**Table S1.** Wild individuals of Siamese fighting fish (*Betta splendens* Regan, 1910) captured from five different geographical regions in Thailand.

| Species | Sample | Sex | Locality |
|---|---|---|---|
| *Betta splendens* | SP1m1 | Male | Bangkok |
| *Betta splendens* | SP1m2 | Male | Bangkok |
| *Betta splendens* | SP1m3 | Male | Bangkok |
| *Betta splendens* | SP1m4 | Male | Bangkok |
| *Betta splendens* | SP1m5 | Male | Bangkok |
| *Betta splendens* | SP1m6 | Male | Bangkok |
| *Betta splendens* | SP1m7 | Male | Bangkok |
| *Betta splendens* | SP1m8 | Male | Bangkok |
| *Betta splendens* | SP1m9 | Male | Bangkok |
| *Betta splendens* | SP1f1 | Female | Bangkok |
| *Betta splendens* | SP1f2 | Female | Bangkok |
| *Betta splendens* | SP1f3 | Female | Bangkok |
| *Betta splendens* | SP1f4 | Female | Bangkok |
| *Betta splendens* | SP1f5 | Female | Bangkok |
| *Betta splendens* | SP1f6 | Female | Bangkok |
| *Betta splendens* | SP1f7 | Female | Bangkok |
| *Betta splendens* | SP1f8 | Female | Bangkok |
| *Betta splendens* | SP1f9 | Female | Bangkok |
| *Betta splendens* | SP1f10 | Female | Bangkok |
| *Betta splendens* | SP1f11 | Female | Bangkok |
| *Betta splendens* | SP1f12 | Female | Bangkok |
| *Betta splendens* | SP5m1 | Male | Chumphon |
| *Betta splendens* | SP5m2 | Male | Chumphon |
| *Betta splendens* | SP5m3 | Male | Chumphon |
| *Betta splendens* | SP5m4 | Male | Chumphon |
| *Betta splendens* | SP5m5 | Male | Chumphon |
| **Species** | **Sample** | **Sex** | **Locality** |
| *Betta splendens* | SP5f1 | Female | Chumphon |
| *Betta splendens* | SP5f2 | Female | Chumphon |
| *Betta splendens* | SP5f3 | Female | Chumphon |
| *Betta splendens* | SP5f4 | Female | Chumphon |
| *Betta splendens* | SP5f5 | Female | Chumphon |
| *Betta splendens* | SP6m2 | Male | Surat Thani |
| *Betta splendens* | SP6m3 | Male | Surat Thani |
| *Betta splendens* | SP6m5 | Male | Surat Thani |
| *Betta splendens* | SP6m6 | Male | Surat Thani |
| *Betta splendens* | SP6m7 | Male | Surat Thani |
| *Betta splendens* | SP6f1 | Female | Surat Thani |
| *Betta splendens* | SP6f2 | Female | Surat Thani |
| *Betta splendens* | SP6f3 | Female | Surat Thani |
| *Betta splendens* | SP6f5 | Female | Surat Thani |
| *Betta splendens* | SP6f6 | Female | Surat Thani |
| *Betta splendens* | SP6f9 | Female | Surat Thani |
| *Betta splendens* | SP6f10 | Female | Surat Thani |
| *Betta splendens* | SPm1 | Male | Lamphun |
| *Betta splendens* | SPm2 | Male | Lamphun |

| | | | |
|---|---|---|---|
| *Betta splendens* | SPm3 | Male | Lamphun |
| *Betta splendens* | SPm4 | Male | Lamphun |
| *Betta splendens* | SPm5 | Male | Lamphun |
| *Betta splendens* | SPm6 | Male | Lamphun |
| *Betta splendens* | SPm7 | Male | Lamphun |
| *Betta splendens* | SPm8 | Male | Lamphun |
| *Betta splendens* | SPm9 | Male | Lamphun |
| **Species** | **Sample** | **Sex** | **Locality** |
| *Betta splendens* | SPf1 | Male | Lamphun |
| *Betta splendens* | SPf2 | Male | Lamphun |

**Table S2.** Eight microsatellite primer sets developed from Siamese fighting fish (*Betta splendens* Regan, 1910) sourced from Chailertrit et al. (2014).

| Locus | Primer sequence (5′– 3′) | Repeat | Ta (°C) | Accession | Size (bp) |
|---|---|---|---|---|---|
| BettaMS4 | F: GTTTCATCAGGAGCAGCAGCATAA R: CTGTTTGATGGCCGACTTTT | $(GA)_n$ | 59 | AB777403 | 259–315 |
| BettaMS5 | F: GTTTCGTCACCTTCTGAGCAAACA R: AAATGCGCTGGGTAGACTTG | $(GA)_n$ | 59 | AB777406 | 198–218 |
| BettaMS8 | F: CGTGAGCTGCAAAGAAAACA R: CTGTTTGATGGCCGACTTTT | $(GA)_n$ | 57 | AB777407 | 223 |
| BettaMS15 | F: ACTGTAACCGGGCTGTTCTG R: AACGCACCCAGAAACAAATC | $(GA)_n$ | 57 | AB777411 | 216–225 |
| BettaMS17 | F: AAGCAGGTCTTTCACCTCCA R: TCACCCTGCGTCTAAGTCAA | $(GA)_n$ | 61 | AB777413 | 194-221 |
| BettaMS23 | F: GTTTGAGAGAAATGGGTTCTTCG R: TCACTACGCTGCCAAATCAG | $(CT)_n(CA)_n$ | 55 | AB777415 | 259–315 |
| BettaMS25 | F: GTTTGGGTAAAACCCAACTCTGG R: AACGTCACGTGGAACAGATG | $(GT)_n$ | 55 | AB777416 | 194–224 |
| BettaMS40 | F: CAGTACATTTGACTGATCGCAGA R: CAGGATGCTTCCTTGGGTAA | $(GA)_n$ | 57 | AB777421 | 136–165 |

Chailertrit V, Swatdipong A, Peyachoknagul S, Salaenoi J, Srikulnath K. Isolation and characterization of novel microsatellite markers from Siamese fighting fish (*Betta splendens*, Osphronemidae, Anabantoidei) and their transferability to related species, *B. smaragdina* and *B. imbellis*. Genet Mol Res. 2014; 13: 7157–7162. https://doi.org/10.4238/2014.September.5.1. Regan CT. The Asiatic fishes of the family Anabantidae. Proc Zool Soc Lond. 1910; B1909: 767–787.

**Table S3.** Mean number of alleles per locus based on single-nucleotide polymorphism (SNP) and presence-absence (PA) loci from 75 Siamese fighting fish (*Betta splendens* Regan, 1910).

| Mean | N | Na | Ne | I | Ho | He | uHe | F |
|---|---|---|---|---|---|---|---|---|
| | **3.693** | **0.466** | **0.466** | **0.000** | **0.000** | **0.000** | **0.000** | |
| **SE** | 0.025 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Regan CT. The Asiatic fishes of the family Anabantidae. Proc Zool Soc Lond. 1910; B1909: 767–787.

**Table S4.** $F_{ST}$ showed significant differences between commercial populations of Siamese fighting fish (*Betta splendens* Regan, 1910).

| Pop1 | Pop2 | Fst | *p*-value |
|---|---|---|---|
| BSP_G | BSP_GIA | 0.465 | 0.001 |
| BSP_G | BSP_GL | 0.658 | 0.001 |
| BSP_GIA | BSP_GL | 0.343 | 0.001 |
| BSP_G | BSP_O | 0.726 | 0.001 |
| BSP_GIA | BSP_O | 0.353 | 0.001 |
| BSP_GL | BSP_O | 0.583 | 0.001 |
| BSP_G | BSP_W | 0.625 | 0.001 |
| BSP_GIA | BSP_W | 0.294 | 0.001 |
| BSP_GL | BSP_W | 0.500 | 0.001 |
| BSP_O | BSP_W | 0.522 | 0.001 |

Regan CT. The Asiatic fishes of the family Anabantidae. Proc Zool Soc Lond. 1910; B1909: 767–787.

**Table S5.** Genetic divergence among (net nucleotide distance) and within (expected heterozygosity) Siamese fighting fish (*Betta splendens* Regan, 1910) populations, and the proportion of membership of the population samples.

| Clusters | Net nucleotide distance | | | | Expected heterozygosity | Proportion of membership |
|---|---|---|---|---|---|---|
| | Cluster A | Cluster B | Cluster C | Cluster D | | |
| Cluster A | - | 0.1980 | 0.1380 | 0.1586 | 0.21 | 0.29 |
| Cluster B | 0.1980 | - | 0.2426 | 0.2387 | 0.08 | 0.23 |
| Cluster C | 0.1380 | 0.2426 | - | 0.1904 | 0.11 | 0.26 |
| Cluster D | 0.1586 | 0.2387 | 0.1904 | - | 0.13 | 0.22 |

Regan CT. The Asiatic fishes of the family Anabantidae. Proc Zool Soc Lond. 1910; B1909: 767–787.

**Table S6.** Primers used for the development of sex-specific markers for the genotyping assay.

| Primer | Sequence (5′–3′) | Size (bp) |
|---|---|---|
| PA10004900-F | GGTCATCCTCACACTCCT | 302 |
| PA10004900-R | CGTTTTATTGTTCCGGCATT | |

**Table S7.** Genetic divergence among (net nucleotide distance) and within (expected heterozygosity) populations of Siamese fighting fish (*Betta splendens* Regan, 1910), and proportion of membership of wild population samples.

| Clusters | Net nucleotide distance | | | Expected heterozygosity | Proportion of membership |
|---|---|---|---|---|---|
| | Cluster A | Cluster B | Cluster C | | |
| Cluster A | - | 0.1964 | 0.1607 | 0.55 | 0.28 |
| Cluster B | 0.1964 | - | 0.0466 | 0.81 | 0.43 |
| Cluster C | 0.1607 | 0.0466 | - | 0.86 | 0.29 |

Regan CT. The Asiatic fishes of the family Anabantidae. Proc Zool Soc Lond. 1910; B1909: 767–787.

**Table S8.** *In silico* chromosome mapping aligned to chromosome-level assembly of Siamese fighting fish (*Betta splendens* Regan, 1910) (accession: GCF_900634795.3).

| Locus id | Chromosome | Region | %Query Coverage (60%) | E-Value (0.005) | Percent Identity (55%) |
|---|---|---|---|---|---|
| PA100003792 | 7 | 9381270–9381338 | 100% | 4.00E-28 | 100.00% |
| PA100004846 | 9 | 27847987–27848032 | 66% | 3.00E-11 | 93.48% |
| PA100004464 | 9 | 27782844–27782902 | 92% | 3.00E-17 | 90.62% |
| PA100029208 | 9 | 28233484–28233525 | 60% | 9.00E-11 | 95.24% |
| PA100004900 | 9 | 30855785–30855834 | 72% | 3.00E-16 | 98.00% |

| | | | | | |
|---|---|---|---|---|---|
| PA100031354 | 9 | 28616136–28616182 | 68% | 2.00E-13 | 95.74% |
| PA100004510 | 9 | 28543911–28543979 | 100% | 2.00E-26 | 98.55% |
| PA100028166 | 9 | 27952615–27952678 | 92% | 1.00E-22 | 96.88% |
| PA100004858 | 9 | 28667903–28667952 | 72% | 3.00E-16 | 98.00% |
| PA100004899 | 9 | 30159035–30159077 | 62% | 2.00E-12 | 97.67% |
| PA100029201 | 9 | 29543275–29543327 | 76% | 1.00E-16 | 96.23% |
| PA100029211 | 9 | 28750932–28750985 | 78% | 3.00E-17 | 96.30% |
| PA100004782 | 9 | 31334950–31335019 | 100% | 7.00E-25 | 97.14% |
| PA100011835 | 9 | 28469956–28470024 | 100% | 2.00E-25 | 97.10% |
| PA100004843 | 9 | 29420491–29420535 | 68% | 1.00E-09 | 91.11% |
| PA100027514 | 9 | 28423221–28423289 | 100% | 2.00E-25 | 97.10% |
| PA100017083 | 9 | 29736793–29736861 | 100% | 2.00E-25 | 97.10% |
| PA100021008 | 9 | 27255876–27255943 | 98% | 7.00E-25 | 97.06% |
| PA100012407 | 9 | 28875037–28875093 | 100% | 2.00E-13 | 82.61% |
| PA100004465 | 9 | 27804560–27804625 | 97% | 3.00E-23 | 97.01% |
| PA100025925 | 9 | 31673853–31673921 | 100% | 2.00E-25 | 97.10% |
| PA100004721 | 9 | 27067733–27067790 | 84% | 8.00E-18 | 94.83% |
| PA100022272 | 9 | 27045850–27045901 | 75% | 3.00E-16 | 96.15% |
| PA100004670 | 9 | 31930035–31930103 | 100% | 8.00E-24 | 95.65% |
| PA100004897 | 9 | 27316841–27316886 | 66% | 6.00E-13 | 95.65% |
| PA100004903 | 9 | 31072802–31072845 | 63% | 1.00E-14 | 100.00% |

| Locus id | Chromosome | Region | %Query Coverage (60%) | E-Value (0.005) | Percent Identity (55%) |
|---|---|---|---|---|---|
| PA100004567 | 9 | 27255731–27255795 | 94% | 2.00E-24 | 98.46% |
| PA100020889 | 9 | 29921025–29921093 | 100% | 5.00E-20 | 91.30% |
| PA100004779 | 9 | 26334675–26334743 | 100% | 2.00E-26 | 98.55% |
| PA100029590 | 9 | 29546367–29546416 | 72% | 4.00E-15 | 96.00% |
| PA100004412 | 9 | 28450542–28450581 | 89% | 2.00E-12 | 100.00% |
| PA100021089 | 9 | 26285178–26285246 | 100% | 1.00E-22 | 94.20% |
| PA100004556 | 9 | 30653569–30653635 | 98% | 3.00E-16 | 90.00% |
| PA100004680 | 9 | 3410145–3410216 | 100% | 1.00E-08 | 77.78% |
| PA100030209 | 9 | 27689584–27689652 | 100% | 2.00E-25 | 97.10% |
| PA100004773 | 9 | 29259455–29259523 | 100% | 2.00E-26 | 98.55% |
| PA100004645 | 9 | 29259455–29259523 | 98% | 1.00E-27 | 100.00% |
| PA100004594 | 9 | 29740306–29740366 | 88% | 4.00E-21 | 96.72% |
| PA100014942 | 9 | 28979422–28979490 | 100% | 2.00E-25 | 97.10% |
| PA100004619 | 9 | 28238728–28238797 | 100% | 3.00E-23 | 95.71% |
| PA100004404 | 9 | 27876374–27876450 | 100% | 4.00E-22 | 89.61% |
| PA100004762 | 9 | 30003040–30003107 | 100% | 2.00E-24 | 97.10% |
| PA100004801 | 9 | 30620699–30620763 | 100% | 6.00E-13 | 85.51% |
| PA100004689 | 9 | 28266822–28266891 | 100% | 7.00E-25 | 97.14% |
| PA100019317 | 9 | 30706839–30706907 | 100% | 2.00E-25 | 97.10% |
| PA100010245 | 9 | 29244547–29244615 | 100% | 2.00E-25 | 97.10% |
| PA100004696 | 9 | 26797741–26797810 | 100% | 7.00E-25 | 97.14% |
| PA100004408 | 9 | 28019594–28019662 | 100% | 1.00E-22 | 94.20% |
| PA100004563 | 9 | 29100891–29100959 | 100% | 1.00E-22 | 94.20% |
| PA100004684 | 9 | 31129329–31129397 | 100% | 4.00E-28 | 100.00% |
| PA100004381 | 9 | 27572488–27572556 | 100% | 4.00E-28 | 100.00% |
| PA100013910 | 9 | 27498305–27498373 | 100% | 2.00E-25 | 97.10% |
| PA100020461 | 9 | 30600574–30600642 | 100% | 2.00E-25 | 97.10% |
| PA100007736 | 9 | 31666984–31667052 | 100% | 2.00E-25 | 97.10% |

| | | | | | |
|---|---|---|---|---|---|
| PA100017244 | 9 | 28247164–28247232 | 100% | 2.00E-25 | 97.10% |
| PA100024280 | 9 | 26618215–26618278 | 92% | 2.00E-25 | 100.00% |
| PA100002311 | 9 | 29585295–29585363 | 100% | 4.00E-28 | 100.00% |
| PA100004745 | 9 | 30712428–30712496 | 100% | 4.00E-28 | 100.00% |
| **Locus id** | **Chromosome** | **Region** | **%Query Coverage (60%)** | **E-Value (0.005)** | **Percent Identity (55%)** |
| PA100004685 | 9 | 29878539–29878606 | 98% | 7.00E-25 | 97.06% |
| PA100004705 | 9 | 27696047–27696107 | 76% | 9.00E-11 | 85.25% |
| PA100004431 | 9 | 27563896–27563965 | 100% | 3.00E-23 | 95.71% |
| PA100004615 | 9 | 27648339–27648407 | 100% | 4.00E-28 | 100.00% |
| PA100004550 | 9 | 27231100–27231168 | 100% | 2.00E-25 | 97.10% |
| PA100004551 | 9 | 30132934–30133001 | 100% | 1.00E-21 | 94.20% |
| PA100005701 | 9 | 27704093–27704164 | 100% | 2.00E-19 | 91.67% |
| PA100015466 | 9 | 30427554–30427622 | 100% | 4.00E-28 | 100.00% |
| PA100004628 | 19 | 15184077–15184147 | 100% | 2.00E-25 | 97.18% |
| PA100002103 | 9 | 12148504–12148572 | 100% | 4.00E-28 | 100.00% |
| SNP100017094 | 9 | 28012619–28012551 | 100% | 4.00E-28 | 100.00% |
| SNP100017206 | 9 | 27467354–27467422 | 100% | 4.00E-28 | 100.00% |
| SNP100029210 | 9 | 28750985–28750932 | 78% | 5.00E-20 | 100.00% |
| SNP100029235 | 9 | 29250216–29250263 | 69% | 4.00E-15 | 97.92% |
| SNP100007965 | 9 | 28686518–28686586 | 100% | 4.00E-28 | 100.00% |

Regan CT. The Asiatic fishes of the family Anabantidae. Proc Zool Soc Lond. 1910; B1909: 767–787.

**Table S9.** Gene pathways in the putative male-determining region (pMDR) of chromosome 9.

| Accession | Start | Stop | Gene symbol |
|---|---|---|---|
| NC_040889.1 | 26947758 | 26970809 | *aacs* |
| NC_040889.1 | 30847795 | 30861426 | *adam9* |
| NC_040889.1 | 26390420 | 26404142 | *adamts12* |
| NC_040889.1 | 28962819 | 29033180 | *adamts3* |
| NC_040889.1 | 30211382 | 30223171 | *adamtsl2* |
| NC_040889.1 | 26385900 | 26390295 | *agpat9l* |
| NC_040889.1 | 29570659 | 29619317 | *antxr2a* |
| NC_040889.1 | 26661903 | 26665407 | *areg* |
| NC_040889.1 | 26467158 | 26537032 | *arl15a* |
| NC_040889.1 | 29189724 | 29196923 | *ascc2* |
| NC_040889.1 | 29474061 | 29478641 | *bmp3* |
| NC_040889.1 | 30928254 | 31034308 | *c5* |
| NC_040889.1 | 28716487 | 28734760 | *camsap1b* |
| NC_040889.1 | 28281143 | 28293533 | *castor1* |
| NC_040889.1 | 29388118 | 29402305 | *cds1* |
| NC_040889.1 | 26877368 | 26880870 | *cenatac* |
| NC_040889.1 | 28844892 | 28848124 | *cfap157* |
| NC_040889.1 | 29480720 | 29530595 | *cfap299* |
| NC_040889.1 | 31073113 | 31077836 | *ciz1b* |
| NC_040889.1 | 27676311 | 27686895 | *ckap2l* |
| NC_040889.1 | 29915395 | 29925731 | *cnot6l* |
| NC_040889.1 | 27354336 | 27357287 | *coq2* |
| NC_040889.1 | 27923912 | 27934545 | *coq5* |
| NC_040889.1 | 26553159 | 26574479 | *cspg4ba* |
| NC_040889.1 | 28802387 | 28805356 | *ctsla* |
| NC_040889.1 | 28755219 | 28798749 | *dapk1* |

| | | | |
|---|---|---|---|
| NC_040889.1 | 30609989 | 30628460 | *ddr2l* |
| NC_040889.1 | 28849529 | 28864701 | *dmrt1* |
| NC_040889.1 | 28876321 | 28880568 | *dmrt2a* |
| NC_040889.1 | 28868330 | 28872251 | *dmrt3a* |
| NC_040889.1 | 27399395 | 27402291 | *emb* |
| NC_040889.1 | 31860028 | 31863675 | *endog* |
| NC_040889.1 | 26654042 | 26655286 | *epgn* |
| NC_040889.1 | 26907697 | 26913495 | *erap1b* |
| NC_040889.1 | 30832192 | 30841733 | *ercc6l* |
| NC_040889.1 | 29931209 | 29943567 | *fam102aa* |
| NC_040889.1 | 28805986 | 28812813 | *fbp2* |
| NC_040889.1 | 28324830 | 28329078 | *fbxo21* |
| NC_040889.1 | 28309958 | 28321007 | *fbxw8* |
| NC_040889.1 | 29532866 | 29539785 | *fgf5* |
| NC_040889.1 | 31798841 | 31808193 | *fibcd1a* |
| NC_040889.1 | 26439603 | 26445742 | *fsta* |
| NC_040889.1 | 26929452 | 26944939 | *gak* |
| NC_040889.1 | 26730830 | 26733022 | *gas1a* |
| NC_040889.1 | 26376315 | 26382808 | *gck* |
| NC_040889.1 | 27334953 | 27345579 | *gldc* |
| NC_040889.1 | 29987080 | 29993754 | *gle1* |
| NC_040889.1 | 26675986 | 26677766 | *gpx8* |
| NC_040889.1 | 30057754 | 30059936 | *gstt1a* |
| NC_040889.1 | 26298921 | 26308788 | *hic2* |
| NC_040889.1 | 27405370 | 27407451 | *hint2* |
| NC_040889.1 | 27704015 | 27720899 | *hs3st1l2* |
| NC_040889.1 | 28598582 | 28602520 | *hscb* |
| NC_040889.1 | 28018525 | 28024391 | *hspb8* |
| NC_040889.1 | 30632390 | 30633453 | *ier3* |
| NC_040889.1 | 27583895 | 27588971 | *inpp5e* |
| NC_040889.1 | 26696158 | 26699205 | *isca1* |
| NC_040889.1 | 26426635 | 26436919 | *itga2.2* |
| NC_040889.1 | 27271678 | 27285028 | *jak2b* |
| NC_040889.1 | 28817338 | 28844280 | *kank1a* |
| NC_040889.1 | 28671809 | 28712932 | *kcnt1b* |
| NC_040889.1 | 27881094 | 27922642 | *kremen1* |
| NC_040889.1 | 27539101 | 27545163 | *krt1-c5* |
| NC_040889.1 | 28177205 | 28234486 | *ksr2* |
| NC_040889.1 | 27548017 | 27554766 | *lhx6b* |
| NC_040889.1 | 26593906 | 26598594 | *lipg* |
| NC_040889.1 | 29925783 | 29928056 | LOC114861258 |
| NC_040889.1 | 27452464 | 27463255 | LOC114861276 |
| NC_040889.1 | 27466983 | 27472812 | LOC114861278 |
| NC_040889.1 | 27463373 | 27466849 | LOC114861280 |
| NC_040889.1 | 27473105 | 27475509 | LOC114861281 |
| NC_040889.1 | 27442440 | 27447386 | LOC114861282 |
| NC_040889.1 | 26600843 | 26608843 | LOC114861288 |
| NC_040889.1 | 30666683 | 30676915 | LOC114861410 |
| NC_040889.1 | 30653013 | 30656027 | LOC114861411 |
| NC_040889.1 | 30646410 | 30648567 | LOC114861412 |
| NC_040889.1 | 31385686 | 31400274 | LOC114861426 |

| | | | |
|---|---|---|---|
| NC_040889.1 | 31370489 | 31385568 | LOC114861427 |
| NC_040889.1 | 31230657 | 31250824 | LOC114861429 |
| NC_040889.1 | 31260556 | 31266183 | LOC114861430 |
| NC_040889.1 | 31302095 | 31319545 | LOC114861431 |
| NC_040889.1 | 31275601 | 31282969 | LOC114861432 |
| NC_040889.1 | 31291908 | 31300200 | LOC114861434 |
| NC_040889.1 | 31224149 | 31230556 | LOC114861435 |
| NC_040889.1 | 31358314 | 31362765 | LOC114861437 |
| NC_040889.1 | 31251062 | 31260188 | LOC114861439 |
| NC_040889.1 | 31335656 | 31339880 | LOC114861440 |
| NC_040889.1 | 31331035 | 31335905 | LOC114861441 |
| NC_040889.1 | 31362807 | 31371539 | LOC114861442 |
| NC_040889.1 | 31356086 | 31358532 | LOC114861443 |
| NC_040889.1 | 31266666 | 31270865 | LOC114861445 |
| NC_040889.1 | 31440505 | 31447663 | LOC114861446 |
| NC_040889.1 | 31319463 | 31324329 | LOC114861447 |
| NC_040889.1 | 31275849 | 31278060 | LOC114861449 |
| NC_040889.1 | 30804291 | 30806963 | LOC114861464 |
| NC_040889.1 | 29997913 | 30022057 | LOC114861525 |
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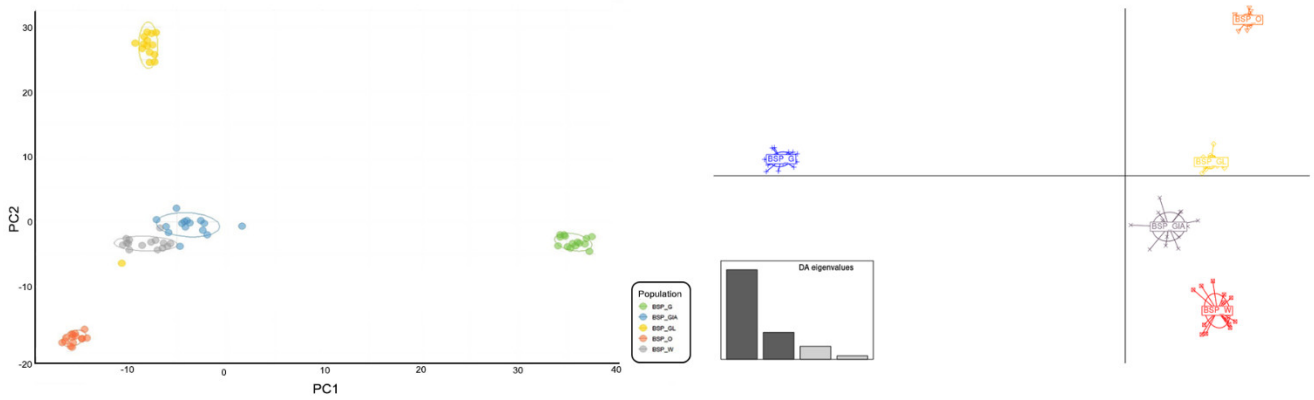


**Figure S1.** Principal component analysis of Siamese fighting fish (*Betta splendens* Regan, 1910) from local farms and discriminant analysis of principal component (DAPC) scatter plots of individuals.

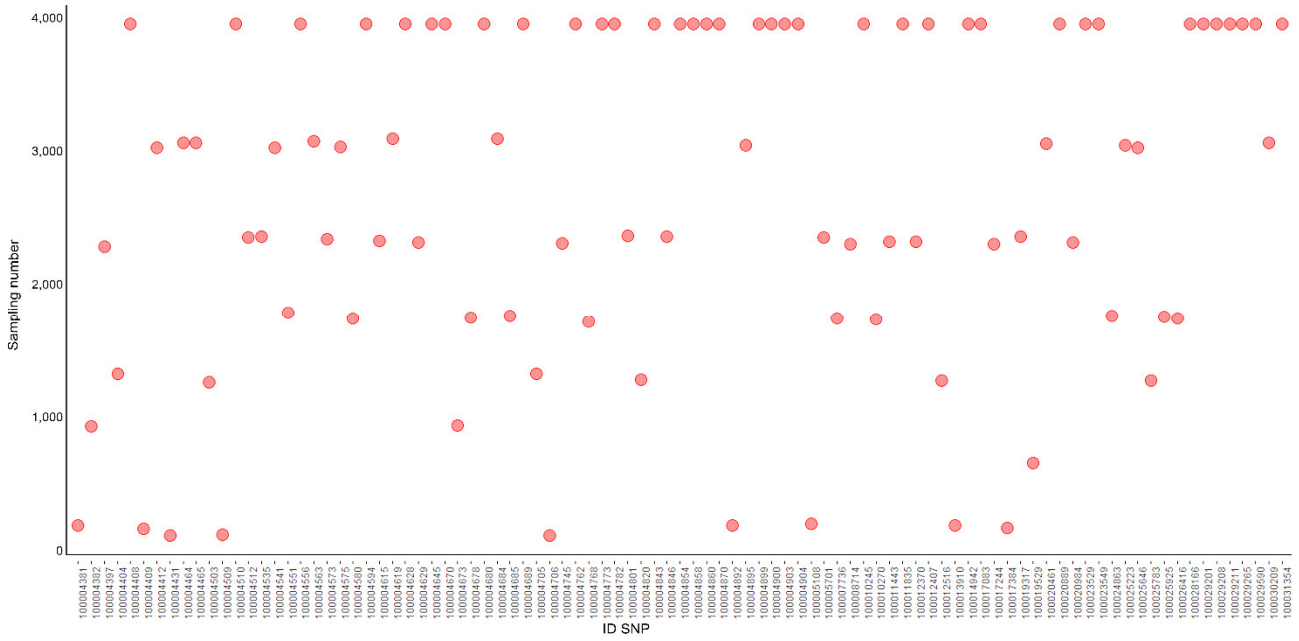


**Figure S2.** Monte Carlo randomization in Siamese fighting fish (*Betta splendens* Regan, 1910).

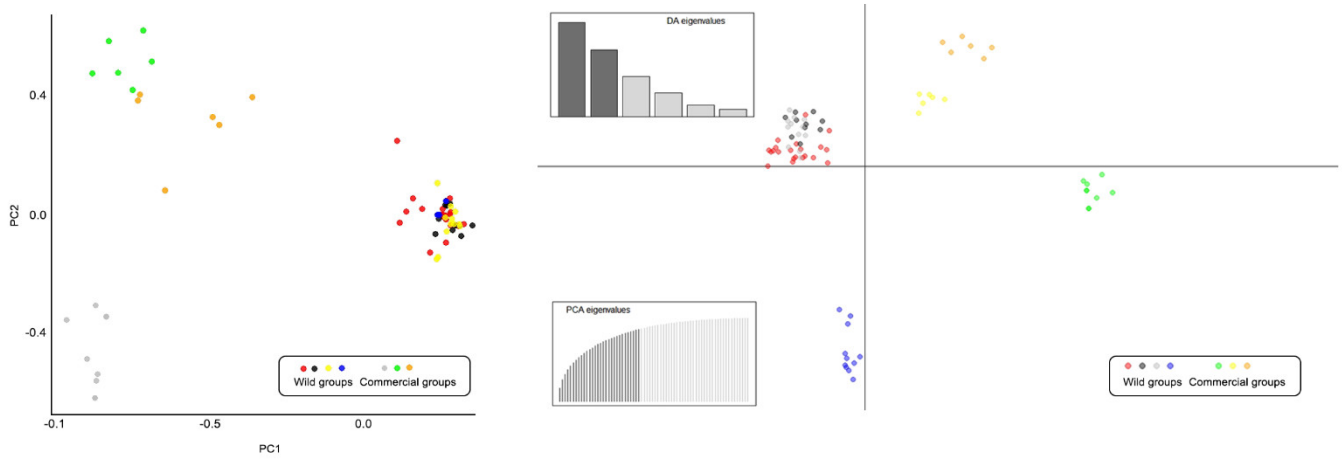


**Figure S3.** Principal component analysis of wild and commercial groups of Siamese fighting fish (*Betta splendens* Regan, 1910) and discriminant analysis of principal component (DAPC) scatter plots of individuals.

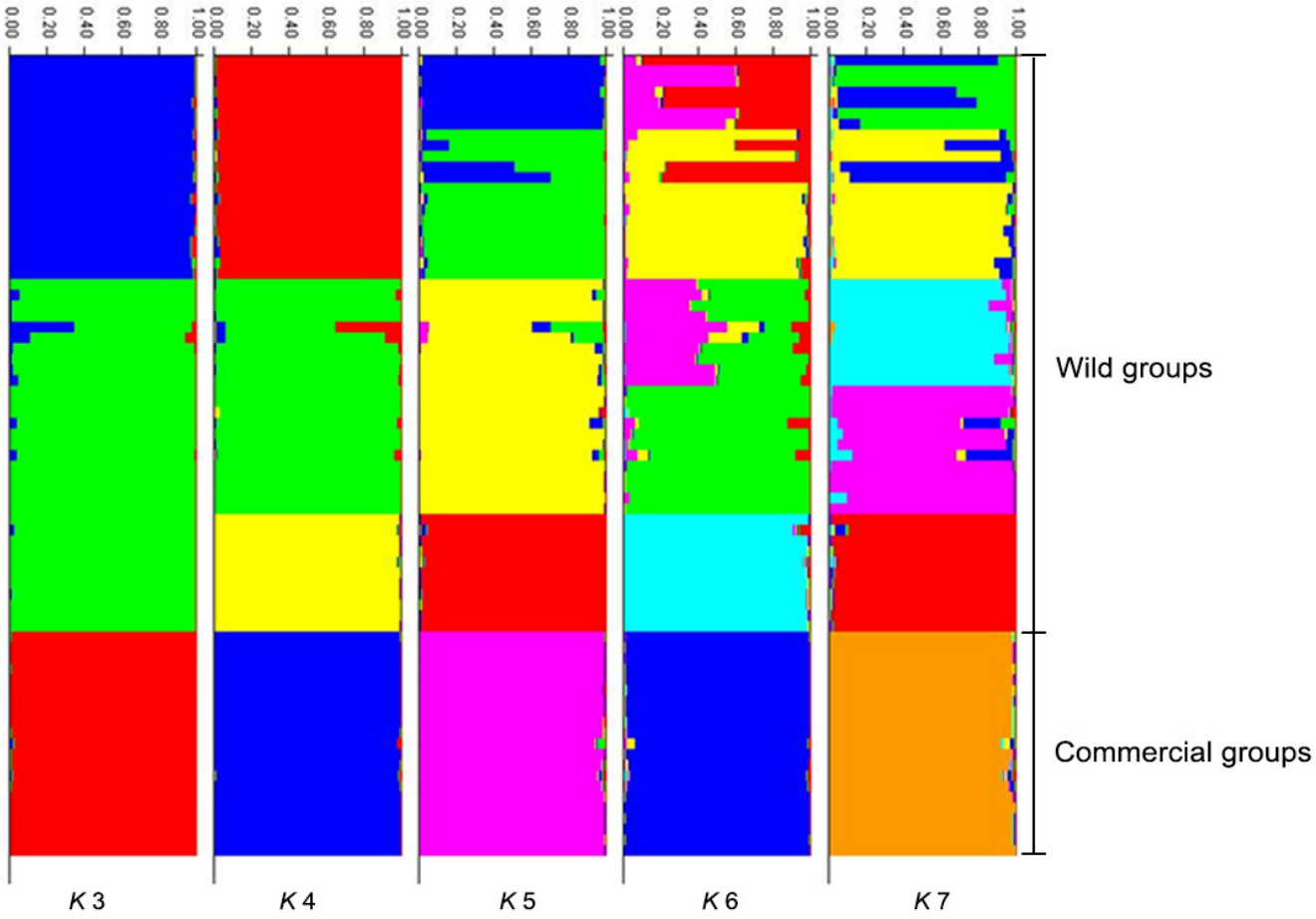


**Figure S4.** Population structure of 75 samples (54 wild and 21 commercial individuals) of Siamese fighting fish (*Betta splendens* Regan, 1910). Plot of Evanno's Δ*K*. Structure bar plots depicting the results of model-based clustering inferred for $K = 3$. Inferred genetic clusters are indicated by different colors. Each vertical bar on the x-axis represents an individual, and the y-axis represents the proportion of membership (posterior probability) in each genetic cluster,.

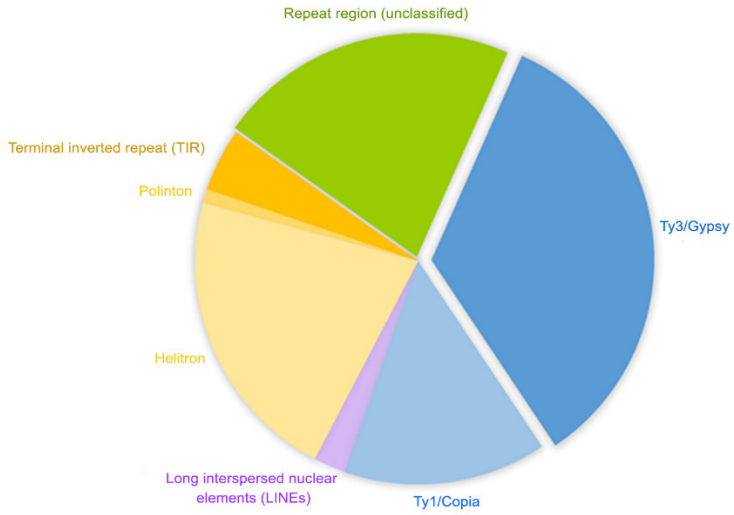


**Figure S5.** Repeat searches for single-nucleotide polymorphisms and restriction fragments of male-linked loci in Siamese fighting fish (*Betta splendens* Regan, 1910).

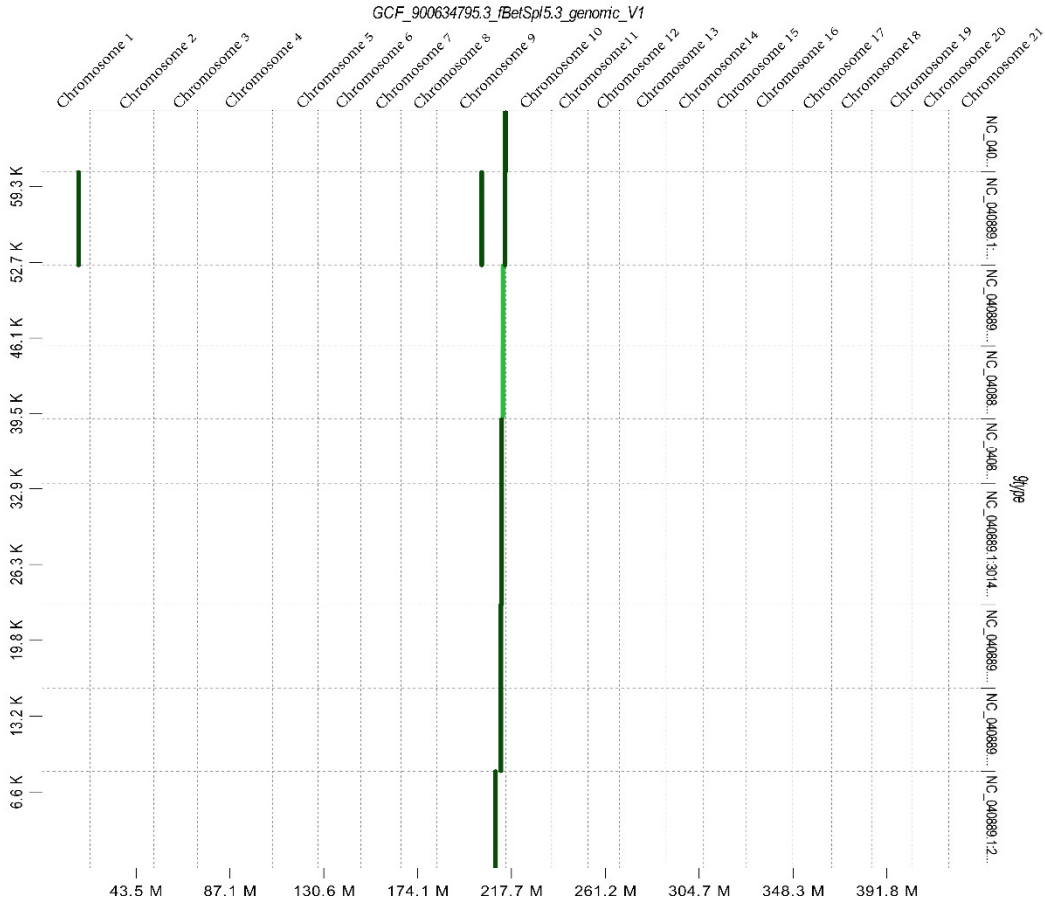


**Figure S6.** All copy numbers were intensively located on chromosome 9 of Siamese fighting fish (*Betta splendens* Regan, 1910), with a few observed on chromosome 1.

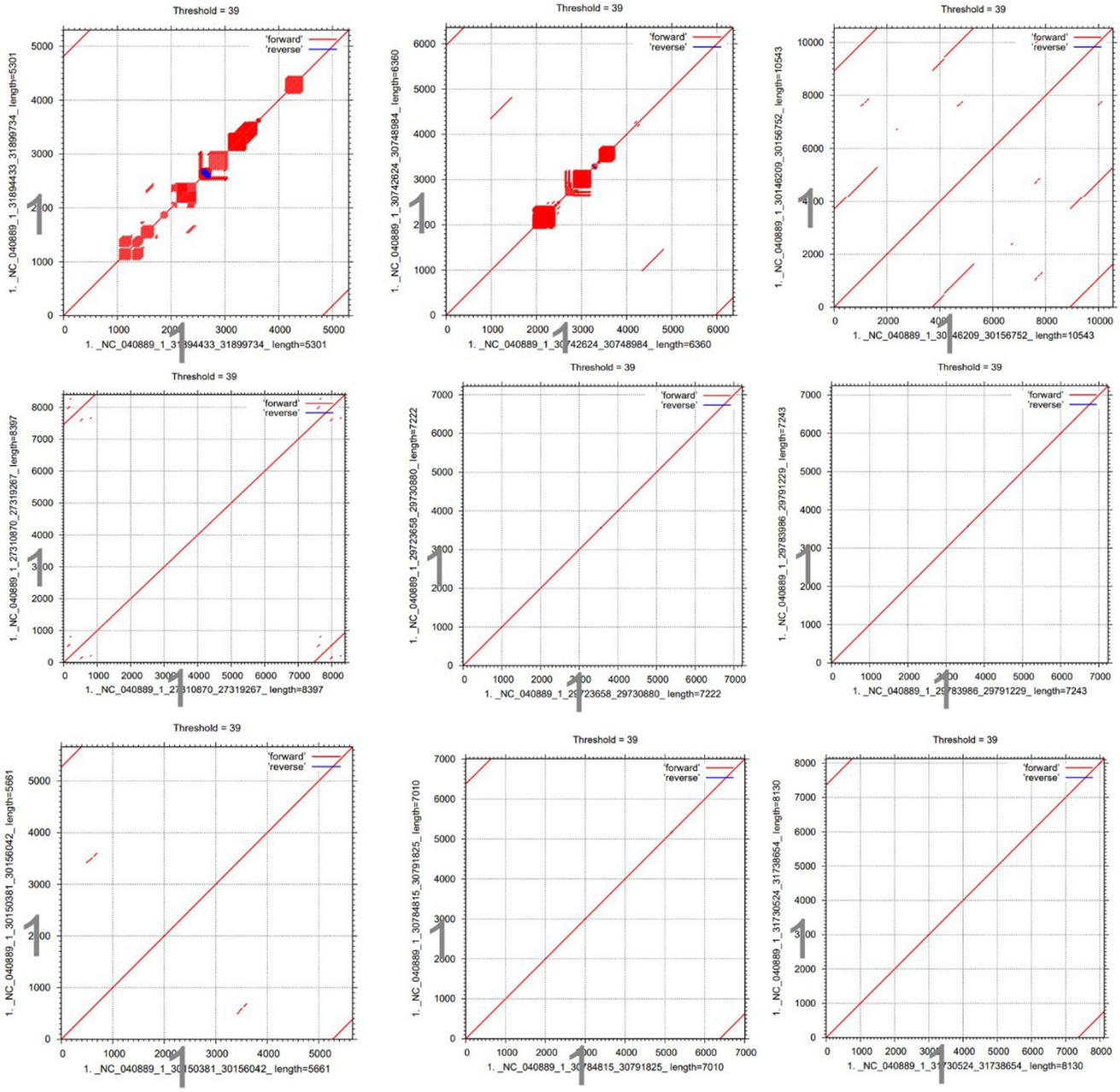


**Figure S7.** Dot matrix analysis showing that two of nine types had tandem-arrayed repetitive sequences.

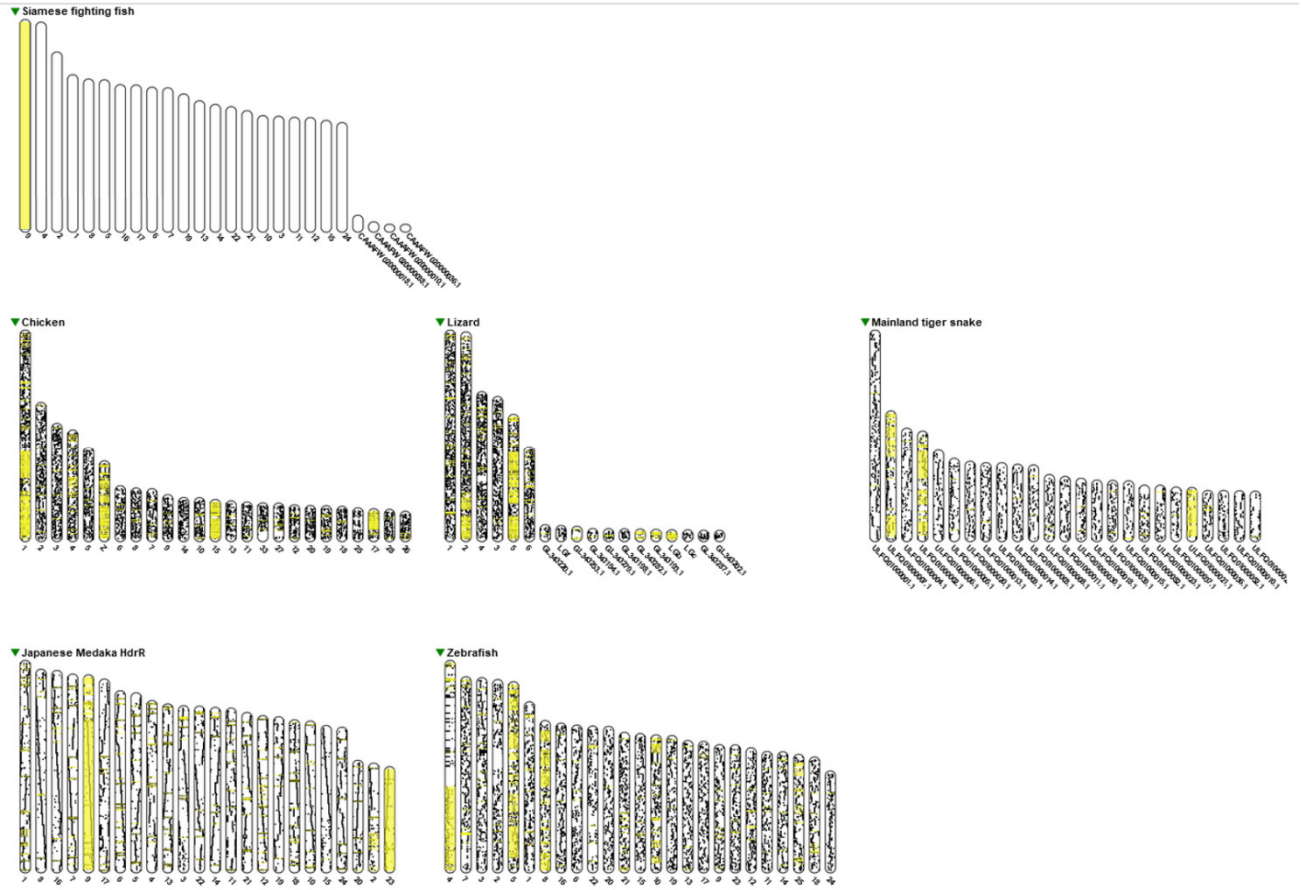


**Figure S8.** Multi-karyotypes of Siamese fighting fish (*Betta splendens* Regan, 1910) with whole-genome sequences compared to those of other vertebrates,.