|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4.** Statistical analyses of carbon isotope values (δ13C) in coral and Symbiodiniaceae amino acids exposed to Light-by-Feeding nutrition treatments\*. | | | | | | | | |
| *Amino acid δ13C* | *Effect* | | *df* | *SS* | *MS* | *F* | *P* | |
| *Nonessential amino acids* |  |  | |  |  |  |  | |
| Alanine (Ala) | Fraction | 1 | | 7.928 | 7.928 | 4.849 | 0.059 | |
|  | Treatment | 2 | | 2.386 | 1.193 | 0.730 | 0.512 | |
|  | Residual | 8 | | 13.080 | 1.635 |  |  | |
|  |  |  | |  |  |  |  | |
| Aspartic acid (Asp) | Fraction | 1 | | 1.937 | 1.937 | 0.870 | 0.378 | |
|  | Treatment | 2 | | 1.110 | 0.555 | 0.249 | 0.785 | |
|  | Residual | 8 | | 17.798 | 2.225 |  |  | |
|  |  |  | |  |  |  |  | |
| Glycine (Gly) | Fraction | 1 | | 43.514 | 43.514 | 16.281 | **0.004** | |
|  | Treatment | 2 | | 38.910 | 19.455 | 7.279 | **0.016** | |
|  | Residual | 8 | | 21.382 | 2.673 |  |  | |
|  |  |  | |  |  |  |  | |
| Glutamic acid (Glu) | Fraction | 1 | | 15.418 | 15.418 | 15.500 | **0.004** | |
|  | Treatment | 2 | | 7.177 | 3.589 | 3.608 | 0.076 | |
|  | Residual | 8 | | 7.958 | 0.995 |  |  | |
|  |  |  | |  |  |  |  | |
| Proline (Pro) | Fraction | 1 | | 10.096 | 10.096 | 5.023 | 0.055 | |
|  | Treatment | 2 | | 1.963 | 0.981 | 0.488 | 0.631 | |
|  | Residual | 8 | | 16.081 | 2.010 |  |  | |
|  |  |  | |  |  |  |  | |
| Serine (Ser) | Fraction | 1 | | 0.510 | 0.510 | 0.191 | 0.674 | |
|  | Treatment | 2 | | 13.333 | 6.667 | 2.498 | 0.144 | |
|  | Residual | 8 | | 21.353 | 2.669 |  |  | |
|  |  |  | |  |  |  |  | |
| Tyrosine (Tyr) | Fraction | 1 | | 0.427 | 0.427 | 0.220 | 0.652 | |
|  | Treatment | 2 | | 3.794 | 1.897 | 0.974 | 0.418 | |
|  | Residual | 8 | | 15.577 | 1.947 |  |  | |
|  |  |  | |  |  |  |  | |
| *Essential amino acids* |  |  | |  |  |  |  | |
| Isoleucine (Ile) | Fraction | 1 | | 2.301 | 2.301 | 0.509 | 0.496 | |
|  | Treatment | 2 | | 0.536 | 0.268 | 0.059 | 0.943 | |
|  | Residual | 8 | | 36.157 | 4.520 |  |  | |
|  |  |  | |  |  |  |  | |
| Leucine (Leu) | Fraction | 1 | | 0.181 | 0.181 | 0.146 | 0.713 | |
|  | Treatment | 2 | | 1.819 | 0.910 | 0.734 | 0.510 | |
|  | Residual | 8 | | 9.913 | 1.239 |  |  | |
|  |  |  | |  |  |  |  | |
| Lysine (Lys) | Fraction | 1 | | 0.715 | 0.715 | 0.458 | 0.518 | |
|  | Treatment | 2 | | 0.083 | 0.041 | 0.027 | 0.974 | |
|  | Residual | 8 | | 12.498 | 1.562 |  |  | |
|  |  |  | |  |  |  |  | |
| Phenylalanine (Phe) | Fraction | 1 | | 0.472 | 0.472 | 0.340 | 0.576 | |
|  | Treatment | 2 | | 1.717 | 0.858 | 0.619 | 0.562 | |
|  | Residual | 8 | | 11.093 | 1.387 |  |  | |
|  |  |  | |  |  |  |  | |
| Threonine (Thr) | Fraction | 1 | | 2.197 | 2.197 | 0.446 | 0.523 | |
|  | Treatment | 2 | | 5.526 | 2.763 | 0.561 | 0.591 | |
|  | Residual | 8 | | 39.372 | 4.922 |  |  | |
|  |  |  | |  |  |  |  | |
| Valine (Val) | Fraction | 1 | | 3.055 | 3.055 | 1.273 | 0.292 | |
|  | Treatment | 2 | | 4.477 | 2.239 | 0.933 | 0.432 | |
|  | Residual | 8 | | 19.199 | 2.400 |  |  | |
| \*‘Fraction’ is host coral or symbiont Symbiodiniaceae tissue. ‘Treatment’ represents combination of Light-by-Feeding nutrition treatments: Light–Not Fed, Light–Fed, Dark–Fed. | | | | | | | |