

Report

|                             | k44_M05964-contigs | k44_M07572-contigs | k44_M10540-contigs | k44_M16180-contigs | k77_M05964-contigs | k77_M07572-contigs | k77_M10540-contigs | k77_M16180-contigs | k127_M05964-contigs | k127_M07572-contigs | k127_M10540-contigs | k127_M16180-contigs | k99_M05964-contigs | k99_M07572-contigs | k99_M10540-contigs | k99_M16180-contigs |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
| # contigs (>= 0 bp)         | 134                | 261                | 69                 | 141                | 84                 | 126                | 38                 | 69                 | 41                  | 55                  | 19                  | 36                  | 61                 | 72                 | 23                 | 42                 |
| # contigs (>= 1000 bp)      | 36                 | 72                 | 29                 | 49                 | 36                 | 51                 | 21                 | 33                 | 35                  | 43                  | 15                  | 26                  | 36                 | 42                 | 17                 | 28                 |
| # contigs (>= 5000 bp)      | 31                 | 47                 | 27                 | 39                 | 27                 | 34                 | 20                 | 31                 | 21                  | 35                  | 14                  | 22                  | 23                 | 36                 | 15                 | 26                 |
| # contigs (>= 10000 bp)     | 25                 | 36                 | 24                 | 30                 | 23                 | 29                 | 18                 | 25                 | 18                  | 23                  | 12                  | 17                  | 19                 | 25                 | 13                 | 20                 |
| # contigs (>= 25000 bp)     | 19                 | 26                 | 16                 | 22                 | 18                 | 20                 | 13                 | 21                 | 16                  | 17                  | 10                  | 15                  | 15                 | 18                 | 11                 | 18                 |
| # contigs (>= 50000 bp)     | 9                  | 13                 | 9                  | 12                 | 9                  | 13                 | 9                  | 13                 | 10                  | 12                  | 7                   | 13                  | 8                  | 11                 | 7                  | 14                 |
| Total length (>= 0 bp)      | 1856487            | 2018561            | 1846668            | 1875236            | 1861765            | 2033998            | 1843463            | 1877718            | 1943458             | 2047751             | 1839699             | 1890630             | 1868767            | 2042415            | 1834414            | 1893788            |
| Total length (>= 1000 bp)   | 1843001            | 1993863            | 1841807            | 1860135            | 1852825            | 2015592            | 1840271            | 1870234            | 1941913             | 2044301             | 1838715             | 1887625             | 1863738            | 2032406            | 1832278            | 1889956            |
| Total length (>= 5000 bp)   | 1828185            | 1920860            | 1837035            | 1838044            | 1832670            | 1957892            | 1836531            | 1865087            | 1912787             | 2021558             | 1836960             | 1877331             | 1836604            | 2013233            | 1826810            | 1884609            |
| Total length (>= 10000 bp)  | 1778633            | 1849422            | 1816581            | 1771774            | 1800812            | 1923302            | 1825488            | 1825390            | 1890847             | 1931796             | 1826417             | 1843900             | 1805426            | 1934655            | 1816267            | 1845458            |
| Total length (>= 25000 bp)  | 1686546            | 1676512            | 1703942            | 1624648            | 1727524            | 1769021            | 1765750            | 1755503            | 1863980             | 1826189             | 1801233             | 1812508             | 1751712            | 1808181            | 1794781            | 1810534            |
| Total length (>= 50000 bp)  | 1298668            | 1254806            | 1445343            | 1313950            | 1393482            | 1533445            | 1618312            | 1496920            | 1632852             | 1659461             | 1701763             | 1755696             | 1485927            | 1564002            | 1649111            | 1681577            |
| # contigs                   | 41                 | 74                 | 30                 | 56                 | 38                 | 59                 | 22                 | 37                 | 35                  | 43                  | 16                  | 27                  | 37                 | 46                 | 19                 | 30                 |
| Largest contig              | 473423             | 217183             | 334836             | 369249             | 343779             | 312213             | 400731             | 369262             | 550439              | 312376              | 409689              | 401071              | 550431             | 312355             | 400825             | 401071             |
| Total length                | 1846118            | 1995099            | 1842389            | 1864193            | 1854153            | 2022140            | 1840807            | 1872401            | 1941913             | 2044301             | 1839251             | 1888140             | 1864279            | 2035777            | 1833634            | 1891040            |
| Reference length            | 1914490            | 1914490            | 1914490            | 1914490            | 1914490            | 1914490            | 1914490            | 1914490            | 1914490             | 1914490             | 1914490             | 1914490             | 1914490            | 1914490            | 1914490            | 1914490            |
| GC (%)                      | 37.95              | 38.36              | 38.10              | 38.08              | 37.95              | 38.40              | 38.10              | 38.09              | 38.00               | 38.44               | 38.07               | 38.18               | 38.00              | 38.44              | 38.04              | 38.18              |
| Reference GC (%)            | 38.16              | 38.16              | 38.16              | 38.16              | 38.16              | 38.16              | 38.16              | 38.16              | 38.16               | 38.16               | 38.16               | 38.16               | 38.16              | 38.16              | 38.16              | 38.16              |
| N50                         | 97979              | 80448              | 157960             | 82364              | 144973             | 103159             | 285281             | 100164             | 183050              | 141208              | 333934              | 138055              | 182978             | 141152             | 311520             | 125281             |
| NG50                        | 97979              | 80448              | 157960             | 82364              | 122974             | 103159             | 285281             | 93358              | 183050              | 141208              | 333934              | 138055              | 182978             | 141152             | 311520             | 125281             |
| N75                         | 44883              | 33152              | 63553              | 33896              | 60895              | 52032              | 83976              | 52751              | 75809               | 77394               | 191716              | 96606               | 79438              | 53598              | 189976             | 73822              |
| NG75                        | 44231              | 35070              | 52654              | 31742              | 49193              | 63910              | 83976              | 52751              | 75809               | 81370               | 191716              | 96606               | 66805              | 81353              | 189976             | 73822              |
| L50                         | 5                  | 9                  | 4                  | 7                  | 4                  | 6                  | 3                  | 5                  | 3                   | 5                   | 3                   | 5                   | 3                  | 5                  | 3                  | 5                  |
| LG50                        | 5                  | 9                  | 4                  | 7                  | 5                  | 6                  | 3                  | 6                  | 3                   | 5                   | 3                   | 5                   | 3                  | 5                  | 3                  | 5                  |
| L75                         | 11                 | 20                 | 8                  | 15                 | 9                  | 13                 | 6                  | 12                 | 8                   | 10                  | 5                   | 9                   | 7                  | 11                 | 5                  | 10                 |
| LG75                        | 12                 | 18                 | 9                  | 16                 | 10                 | 12                 | 6                  | 12                 | 8                   | 9                   | 5                   | 9                   | 8                  | 9                  | 5                  | 10                 |
| # misassemblies             | 29                 | 10                 | 51                 | 16                 | 37                 | 17                 | 56                 | 22                 | 40                  | 17                  | 55                  | 25                  | 39                 | 18                 | 52                 | 24                 |
| # misassembled contigs      | 14                 | 10                 | 13                 | 9                  | 17                 | 11                 | 12                 | 10                 | 15                  | 9                   | 9                   | 9                   | 14                 | 10                 | 8                  | 9                  |
| Misassembled contigs length | 1415328            | 701097             | 1270307            | 836716             | 1556768            | 1081927            | 1359452            | 1093160            | 1685809             | 1074434             | 1345732             | 1238267             | 1551228            | 1156852            | 1293278            | 1161684            |
| # local misassemblies       | 59                 | 22                 | 46                 | 33                 | 62                 | 28                 | 52                 | 42                 | 68                  | 32                  | 51                  | 38                  | 62                 | 34                 | 47                 | 38                 |
| # unaligned contigs         | 2 + 6 part         | 18 + 14 part       | 3 + 9 part         | 6 + 10 part        | 2 + 5 part         | 13 + 9 part        | 2 + 5 part         | 2 + 5 part         | 2 + 4 part          | 7 + 9 part          | 2 + 2 part          | 2 + 3 part          | 2 + 5 part         | 8 + 8 part         | 3 + 4 part         | 2 + 3 part         |
| Unaligned length            | 49700              | 185553             | 344161             | 63475              | 42492              | 160132             | 301488             | 52376              | 33061               | 151974              | 257215              | 68550               | 43340              | 161677             | 303118             | 68466              |
| Genome fraction (%)         | 84.617             | 89.455             | 56.103             | 87.430             | 84.742             | 90.448             | 56.153             | 88.066             | 85.164              | 90.241              | 55.795              | 88.711              | 85.064             | 90.507             | 55.861             | 88.845             |
| Duplication ratio           | 1.109              | 1.057              | 1.395              | 1.076              | 1.117              | 1.075              | 1.432              | 1.079              | 1.171               | 1.095               | 1.481               | 1.071               | 1.118              | 1.082              | 1.431              | 1.072              |
| # N's per 100 kbp           | 8.29               | 8.32               | 0.05               | 1.45               | 1.19               | 0.49               | 0.00               | 0.80               | 0.00                | 0.00                | 0.00                | 0.00                | 0.00               | 0.00               | 0.05               | 0.05               |
| # mismatches per 100 kbp    | 2140.76            | 1125.53            | 3527.65            | 1729.67            | 2128.60            | 1142.87            | 3525.00            | 1734.26            | 2125.91             | 1111.39             | 3521.58             | 1674.32             | 2126.58            | 1120.35            | 3517.97            | 1722.77            |
| # indels per 100 kbp        | 55.93              | 34.39              | 85.47              | 46.30              | 57.20              | 37.02              | 86.42              | 45.85              | 58.20               | 36.29               | 87.53               | 46.04               | 58.15              | 36.65              | 86.40              | 46.62              |
| Largest alignment           | 128158             | 193020             | 64661              | 182060             | 128191             | 224833             | 64661              | 192070             | 159911              | 224833              | 64661               | 223918              | 159911             | 224833             | 64661              | 223918             |
| NA50                        | 38866              | 49282              | 7738               | 42132              | 38866              | 83739              | 8250               | 58515              | 45982               | 93346               | 8250                | 115142              | 45954              | 92226              | 8526               | 72903              |
| NGA50                       | 38655              | 70913              | 6591               | 41412              | 38655              | 83739              | 6983               | 58515              | 45982               | 93346               | 6780                | 115142              | 45464              | 92226              | 6605               | 72903              |
| NA75                        | 18024              | 20426              | -                  | 19603              | 16833              | 22762              | -                  | 22564              | 20262               | 28434               | -                   | 24577               | 19190              | 27962              | -                  | 23981              |
| NGA75                       | 14094              | 26462              | -                  | 17976              | 13937              | 28025              | -                  | 19603              | 23711               | 39767               | -                   | 22363               | 16064              | 38172              | -                  | 22363              |
| LA50                        | 14                 | 10                 | 48                 | 10                 | 13                 | 8                  | 45                 | 9                  | 12                  | 7                   | 45                  | 7                   | 11                 | 7                  | 44                 | 8                  |
| LGA50                       | 15                 | 9                  | 53                 | 11                 | 14                 | 8                  | 50                 | 9                  | 12                  | 7                   | 50                  | 7                   | 12                 | 7                  | 50                 | 8                  |
| LA75                        | 30                 | 26                 | -                  | 26                 | 29                 | 21                 | -                  | 21                 | 28                  | 18                  | -                   | 17                  | 26                 | 19                 | -                  | 20                 |
| LGA75                       | 33                 | 23                 | -                  | 28                 | 32                 | 18                 | -                  | 23                 | 27                  | 15                  | -                   | 18                  | 28                 | 16                 | -                  | 21                 |

All statistics are based on contigs of size >= 500 bp, unless otherwise noted (e.g., "# contigs (>= 0 bp)" and "Total length (>= 0 bp)" include all contigs).

# Misassemblies report

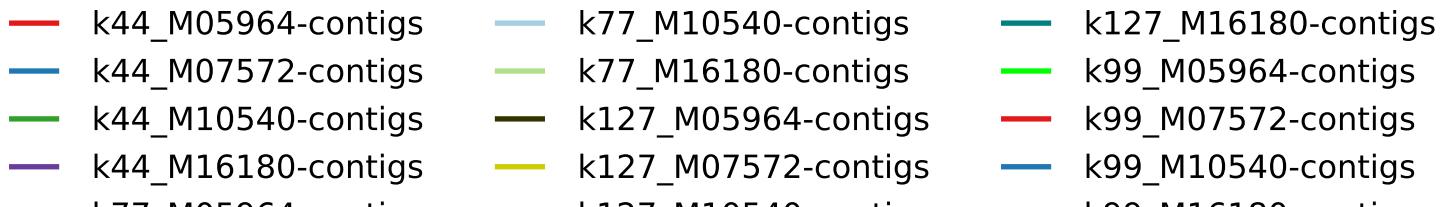
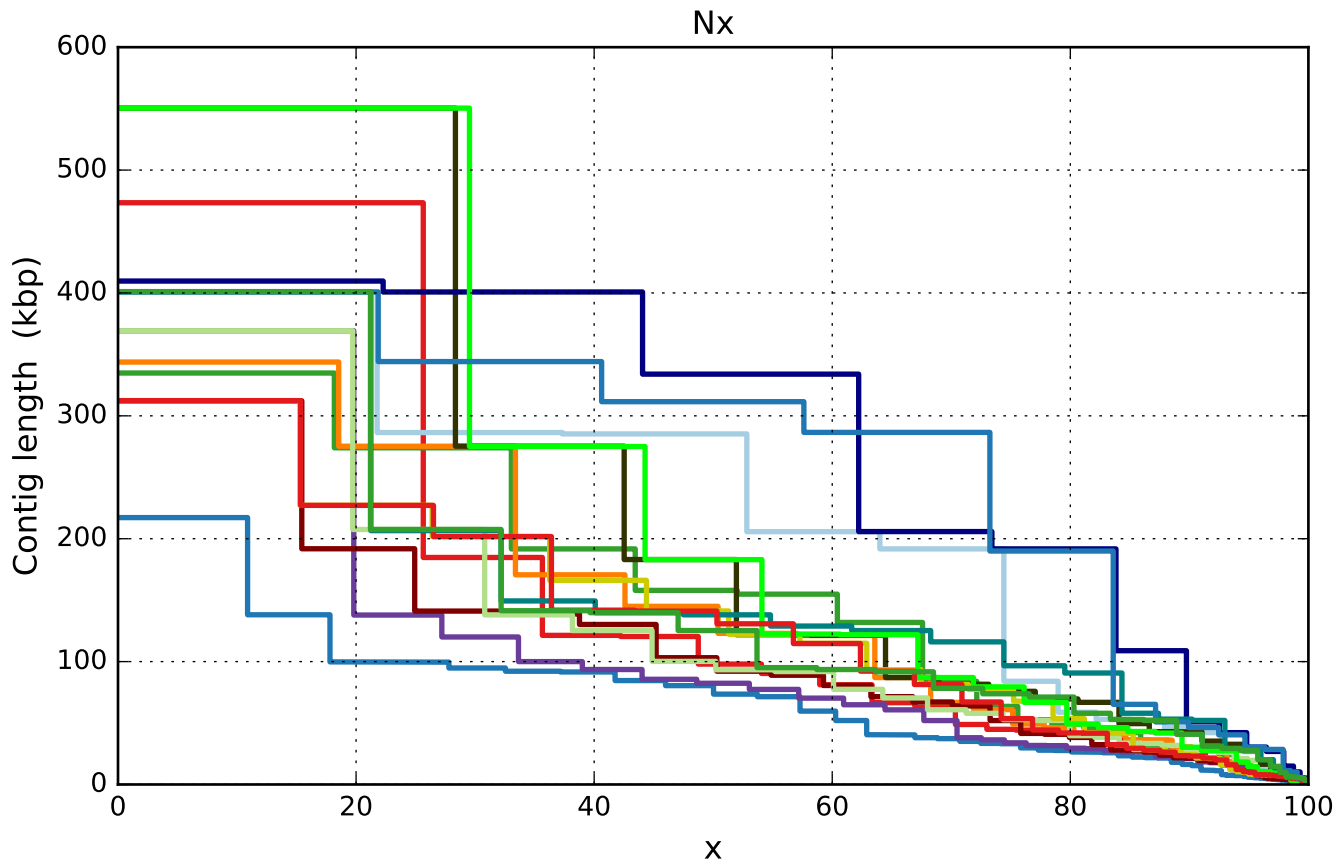
|                             | k44_M05964-contigs | k44_M07572-contigs | k44_M10540-contigs | k44_M16180-contigs | k77_M05964-contigs | k77_M07572-contigs | k77_M10540-contigs | k77_M16180-contigs | k127_M05964-contigs | k127_M07572-contigs | k127_M10540-contigs | k127_M16180-contigs | k99_M05964-contigs | k99_M07572-contigs | k99_M10540-contigs | k99_M16180-contigs |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
| # misassemblies             | 29                 | 10                 | 51                 | 16                 | 37                 | 17                 | 56                 | 22                 | 40                  | 17                  | 55                  | 25                  | 39                 | 18                 | 52                 | 24                 |
| # relocations               | 28                 | 10                 | 51                 | 16                 | 36                 | 17                 | 56                 | 22                 | 39                  | 17                  | 53                  | 25                  | 37                 | 18                 | 50                 | 24                 |
| # translocations            | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   | 0                   | 0                   | 0                   | 0                  | 0                  | 0                  | 0                  |
| # inversions                | 1                  | 0                  | 0                  | 0                  | 1                  | 0                  | 0                  | 0                  | 1                   | 0                   | 2                   | 0                   | 2                  | 0                  | 2                  | 0                  |
| # misassembled contigs      | 14                 | 10                 | 13                 | 9                  | 17                 | 11                 | 12                 | 10                 | 15                  | 9                   | 9                   | 9                   | 14                 | 10                 | 8                  | 9                  |
| Misassembled contigs length | 1415328            | 701097             | 1270307            | 836716             | 1556768            | 1081927            | 1359452            | 1093160            | 1685809             | 1074434             | 1345732             | 1238267             | 1551228            | 1156852            | 1293278            | 1161684            |
| # local misassemblies       | 59                 | 22                 | 46                 | 33                 | 62                 | 28                 | 52                 | 42                 | 68                  | 32                  | 51                  | 38                  | 62                 | 34                 | 47                 | 38                 |
| # mismatches                | 34680              | 19276              | 37890              | 28952              | 34534              | 19790              | 37895              | 29240              | 34662               | 19201               | 37617               | 28436               | 34632              | 19413              | 37623              | 29303              |
| # indels                    | 906                | 589                | 918                | 775                | 928                | 641                | 929                | 773                | 949                 | 627                 | 935                 | 782                 | 947                | 635                | 924                | 793                |
| # short indels              | 795                | 518                | 838                | 689                | 810                | 560                | 846                | 683                | 827                 | 549                 | 848                 | 691                 | 828                | 559                | 838                | 701                |
| # long indels               | 111                | 71                 | 80                 | 86                 | 118                | 81                 | 83                 | 90                 | 122                 | 78                  | 87                  | 91                  | 119                | 76                 | 86                 | 92                 |
| Indels length               | 3040               | 1941               | 2186               | 2286               | 3094               | 2400               | 2284               | 2349               | 3230                | 2247                | 2367                | 2409                | 3182               | 2259               | 2311               | 2404               |

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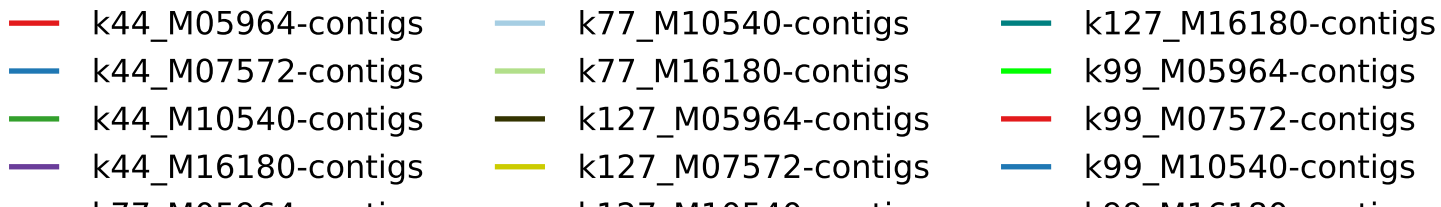
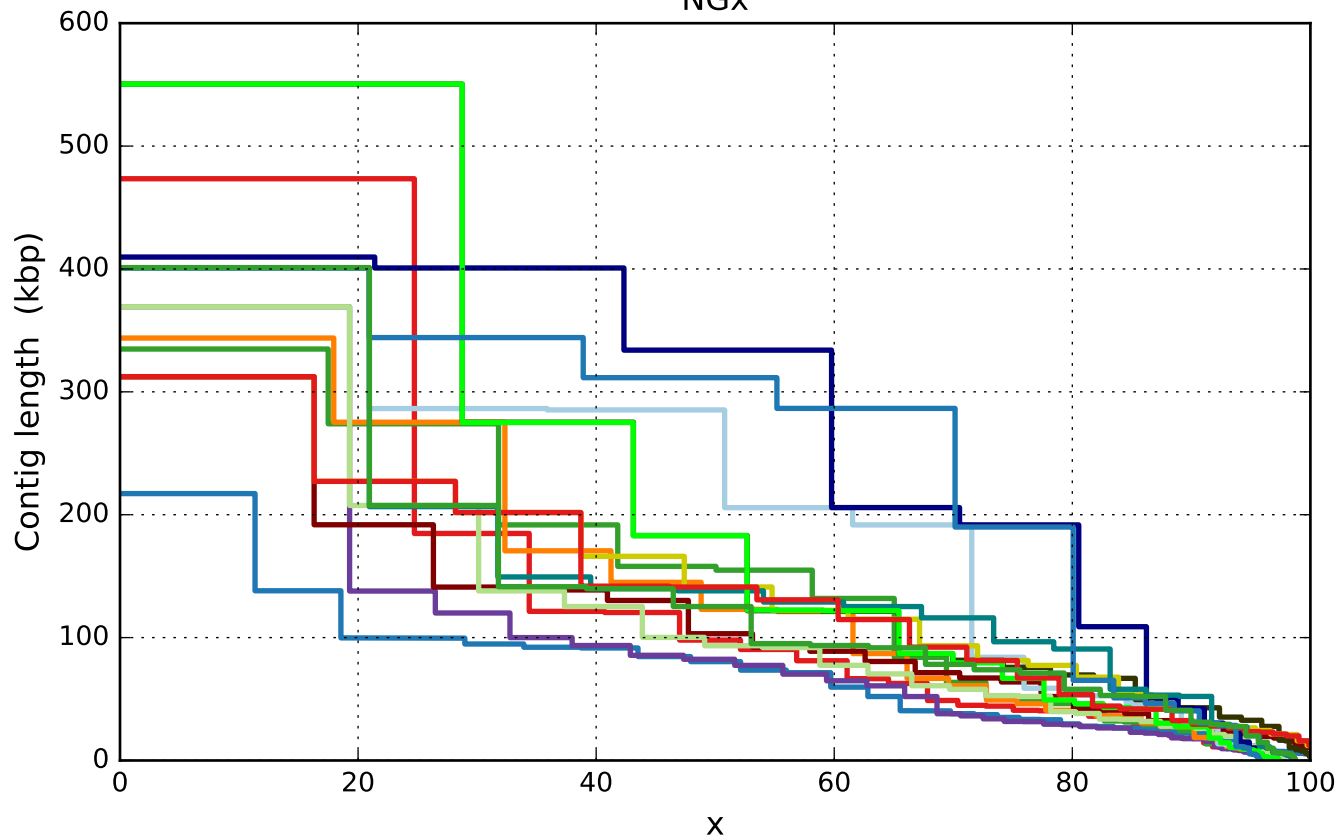
# Unaligned report

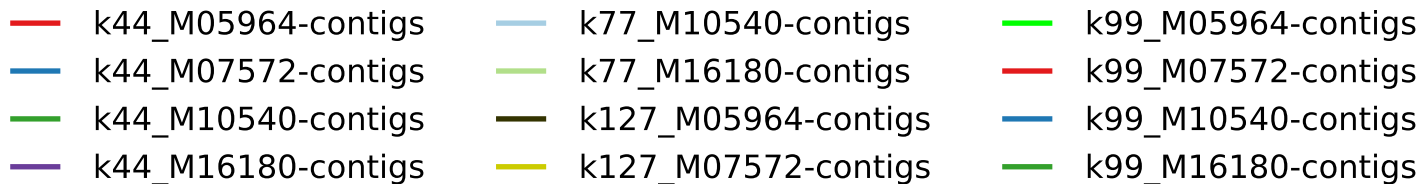
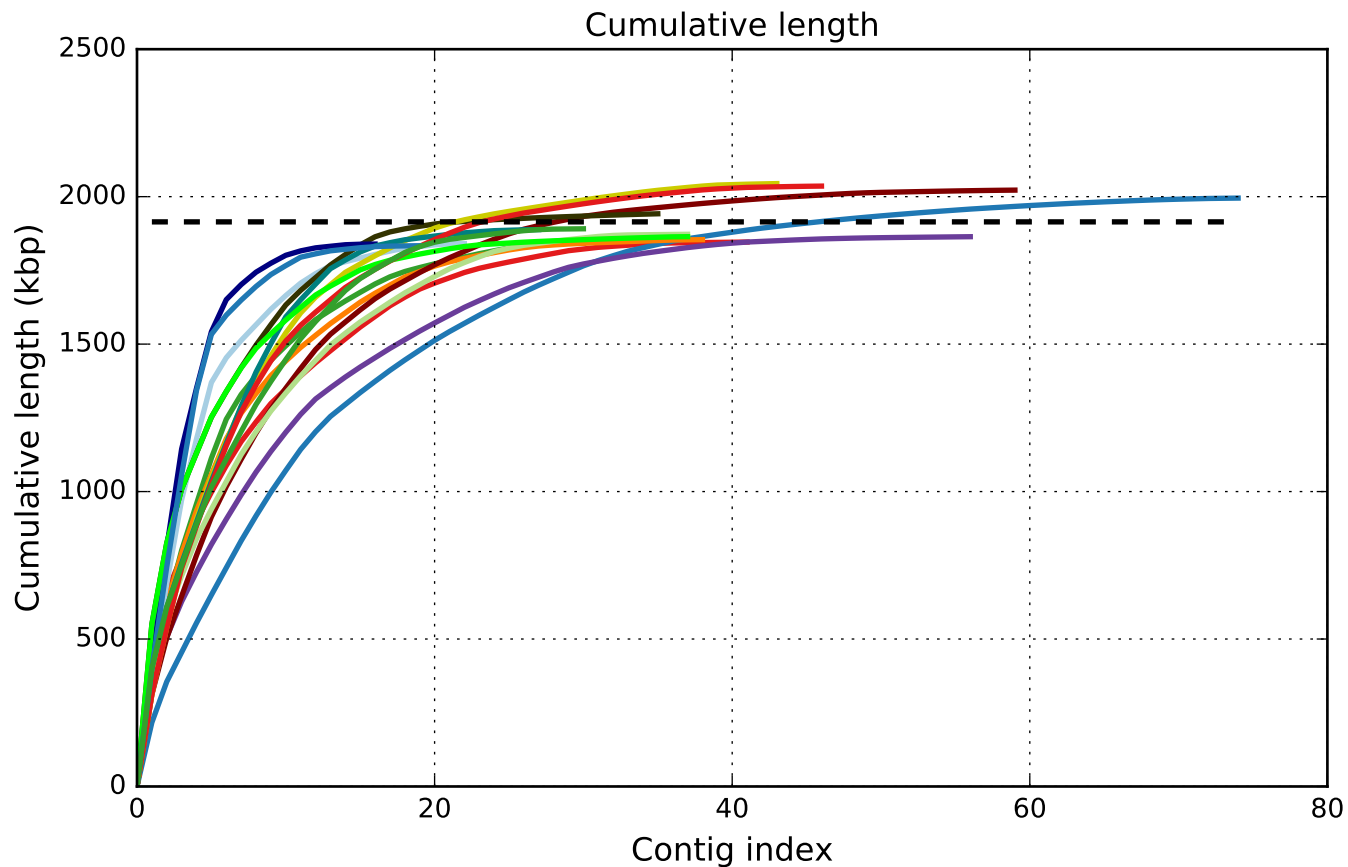
|                               | k44_M05964-contigs | k44_M07572-contigs | k44_M10540-contigs | k44_M16180-contigs | k77_M05964-contigs | k77_M07572-contigs | k77_M10540-contigs | k77_M16180-contigs | k127_M05964-contigs | k127_M07572-contigs | k127_M10540-contigs | k127_M16180-contigs | k99_M05964-contigs | k99_M07572-contigs | k99_M10540-contigs | k99_M16180-contigs |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
| # fully unaligned contigs     | 2                  | 18                 | 3                  | 6                  | 2                  | 13                 | 2                  | 2                  | 2                   | 7                   | 2                   | 2                   | 2                  | 8                  | 3                  | 2                  |
| Fully unaligned length        | 2062               | 112360             | 11615              | 20638              | 3632               | 56887              | 10649              | 13439              | 4647                | 63345               | 10749               | 12653               | 4414               | 58556              | 11513              | 12597              |
| # partially unaligned contigs | 6                  | 14                 | 9                  | 10                 | 5                  | 9                  | 5                  | 5                  | 4                   | 9                   | 2                   | 3                   | 5                  | 8                  | 4                  | 3                  |
| # with misassembly            | 1                  | 3                  | 7                  | 2                  | 2                  | 3                  | 5                  | 1                  | 1                   | 1                   | 2                   | 1                   | 2                  | 2                  | 4                  | 1                  |
| # both parts are significant  | 6                  | 8                  | 9                  | 5                  | 4                  | 4                  | 5                  | 4                  | 4                   | 4                   | 2                   | 3                   | 4                  | 3                  | 4                  | 3                  |
| Partially unaligned length    | 47638              | 73193              | 332546             | 42837              | 38860              | 103245             | 290839             | 38937              | 28414               | 88629               | 246466              | 55897               | 38926              | 103121             | 291605             | 55869              |
| # N's                         | 153                | 166                | 1                  | 27                 | 22                 | 10                 | 0                  | 15                 | 0                   | 0                   | 0                   | 0                   | 0                  | 0                  | 1                  | 1                  |

All statistics are based on contigs of size  $\geq 500$  bp, unless otherwise noted (e.g., "# contigs ( $\geq 0$  bp)" and "Total length ( $\geq 0$  bp)" include all contigs).

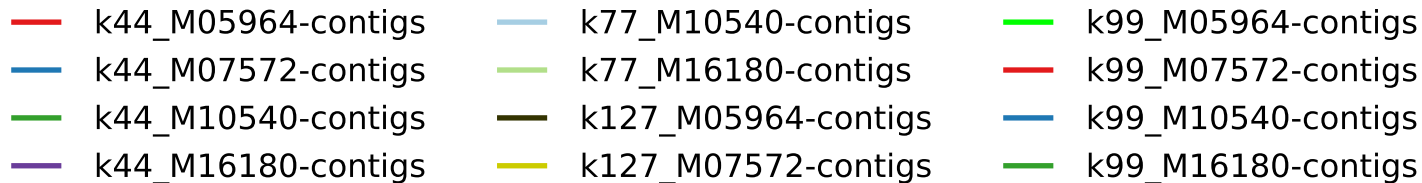
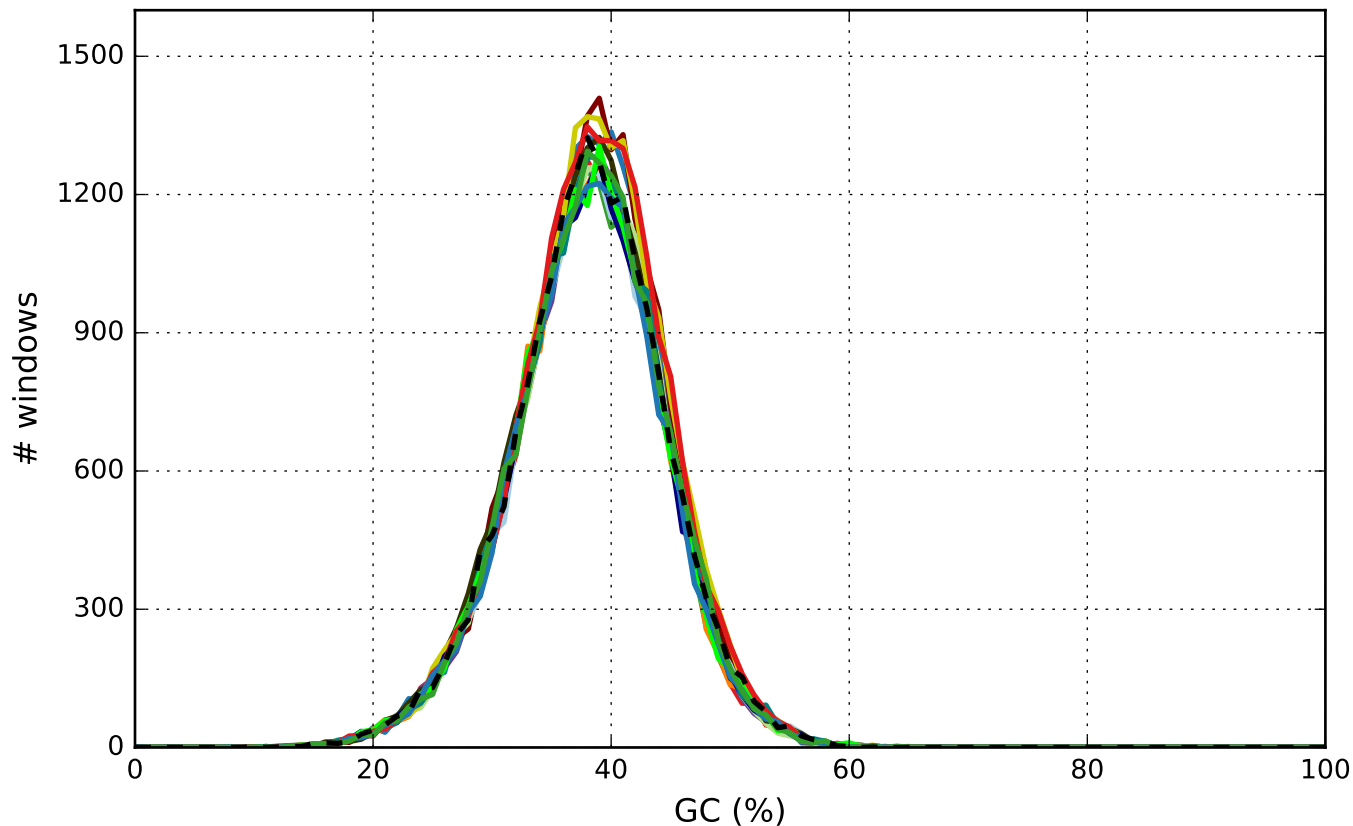


NGx

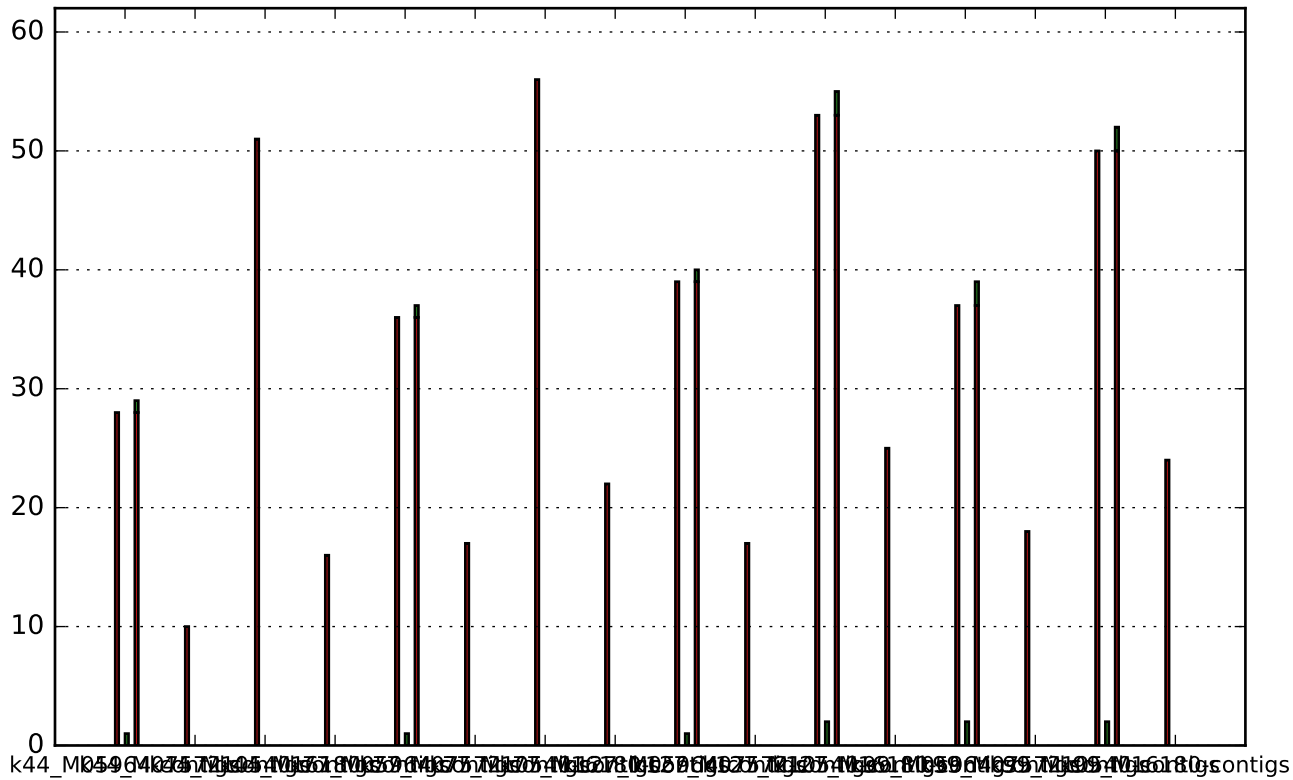




GC content

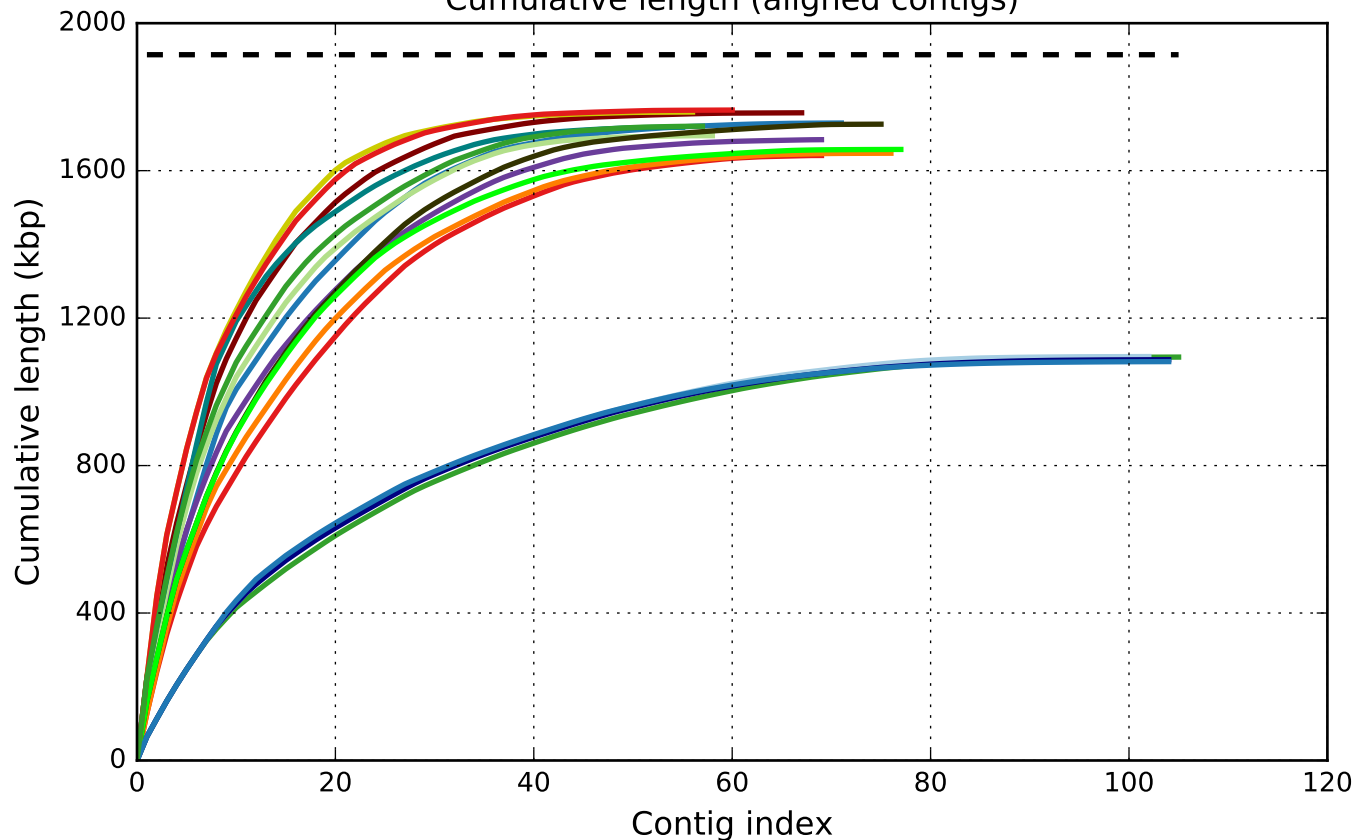


# Misassemblies





Cumulative length (aligned contigs)



k44\_M05964-contigs

k44\_M07572-contigs

k44\_M10540-contigs

k44\_M16180-contigs

k77\_M10540-contigs

k77\_M16180-contigs

k127\_M05964-contigs

k127\_M07572-contigs

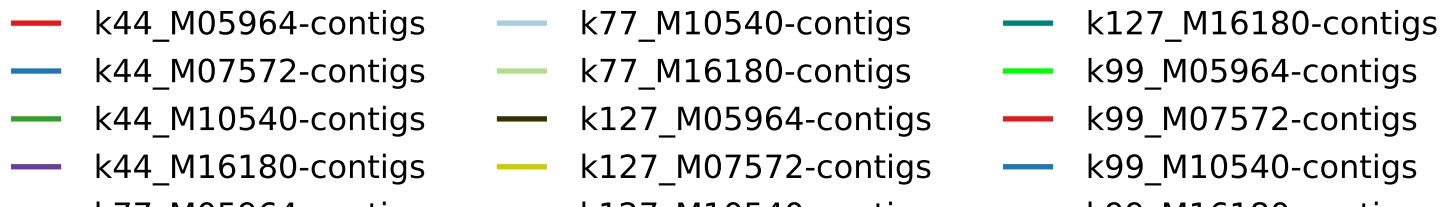
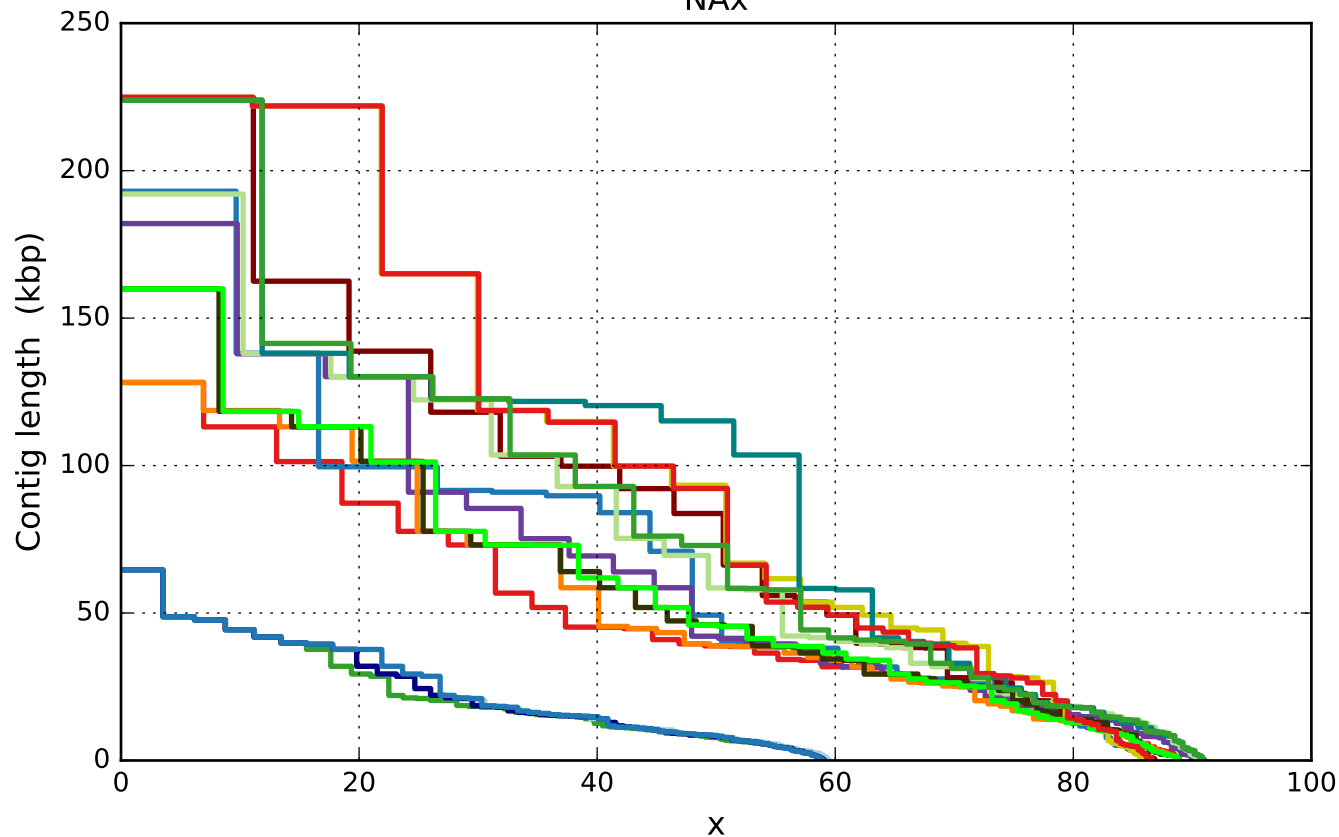
k99\_M05964-contigs

k99\_M07572-contigs

k99\_M10540-contigs

k99\_M16180-contigs

NAx



# NGAx

