

**S5 Table. Repeat content of the female guppy genome as identified by REPEATMASKER.**

In total, 156,122,771 bp (~21.34%) of the assembly were classified as repeats.

| Class                      | number of elements | length occupied (bp) | percentage of sequence |
|----------------------------|--------------------|----------------------|------------------------|
| SINEs                      | 26,112             | 4,330,869            | 0.59                   |
| ALUs                       | 0                  | 0                    | 0.00                   |
| MIRs                       | 2,413              | 350,008              | 0.05                   |
| LINEs                      | 65,412             | 14,641,359           | 2.00                   |
| LINE1                      | 775                | 166,359              | 0.02                   |
| LINE2                      | 32,210             | 6,824,858            | 0.93                   |
| L3/CRI                     | 0                  | 0                    | 0.00                   |
| LTR elements               | 12,329             | 3,573,918            | 0.49                   |
| ERV1                       | 0                  | 0                    | 0.00                   |
| ERV1-MaLRs                 | 0                  | 0                    | 0.00                   |
| ERV_classI                 | 249                | 133,863              | 0.02                   |
| ERV_classII                | 471                | 36,309               | 0.00                   |
| DNA elements               | 329,048            | 63,347,538           | 8.66                   |
| hAT-Charlie                | 32,074             | 8,651,932            | 1.18                   |
| TcMar-Tigger               | 766                | 150,224              | 0.02                   |
| Unclassified               | 332,799            | 58,681,468           | 8.02                   |
| Total interspersed repeats |                    | 144,575,152          | 19.76                  |
| Small RNA                  | 4,420              | 622,426              | 0.09                   |
| Satellites                 | 2,879              | 637,506              | 0.09                   |
| Simple repeats             | 119,216            | 6,549,682            | 0.90                   |
| Low complexity             | 121,946            | 4,917,112            | 0.67                   |