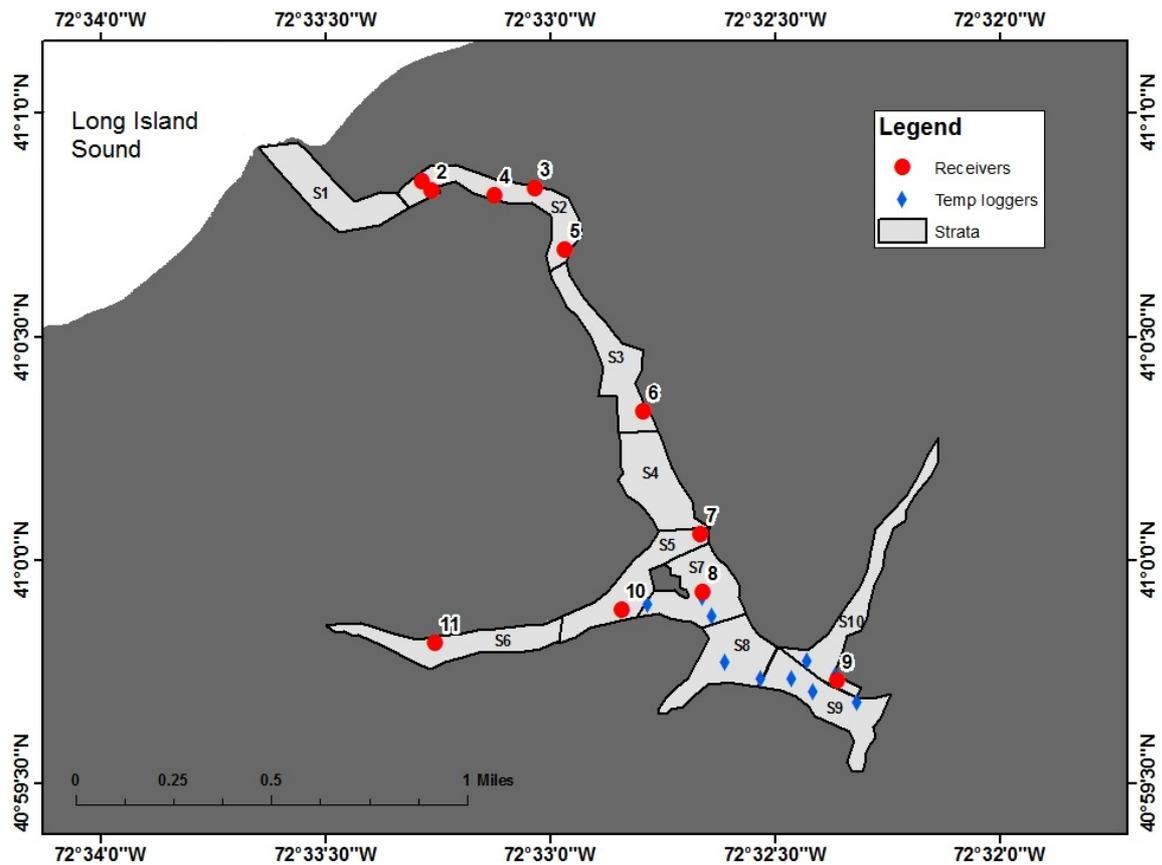


## Flatfish utilize sediment blanket to facilitate thermoregulation

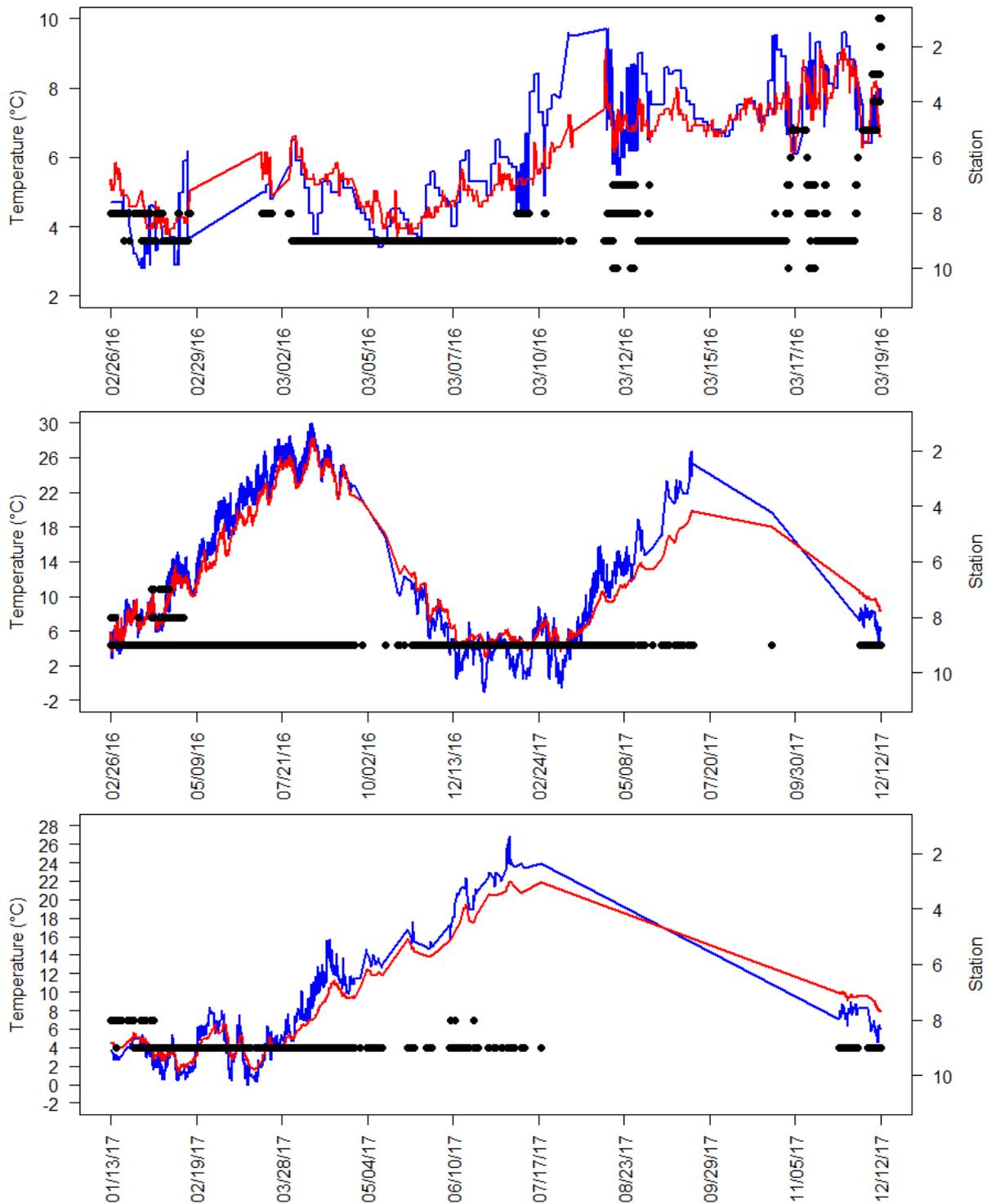
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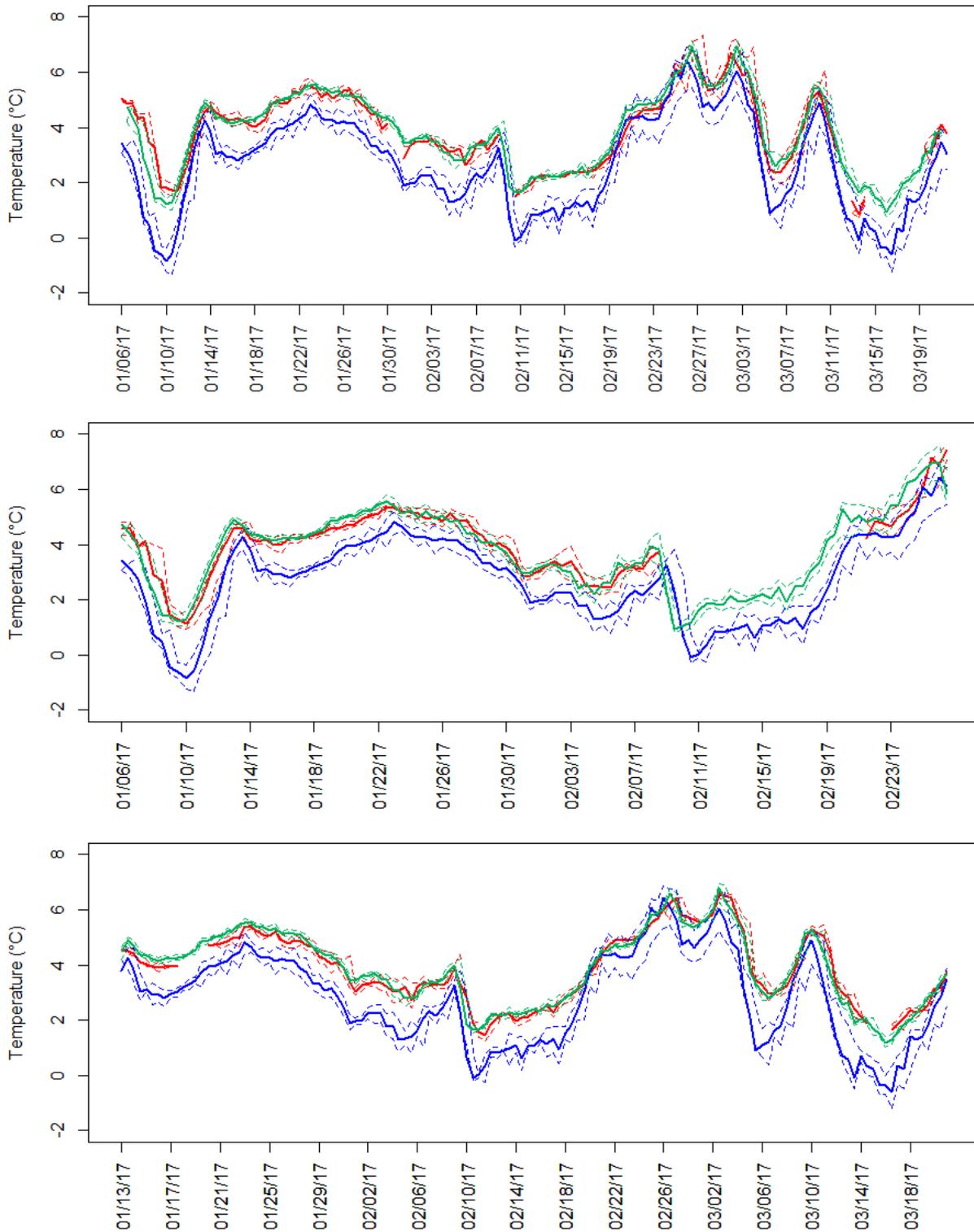
Marine Ecology Progress Series 609: 179–186 (2019)



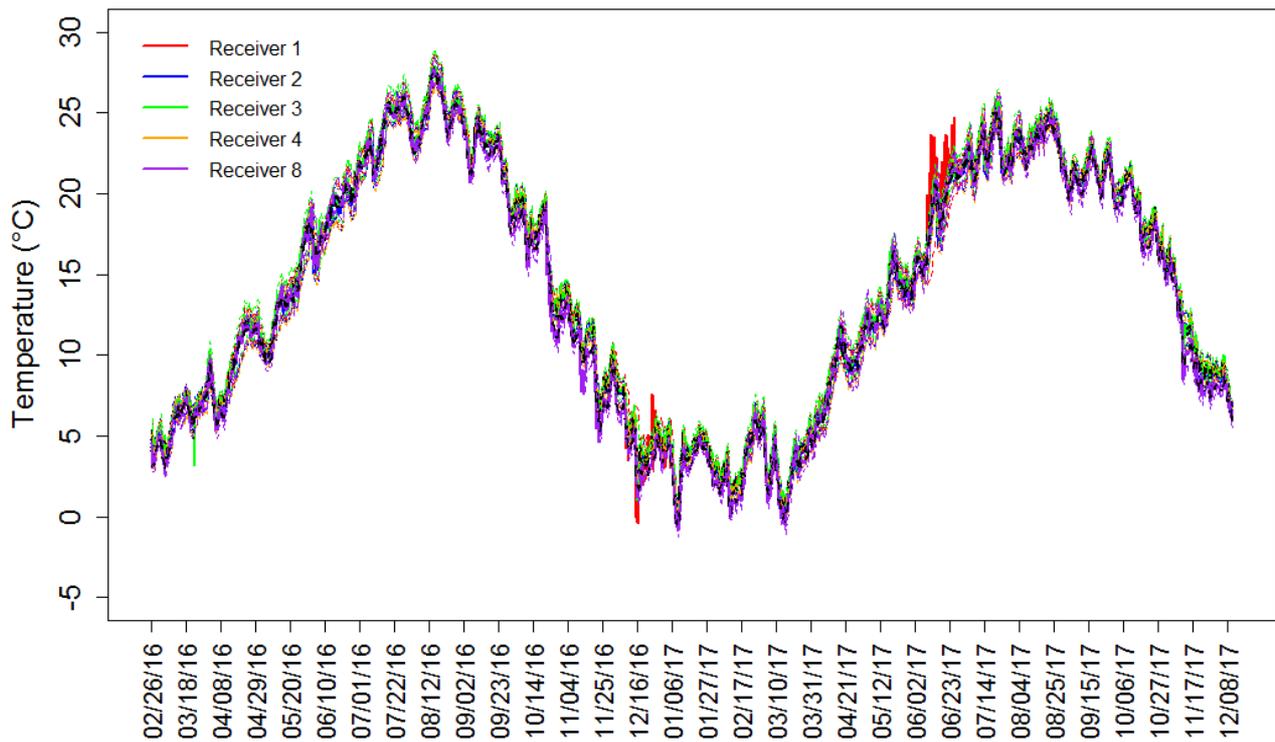
**Fig. S1: Map of the study area, Mattituck Creek, Long Island, New York.** The numbers by the red dots represent the receiver number. The blue diamonds represent the location of the temperature loggers for the field trial. The creek is broken down into ten strata, labeled S followed by a number, of approximately equal area to aid in the efforts of sampling the entire creek for adult winter flounder.



**Fig. S2: Individual time series of acoustically tagged winter flounder.** The location of the fish is indicated by the black points, red lines represent internal body temperature, and blue lines represent bottom water temperature measured. Internal body temperature is higher than water temperature in the fall and winter months and the internal body temperature is lower than the water temperature during the spring and summer months. Each panel represents an individual fish.



**Fig. S3: The Kalman filter of three winter flounder that were in the creek during the three-month experimental period.** The red represents the internal temperature, the blue represents the water temperature, and the green represents the sediment temperature. Solid lines correspond to observed values and colored dotted lines correspond to the 5 and 95% confidence intervals. Each panel represents an individual fish.



**Fig. S4: The Kalman filter of the bottom temperatures of receivers that were present in the system for the entire study.** Solid lines correspond to observed values and colored dotted lines correspond to the 5 and 95% confidence intervals. The red represents receiver 1, the blue represents receiver 2, the green represents receiver 3, the orange represents receiver 4, the purple represents receiver 5. The remaining receivers were taken out during the winter months due to the potential loss from ice.