**Accuracies of genomic predictions for disease resistance of striped catfish to *Edwardsiella ictaluri* using artificial intelligence algorithms**

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**Running title: genomic prediction accuracy of disease resistance in striped catfish**

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**Supplementary Figure S1**. Mean family survival rate in percentage post challenge test. First 20 family is low resistance group and last 20 families is high resistance group.

Supplementary Figure S2. Mean family survival time in day post challenge test. First 20 family is low resistance groups, and last 20 families is high resistance group.

Supplementary Table S1. Number of SNPs used for each testing set based on its effect with p<0.00001

|  |  |  |  |
| --- | --- | --- | --- |
| Subset | Total SNP used for ssGWAS | ssGWAS SNPs for survival status | ssGWAS SNPs for survival time |
| i1t1 | 6,470 | 342 | 1,448 |
| i1t2 | 6,470 | 381 | 1,537 |
| i1t3 | 6,470 | 356 | 1,399 |
| i1t4 | 6,470 | 351 | 1,561 |
| i1t5 | 6,470 | 318 | 1,499 |
| i2t1 | 6,470 | 335 | 1,450 |
| i2t2 | 6,470 | 366 | 1,598 |
| i2t3 | 6,470 | 400 | 1,540 |
| i2t4 | 6,470 | 318 | 1,454 |
| i2t5 | 6,470 | 370 | 1,401 |
| i3t1 | 6,470 | 341 | 1,401 |
| i3t2 | 6,470 | 365 | 1,475 |
| i3t3 | 6,470 | 373 | 1,514 |
| i3t4 | 6,470 | 369 | 1,559 |
| i3t5 | 6,470 | 361 | 1,538 |
| i4t1 | 6,470 | 372 | 1,576 |
| i4t2 | 6,470 | 326 | 1,362 |
| i4t3 | 6,470 | 357 | 1,539 |
| i4t4 | 6,470 | 349 | 1,383 |
| i4t5 | 6,470 | 327 | 1,548 |
| i5t1 | 6,470 | 329 | 1,423 |
| i5t2 | 6,470 | 367 | 1,480 |
| i5t3 | 6,470 | 341 | 1,496 |
| i5t4 | 6,470 | 362 | 1,555 |
| i5t5 | 6,470 | 360 | 1,502 |
| Mean |  | 353.4 | 1,489.5 |
| Min |  | 318 | 1,362 |
| Max |  | 400 | 1,589 |

Supplementary Table S2. Trait description by family in the main challenge test using 5.328 individual fish.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Trait | Unit | n | Mean | Min | Max |
| Survival status | % | 5,328 | 43.8 | 0 | 100 |
| Survival time | day | 5,328 | 7.2 | 2 | 23 |