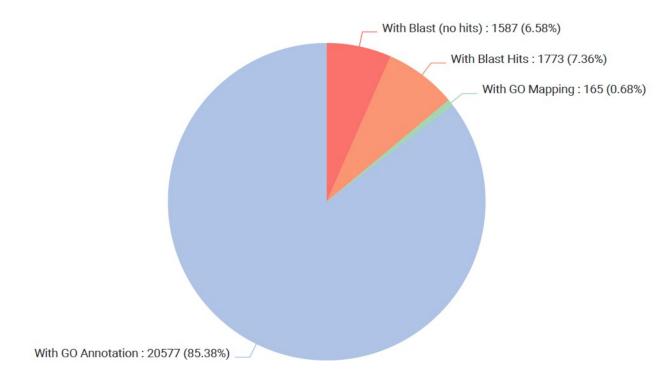
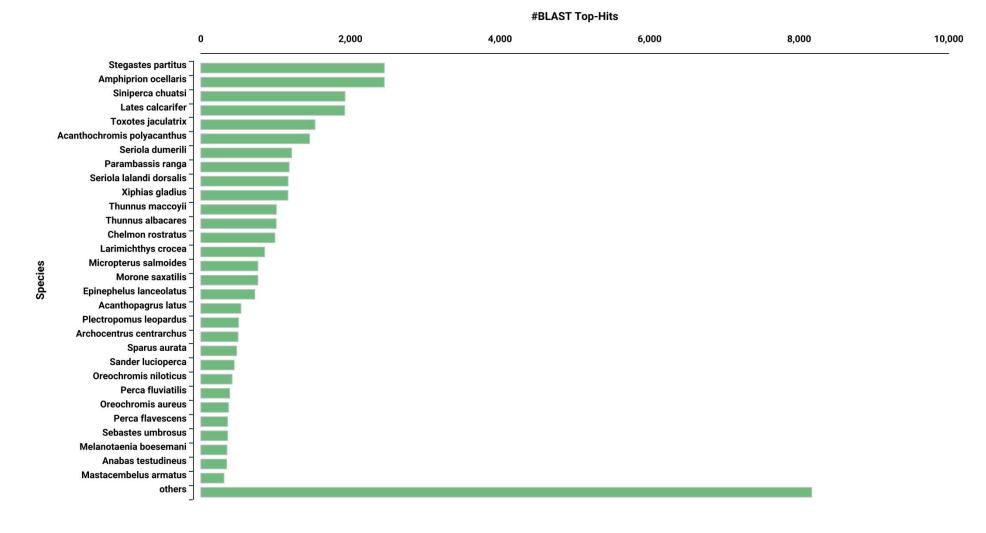


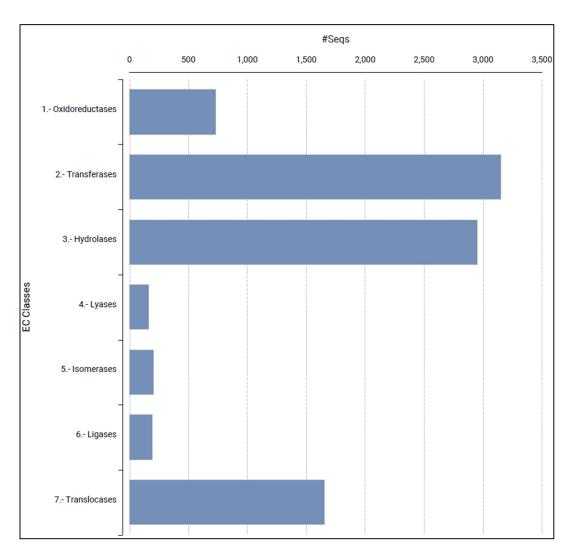
Supplementary Figure 1. The BUSCO scores illustrating the completeness for *M. cephalus* transcriptome.



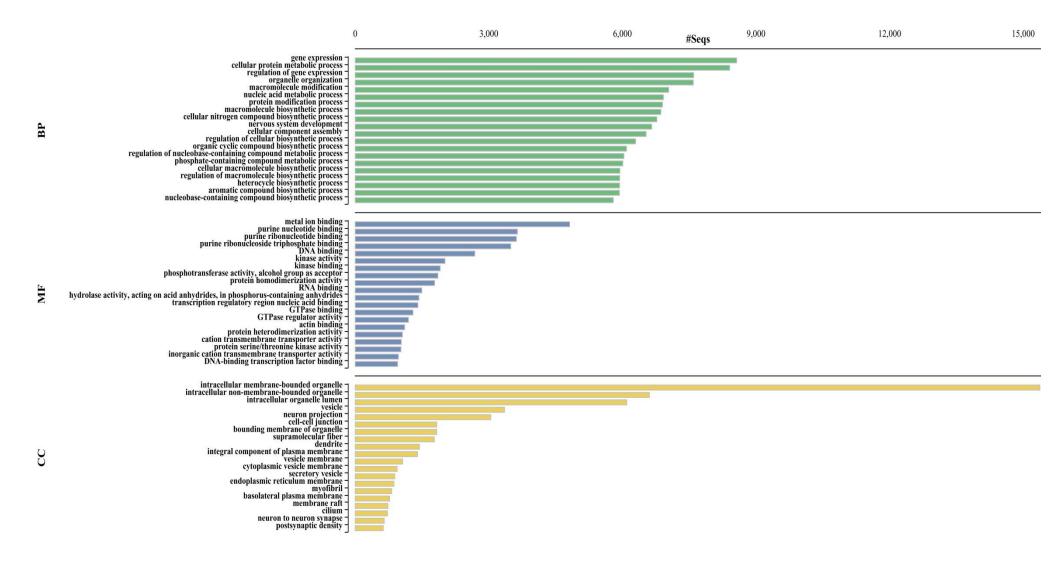
Supplementary Figure 2. Annotation summary of unique genes in Mugil cephalus transcriptome.



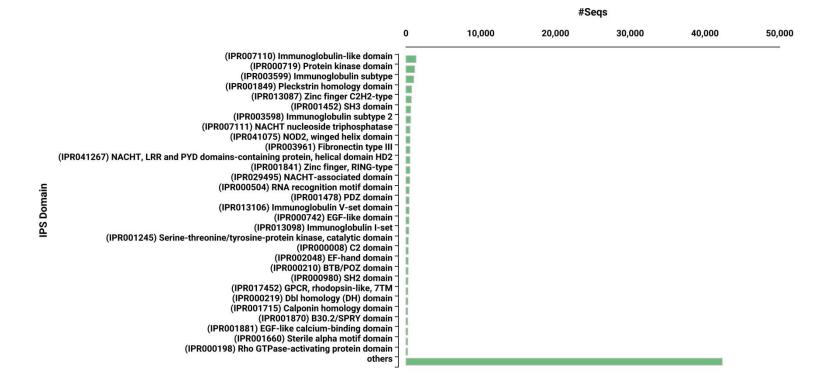
Supplementary Figure 3. The top-hit species distribution for the blastx search performed on unique genes in Mugil cephalus transcriptome.



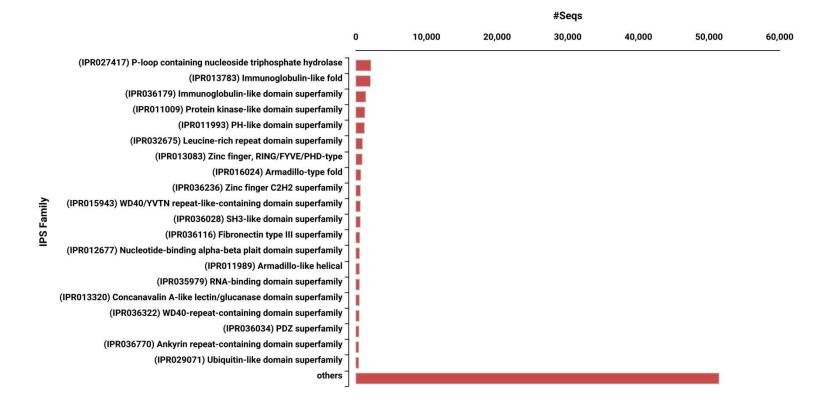
Supplementary Figure 4. Enzyme code distribution for unique genes in Mugil cephalus transcriptome.



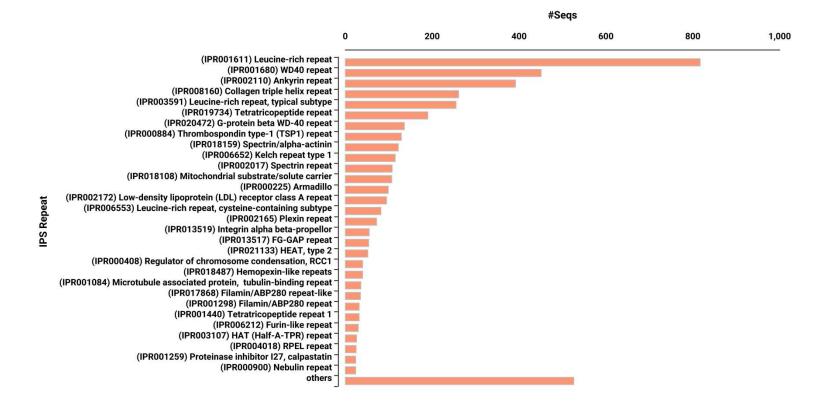
Supplementary Figure 5. Gene ontology distribution (by level 5) for the unique genes in Mugil cephalus transcriptome.



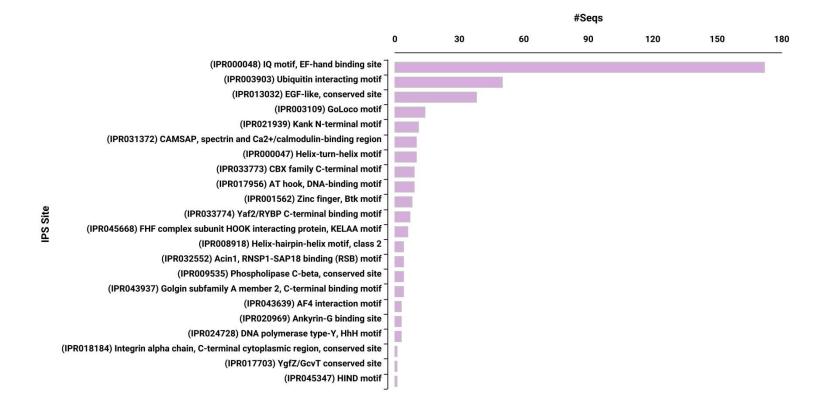
Supplementary Figure 6. The major protein domains in the transcriptome of M. cephalus as obtained through InterProScan search.



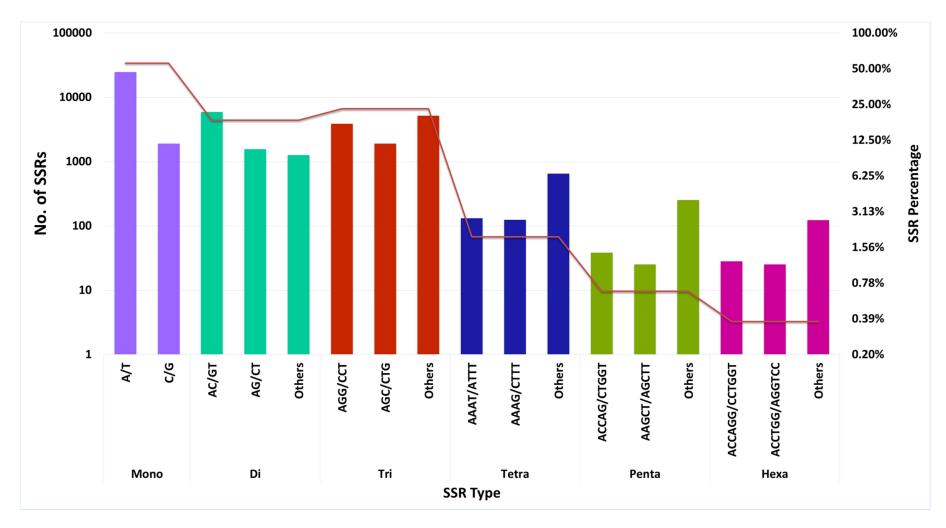
Supplementary Figure 7. The major protein families in the transcriptome of *M. cephalus* as obtained through InterProScan search.



Supplementary Figure 8. The major InterProScan repeats in the transcriptome of *M. cephalus* as obtained through InterProScan search.



Supplementary Figure 9. The major InterProScan sites in the transcriptome of M. cephalus as obtained through InterProScan search.



Supplementary Figure 10. SSR Profile for unique genes in *Mugil cephalus* **transcriptome.** The bar plot indicates the number of SSRs in each SSR type and the red line indicates the percentage contributed by each type to the total SSRs.

All Canonical Junctions 100% 100% 100% 100 82.5% 75-Isoforms, % 50-25-0.

ISM

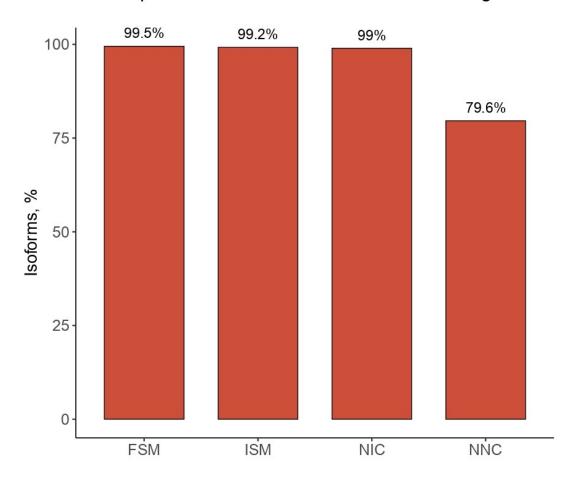
FŚM

Supplementary Figure 11. Percentage of isoforms among major isoform categories with canonical splice junctions.

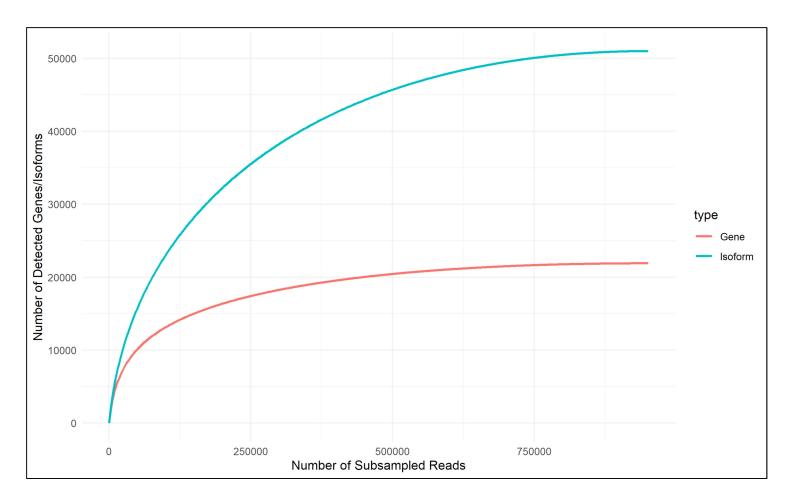
NiC

NNC

Splice Junctions With Short Read Coverage



Supplementary Figure 12. Percentage of isoforms among major isoform categories where the splice junctions could be verified with RNAseq reads.



Supplementary Figure 13. Rarefaction curve depicting the sequencing depth required for discovery of genes and isoforms.

Supplementary Table 1. Splice Junction Classification for the transcripts of *M. cephalus*.

Category	Splice Junction count	Percent
Known canonical	134052	70.82
Known Non-canonical	110	0.06
Novel canonical	49152	25.97
Novel Non-canonical	5978	3.16