**Figure S1.** Water temperature at Wailupe. Water column temperature (°C) at Wailupe locations is shown on the y-axis from 6-15 May 2014. Locations are designated by solid, dotted, and dashed lines for locations A, B, and C, respectively.

**Figure S2.** Apical tip growth in *Gracilaria.* Photographs of an individual sample of *G. salicornia* (location A) on (a) day 0 and (b) day 16 and *G. coronopifolia* (location C) on (c) day 0 and (d) day 16 are shown. Tip score and Tip index are shown as TI and TS, respectively.

**Figure S3.** Pigment and tissue loss in *Gracilaria.* Photographs of an individual sample of *G. coronopifolia* (location A) on (a) day 0 and (c) day 16 and *G. salicornia* (location C) on (b) day 0 and (d) day 16 and *G. coronopifolia* (location C) on (c) day 0 and (d) day 16 are shown. Arrows point to regions of pigment loss and tissue necrosis.