

Figure S1. Partial dependence of the m/z=32 ion current on the six chosen environmental correlates. Mass (18) is water vapor, Pressure (db) is the hydrostatic pressure, Temperature in panel c is the water temperature, uC Temp. is the temperature of the circuitry inside the SWIMS, Sample Temperature is the temperature inside the heater block where water is heated before passing over the silicone membrane. Last, Mass (5) represents electronic noise of the mass spectrometer, because there is no element or compound with atomic mass of 5.

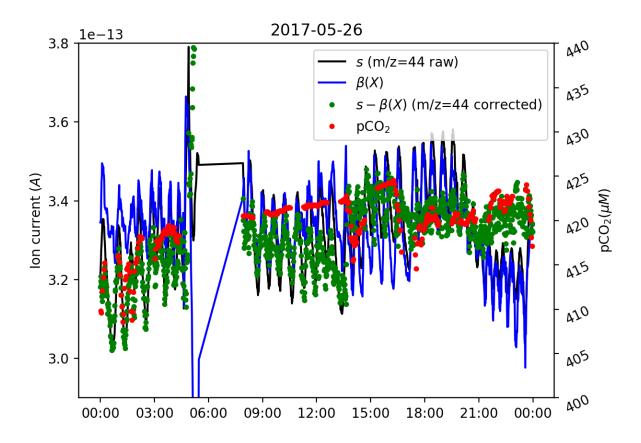


Figure S2. GAM bias correction (green dots) applied to the QMS pCO2 data from May 26, 2017 (black line), plotted along IR pCO₂ (red dots).