Supplementary Material

# Table S1 – The energy density values used for each prey type in the bioenergetic models as derived from the literature. Where multiple sources provide an energy density value for one prey type, a mean was taken.

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| **Prey Type** | **Energy density (kJ/g)** | **Source** |
| Polychaeta | 3.3052 | Tyler (1973); Blaber and Bulman (1987); Vedel and Riisgaard (1993); Ciancio et al. (2007) |
| Other Decapoda | 3.5253 | Blaber and Bulman (1987); (Ciancio et al., 2007); Meynier et al. (2008); McCluskey et al. (2016) |
| Penaeidae | 3.8400 | Lawson et al. (2018) |
| Other Metazoa | 3.2274 | (mean of all animals) |
| Amphipoda | 2.6295 | Tyler (1973); Boates and Smith (1979); Davis et al. (1998); Ciancio et al. (2007); James et al. (2012) |
| Maxillopoda | 2.6230 | Davis et al. (1998) |
| Plants | 1.3323 | Montgomery and Gerking (1980); Pirc (1989); McDermid et al. (2007) |
| Other Crustacea | 3.2527 | (mean of all crustacea) |
| Other Malacostraca | 3.6455 | Blaber and Bulman (1987); Davis et al. (1998); Gray (2005); Ciancio et al. (2007) |
| Teleost | 4.2450 | Healey (1972); McCluskey et al. (2016) |
| Cnidaria | 1.2660 | Blaber and Bulman (1987); Davis et al. (2012) |
| Bivalvia | 3.9497 | Cameron et al. (1979); Brey et al. (1988); Dauvin and Joncourt (1989); Ciancio et al. (2007); Gopalakrishnan and Vijayavel (2009) |
| Gastropoda | 4.1175 | Grahame (1973); Grahame (1977); Blaber and Bulman (1987); Brey et al. (1988) |
| Diptera | 6.5633 | Cummins (1967); Tomberlin et al. (2002); James et al. (2012) |
| Other Insecta | 6.6630 | Golley (1961); Wiegert (1965); Cummins (1967); Naess et al. (1975); James et al. (2012) |
| Arachnida | 6.3719 | Cummins (1967); Naess et al. (1975); James et al. (2012), |
| Squamata | 5.9325 | Kitchell and Windell (1972) |

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