

**Additional file 5:** (a) Genomic density of TRs in repeat classes in different genomic regions of *Daphnia pulex*, the euchromatic genome of *Drosophila melanogaster* and *Apis mellifera*.

| unit size | Dappu v1.1 3'UTR<br>[bp/Mbp] | Dappu v1.1 5'UTR<br>[bp/Mbp] | Dappu v1.1 CDS<br>[bp/Mbp] | Dappu v1.1 introns<br>[bp/Mbp] | Dappu v1.1 intergenic<br>[bp/Mbp] | DroMel-5.5 3'UTR<br>[bp/Mbp] | DroMel-5.5 5'UTR<br>[bp/Mbp] | DroMel-5.5 CDS<br>[bp/Mbp] | DroMel-5.5 introns<br>[bp/Mbp] | DroMel-5.5 intergenic<br>[bp/Mbp] | ApiMel-2.0 CDS<br>[bp/Mbp] | ApiMel-2.0 introns<br>[bp/Mbp] | ApiMel-2.0 intergenic<br>[bp/Mbp] | min<br>[bp/Mbp] | max<br>[bp/Mbp] |
|-----------|------------------------------|------------------------------|----------------------------|--------------------------------|-----------------------------------|------------------------------|------------------------------|----------------------------|--------------------------------|-----------------------------------|----------------------------|--------------------------------|-----------------------------------|-----------------|-----------------|
| 1         | 2566.71                      | 649.89                       | 27.09                      | 3047.26                        | 1878.28                           | 1647.79                      | 1159.25                      | 8.83                       | 2332.7                         | 1790.14                           | 135.1                      | 4813.99                        | 4204.54                           | 8.83            | 4813.99         |
| 2         | 1832.65                      | 1179.56                      | 25.61                      | 3280.74                        | 2045.98                           | 4145.34                      | 2747.03                      | 15.68                      | 2763.69                        | 2262.88                           | 470.12                     | 7188.96                        | 7383.92                           | 15.68           | 7383.92         |
| 3         | 1151.01                      | 940.72                       | 1568.72                    | 3980.86                        | 2659.33                           | 1658.58                      | 2301.5                       | 2594.15                    | 1419.65                        | 1281.19                           | 6130.3                     | 3271                           | 3119.31                           | 940.72          | 6130.3          |
| 4         | 325.34                       | 115.36                       | 46.8                       | 1080.71                        | 690.49                            | 917.7                        | 724.22                       | 5.49                       | 882.8                          | 742.53                            | 151.89                     | 1645.48                        | 1772.09                           | 5.49            | 1772.09         |
| 5         | 273.54                       | 383.44                       | 27.01                      | 737.11                         | 636.18                            | 911.81                       | 892.15                       | 9.75                       | 803.62                         | 1418.64                           | 89.42                      | 1254.89                        | 1318.3                            | 9.75            | 1418.64         |
| 6         | 160.45                       | 29.25                        | 158.3                      | 422.69                         | 503.69                            | 1788.07                      | 1530.23                      | 721.43                     | 1639.88                        | 1476.94                           | 3333.4                     | 1045.95                        | 953.98                            | 29.25           | 3333.4          |
| 7         | 125.72                       | 201.46                       | 38.27                      | 336.21                         | 288.58                            | 662.16                       | 774.52                       | 28.72                      | 1030.3                         | 1073.82                           | 147.99                     | 976.98                         | 910.13                            | 28.72           | 1073.82         |
| 8         | 140.25                       | 121.86                       | 29.43                      | 366.33                         | 277.38                            | 478.71                       | 486.79                       | 21.78                      | 726.69                         | 821.28                            | 83.95                      | 1129.84                        | 980.45                            | 21.78           | 1129.84         |
| 9         | 82.12                        | 224.21                       | 380.79                     | 361.04                         | 392.69                            | 383.07                       | 399.57                       | 415.64                     | 480.27                         | 497.02                            | 835.99                     | 1089.58                        | 1042.96                           | 82.12           | 1089.58         |
| 10        | 164.25                       | 0                            | 294.7                      | 381.32                         | 725.34                            | 245.24                       | 144.77                       | 4.3                        | 310.98                         | 318.76                            | 1577.87                    | 1318.4                         | 1289.86                           | 0               | 1577.87         |
| 11        | 262.17                       | 183.59                       | 31.06                      | 261.25                         | 288.27                            | 142.98                       | 170.11                       | 127.34                     | 266.18                         | 5209.88                           | 229.59                     | 1100.93                        | 977.12                            | 31.06           | 5209.88         |
| 12        | 275.44                       | 133.23                       | 556.97                     | 300.21                         | 394.31                            | 368.85                       | 327.18                       | 536.31                     | 410.4                          | 2133.43                           | 668.48                     | 1179.78                        | 1087.53                           | 133.23          | 2133.43         |
| 13        | 33.48                        | 0                            | 30.05                      | 172.48                         | 220.35                            | 88.04                        | 22.8                         | 9.18                       | 91.78                          | 123.39                            | 38.27                      | 658.92                         | 583.65                            | 0               | 658.92          |
| 14        | 74.54                        | 0                            | 45.36                      | 97.42                          | 131.43                            | 39.48                        | 95.91                        | 7.29                       | 108.35                         | 137.21                            | 34.75                      | 364.38                         | 374.13                            | 0               | 374.13          |
| 15        | 65.07                        | 56.87                        | 453.35                     | 161.26                         | 227.49                            | 123.85                       | 10.86                        | 364.31                     | 93.42                          | 93.04                             | 1547.02                    | 289.88                         | 267.13                            | 10.86           | 1547.02         |
| 16        | 0                            | 0                            | 41.43                      | 60.12                          | 89.53                             | 46.6                         | 17.01                        | 2.33                       | 41.96                          | 60.94                             | 554.85                     | 115.91                         | 175.46                            | 0               | 554.85          |
| 17        | 22.11                        | 0                            | 29.47                      | 42.81                          | 1039.42                           | 48.56                        | 12.31                        | 4                          | 27.22                          | 36.64                             | 57.01                      | 152.24                         | 117.1                             | 0               | 1039.42         |
| 18        | 0                            | 63.36                        | 346.76                     | 57.11                          | 192.02                            | 24.52                        | 48.5                         | 377.88                     | 49.63                          | 38.86                             | 701.67                     | 102.54                         | 135.82                            | 0               | 701.67          |
| 19        | 49.28                        | 0                            | 15.9                       | 61.71                          | 145.63                            | 40.22                        | 0                            | 3.16                       | 37.3                           | 42.74                             | 168.68                     | 75.97                          | 79.45                             | 0               | 168.68          |
| 20        | 0                            | 0                            | 88.62                      | 54.2                           | 93.11                             | 43.9                         | 17.73                        | 7.82                       | 12.95                          | 20.91                             | 66.38                      | 70.01                          | 94.1                              | 0               | 94.1            |
| 21        | 0                            | 0                            | 299.37                     | 76.55                          | 154.15                            | 37.77                        | 33.3                         | 218.4                      | 31.3                           | 106.41                            | 419.75                     | 71.91                          | 67.54                             | 0               | 419.75          |
| 22        | 63.81                        | 0                            | 31.57                      | 32.21                          | 45.74                             | 20.11                        | 0                            | 5.49                       | 12.04                          | 185.45                            | 71.46                      | 79.04                          | 44.27                             | 0               | 185.45          |
| 23        | 0                            | 0                            | 18.47                      | 20.67                          | 61.84                             | 0                            | 0                            | 18.79                      | 64.64                          | 414.76                            | 0                          | 44.24                          | 50.28                             | 0               | 414.76          |
| 24        | 42.96                        | 451.68                       | 693.52                     | 78.07                          | 306.5                             | 32.13                        | 0                            | 240.71                     | 31.5                           | 39.49                             | 177.66                     | 118.49                         | 85.39                             | 0               | 693.52          |
| 25        | 0                            | 0                            | 3.19                       | 9.95                           | 30.98                             | 0                            | 20.63                        | 0                          | 6.85                           | 8.33                              | 0                          | 17.06                          | 36.32                             | 0               | 36.32           |
| 26        | 0                            | 0                            | 16.75                      | 14.1                           | 53.56                             | 22.56                        | 0                            | 6.81                       | 22.12                          | 38.06                             | 0                          | 69.77                          | 177.69                            | 0               | 177.69          |
| 27        | 43.59                        | 0                            | 186.17                     | 39.73                          | 74.14                             | 39.97                        | 0                            | 103.76                     | 17.27                          | 25.77                             | 0                          | 9.57                           | 68.11                             | 0               | 186.17          |
| 28        | 0                            | 0                            | 11.65                      | 18.96                          | 29.22                             | 0                            | 0                            | 0                          | 9.76                           | 20.92                             | 0                          | 112.29                         | 69.29                             | 0               | 112.29          |
| 29        | 0                            | 0                            | 5.53                       | 10.13                          | 20.05                             | 0                            | 0                            | 12.25                      | 13.57                          | 5.28                              | 0                          | 22.39                          | 48.81                             | 0               | 48.81           |
| 30        | 0                            | 0                            | 263.21                     | 38.68                          | 85.22                             | 21.83                        | 0                            | 168.57                     | 76.9                           | 51.76                             | 485.74                     | 52.59                          | 62.66                             | 0               | 485.74          |
| 31        | 0                            | 0                            | 54.05                      | 13.21                          | 72.03                             | 0                            | 0                            | 0                          | 312.29                         | 138.34                            | 106.21                     | 37.12                          | 37.95                             | 0               | 312.29          |
| 32        | 0                            | 0                            | 12.2                       | 6.91                           | 56.4                              | 20.85                        | 0                            | 8.83                       | 12.51                          | 43.57                             | 35.53                      | 24.61                          | 30.24                             | 0               | 56.4            |
| 33        | 0                            | 0                            | 228.29                     | 43.29                          | 50.26                             | 0                            | 0                            | 190.96                     | 46.37                          | 536                               | 44.9                       | 25.83                          | 37.95                             | 0               | 536             |
| 34        | 0                            | 0                            | 57.75                      | 19.07                          | 110.36                            | 0                            | 0                            | 33.24                      | 4.12                           | 127.06                            | 0                          | 22.89                          | 37.86                             | 0               | 127.06          |
| 35        | 0                            | 0                            | 3.74                       | 26.36                          | 123.08                            | 0                            | 0                            | 4.17                       | 46.86                          | 204.81                            | 0                          | 89.28                          | 45.48                             | 0               | 204.81          |
| 36        | 132.67                       | 0                            | 181.33                     | 28.89                          | 67.53                             | 0                            | 0                            | 90.36                      | 16.97                          | 42.96                             | 609.52                     | 196.73                         | 52.47                             | 0               | 609.52          |
| 37        | 0                            | 0                            | 20.22                      | 10.06                          | 29.47                             | 18.15                        | 0                            | 6.41                       | 0                              | 15.9                              | 0                          | 33.93                          | 27.52                             | 0               | 33.93           |
| 38        | 0                            | 0                            | 17.81                      | 11.55                          | 52.26                             | 0                            | 0                            | 5.14                       | 1.52                           | 14.94                             | 0                          | 14.17                          | 32.13                             | 0               | 52.26           |
| 39        | 0                            | 0                            | 74.47                      | 18.7                           | 31.78                             | 0                            | 0                            | 463.59                     | 22.91                          | 51.15                             | 0                          | 22.77                          | 30.74                             | 0               | 463.59          |
| 40        | 0                            | 0                            | 0                          | 0                              | 15.31                             | 0                            | 0                            | 4.26                       | 0                              | 4.54                              | 0                          | 25.59                          | 42.43                             | 0               | 42.43           |
| 41        | 0                            | 0                            | 6.16                       | 2.78                           | 31.57                             | 0                            | 0                            | 0                          | 0                              | 1.55                              | 0                          | 39.58                          | 23.48                             | 0               | 39.58           |
| 42        | 0                            | 0                            | 79.58                      | 31.94                          | 66.43                             | 30.41                        | 0                            | 119.7                      | 1.77                           | 5.46                              | 0                          | 6.38                           | 29.01                             | 0               | 119.7           |
| 43        | 0                            | 0                            | 13.48                      | 9.38                           | 44.34                             | 22.56                        | 0                            | 5.75                       | 3.65                           | 4.22                              | 0                          | 0                              | 14.23                             | 0               | 44.34           |
| 44        | 0                            | 0                            | 0                          | 0                              | 11.69                             | 0                            | 0                            | 0                          | 5.26                           | 48.2                              | 0                          | 52.71                          | 29.89                             | 0               | 52.71           |
| 45        | 0                            | 0                            | 137.06                     | 29.67                          | 70.26                             | 0                            | 0                            | 25.91                      | 7.59                           | 78.38                             | 155.01                     | 39.21                          | 40.99                             | 0               | 155.01          |
| 46        | 0                            | 0                            | 0                          | 9.58                           | 12.92                             | 0                            | 0                            | 0                          | 0                              | 319.41                            | 0                          | 44.92                          | 30.44                             | 0               | 319.41          |
| 47        | 0                            | 0                            | 161.41                     | 0                              | 16.82                             | 0                            | 0                            | 7.6                        | 3.35                           | 34.2                              | 0                          | 0                              | 18.61                             | 0               | 161.41          |
| 48        | 0                            | 0                            | 89.56                      | 50.36                          | 77.03                             | 0                            | 0                            | 131.07                     | 4.12                           | 132.23                            | 63.65                      | 47.38                          | 24.84                             | 0               | 132.23          |
| 49        | 0                            | 0                            | 10.44                      | 6.44                           | 22.9                              | 0                            | 0                            | 0                          | 3.89                           | 15.76                             | 0                          | 7.86                           | 29.61                             | 0               | 29.61           |
| 50        | 0                            | 0                            | 46.3                       | 17.3                           | 47.75                             | 0                            | 0                            | 7.03                       | 11.57                          | 0                                 | 0                          | 37.62                          | 54.64                             | 0               | 54.64           |

**Additional file 5:** (b) Mean lengths of TRs in repeat classes in different genomic regions of *Daphnia pulex*, the euchromatic genome of *Drosophila melanogaster* and *Apis mellifera*.

| unit size | Dappu v1.1 3'UTR<br>[bp] | Dappu v1.1 5'UTR<br>[bp] | Dappu v1.1 CDS<br>[bp] | Dappu v1.1 introns<br>[bp] | Dappu v1.1 intergenic<br>[bp] | DroMel-5.5 3'UTR<br>[bp] | DroMel-5.5 5'UTR<br>[bp] | DroMel-5.5 CDS<br>[bp] | DroMel-5.5 introns<br>[bp] | DroMel-5.5 intergenic<br>[bp] | ApiMel-2.0 CDS<br>[bp] | ApiMel-2.0 introns<br>[bp] | ApiMel-2.0 intergenic<br>[bp] | min<br>[bp] | max<br>[bp] |
|-----------|--------------------------|--------------------------|------------------------|----------------------------|-------------------------------|--------------------------|--------------------------|------------------------|----------------------------|-------------------------------|------------------------|----------------------------|-------------------------------|-------------|-------------|
| 1         | 15.81                    | 15.38                    | 16.95                  | 16.03                      | 16.21                         | 15.55                    | 15.70                    | 16.75                  | 16.56                      | 16.66                         | 15.73                  | 17.96                      | 17.77                         | 15.38       | 17.96       |
| 2         | 18.02                    | 19.11                    | 17.29                  | 18.56                      | 18.58                         | 22.94                    | 19.87                    | 22.31                  | 21.73                      | 21.80                         | 26.76                  | 25.54                      | 25.08                         | 17.29       | 26.76       |
| 3         | 18.42                    | 18.68                    | 20.17                  | 19.54                      | 19.70                         | 22.80                    | 21.23                    | 23.77                  | 23.72                      | 25.70                         | 41.34                  | 28.72                      | 25.49                         | 18.42       | 41.34       |
| 4         | 19.07                    | 17.75                    | 22.24                  | 21.93                      | 21.66                         | 21.04                    | 21.52                    | 20.83                  | 22.00                      | 22.66                         | 20.47                  | 23.98                      | 24.10                         | 17.75       | 24.10       |
| 5         | 19.68                    | 19.67                    | 22.35                  | 21.49                      | 25.79                         | 22.05                    | 23.24                    | 20.18                  | 23.79                      | 45.68                         | 22.90                  | 25.69                      | 26.28                         | 19.67       | 45.68       |
| 6         | 21.17                    | 18.00                    | 23.65                  | 23.29                      | 29.94                         | 24.89                    | 23.89                    | 25.57                  | 25.92                      | 25.34                         | 82.54                  | 28.59                      | 25.41                         | 18.00       | 82.54       |
| 7         | 22.11                    | 20.67                    | 25.18                  | 23.08                      | 23.71                         | 25.25                    | 25.24                    | 27.38                  | 26.44                      | 28.23                         | 23.69                  | 26.71                      | 26.96                         | 20.67       | 28.23       |
| 8         | 24.67                    | 25.00                    | 23.59                  | 23.41                      | 25.01                         | 25.35                    | 26.47                    | 27.56                  | 28.24                      | 34.15                         | 23.89                  | 26.54                      | 26.81                         | 23.41       | 34.15       |
| 9         | 21.67                    | 27.60                    | 28.06                  | 26.33                      | 27.50                         | 27.40                    | 27.60                    | 31.58                  | 31.34                      | 32.79                         | 33.98                  | 27.96                      | 28.56                         | 21.67       | 33.98       |
| 10        | 26.00                    |                          | 139.93                 | 28.44                      | 45.38                         | 27.78                    | 25.00                    | 32.67                  | 28.55                      | 30.44                         | 106.39                 | 31.00                      | 31.73                         | 25.00       | 139.93      |
| 11        | 27.67                    | 28.25                    | 30.65                  | 28.15                      | 27.55                         | 27.76                    | 29.38                    | 263.64                 | 36.85                      | 556.19                        | 34.05                  | 28.93                      | 29.16                         | 27.55       | 556.19      |
| 12        | 33.54                    | 41.00                    | 39.08                  | 30.69                      | 35.61                         | 32.00                    | 33.48                    | 38.24                  | 35.87                      | 175.23                        | 32.92                  | 31.67                      | 30.91                         | 30.69       | 175.23      |
| 13        | 26.50                    |                          | 36.71                  | 38.87                      | 34.52                         | 35.90                    | 31.50                    | 41.80                  | 31.10                      | 32.49                         | 32.67                  | 34.31                      | 33.98                         | 26.50       | 41.80       |
| 14        | 29.50                    |                          | 46.56                  | 37.35                      | 37.13                         | 32.20                    | 37.86                    | 55.33                  | 41.95                      | 47.36                         | 29.67                  | 36.21                      | 36.95                         | 29.50       | 55.33       |
| 15        | 34.33                    | 35.00                    | 55.13                  | 45.78                      | 50.50                         | 50.50                    | 30.00                    | 64.05                  | 47.20                      | 44.57                         | 158.48                 | 40.03                      | 45.29                         | 30.00       | 158.48      |
| 16        |                          |                          | 96.64                  | 55.47                      | 67.99                         | 47.50                    | 47.00                    | 53.00                  | 38.59                      | 46.23                         | 284.20                 | 41.07                      | 47.17                         | 38.59       | 284.20      |
| 17        | 35.00                    |                          | 75.60                  | 43.59                      | 294.96                        | 66.00                    | 34.00                    | 45.50                  | 46.73                      | 64.83                         | 73.00                  | 51.69                      | 50.63                         | 34.00       | 294.96      |
| 18        |                          | 39.00                    | 69.72                  | 52.91                      | 106.69                        | 50.00                    | 44.67                    | 85.27                  | 54.38                      | 51.58                         | 179.70                 | 47.74                      | 64.60                         | 39.00       | 179.70      |
| 19        | 39.00                    |                          | 81.60                  | 52.06                      | 59.07                         | 54.67                    |                          | 72.00                  | 44.67                      | 57.94                         | 432.00                 | 58.95                      | 60.67                         | 39.00       | 432.00      |
| 20        |                          |                          | 142.12                 | 84.21                      | 77.33                         | 59.67                    | 49.00                    | 59.33                  | 44.47                      | 45.93                         | 170.00                 | 54.33                      | 85.57                         | 44.47       | 170.00      |
| 21        |                          |                          | 73.87                  | 80.71                      | 68.13                         | 51.33                    | 92.00                    | 101.08                 | 100.75                     | 484.29                        | 119.44                 | 78.13                      | 73.81                         | 51.33       | 484.29      |
| 22        | 101.00                   |                          | 101.25                 | 67.93                      | 68.62                         | 82.00                    |                          | 125.00                 | 62.00                      | 908.92                        | 183.00                 | 85.87                      | 68.88                         | 62.00       | 908.92      |
| 23        |                          |                          | 79.00                  | 76.25                      | 102.95                        |                          |                          | 107.00                 | 195.82                     | 729.73                        |                        | 65.55                      | 107.57                        | 65.55       | 729.73      |
| 24        | 68.00                    | 278.00                   | 148.38                 | 92.20                      | 159.72                        | 65.50                    |                          | 96.18                  | 77.24                      | 90.54                         | 113.75                 | 120.69                     | 131.86                        | 65.50       | 278.00      |
| 25        |                          |                          | 82.00                  | 58.80                      | 85.26                         |                          | 57.00                    |                        | 70.60                      | 88.50                         |                        | 69.50                      | 101.04                        | 57.00       | 101.04      |
| 26        |                          |                          | 71.67                  | 83.20                      | 99.25                         | 92.00                    |                          | 77.50                  | 113.90                     | 151.56                        |                        | 162.43                     | 204.43                        | 71.67       | 204.43      |
| 27        | 69.00                    |                          | 104.15                 | 97.75                      | 113.38                        | 81.50                    |                          | 98.92                  | 140.89                     | 82.10                         |                        | 78.00                      | 145.84                        | 69.00       | 145.84      |
| 28        |                          |                          | 99.67                  | 112.00                     | 78.22                         |                          |                          |                        | 83.83                      | 83.31                         |                        | 221.22                     | 166.45                        | 78.22       | 221.22      |
| 29        |                          |                          | 71.00                  | 74.75                      | 87.82                         |                          |                          | 279.00                 | 77.67                      | 112.00                        |                        | 73.00                      | 154.26                        | 71.00       | 279.00      |
| 30        |                          |                          | 138.27                 | 126.89                     | 139.17                        | 89.00                    |                          | 202.05                 | 264.00                     | 131.92                        | 207.33                 | 85.70                      | 144.64                        | 85.70       | 264.00      |
| 31        |                          |                          | 99.07                  | 97.50                      | 91.32                         |                          |                          |                        | 744.89                     | 629.57                        |                        | 201.67                     | 181.26                        | 91.32       | 744.89      |
| 32        |                          |                          | 78.25                  | 68.00                      | 89.08                         | 85.00                    |                          | 100.50                 | 214.67                     | 138.80                        | 91.00                  | 100.25                     | 141.14                        | 68.00       | 214.67      |
| 33        |                          |                          | 161.97                 | 159.75                     | 124.18                        |                          |                          | 167.27                 | 199.00                     | 1138.60                       | 115.00                 | 140.33                     | 139.32                        | 115.00      | 1138.60     |
| 34        |                          |                          | 370.50                 | 93.83                      | 186.54                        |                          |                          | 757.00                 | 70.67                      | 809.60                        |                        | 124.33                     | 165.45                        | 70.67       | 809.60      |
| 35        |                          |                          | 96.00                  | 194.50                     | 139.52                        |                          |                          | 95.00                  | 493.60                     | 3262.25                       |                        | 111.92                     | 175.24                        | 95.00       | 3262.25     |
| 36        | 210.00                   |                          | 172.33                 | 121.86                     | 141.67                        |                          |                          | 226.70                 | 218.50                     | 182.47                        | 173.44                 | 145.73                     | 160.85                        | 121.86      | 226.70      |
| 37        |                          |                          | 173.00                 | 99.00                      | 149.42                        | 74.00                    |                          | 146.00                 |                            | 144.71                        |                        | 276.50                     | 134.57                        | 74.00       | 276.50      |
| 38        |                          |                          | 152.33                 | 113.67                     | 111.89                        |                          |                          | 117.00                 | 78.00                      | 119.00                        |                        | 115.50                     | 162.68                        | 78.00       | 162.68      |
| 39        |                          |                          | 159.25                 | 138.00                     | 161.21                        |                          |                          | 1055.80                | 196.67                     | 148.14                        |                        | 92.75                      | 150.67                        | 92.75       | 1055.80     |
| 40        |                          |                          |                        |                            | 105.36                        |                          |                          | 97.00                  |                            | 144.50                        |                        | 104.25                     | 189.43                        | 97.00       | 189.43      |
| 41        |                          |                          | 158.00                 | 82.00                      | 104.86                        |                          |                          |                        |                            | 99.00                         |                        | 219.67                     | 160.73                        | 82.00       | 219.67      |
| 42        |                          |                          | 136.13                 | 117.88                     | 145.95                        | 124.00                   |                          | 272.60                 | 91.00                      | 87.00                         |                        | 104.00                     | 192.23                        | 87.00       | 272.60      |
| 43        |                          |                          | 115.33                 | 92.33                      | 137.81                        | 92.00                    |                          | 131.00                 | 94.00                      | 89.67                         |                        |                            | 194.87                        | 89.67       | 194.87      |
| 44        |                          |                          |                        | 187.83                     |                               |                          |                          |                        | 271.00                     | 1535.50                       |                        | 214.75                     | 204.67                        | 187.83      | 1535.50     |
| 45        |                          |                          | 207.53                 | 292.00                     | 178.13                        |                          |                          | 196.67                 | 195.50                     | 713.43                        | 198.50                 | 159.75                     | 227.54                        | 159.75      | 713.43      |
| 46        |                          |                          |                        | 141.50                     | 155.62                        |                          |                          |                        |                            | 5087.75                       |                        | 183.00                     | 195.38                        | 141.50      | 5087.75     |
| 47        |                          |                          | 1056.60                |                            | 231.43                        |                          |                          | 173.00                 | 173.00                     | 1254.67                       |                        | 212.44                     | 173.00                        |             | 1254.67     |
| 48        |                          |                          | 191.50                 | 249.00                     | 371.05                        |                          |                          | 1492.50                | 212.00                     | 1685.00                       | 163.00                 | 257.33                     | 283.50                        | 163.00      | 1685.00     |
| 49        |                          |                          | 134.00                 | 190.00                     | 200.64                        |                          |                          |                        | 100.00                     | 167.33                        |                        | 128.00                     | 209.13                        | 100.00      | 209.13      |
| 50        |                          |                          | 594.00                 | 170.33                     | 170.41                        |                          |                          | 160.00                 | 149.00                     |                               |                        | 306.50                     | 261.21                        | 149.00      | 594.00      |

**Additional file 5:** (c) Number of satellites in TR classes in different genomic regions of *Daphnia pulex*, the euchromatic genome of *Drosophila melanogaster* and *Apis mellifera*.

| unit size | Dappu v1.1 3'UTR<br>#sat | Dappu v1.1 5'UTR<br>#sat | Dappu v1.1 CDS<br>#sat | Dappu v1.1 introns<br>#sat | Dappu v1.1 intergenic<br>#sat | DroMel-5.5 3'UTR<br>#sat | DroMel-5.5 5'UTR<br>#sat | DroMel-5.5 CDS<br>#sat | DroMel-5.5 introns<br>#sat | DroMel-5.5 intergenic<br>#sat | ApiMel-2.0 CDS<br>#sat | ApiMel-2.0 introns<br>#sat | ApiMel-2.0 intergenic<br>#sat | min<br>#sat | max<br>#sat |
|-----------|--------------------------|--------------------------|------------------------|----------------------------|-------------------------------|--------------------------|--------------------------|------------------------|----------------------------|-------------------------------|------------------------|----------------------------|-------------------------------|-------------|-------------|
| 1         | 257                      | 26                       | 41                     | 5614                       | 11161                         | 432                      | 204                      | 12                     | 7254                       | 6847                          | 22                     | 4367                       | 48591                         | 12          | 48591       |
| 2         | 161                      | 38                       | 38                     | 5218                       | 10613                         | 737                      | 382                      | 16                     | 6550                       | 6615                          | 45                     | 4588                       | 60487                         | 16          | 60487       |
| 3         | 99                       | 31                       | 1998                   | 6018                       | 13015                         | 297                      | 300                      | 2489                   | 3084                       | 3179                          | 381                    | 1858                       | 25168                         | 31          | 25168       |
| 4         | 27                       | 4                        | 54                     | 1456                       | 3077                          | 178                      | 93                       | 6                      | 2068                       | 2091                          | 19                     | 1122                       | 15143                         | 4           | 15143       |
| 5         | 22                       | 12                       | 31                     | 1013                       | 2382                          | 169                      | 107                      | 11                     | 1760                       | 1987                          | 10                     | 800                        | 10354                         | 10          | 10354       |
| 6         | 12                       | 1                        | 172                    | 536                        | 1621                          | 294                      | 177                      | 644                    | 3266                       | 3732                          | 104                    | 598                        | 7725                          | 1           | 7725        |
| 7         | 9                        | 6                        | 39                     | 430                        | 1173                          | 107                      | 85                       | 24                     | 2010                       | 2429                          | 16                     | 596                        | 6947                          | 6           | 6947        |
| 8         | 9                        | 3                        | 32                     | 462                        | 1069                          | 77                       | 51                       | 18                     | 1329                       | 1563                          | 9                      | 695                        | 7519                          | 3           | 7519        |
| 9         | 6                        | 5                        | 350                    | 407                        | 1384                          | 57                       | 40                       | 303                    | 794                        | 967                           | 63                     | 635                        | 7510                          | 5           | 7510        |
| 10        | 10                       | 0                        | 57                     | 397                        | 1572                          | 36                       | 16                       | 3                      | 561                        | 670                           | 38                     | 694                        | 8359                          | 0           | 8359        |
| 11        | 15                       | 4                        | 26                     | 274                        | 1008                          | 21                       | 16                       | 11                     | 372                        | 599                           | 19                     | 624                        | 6889                          | 4           | 6889        |
| 12        | 13                       | 2                        | 367                    | 289                        | 1076                          | 47                       | 27                       | 323                    | 593                        | 787                           | 52                     | 607                        | 7240                          | 2           | 7240        |
| 13        | 2                        | 0                        | 21                     | 131                        | 615                           | 10                       | 2                        | 5                      | 152                        | 242                           | 3                      | 313                        | 3528                          | 0           | 3528        |
| 14        | 4                        | 0                        | 25                     | 77                         | 341                           | 5                        | 7                        | 3                      | 133                        | 185                           | 3                      | 164                        | 2081                          | 0           | 2081        |
| 15        | 3                        | 1                        | 212                    | 104                        | 434                           | 10                       | 1                        | 132                    | 105                        | 133                           | 25                     | 118                        | 1218                          | 1           | 1218        |
| 16        | 0                        | 0                        | 11                     | 32                         | 127                           | 4                        | 1                        | 1                      | 56                         | 84                            | 5                      | 46                         | 764                           | 0           | 764         |
| 17        | 1                        | 0                        | 10                     | 29                         | 346                           | 3                        | 1                        | 2                      | 30                         | 36                            | 2                      | 48                         | 475                           | 0           | 475         |
| 18        | 0                        | 1                        | 130                    | 32                         | 175                           | 2                        | 3                        | 101                    | 47                         | 48                            | 10                     | 35                         | 433                           | 0           | 433         |
| 19        | 2                        | 0                        | 5                      | 35                         | 238                           | 3                        | 0                        | 1                      | 43                         | 47                            | 1                      | 21                         | 269                           | 0           | 269         |
| 20        | 0                        | 0                        | 16                     | 19                         | 116                           | 3                        | 1                        | 3                      | 15                         | 29                            | 1                      | 21                         | 226                           | 0           | 226         |
| 21        | 0                        | 0                        | 104                    | 28                         | 218                           | 3                        | 1                        | 50                     | 16                         | 14                            | 9                      | 15                         | 188                           | 0           | 218         |
| 22        | 1                        | 0                        | 8                      | 14                         | 66                            | 1                        | 0                        | 1                      | 10                         | 13                            | 1                      | 15                         | 132                           | 0           | 132         |
| 23        | 0                        | 0                        | 6                      | 8                          | 58                            | 0                        | 0                        | 4                      | 17                         | 44                            | 0                      | 11                         | 96                            | 0           | 96          |
| 24        | 1                        | 1                        | 120                    | 25                         | 185                           | 2                        | 0                        | 57                     | 21                         | 28                            | 4                      | 16                         | 133                           | 0           | 185         |
| 25        | 0                        | 0                        | 1                      | 5                          | 35                            | 0                        | 1                        | 0                      | 5                          | 6                             | 0                      | 4                          | 74                            | 0           | 74          |
| 26        | 0                        | 0                        | 6                      | 5                          | 52                            | 1                        | 0                        | 2                      | 10                         | 16                            | 0                      | 7                          | 183                           | 0           | 183         |
| 27        | 1                        | 0                        | 46                     | 12                         | 63                            | 2                        | 0                        | 24                     | 9                          | 20                            | 0                      | 2                          | 96                            | 0           | 96          |
| 28        | 0                        | 0                        | 3                      | 5                          | 36                            | 0                        | 0                        | 0                      | 6                          | 16                            | 0                      | 9                          | 91                            | 0           | 91          |
| 29        | 0                        | 0                        | 2                      | 4                          | 22                            | 0                        | 0                        | 1                      | 9                          | 3                             | 0                      | 5                          | 65                            | 0           | 65          |
| 30        | 0                        | 0                        | 49                     | 9                          | 59                            | 1                        | 0                        | 19                     | 15                         | 25                            | 6                      | 10                         | 91                            | 0           | 91          |
| 31        | 0                        | 0                        | 14                     | 4                          | 76                            | 0                        | 0                        | 0                      | 27                         | 14                            | 1                      | 3                          | 43                            | 0           | 76          |
| 32        | 0                        | 0                        | 4                      | 3                          | 61                            | 1                        | 0                        | 2                      | 3                          | 20                            | 1                      | 4                          | 44                            | 0           | 61          |
| 33        | 0                        | 0                        | 37                     | 8                          | 39                            | 0                        | 0                        | 26                     | 12                         | 30                            | 1                      | 3                          | 56                            | 0           | 56          |
| 34        | 0                        | 0                        | 4                      | 6                          | 57                            | 0                        | 0                        | 1                      | 3                          | 10                            | 0                      | 3                          | 47                            | 0           | 57          |
| 35        | 0                        | 0                        | 1                      | 4                          | 85                            | 0                        | 0                        | 1                      | 5                          | 4                             | 0                      | 13                         | 54                            | 0           | 85          |
| 36        | 1                        | 0                        | 27                     | 7                          | 46                            | 0                        | 0                        | 10                     | 4                          | 15                            | 9                      | 22                         | 67                            | 0           | 67          |
| 37        | 0                        | 0                        | 3                      | 3                          | 19                            | 1                        | 0                        | 1                      | 0                          | 7                             | 0                      | 2                          | 42                            | 0           | 42          |
| 38        | 0                        | 0                        | 3                      | 3                          | 45                            | 0                        | 0                        | 1                      | 1                          | 8                             | 0                      | 2                          | 44                            | 0           | 45          |
| 39        | 0                        | 0                        | 12                     | 4                          | 19                            | 0                        | 0                        | 10                     | 6                          | 22                            | 0                      | 4                          | 42                            | 0           | 42          |
| 40        | 0                        | 0                        | 0                      | 0                          | 14                            | 0                        | 0                        | 1                      | 0                          | 2                             | 0                      | 4                          | 46                            | 0           | 46          |
| 41        | 0                        | 0                        | 1                      | 1                          | 29                            | 0                        | 0                        | 0                      | 0                          | 1                             | 0                      | 3                          | 30                            | 0           | 30          |
| 42        | 0                        | 0                        | 15                     | 8                          | 44                            | 1                        | 0                        | 10                     | 1                          | 4                             | 0                      | 1                          | 31                            | 0           | 44          |
| 43        | 0                        | 0                        | 3                      | 3                          | 31                            | 1                        | 0                        | 1                      | 2                          | 3                             | 0                      | 0                          | 15                            | 0           | 31          |
| 44        | 0                        | 0                        | 0                      | 0                          | 6                             | 0                        | 0                        | 0                      | 1                          | 2                             | 0                      | 4                          | 30                            | 0           | 30          |
| 45        | 0                        | 0                        | 17                     | 3                          | 38                            | 0                        | 0                        | 3                      | 2                          | 7                             | 2                      | 4                          | 37                            | 0           | 38          |
| 46        | 0                        | 0                        | 0                      | 2                          | 8                             | 0                        | 0                        | 0                      | 0                          | 4                             | 0                      | 4                          | 32                            | 0           | 32          |
| 47        | 0                        | 0                        | 5                      | 0                          | 7                             | 0                        | 0                        | 1                      | 1                          | 3                             | 0                      | 0                          | 18                            | 0           | 18          |
| 48        | 0                        | 0                        | 12                     | 6                          | 20                            | 0                        | 0                        | 2                      | 1                          | 5                             | 1                      | 3                          | 18                            | 0           | 20          |
| 49        | 0                        | 0                        | 2                      | 1                          | 11                            | 0                        | 0                        | 0                      | 2                          | 6                             | 0                      | 1                          | 30                            | 0           | 30          |
| 50        | 0                        | 0                        | 2                      | 3                          | 27                            | 0                        | 0                        | 1                      | 4                          | 0                             | 0                      | 2                          | 43                            | 0           | 43          |

**Additional file 5:** (d) Mean perfection of TRs in repeat classes in different genomic regions of *Daphnia pulex*, the euchromatic genome of *Drosophila melanogaster* and *Apis mellifera*.

| unit size | Dappu v1.1 3'UTR [%] | Dappu v1.1 5'UTR [%] | Dappu v1.1 CDS [%] | Dappu v1.1 introns [%] | Dappu v1.1 intergenic [%] | DroMel-5.5 3'UTR [%] | DroMel-5.5 5'UTR [%] | DroMel-5.5 CDS [%] | DroMel-5.5 introns [%] | DroMel-5.5 intergenic [%] | ApiMel-2.0 CDS [%] | ApiMel-2.0 introns [%] | ApiMel-2.0 intergenic [%] | min [%] | max [%] |
|-----------|----------------------|----------------------|--------------------|------------------------|---------------------------|----------------------|----------------------|--------------------|------------------------|---------------------------|--------------------|------------------------|---------------------------|---------|---------|
| 1         | 99.4                 | 99.8                 | 99.1               | 99.5                   | 99.5                      | 99.5                 | 99.4                 | 99.2               | 99.4                   | 99.4                      | 98.9               | 99.0                   | 99.1                      | 98.9    | 99.8    |
| 2         | 99.5                 | 99.0                 | 99.5               | 99.5                   | 99.4                      | 98.2                 | 98.7                 | 98.9               | 98.6                   | 98.6                      | 98.0               | 98.6                   | 98.6                      | 98.0    | 99.5    |
| 3         | 99.5                 | 99.2                 | 99.1               | 99.4                   | 98.2                      | 98.4                 | 98.4                 | 97.9               | 98.4                   | 98.1                      | 97.3               | 98.5                   | 98.6                      | 97.3    | 99.5    |
| 4         | 99.1                 | 98.9                 | 99.2               | 99.1                   | 99.1                      | 98.7                 | 98.6                 | 100.0              | 98.8                   | 98.6                      | 98.9               | 98.6                   | 98.7                      | 98.6    | 100.0   |
| 5         | 99.1                 | 98.9                 | 99.5               | 99.1                   | 98.8                      | 98.7                 | 98.1                 | 99.0               | 98.5                   | 98.4                      | 98.1               | 98.1                   | 98.2                      | 98.1    | 99.5    |
| 6         | 99.0                 | 100.0                | 98.7               | 98.3                   | 98.7                      | 98.2                 | 98.2                 | 97.9               | 98.4                   | 98.4                      | 96.7               | 97.8                   | 98.1                      | 96.7    | 100.0   |
| 7         | 98.9                 | 100.0                | 98.6               | 98.7                   | 98.7                      | 98.3                 | 98.3                 | 97.7               | 98.3                   | 98.3                      | 98.6               | 97.8                   | 98.3                      | 97.9    | 100.0   |
| 8         | 98.0                 | 97.5                 | 98.8               | 99.2                   | 99.1                      | 98.8                 | 98.1                 | 98.2               | 98.4                   | 98.2                      | 98.4               | 98.2                   | 98.1                      | 97.5    | 99.2    |
| 9         | 100.0                | 98.5                 | 98.8               | 98.8                   | 98.3                      | 98.0                 | 98.1                 | 97.4               | 98.3                   | 98.2                      | 97.7               | 98.3                   | 98.2                      | 97.4    | 100.0   |
| 10        | 98.9                 |                      | 97.4               | 98.9                   | 98.0                      | 98.2                 | 99.0                 | 96.4               | 98.7                   | 98.4                      | 96.9               | 98.2                   | 98.4                      | 96.4    | 99.0    |
| 11        | 98.7                 | 100.0                | 97.8               | 99.2                   | 99.0                      | 99.1                 | 97.8                 | 95.0               | 98.4                   | 96.9                      | 97.7               | 98.6                   | 98.6                      | 95.0    | 100.0   |
| 12        | 98.9                 | 95.7                 | 98.2               | 98.9                   | 98.8                      | 98.2                 | 98.1                 | 97.1               | 98.3                   | 97.8                      | 99.0               | 98.6                   | 98.5                      | 95.7    | 99.0    |
| 13        | 100.0                |                      | 98.1               | 98.6                   | 98.6                      | 99.6                 | 98.5                 | 95.1               | 98.8                   | 98.4                      | 97.3               | 98.2                   | 98.4                      | 95.1    | 100.0   |
| 14        | 100.0                |                      | 96.0               | 98.8                   | 98.4                      | 100.0                | 98.2                 | 95.4               | 98.6                   | 98.3                      | 100.0              | 98.4                   | 98.1                      | 95.4    | 100.0   |
| 15        | 100.0                | 100.0                | 97.2               | 97.6                   | 97.2                      | 97.6                 | 100.0                | 96.2               | 97.9                   | 98.2                      | 95.7               | 98.1                   | 97.9                      | 95.7    | 100.0   |
| 16        |                      |                      | 96.6               | 97.1                   | 97.8                      | 99.3                 | 95.8                 | 92.9               | 99.0                   | 97.7                      | 97.2               | 97.9                   | 97.6                      | 92.9    | 99.3    |
| 17        | 100.0                |                      | 96.4               | 98.8                   | 94.6                      | 95.8                 | 100.0                | 96.7               | 97.9                   | 97.4                      | 94.3               | 96.5                   | 97.9                      | 94.3    | 100.0   |
| 18        |                      | 100.0                | 97.1               | 97.6                   | 97.1                      | 96.0                 | 98.5                 | 97.0               | 98.4                   | 98.2                      | 95.8               | 97.3                   | 97.0                      | 95.8    | 100.0   |
| 19        | 100.0                |                      | 94.9               | 98.3                   | 97.9                      | 98.0                 |                      | 92.0               | 99.4                   | 98.6                      | 86.8               | 97.1                   | 97.0                      | 86.8    | 100.0   |
| 20        |                      |                      | 96.0               | 96.4                   | 96.2                      | 98.2                 | 100.0                | 95.4               | 99.6                   | 99.4                      | 96.5               | 97.4                   | 97.0                      | 95.4    | 100.0   |
| 21        |                      |                      | 96.7               | 96.8                   | 97.1                      | 97.7                 | 92.4                 | 95.9               | 97.2                   | 97.0                      | 95.7               | 97.1                   | 97.0                      | 92.4    | 97.7    |
| 22        | 96.0                 |                      | 95.1               | 97.8                   | 98.3                      | 92.7                 |                      | 93.1               | 97.5                   | 97.0                      | 91.3               | 96.3                   | 97.4                      | 91.3    | 98.3    |
| 23        |                      |                      | 94.6               | 97.6                   | 97.1                      |                      |                      | 91.9               | 97.0                   | 96.0                      |                    | 96.6                   | 96.5                      | 91.9    | 97.6    |
| 24        | 100.0                | 93.5                 | 97.0               | 98.2                   | 97.7                      | 97.1                 |                      | 96.7               | 96.6                   | 96.7                      | 91.6               | 94.5                   | 96.1                      | 91.6    | 100.0   |
| 25        |                      |                      | 94.1               | 98.5                   | 98.2                      |                      | 98.3                 |                    | 96.2                   | 98.2                      |                    | 97.5                   | 96.8                      | 94.1    | 98.5    |
| 26        |                      |                      | 96.0               | 95.0                   | 97.3                      | 98.9                 |                      | 94.8               | 96.5                   | 95.3                      |                    | 98.3                   | 95.1                      | 94.8    | 98.9    |
| 27        | 100.0                |                      | 96.5               | 97.0                   | 97.1                      | 95.7                 |                      | 96.9               | 95.6                   | 97.6                      |                    | 96.5                   | 95.8                      | 95.6    | 100.0   |
| 28        |                      |                      | 96.4               | 96.8                   | 98.3                      |                      |                      |                    | 97.7                   | 97.3                      |                    | 92.7                   | 97.1                      | 92.7    | 98.3    |
| 29        |                      |                      | 98.6               | 98.8                   | 97.6                      |                      |                      | 90.0               | 98.5                   | 93.6                      |                    | 97.6                   | 95.4                      | 90.0    | 98.8    |
| 30        |                      |                      | 95.7               | 98.5                   | 95.9                      | 95.5                 |                      | 95.2               | 90.3                   | 94.9                      | 95.1               | 98.4                   | 95.7                      | 90.3    | 98.5    |
| 31        |                      |                      | 94.5               | 95.0                   | 97.8                      |                      |                      |                    | 88.8                   | 90.5                      | 89.3               | 94.1                   | 96.3                      | 88.8    | 97.8    |
| 32        |                      |                      | 97.5               | 99.0                   | 97.7                      | 100.0                |                      |                    | 96.3                   | 93.6                      | 96.7               | 96.2                   | 96.7                      | 93.6    | 100.0   |
| 33        |                      |                      | 95.4               | 95.9                   | 96.8                      |                      |                      |                    | 96.1                   | 96.8                      | 94.8               | 96.0                   | 96.5                      | 94.8    | 97.7    |
| 34        |                      |                      | 95.6               | 97.5                   | 94.5                      |                      |                      |                    | 85.9                   | 100.0                     |                    | 95.4                   | 95.9                      | 85.9    | 100.0   |
| 35        |                      |                      | 95.8               | 92.4                   | 95.3                      |                      |                      |                    | 96.8                   | 94.6                      |                    | 91.6                   | 96.4                      | 91.6    | 96.8    |
| 36        | 98.6                 |                      | 97.3               | 98.3                   | 97.2                      |                      |                      |                    | 93.9                   | 93.7                      |                    | 95.5                   | 94.6                      | 93.7    | 98.6    |
| 37        |                      |                      | 94.7               | 99.1                   | 98.0                      | 100.0                |                      |                    | 93.3                   |                           | 95.4               | 90.5                   | 96.6                      | 90.5    | 100.0   |
| 38        |                      |                      | 92.5               | 98.8                   | 97.5                      |                      |                      |                    | 97.4                   | 100.0                     |                    | 97.0                   | 97.7                      | 92.5    | 100.0   |
| 39        |                      |                      | 97.0               | 93.7                   | 96.6                      |                      |                      |                    | 96.0                   | 95.8                      |                    | 97.5                   | 98.8                      | 93.7    | 98.8    |
| 40        |                      |                      |                    |                        | 97.8                      |                      |                      |                    | 98.0                   |                           |                    | 99.3                   | 95.2                      | 95.2    | 99.3    |
| 41        |                      |                      | 92.2               | 100.0                  | 98.4                      |                      |                      |                    |                        | 98.0                      |                    | 96.9                   | 97.4                      | 92.2    | 100.0   |
| 42        |                      |                      | 97.3               | 96.5                   | 97.6                      | 94.5                 |                      | 97.1               | 98.9                   | 100.0                     |                    | 97.1                   | 96.5                      | 94.5    | 100.0   |
| 43        |                      |                      | 96.3               | 99.7                   | 97.4                      | 100.0                |                      | 95.5               | 100.0                  | 100.0                     |                    |                        | 97.3                      | 95.5    | 100.0   |
| 44        |                      |                      |                    |                        | 94.6                      |                      |                      |                    | 92.0                   |                           |                    |                        | 93.5                      | 92.0    | 96.2    |
| 45        |                      |                      | 95.1               | 94.6                   | 97.8                      |                      |                      | 96.0               | 95.3                   | 97.3                      | 98.1               |                        | 96.1                      | 94.6    | 98.1    |
| 46        |                      |                      |                    | 97.9                   | 96.3                      |                      |                      |                    |                        | 89.4                      |                    | 95.1                   | 96.3                      | 89.4    | 97.9    |
| 47        |                      |                      | 90.8               |                        | 93.4                      |                      |                      | 92.4               | 92.4                   | 90.9                      |                    |                        | 96.2                      | 90.8    | 96.2    |
| 48        |                      |                      | 97.2               | 94.7                   | 94.1                      |                      |                      | 97.1               | 96.2                   | 94.9                      | 97.0               |                        | 93.2                      | 93.2    | 97.2    |
| 49        |                      |                      | 96.5               | 96.8                   | 95.2                      |                      |                      |                    | 100.0                  | 95.1                      |                    |                        | 98.4                      | 95.1    | 100.0   |
| 50        |                      |                      | 89.7               | 98.6                   | 97.0                      |                      |                      | 94.1               | 95.6                   |                           |                    |                        | 98.4                      | 89.7    | 98.6    |