

Table S1. AEC measurement times and site characteristics of kelp bed (KB) and bare rocky bottom (BR) habitats (locations, water depth, bottom water salinity and temperature, photosynthetically active radiation [PAR], mean flow velocity [\bar{U}], and dissolved oxygen [O_2]). The parenthesized values of O_2 are the daily mean and standard error.

| | AEC measurement time (Local dates and times) | Location | Depth (m) | Salinity | Temperature (°C) | PAR ($\mu\text{mol m}^{-2} \text{s}^{-1}$) | \bar{U} (cm s^{-1}) | O_2 ($\mu\text{mol L}^{-1}$) |
|----|-------------------------------------------------|------------|--------------|-------------|---------------------|-------------------------------------------------|-------------------------------------|-------------------------------------|
| KB | 10/10/2019 07:30 – 10/11/2019 08:10 | 37.2432 N | 5.1 | 33.82–34.26 | 18.83–19.63 | < 493 | 4.8–38.4 | 259–303 |
| | | 131.8645 E | | | | (74) | (8.8) | (276 \pm 0.5) |
| BR | 10/10/2019 07:30 – 10/11/2019 08:03 | 37.2440 N | 8.4 | (34.02) | (19.20) | < 399 | 2.4–16.5 | 196–261 |
| | | 131.8639 E | | | | (67) | (3.6) | (226 \pm 0.4) |