | | | | |
| ACACAGAAAAA | | | | | | | | | | | | | |
| AGCCCGCACCC | | | | | | | | | | | | | |
| TGACAGTGCG | | | | | | | | | | | | | |
| GGCTTTTTTTTT | | | | | | | | | | | | | |
| CGACCAAAGG | | | | | | | | | | | | | |
| TAACGAGGTAA | | | | | | | | | | | | | |
| CAACCATGCG | | | | | | | | | | | | | |
| AGTGTTGAAGT | | | | | | | | | | | | | |

SRGD Performance Metrics

| | |
|---|------|
| Initial Reads Count: | 1212 |
| Reads Count after Removing Duplication: | 388 |

| | |
|---|--------|
| Reads Count after Overlapping: | 283 |
| Initial Dataset Size in (Base): | 241272 |
| Dataset Siset after Removing Duplication: | 99165 |
| Dataset Size after Overlapping: | 58983 |

Overlapping Metrics

| | |
|-----------------------------|-------------------|
| Repeat Identification Time: | 00h:00m:10s:000ms |
| Overlapping Time: | 00h:03m:46s:000ms |
| Reads Alignment Time: | 00h:00m:53s:000ms |
| Total Hybrid Assembly Time: | 00h:04m:39s:000ms |
| Repeat Annotation Time: | 00h:12m:21s:000ms |

| Overlapping Length | O(N)2 Time Complexity | Hit Index Count | Overlapping Matched Count | RI |
|--------------------|-----------------------|-----------------|---------------------------|----|
| 200 | 28900 | 63 | 7 | 0 |
| 199 | 26569 | 61 | 7 | 0 |
| 198 | 24336 | 58 | 4 | 0 |
| 197 | 23104 | 46 | 6 | 0 |
| 195 | 21316 | 33 | 1 | 0 |
| 194 | 21025 | 51 | 5 | 0 |
| 190 | 19600 | 40 | 4 | 0 |
| 187 | 18496 | 29 | 1 | 0 |
| 183 | 18225 | 41 | 2 | 0 |
| 182 | 17689 | 28 | 1 | 0 |
| 179 | 17424 | 45 | 1 | 0 |
| 176 | 17161 | 133 | 57 | 0 |

| | | | | |
|-----|------|----|---|---|
| 165 | 5476 | 12 | 1 | 0 |
| 162 | 5329 | 9 | 1 | 0 |
| 156 | 5184 | 9 | 1 | 0 |
| 151 | 5041 | 10 | 4 | 0 |
| 140 | 4489 | 8 | 2 | 0 |