**Supplementary files**

**Supplementary Table 1.** Thirty-ninehaplotypes and their polymorphic sites in *Didymosulcus katsuwonicola* population isolated from the Atlantic bluefin tuna *Thunnus thynnus* gills in the Adriatic Sea, in 2008 and 2013.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Pair base position |
| Haplotypes | 2008 | 2013 | (6)(12)(27)(42)(55)(67)(68)(79)(91)(105)(106)(111)(114)(120)(144)(182)(195)(280)(303)  (316)(333)(341)(368)(396)(401)(402)(403)(404)(419)(443)(449)(452)(481)(491)(548)(551)  (555)(582)(599)(602)(617)(628)(647)(668)(670)(674)(680)(684)(697)(717) |
| Hap1 | 19 | 14 | ACACATGTCAGAAAACATTACAAAACAATATACTAAAACAAAGACAAAAA |
| Hap2 | 1 | 0 | ............G.....T...T.........G..C.............. |
| Hap3 | 1 | 0 | ...........G...................................... |
| Hap4 | 2 | 0 | ............................C..................... |
| Hap5 | 1 | 0 | ..............................A................... |
| Hap6 | 1 | 0 | .......G.......................................... |
| Hap7 | 0 | 2 | .........G........................................ |
| Hap8 | 0 | 1 | ...A.............................................C |
| Hap9 | 0 | 4 | .................................................C |
| Hap10 | 0 | 1 | ...............................................C.. |
| Hap11 | 0 | 1 | ...A.........................................G.C.C |
| Hap12 | 0 | 1 | ......A........................................... |
| Hap13 | 0 | 1 | ......A.........................................G. |
| Hap14 | 0 | 1 | ......A........................................CCC |
| Hap15 | 0 | 3 | ...............................................C.C |
| Hap16 | 0 | 1 | ..............C.C....G.....C.C...CG.TGT....G.G...C |
| Hap17 | 0 | 1 | .............G.................................... |
| Hap18 | 0 | 1 | ...........................G.............G...G.... |
| Hap19 | 0 | 1 | ............................................A...GC |
| Hap20 | 0 | 1 | .....................G............................ |
| Hap21 | 0 | 1 | ........T........................................C |
| Hap22 | 0 | 1 | ........T......................................C.. |
| Hap23 | 0 | 1 | ...A.............................................. |
| Hap24 | 0 | 1 | .....A.............GT............................. |
| Hap25 | 0 | 1 | .A................................................ |
| Hap26 | 0 | 1 | .............................................G.... |
| Hap27 | 0 | 1 | .............................................GC... |
| Hap28 | 0 | 1 | ........................................G.A..G.C.C |
| Hap29 | 0 | 1 | ..........A............................G.....G.C.C |
| Hap30 | 0 | 2 | ..........................G..................G.... |
| Hap31 | 0 | 1 | ....G....................GC....................... |
| Hap32 | 0 | 2 | ..........................G....................... |
| Hap33 | 0 | 1 | .......................CAGC....................C.. |
| Hap34 | 0 | 1 | .......................CAG...............G...G.... |
| Hap35 | 0 | 1 | .................A.............................C.. |
| Hap36 | 0 | 1 | ...............................G.................. |
| Hap37 | 0 | 1 | ...............T...............................C.. |
| Hap38 | 0 | 1 | G.G............................................... |
| Hap39 | 0 | 2 | ........................................G......... |
| Total | 25 | 56 | 63 |

**Supplementary Table 2.** Indices ofdemographic patters of *Didymosulcus katsuwonicola* population isolated from the Atlantic bluefin tuna *Thunnus thynnus* gills in the Adriatic Sea, in 2008 and 2013.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Tajima’s *D* | | Fu’s *Fs* | | Mismatch distribution | | | Goodness-of-fit tests | | | |
|  | *D* | *P* | *Fs* | *P* | *τ* | *θ0* | *θ1* | *SSD* | *P* | *HRI* | *P* |
| 2008 | -2.16458 *±* 0.93844 | 0.00600 | -2.62978 *±* 1.41920 | 0.02000 | 0.50977 | 0.00000 | 99999.000 | 0.00760859 | 0.40000 | 0.15542222 | 0.43000 |
| 2013 | -2.19288 *±* 1.04161 | 0.00000 | -26.34935 *±* 2.54203 | 0.00000 | 1.89844 | 0.87188 | 99999.000 | 0.00121579 | 0.59000 | 0.02928571 | 0.57000 |
| Total | -2.17873 *±* 0.02001 | 0.00258 | -14.48957*±* 16.77227 | 0.00850 | 1.20410 | 0.43594 | 99999.000 | 0.00441000 | 0.53000 | 0.09235000 | 0.57000 |