Supplementary Material

Pre-breeding diets in the seahorse *Hippocampus reidi*: How do they affect fatty acid profiles, energetic status and histological features in newborn?

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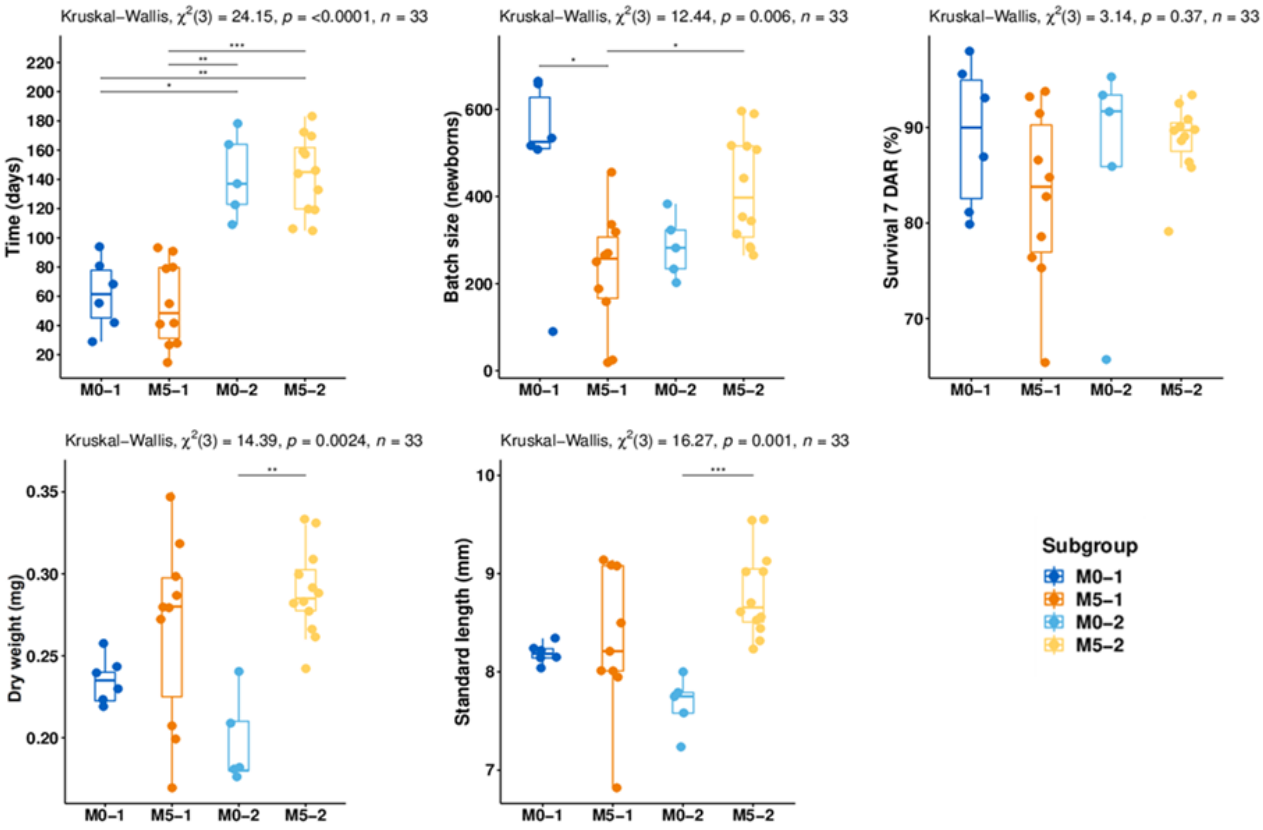
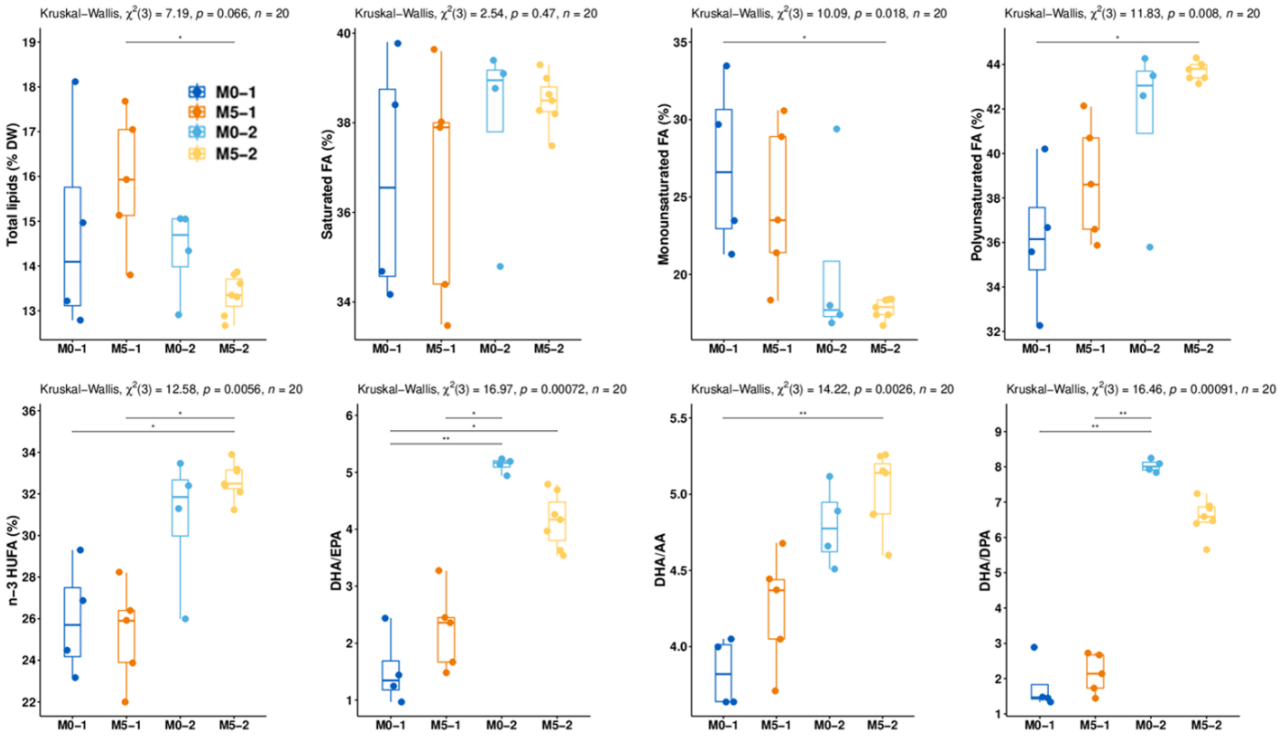
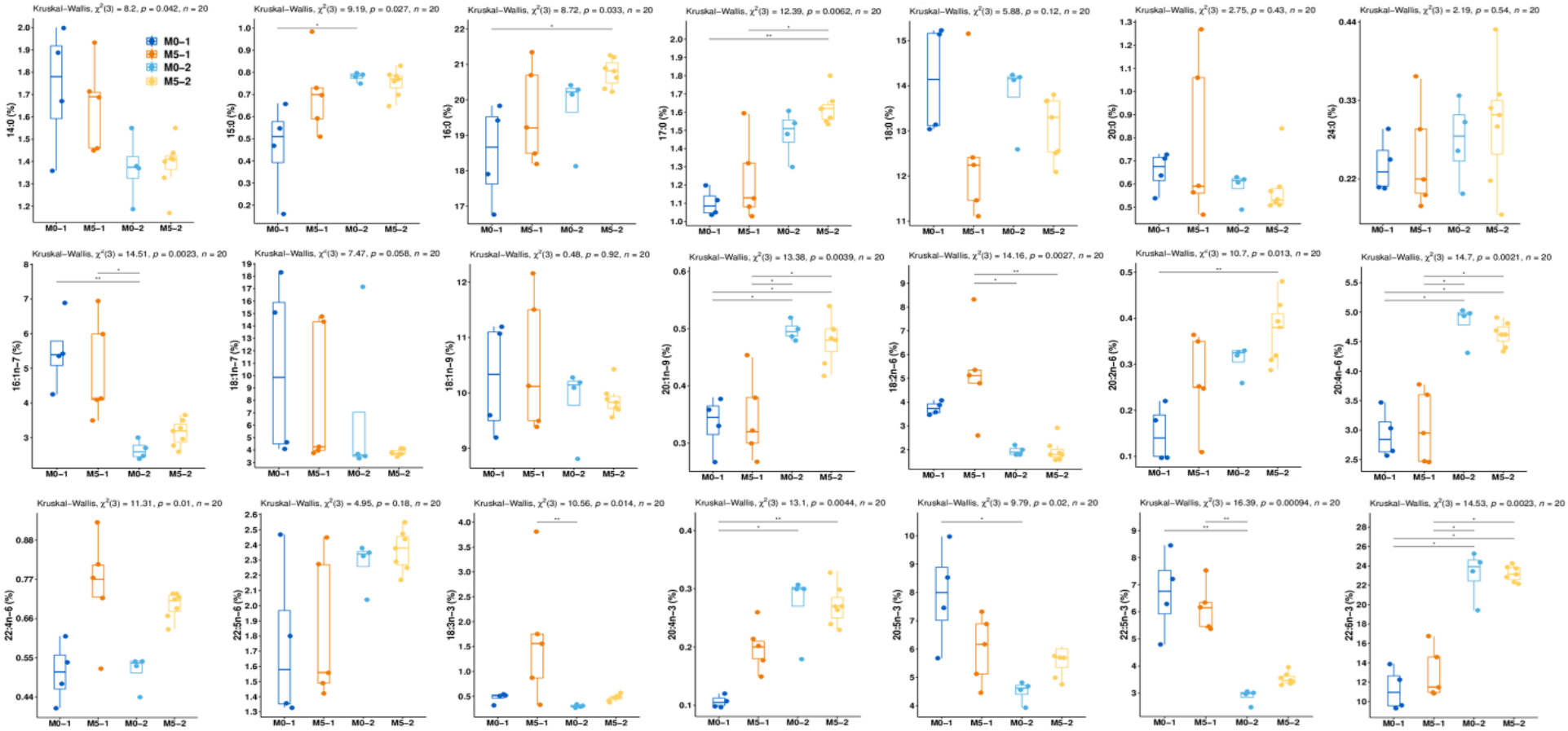


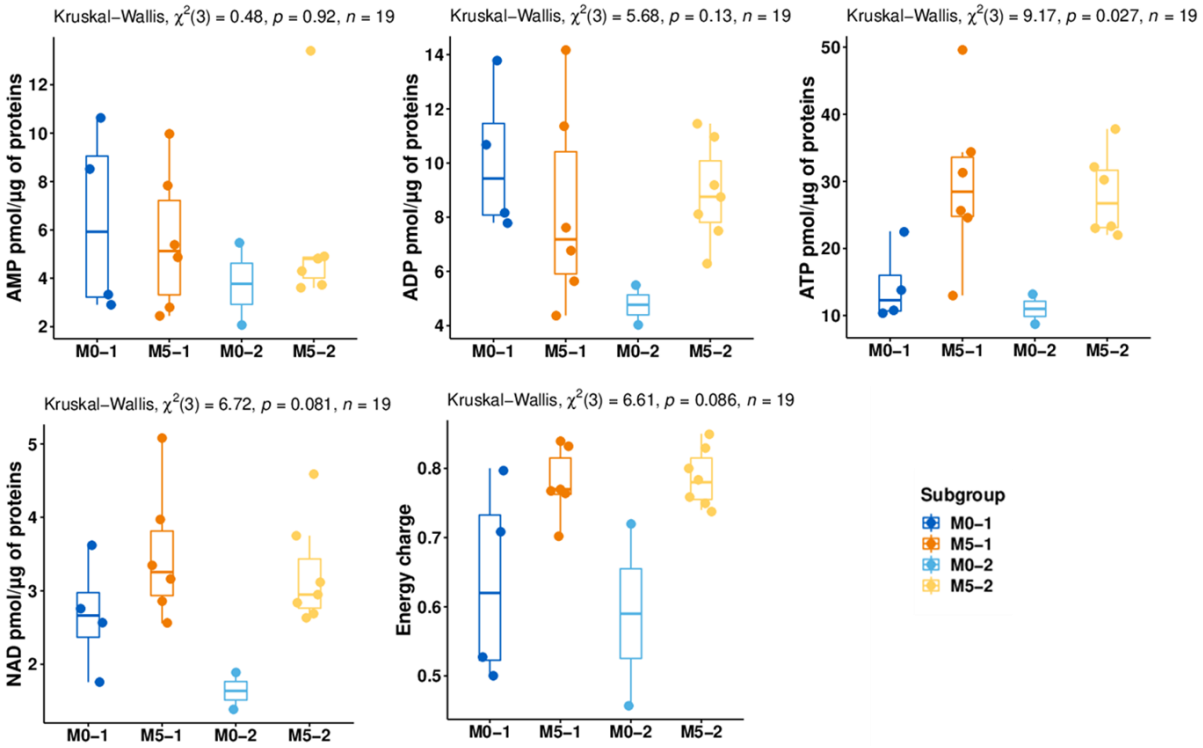
Supplementary Figure 1. Mean comparisons (Kruskal-Wallis test) for data from newborn batches released by seahorses from groups M0 and M5. Variables: time (days since the onset of the breeding season), batch size (newborn), survival at 7 DAR (%), and dry weight (DW; mg) and standard length (SL; mm) in newborn. Significant differences are provided (Dunnet's test). Batch names Mx-y indicate experimental group (Mx) and time (days) of batch release (y), where 1 and 2 correspond to batches released during the first (0- 100 days) and second period (> 100 days) of the breeding season.



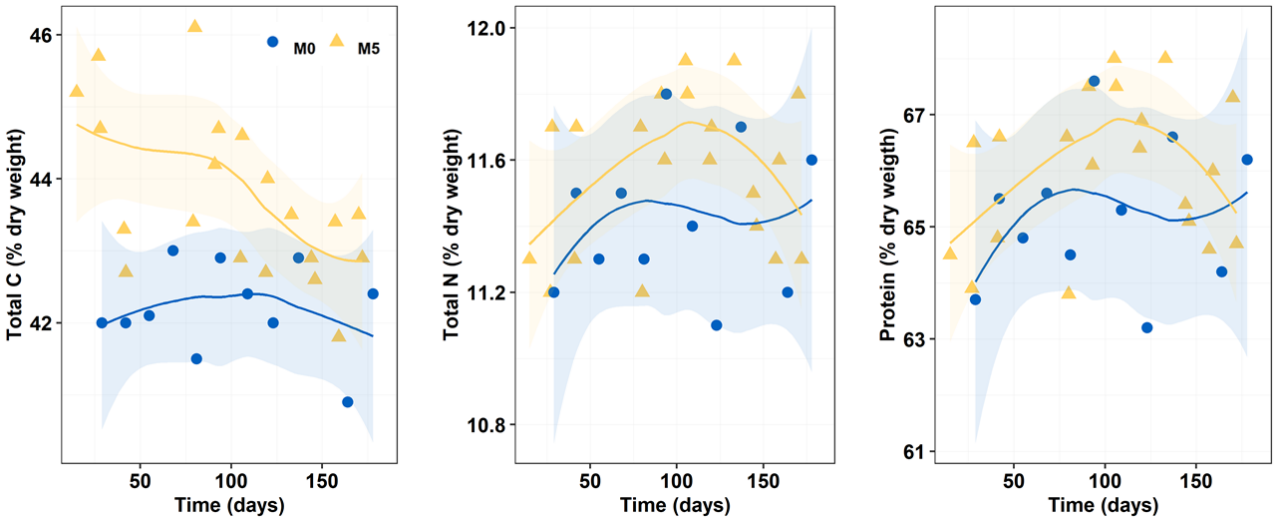
Supplementary Figure 2. Mean comparisons (Kruskal-Wallis test) for data from newborn batches released by seahorses from groups M0 and M5. Variables: time (days since the onset of the breeding season), total lipids (dry weight percentage), fatty acid series (percentage of total FA) and fatty acid ratios. Significant differences are provided (Dunnet's test). Batch names Mx-y indicate experimental group (Mx) and time (days) of batch release (y), where 1 and 2 correspond to batches released during the first (0- 100 days) and second period (> 100 days) of the breeding season.



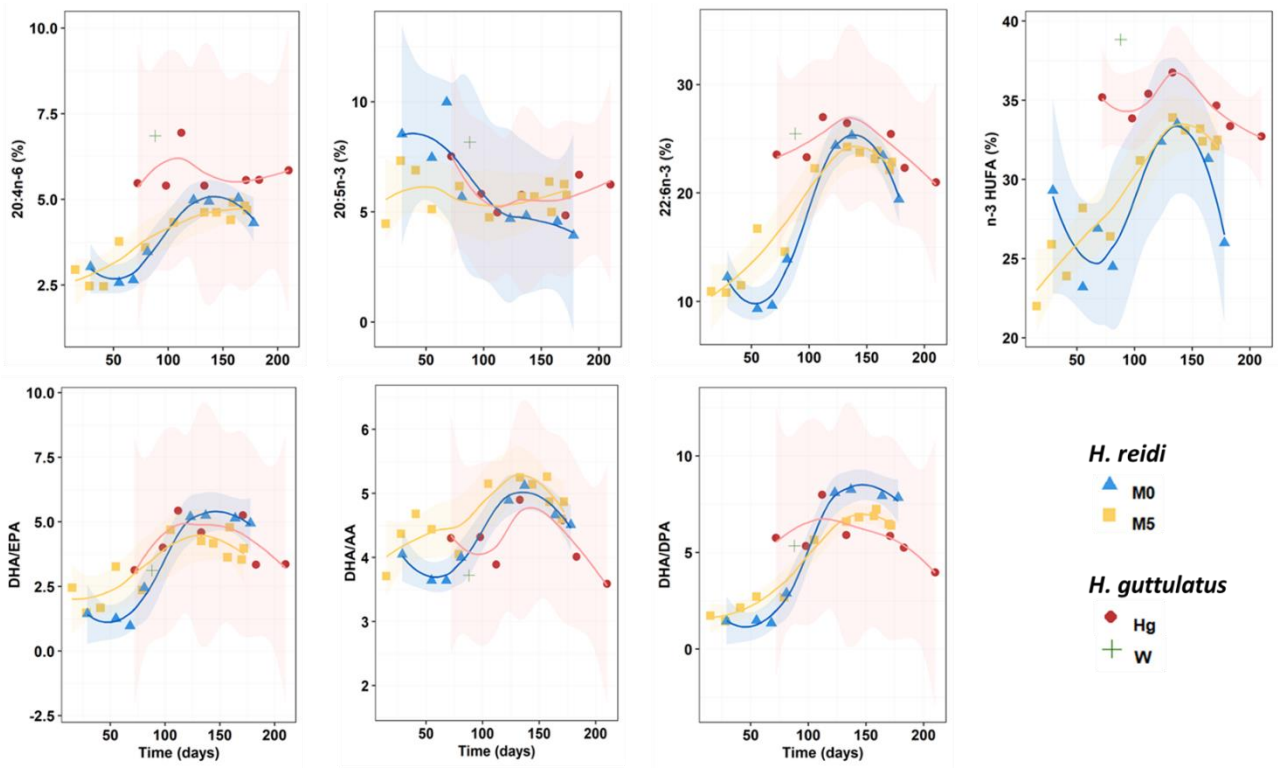
Supplementary Figure 3. Mean comparisons (Kruskal-Wallis test) for data from newborn batches released by seahorses from groups M0 and M5. Variables: time (days since the onset of the breeding season) and fatty acids (percentage of total FA). Significant differences are provided (Dunnet's test). Batch names Mx-y indicate experimental group (Mx) and time (days) of batch release (y), where 1 and 2 correspond to batches released during the first (0- 100 days) and second period (> 100 days) of the breeding season.



Supplementary Figure 4. Mean comparisons (Kruskal-Wallis test) for data from newborn batches released by seahorses from groups M0 and M5. Variables: time (days since the onset of the breeding Period 2) and fatty acids (percentage of total FA). Significant differences are provided (Dunnet's test). Batch names Mx-y indicate experimental group (Mx) and time (days) of batch release (y), where 1 and 2 correspond to batches released during the first (0- 100 days) and second period (> 100 days) of the breeding season.



Supplementary Figure 5. Progressive changes (loess fitting with 95% confidence interval) in total C, total N and protein along the breeding season in newborn released by seahorses from groups M0 and M5. Protein estimated as total N content x 5.71(Deniz et al., 2013).



Supplementary Figure 6. Progressive changes (smoothed trends with 95% confidence intervals) in essential FA (20:4n-6, 20:5n-3 and 22:6n-3) and in FA ratios (DHA/EPA, DHA/AA and DHA/DPA) along the breeding season in newborn released by *H. reidi* (treatments M0 and M5) and *H. guttulatus* Hg – treatment similar to M0 for *H. reidi;* W – Egg clutch collected from a wild male). Data for *H. guttulatus* reported by Planas et al. (2021).