**Supplemental Table 5**. Sequencing and alignment statistics

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Sample** | **Life stage** | **Country** | **Year isolation** | **Raw Reads** | **Primer Trimmed** | **Aligned** | **Aligned Read Distribution** | | | | **Minimap2 of previously unaligned raw reads (default setting)** | | | | | **BlastN of remaining unaligned reads  (-word\_size=15, evalue=0.01)** | | | | |
| *FnO* | *ISKNV* | *SAG* | *TILV* | *Tilapia* | *FnO* | *ISKNV* | *SAG* | *TILV* | *Tilapia* | *FnO* | *ISKNV* | *SAG* | *TILV* |
| 3 | r2\_NT\_F1 | fingerling (NT) | Thailand | 2020 | 4262 | 1762 | 671 | 72 | 10 | 0 | 589 | 524 | 131 | 23 | 2 | 263 | 385 | 50 | 13 | 0 | 1533 |
| 4 | r2\_NT\_F2 | fingerling (NT) | Thailand | 2020 | 6827 | 2720 | 881 | 120 | 36 | 0 | 725 | 611 | 256 | 54 | 0 | 335 | 655 | 141 | 37 | 1 | 2504 |
| 5 | r2\_NT\_F3 | fingerling (NT) | Thailand | 2020 | 10725 | 5347 | 1832 | 108 | 34 | 0 | 1690 | 1066 | 222 | 59 | 1 | 690 | 844 | 101 | 30 | 0 | 4320 |
| 6 | r2\_NT\_F4 | fingerling (NT) | Thailand | 2020 | 16668 | 8340 | 2920 | 59 | 16 | 0 | 2845 | 757 | 151 | 24 | 0 | 1287 | 707 | 83 | 18 | 0 | 7440 |
| 7 | r2\_NT\_F5 | fingerling (NT) | Thailand | 2020 | 15823 | 7414 | 2572 | 76 | 21 | 0 | 2475 | 1315 | 208 | 47 | 0 | 1188 | 1392 | 101 | 18 | 1 | 6516 |
| 25 | r2\_NT\_Gh23 | juvenile (NT) | West Africa | 2019 | 4316 | 1374 | 886 | 37 | 836 | 0 | 13 | 741 | 51 | 934 | 0 | 5 | 713 | 24 | 539 | 0 | 18 |
| 26 | r2\_NT\_Gh24 | adult (NT) | West Africa | 2019 | 4033 | 629 | 151 | 71 | 56 | 0 | 24 | 1780 | 141 | 67 | 0 | 11 | 1269 | 53 | 20 | 0 | 35 |
| 27 | r2\_NT\_Gh25 | juvenile (NT) | West Africa | 2019 | 7663 | 1081 | 601 | 144 | 417 | 5 | 35 | 3560 | 251 | 392 | 6 | 14 | 1676 | 137 | 237 | 0 | 51 |
| 30 | r2\_RT\_EX03 | fry (RT) | Thailand | 2019 | 8167 | 3045 | 2663 | 2632 | 18 | 0 | 13 | 179 | 3452 | 12 | 0 | 11 | 88 | 1227 | 9 | 0 | 36 |
| 31 | r2\_RT\_FM1A | adult (RT) | Thailand | 2019 | 14061 | 5156 | 4491 | 4422 | 32 | 0 | 37 | 67 | 5712 | 16 | 0 | 10 | 102 | 2387 | 11 | 1 | 54 |
| 32 | r2\_RT\_M1 | adult (RT) | Thailand | 2019 | 8861 | 2968 | 2542 | 2512 | 16 | 0 | 14 | 26 | 3727 | 12 | 0 | 7 | 77 | 1667 | 9 | 0 | 16 |
| 33 | r2\_RT\_FM1B | adult (RT) | Thailand | 2019 | 7375 | 2038 | 1751 | 1728 | 9 | 3 | 11 | 36 | 3666 | 5 | 5 | 5 | 34 | 1267 | 6 | 3 | 21 |
| 37 | r3\_NT\_GroupB | fry (NT) | Thailand | 2019 | 1638 | 620 | 594 | 1 | 2 | 590 | 1 | 29 | 0 | 1 | 635 | 0 | 16 | 3 | 0 | 190 | 1 |
| 38 | r3\_NT\_ZoneA | fry (NT) | Thailand | 2019 | 2258 | 531 | 505 | 2 | 2 | 499 | 2 | 11 | 3 | 1 | 715 | 0 | 26 | 2 | 1 | 213 | 3 |
| 39 | r3\_NT\_ZoneB | fry (NT) | Thailand | 2019 | 427 | 54 | 38 | 4 | 1 | 30 | 3 | 189 | 6 | 1 | 44 | 1 | 51 | 3 | 0 | 26 | 0 |
| 40 | r1\_TILV\_1 | fingerling (RT) | Thailand | 2018-07 | 32 | 9 | 3 | 0 | 0 | 0 | 3 | 0 | 2 | 3 | 5 | 0 | 0 | 1 | 2 | 4 | 6 |
| 41 | r1\_ISKNV\_1 | fry (AS) | Thailand | 2018-11 | 10103 | 5440 | 4464 | 10 | 4443 | 10 | 1 | 0 | 8 | 2783 | 50 | 0 | 11 | 4 | 2014 | 18 | 1 |
| 42 | r1\_FNO\_1 | fingerling (RT) | Thailand | 2015 | 13692 | 5913 | 5265 | 5239 | 8 | 16 | 2 | 0 | 6000 | 5 | 41 | 0 | 32 | 1932 | 3 | 8 | 0 |
| 43 | r1\_SAG\_1 | fry (NT) | Thailand | 2019-07 | 70735 | 31116 | 29590 | 39 | 22 | 29528 | 1 | 0 | 25 | 5 | 32940 | 0 | 80 | 7 | 5 | 6043 | 2 |
| 44 | r3\_TILV50 | fingerling (RT) | Thailand | 2019-07 | 1309 | 675 | 345 | 2 | 1 | 28 | 314 | 5 | 10 | 0 | 43 | 66 | 6 | 6 | 0 | 30 | 455 |
| 45 | r3\_TILV30 | fingerling (RT) | Thailand | 2019-07 | 357 | 140 | 83 | 4 | 1 | 19 | 59 | 4 | 6 | 3 | 42 | 29 | 2 | 0 | 2 | 20 | 85 |
| 46 | r3\_TILV15 | fingerling (RT) | Thailand | 2019-07 | 357 | 158 | 76 | 4 | 0 | 9 | 63 | 5 | 5 | 0 | 20 | 29 | 4 | 1 | 1 | 7 | 108 |
| 47 | r3\_TILV05 | fingerling (RT) | Thailand | 2019-07 | 166 | 37 | 25 | 4 | 2 | 15 | 4 | 6 | 8 | 0 | 35 | 5 | 3 | 5 | 0 | 15 | 13 |
| 48 | r3\_SAG50 | fry (NT) | Thailand | 2019-07 | 1662 | 624 | 584 | 6 | 3 | 573 | 2 | 3 | 15 | 2 | 535 | 1 | 8 | 3 | 0 | 234 | 5 |
| 49 | r3\_SAG30 | fry (NT) | Thailand | 2019-07 | 901 | 391 | 370 | 2 | 2 | 365 | 1 | 1 | 8 | 0 | 333 | 0 | 5 | 0 | 0 | 98 | 1 |
| 50 | r3\_SAG15 | fry (NT) | Thailand | 2019-07 | 561 | 176 | 163 | 2 | 2 | 158 | 1 | 2 | 7 | 1 | 178 | 2 | 10 | 4 | 0 | 86 | 3 |
| 51 | r3\_SAG05 | fry (NT) | Thailand | 2019-07 | 334 | 69 | 57 | 2 | 1 | 53 | 1 | 4 | 8 | 1 | 66 | 0 | 4 | 8 | 1 | 59 | 4 |
| 52 | r1\_4PAT\_1 | N/A | Thailand | N/A | 9030 | 3543 | 2989 | 1329 | 669 | 770 | 221 | 0 | 1763 | 769 | 1589 | 104 | 11 | 567 | 317 | 210 | 333 |
| 53 | r1\_4PAT\_DIL\_1 | N/A | Thailand | N/A | 22933 | 10659 | 9119 | 3825 | 1838 | 2970 | 486 | 0 | 3290 | 1306 | 4724 | 132 | 41 | 1298 | 744 | 678 | 613 |
| 54 | r3\_4PAT\_DIL\_3 | N/A | Thailand | N/A | 1480 | 477 | 410 | 129 | 24 | 206 | 51 | 1 | 178 | 25 | 280 | 10 | 14 | 79 | 8 | 114 | 50 |

NT, Nile tilapia; RT, red tilapia; AS, Asian sea bass