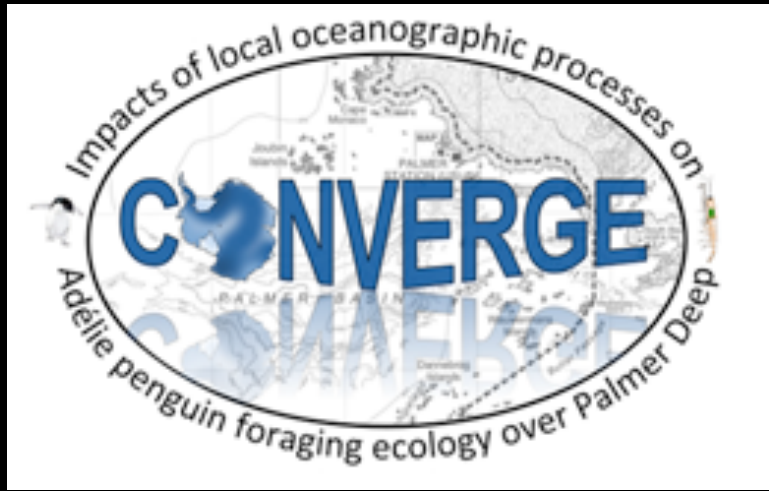


Using a coordinated glider fleet to investigate drivers of a biological hotspot in the Western Antarctic Peninsula

Katherine Hudson, Matthew J. Oliver, Kim Bernard, Megan A. Cimino, William Fraser, Josh Kohut, Hank Statscewich, and Peter Winsor

8th EGO Meeting and International Glider Workshop

May 22, 2019



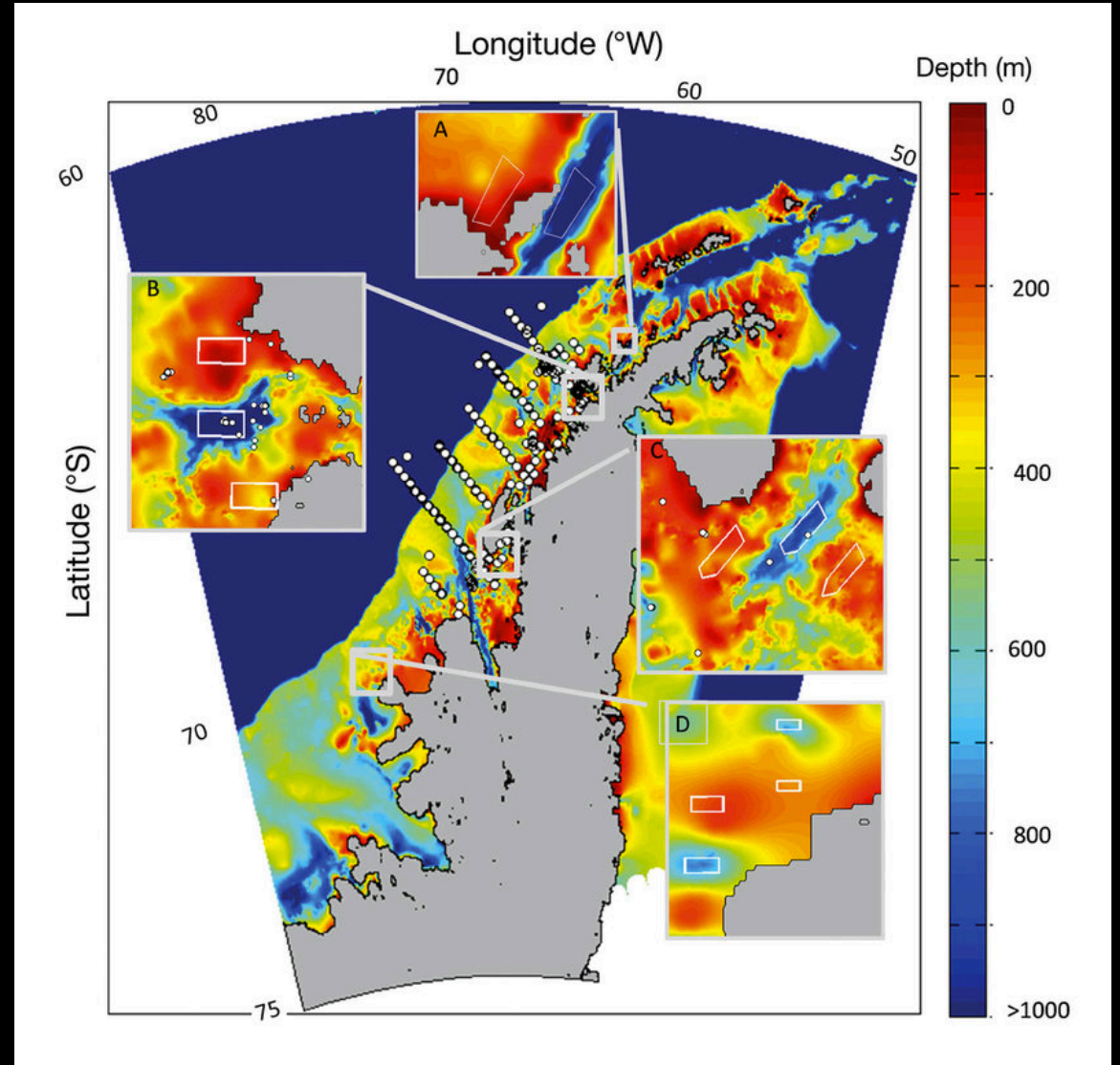
Introduction

- Submarine canyons associated with biological hotspots



Images from WHOI.com, PBS.com, WWF.com, Oceana.com, and Britannica.com

Figure 1 from Kavanaugh et al., 2015



Methods

- Three gliders deployed Jan – Feb 2015
- Time-space aliasing
- Are the changes we observe due to changes in time or space?

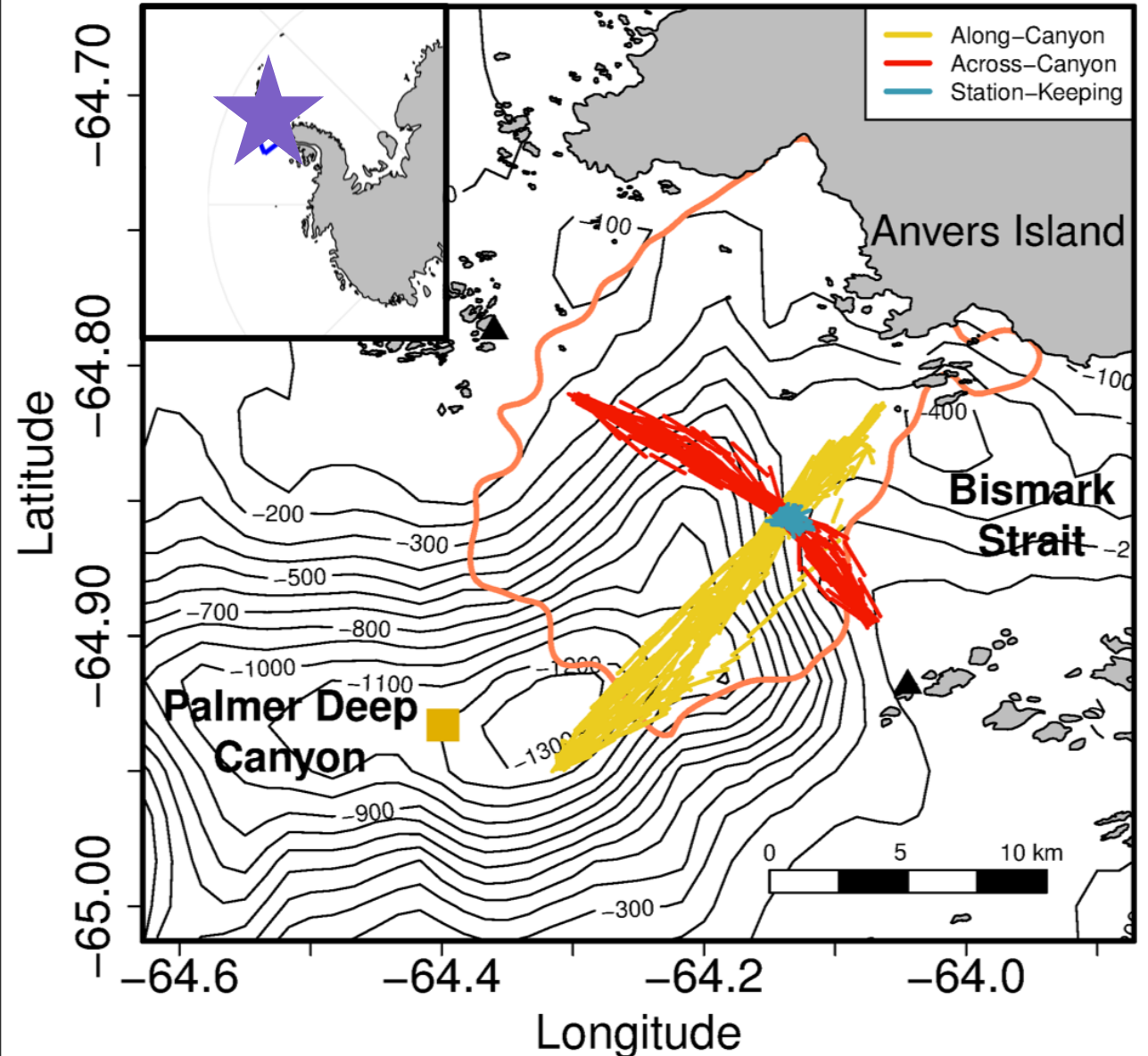


Figure 1 from Hudson et al., *in review*

Figure 2 from
Hudson et al.,
in review

Station-
Keeping

Along-
Canyon

Across-
Canyon

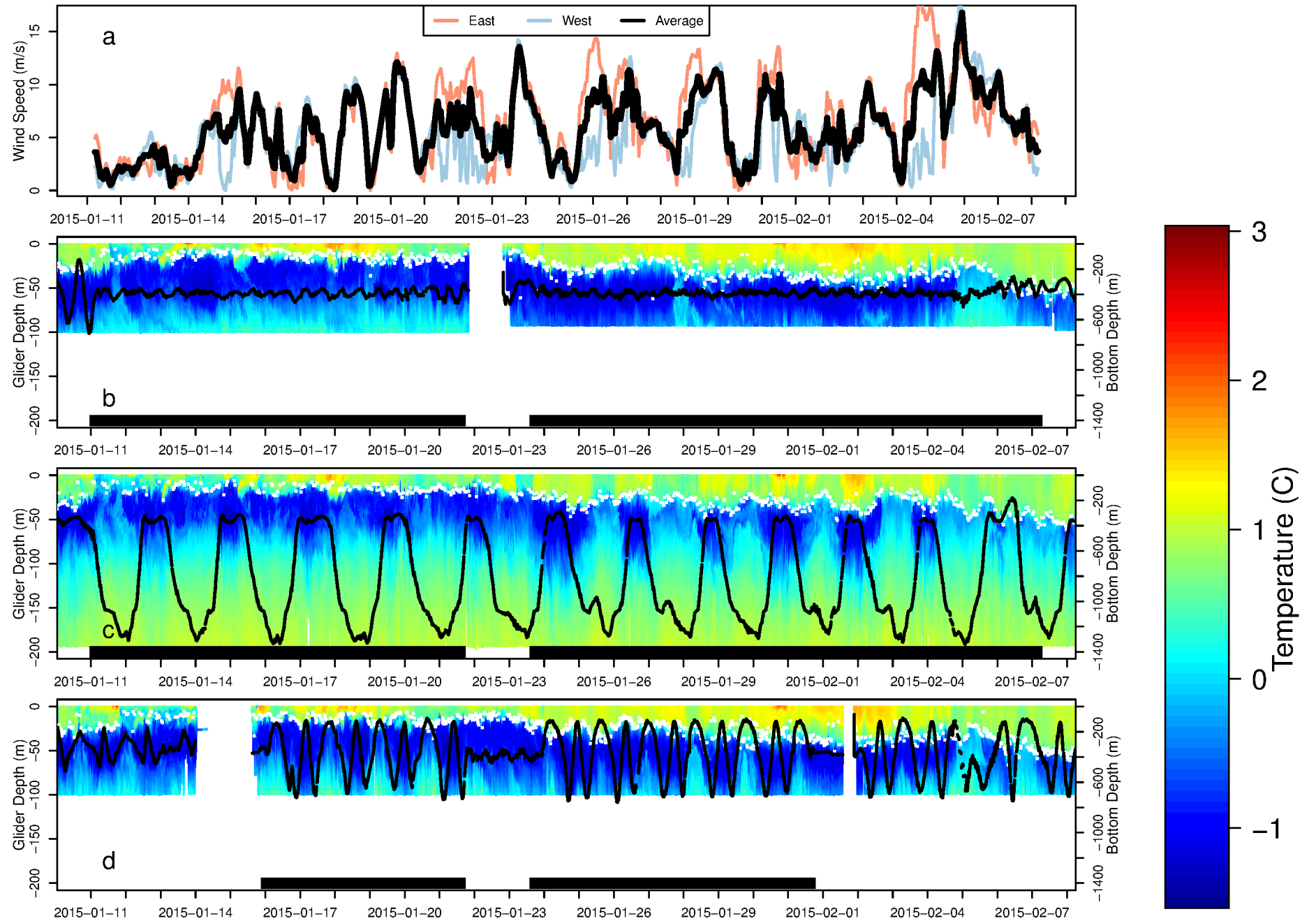


Figure S2 from
Hudson et al., *in
review*

Station-
Keeping

Along-
Canyon

Across-
Canyon

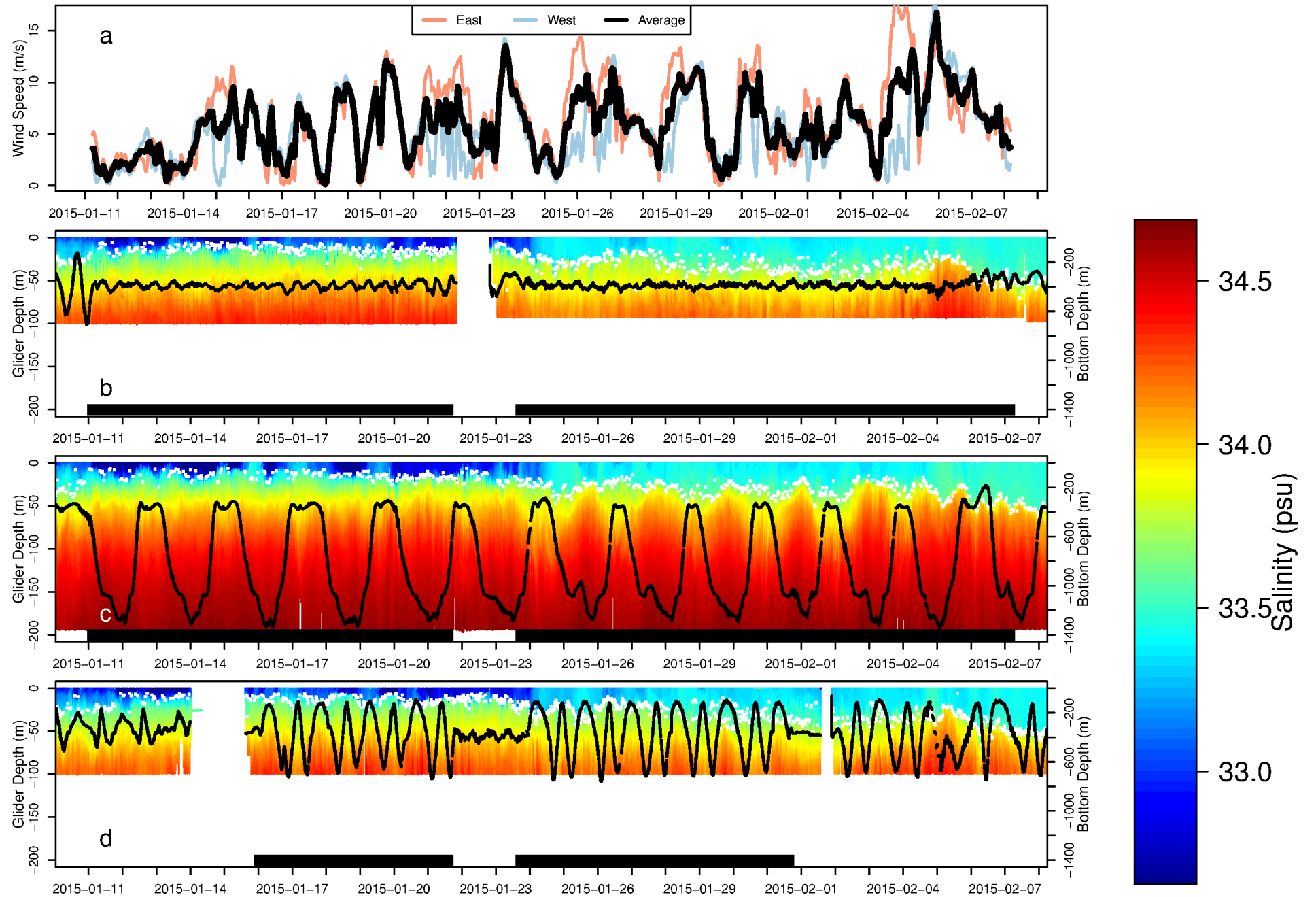


Figure S10 from
Hudson et al.,
in review

Station-
Keeping

Along-
Canyon

Across-
Canyon

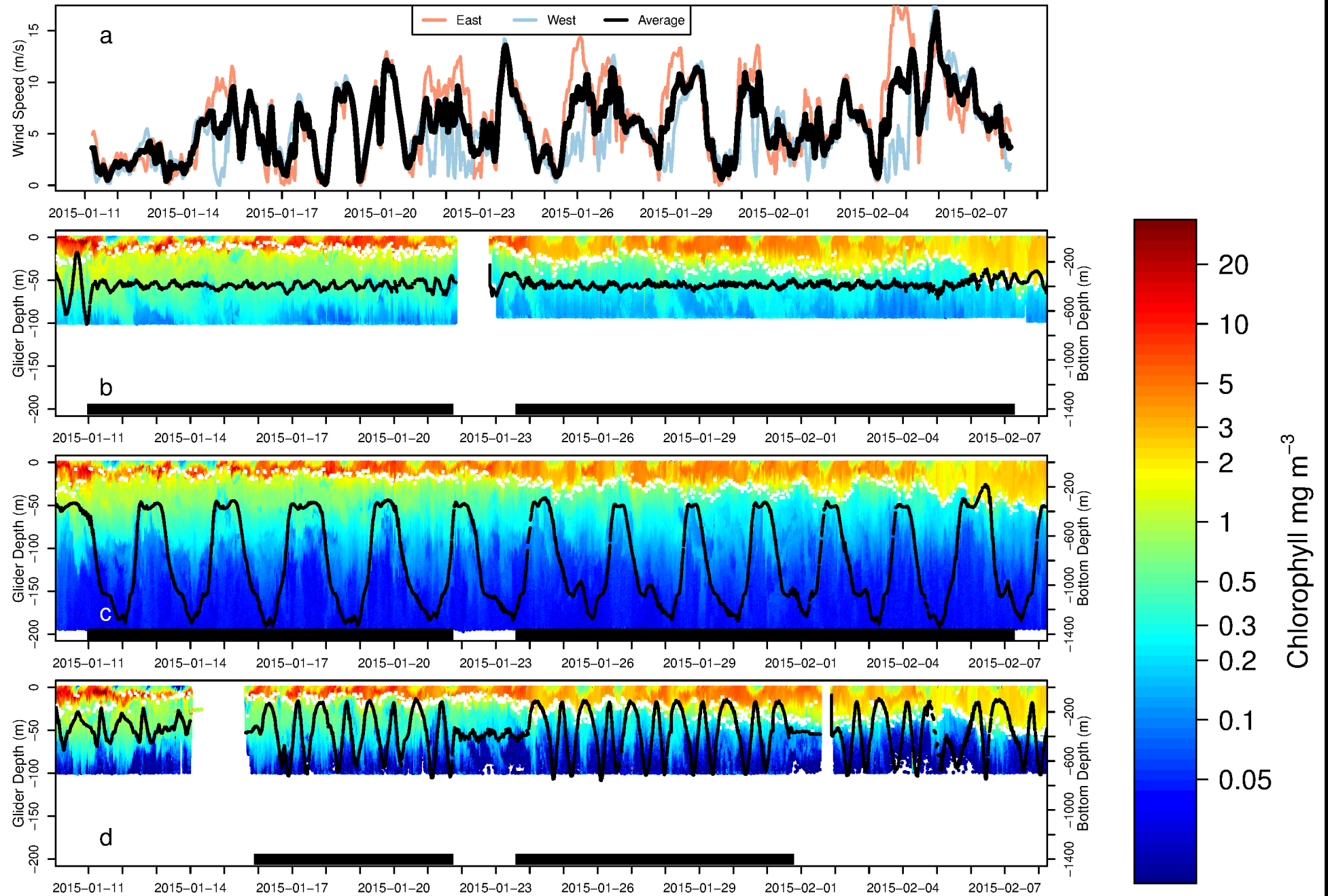
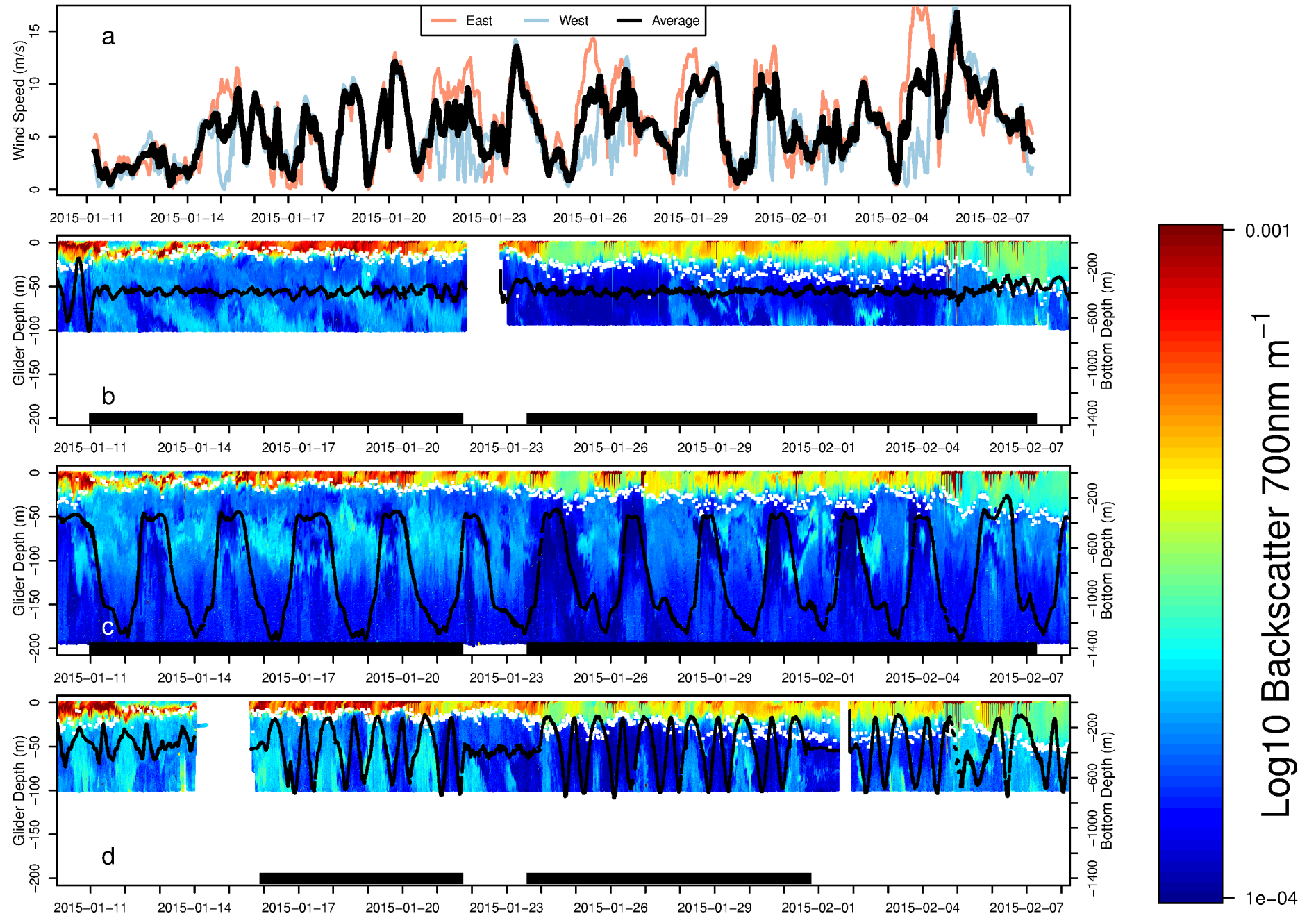


Figure 4 from
Hudson et al.,
in review

Station-
Keeping

Along-
Canyon

Across-
Canyon



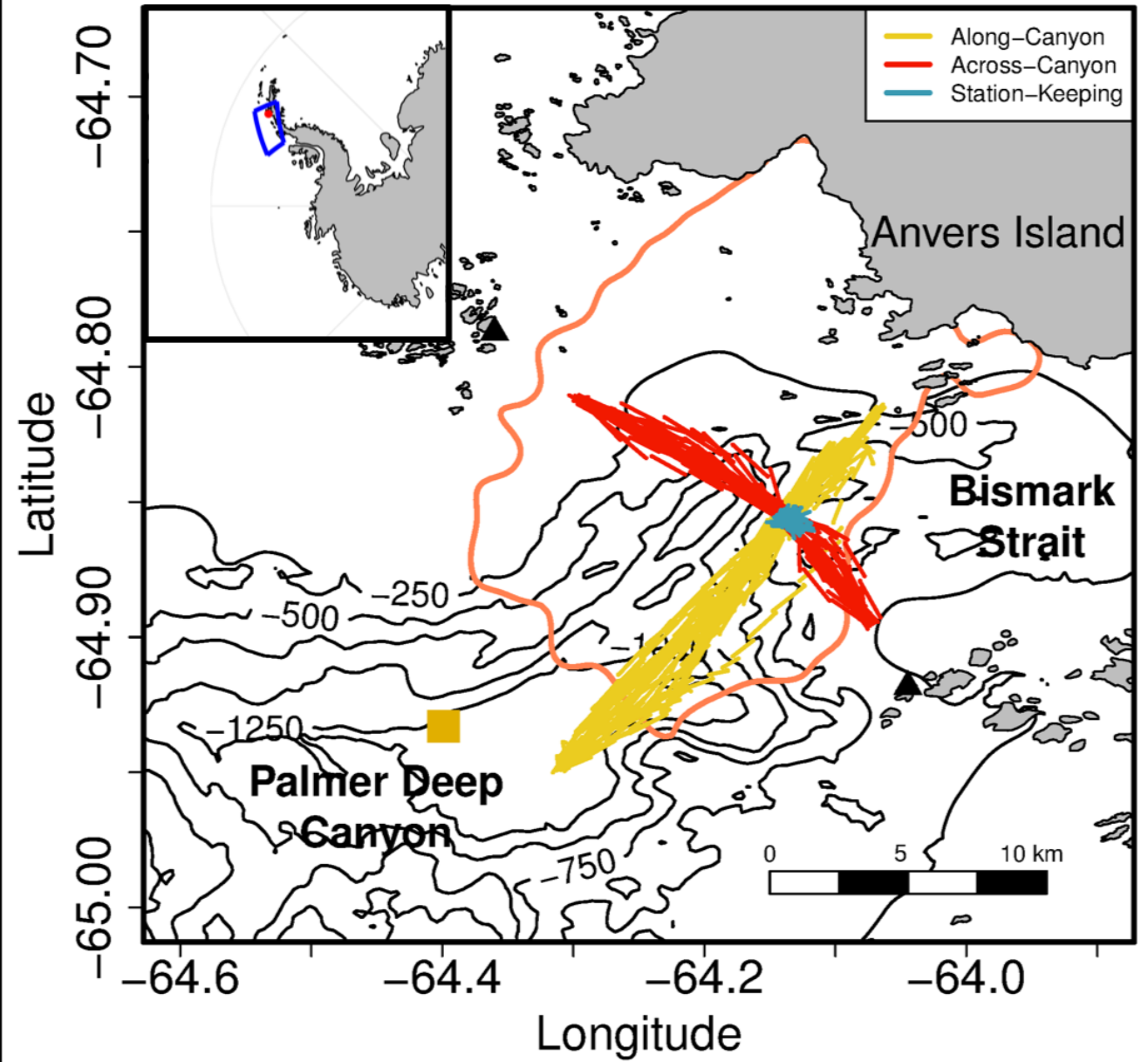
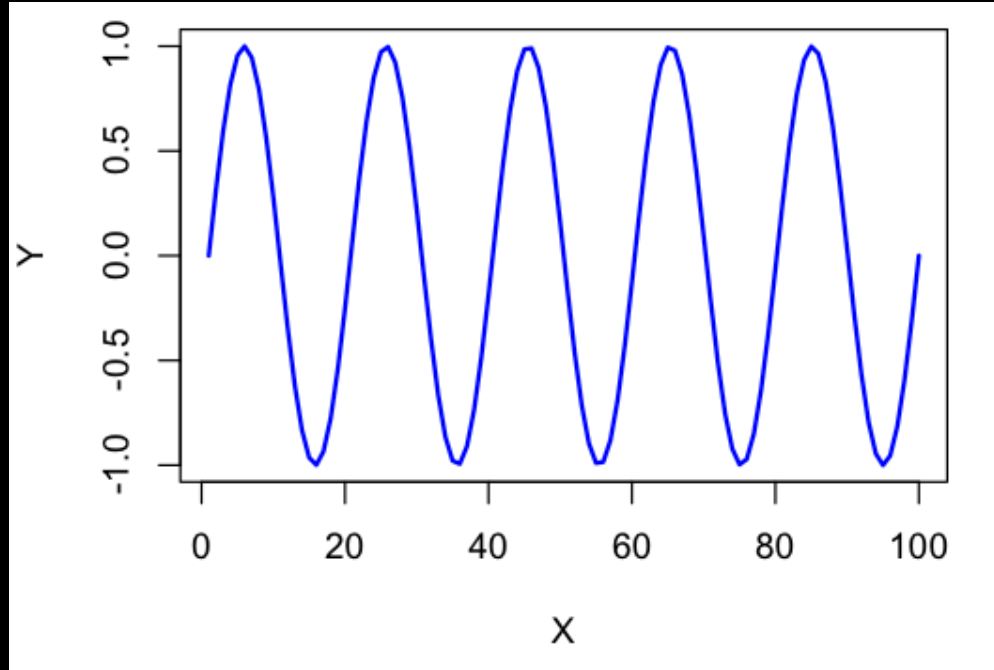


Figure 1 from Hudson et al., *in review*

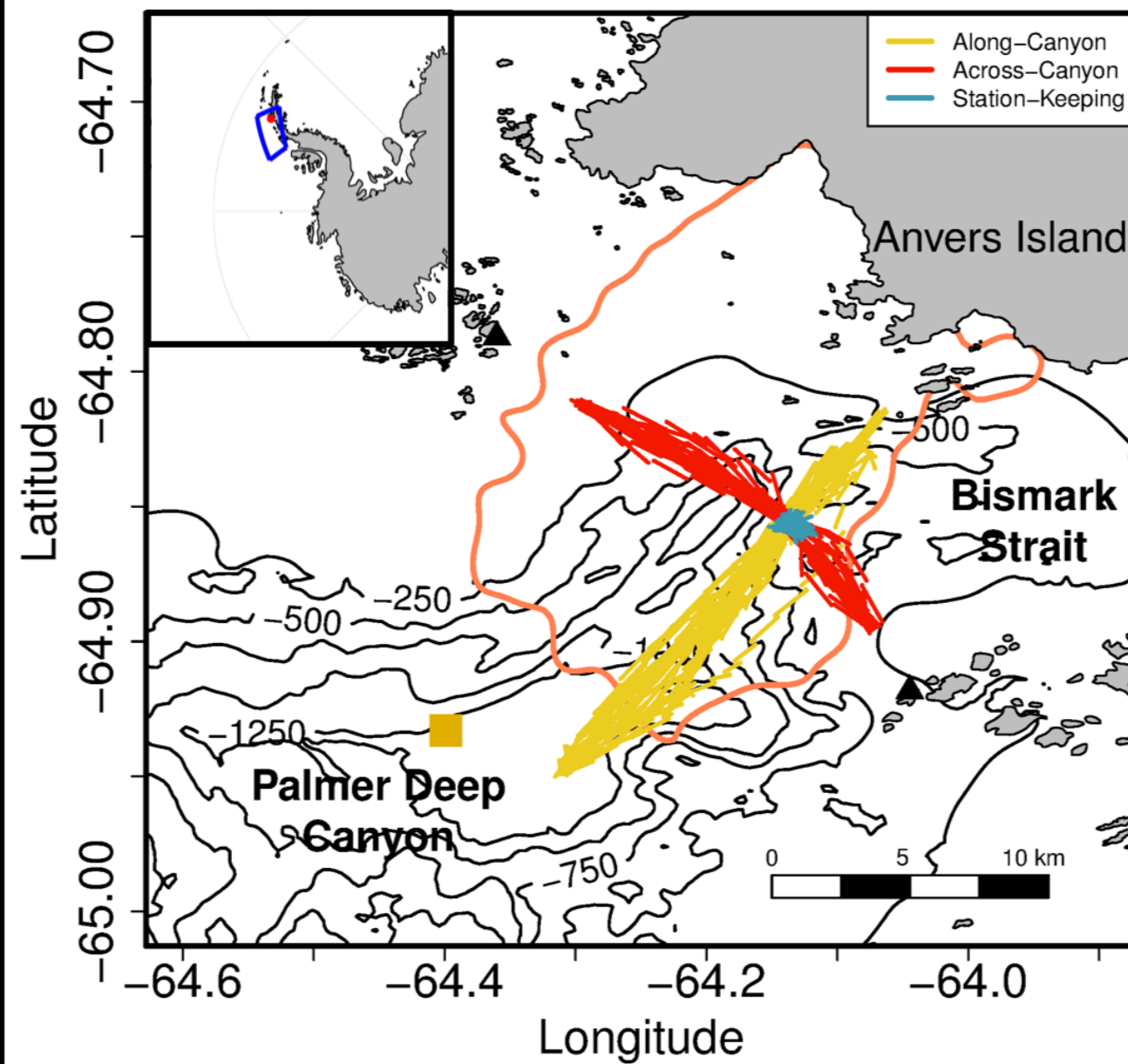
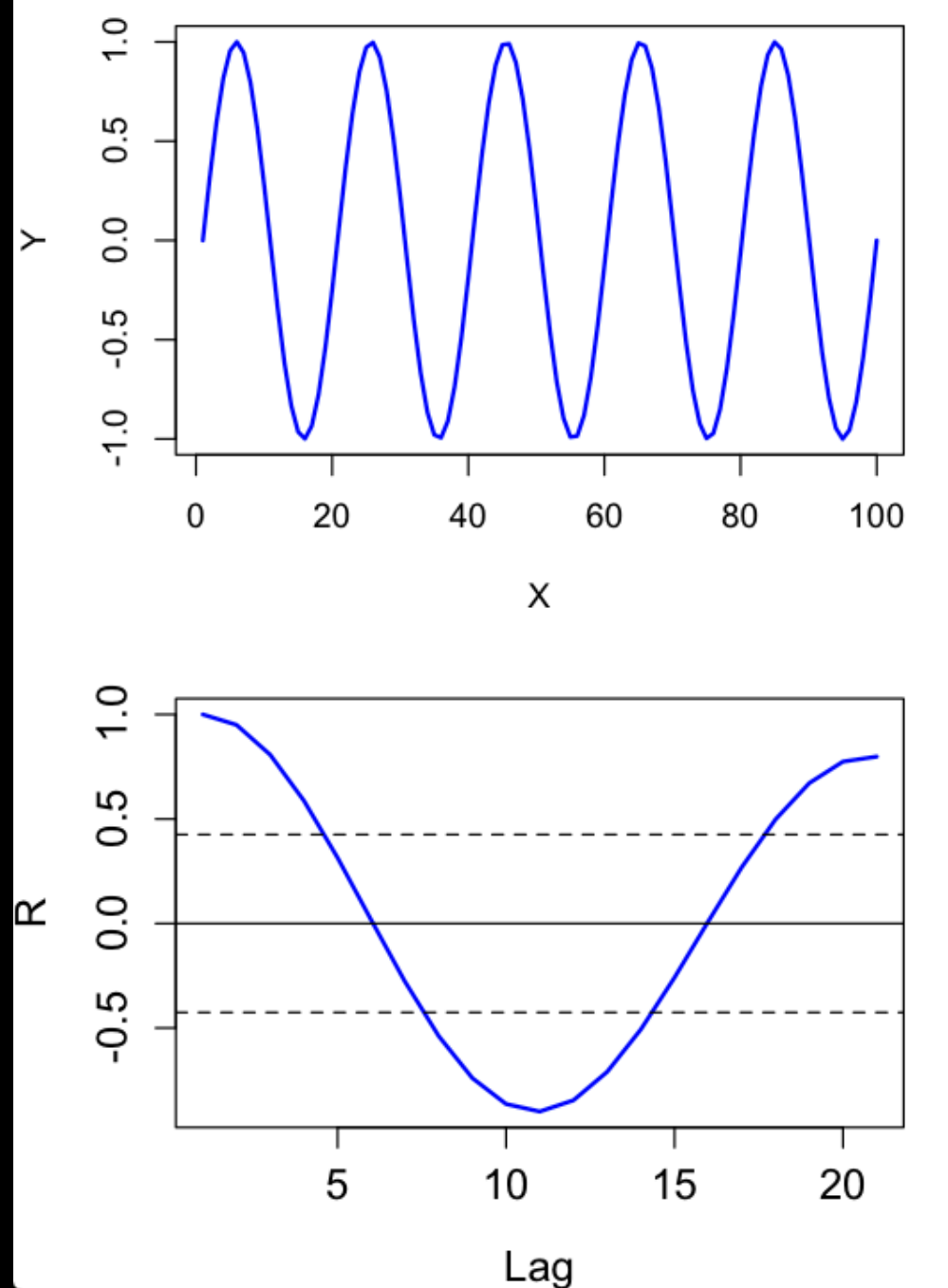
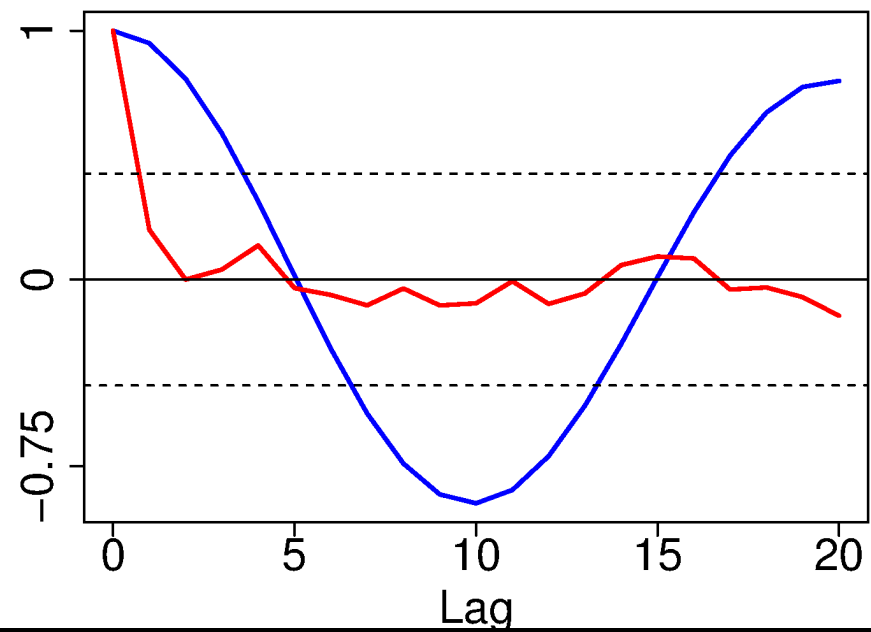
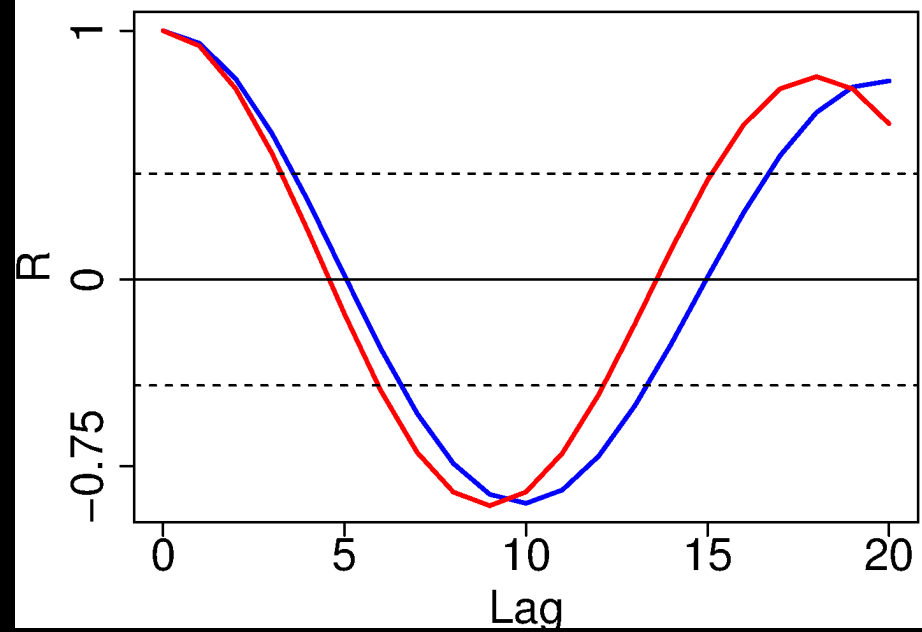
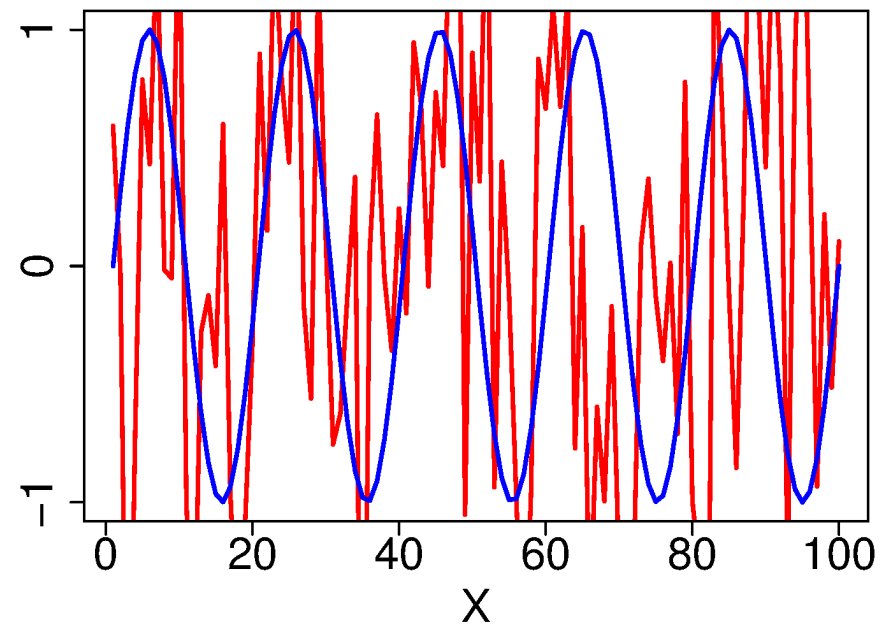
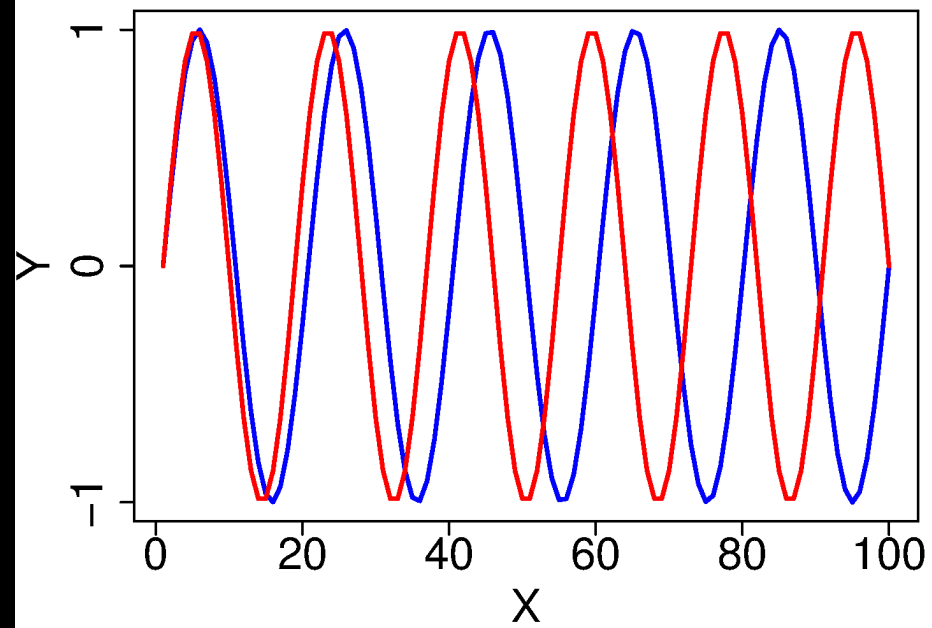
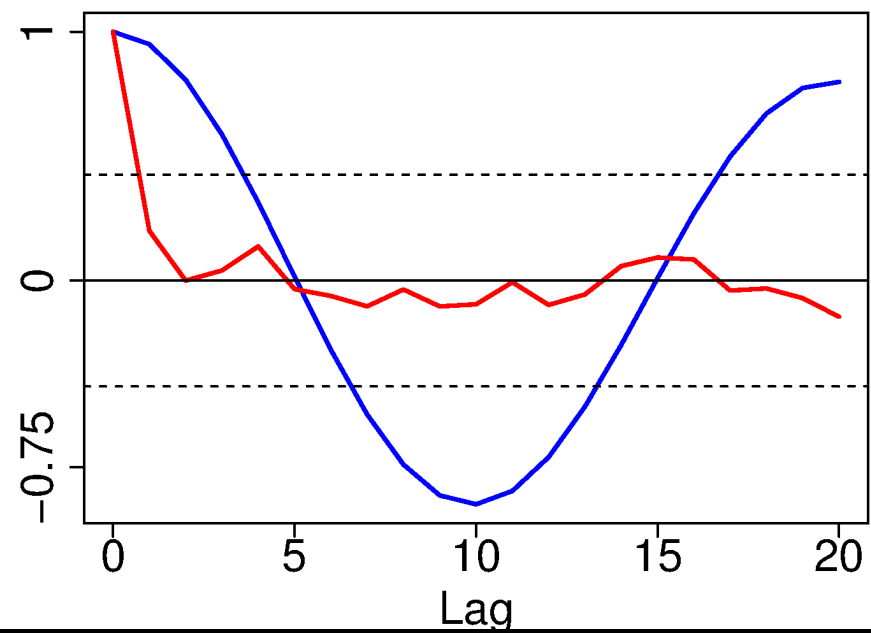
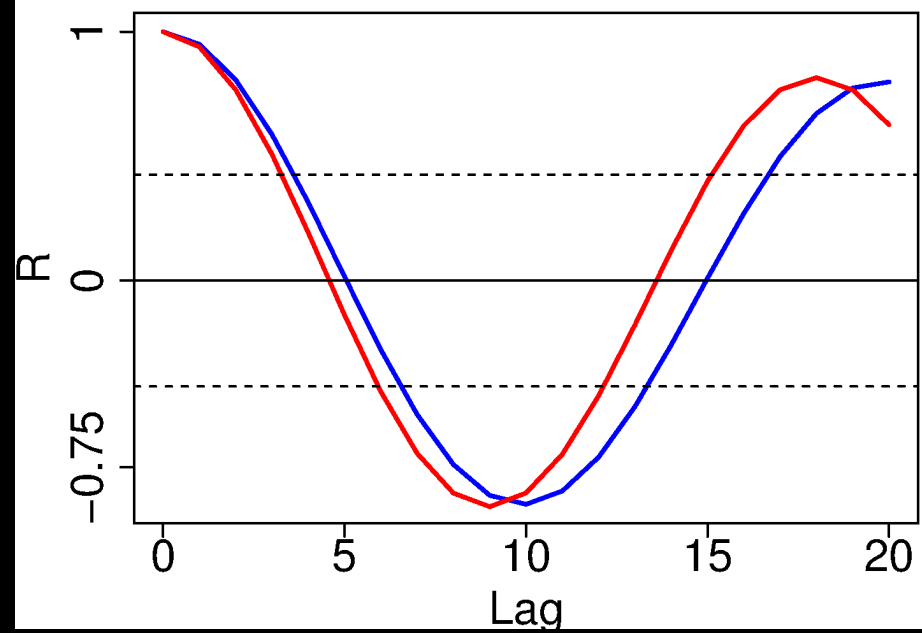
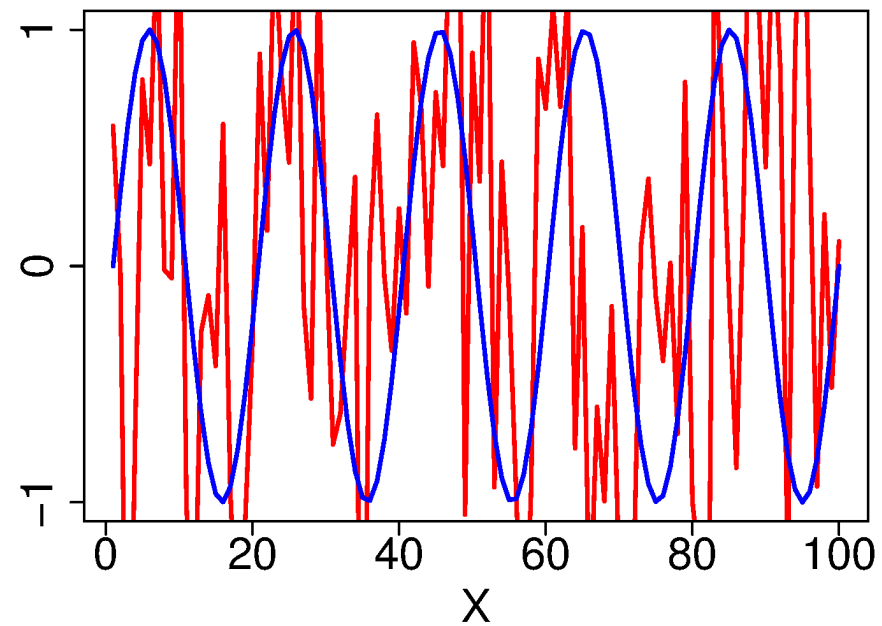
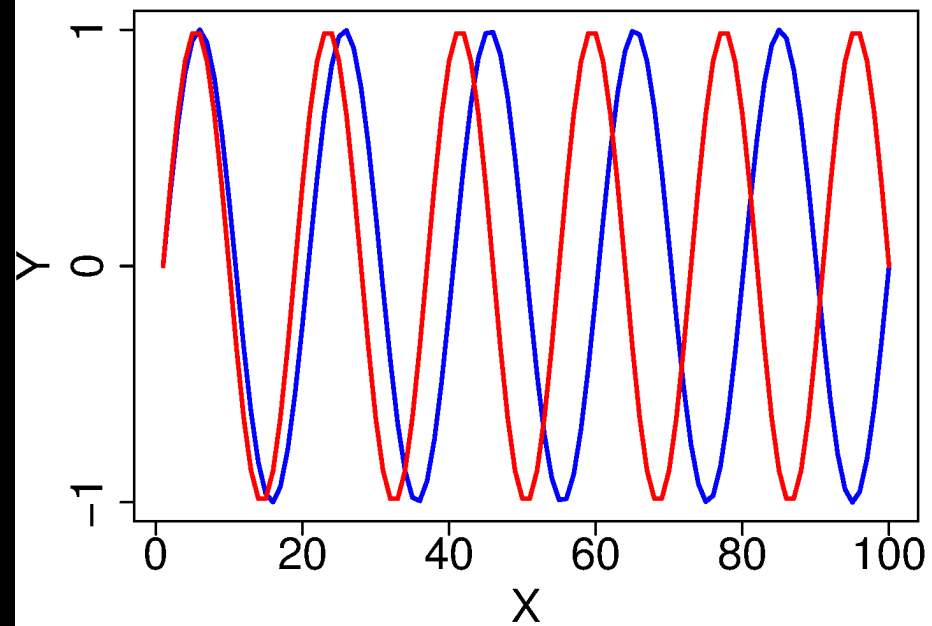


Figure 1 from Hudson et al., *in review*





Station-Keeping

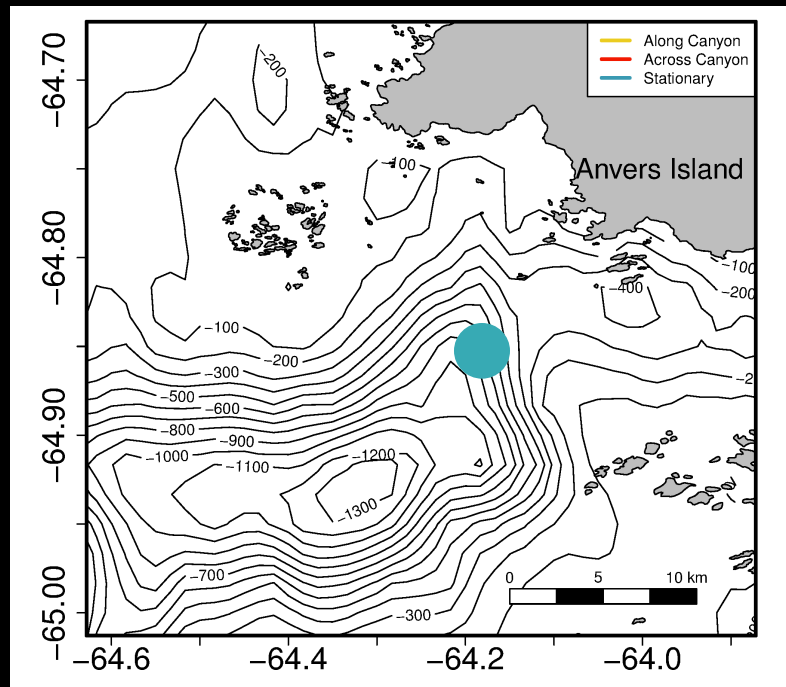
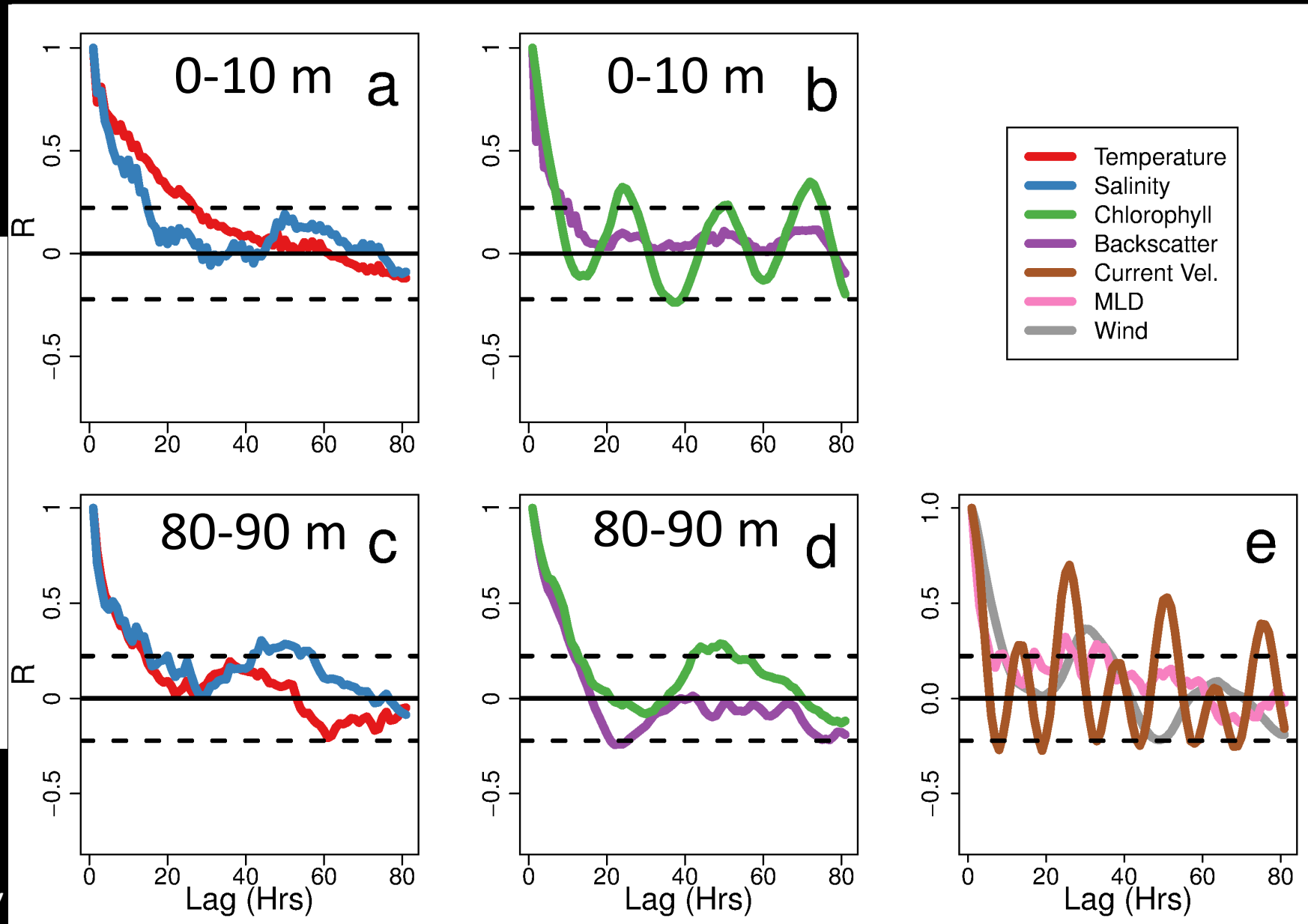


Figure 7 from Hudson et al., *in review*



Station-Keeping

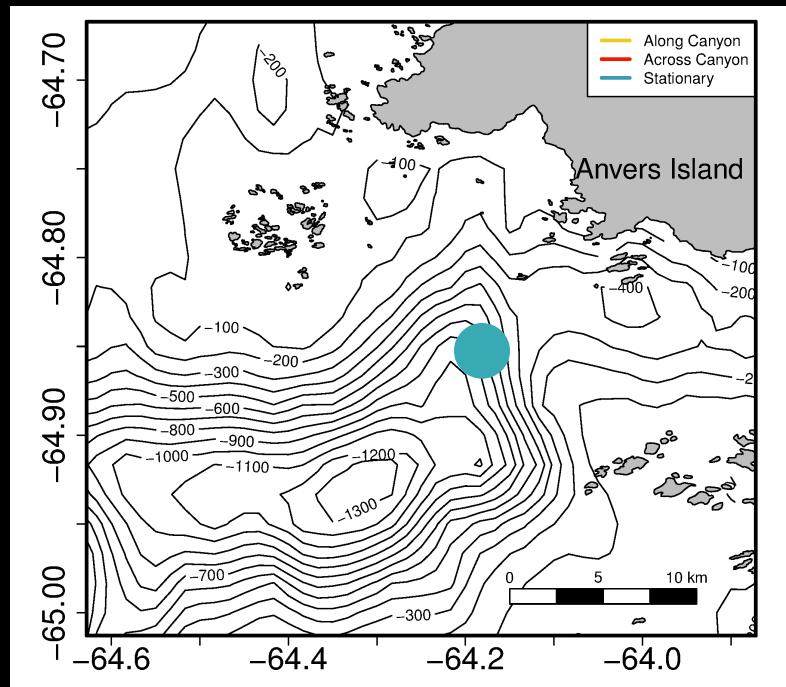
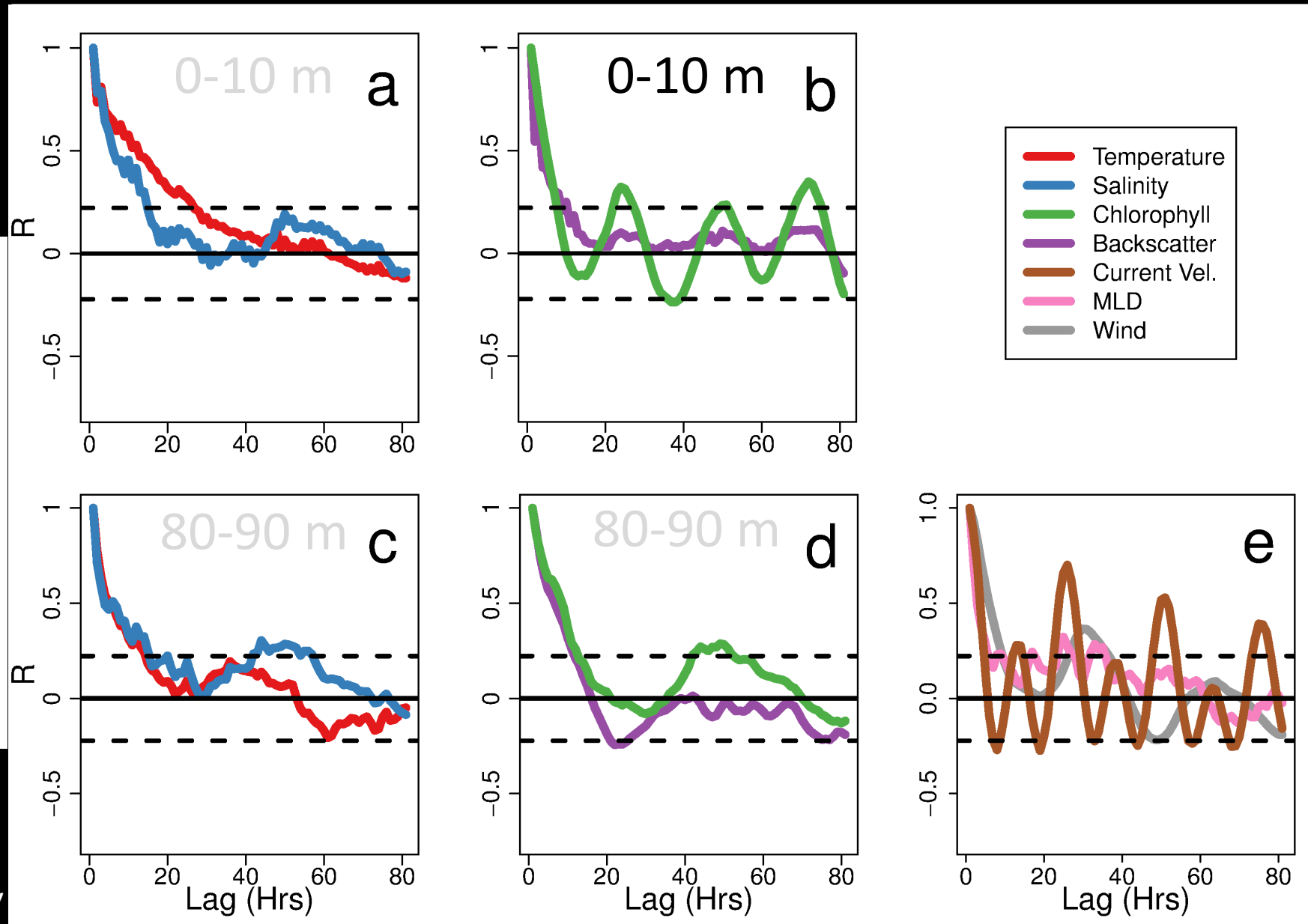


Figure 7 from Hudson et al., *in review*



Along-Canyon

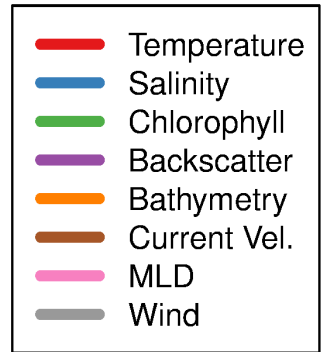
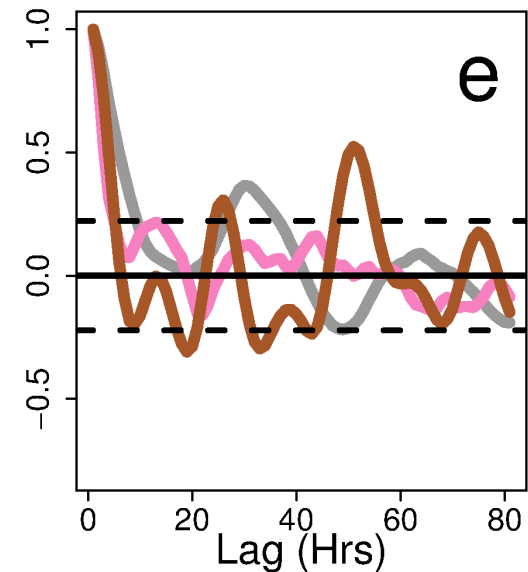
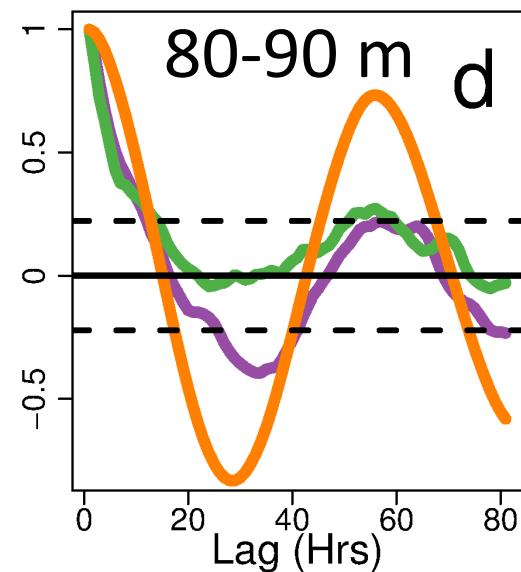
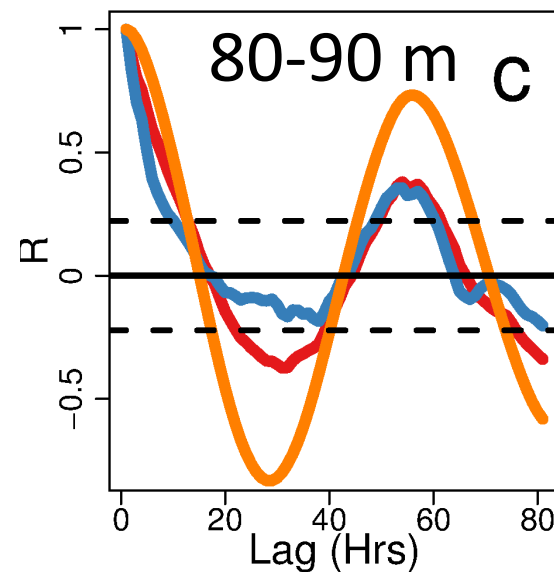
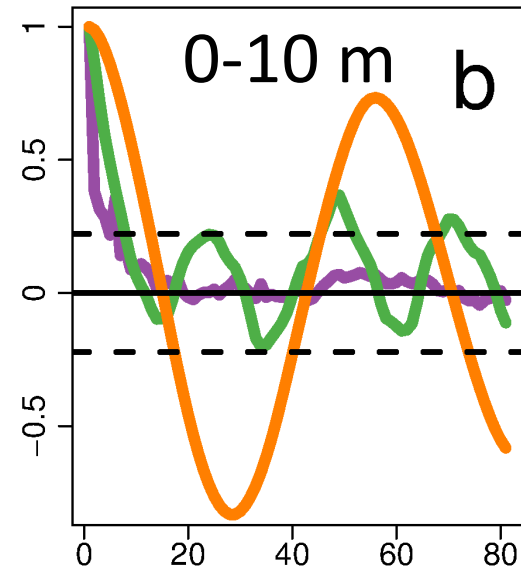
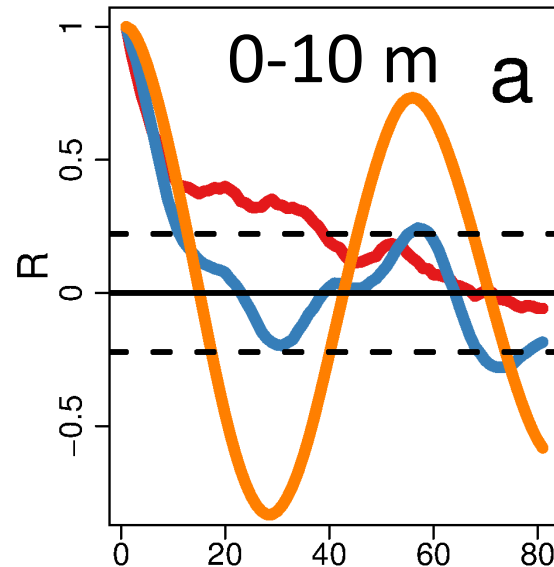
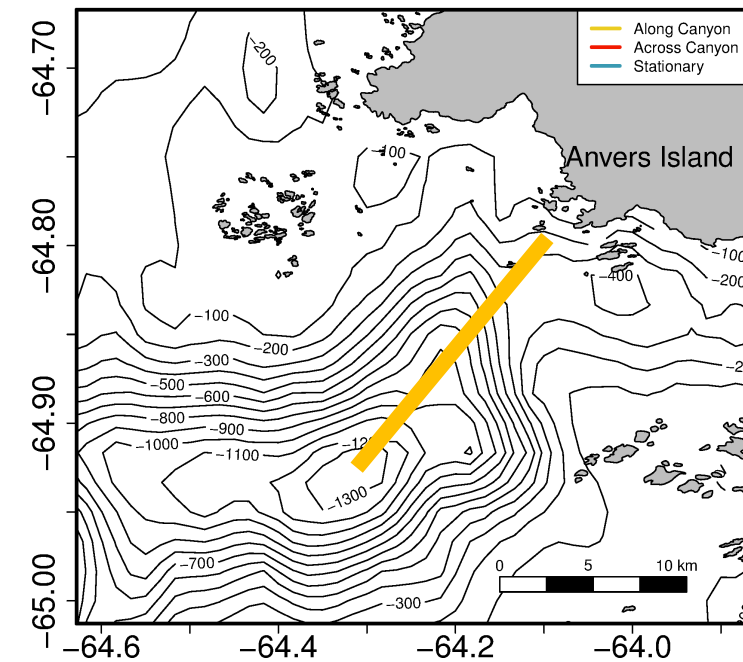


Figure 8 from Hudson et al., *in review*

Along-Canyon

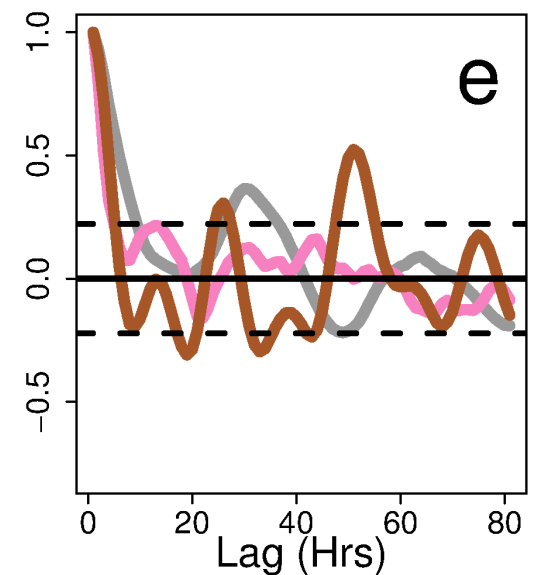
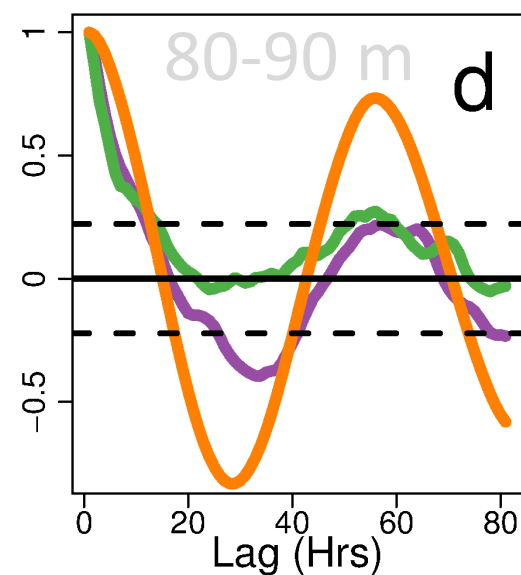
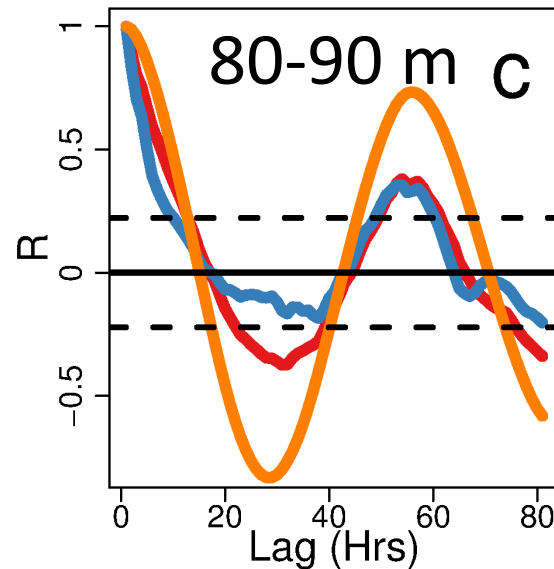
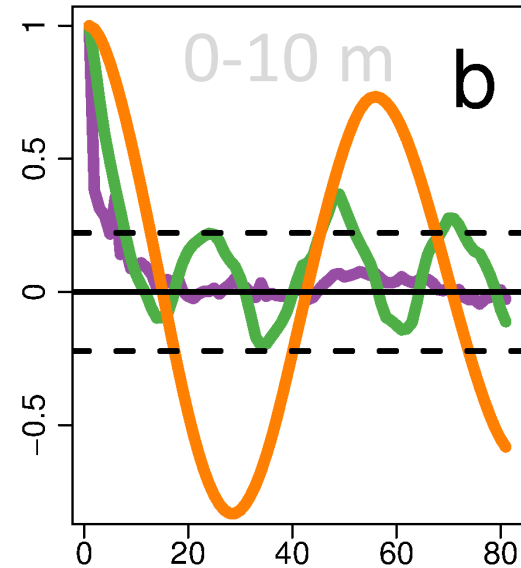
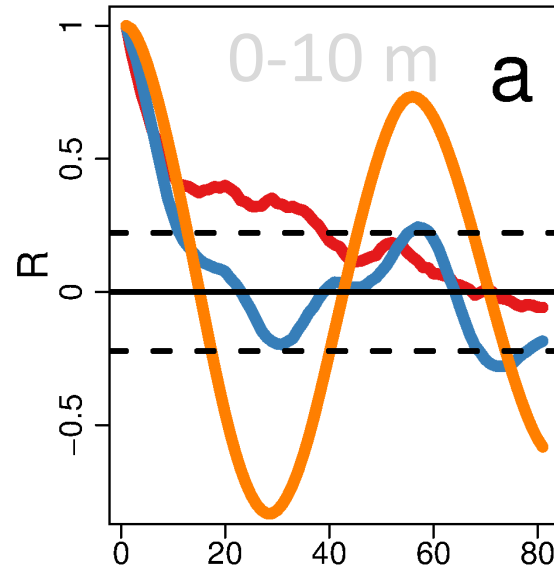
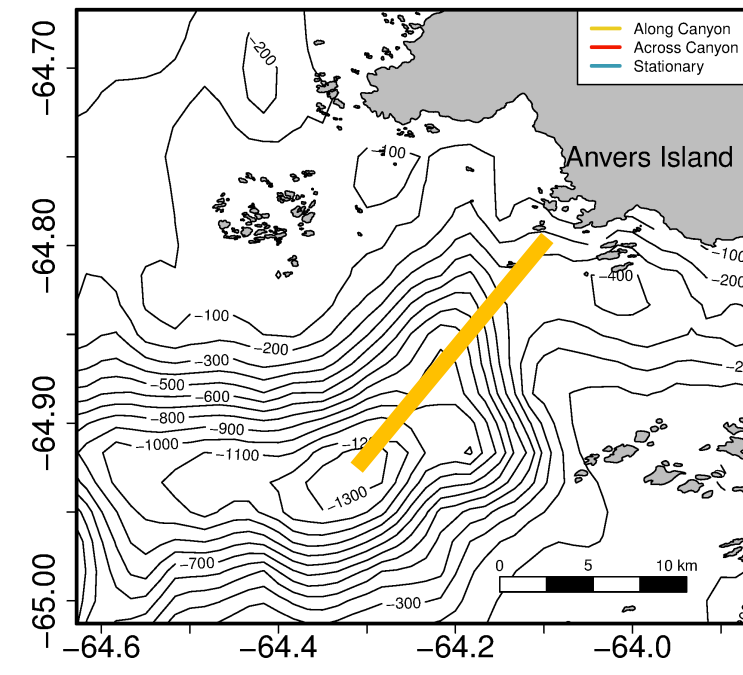


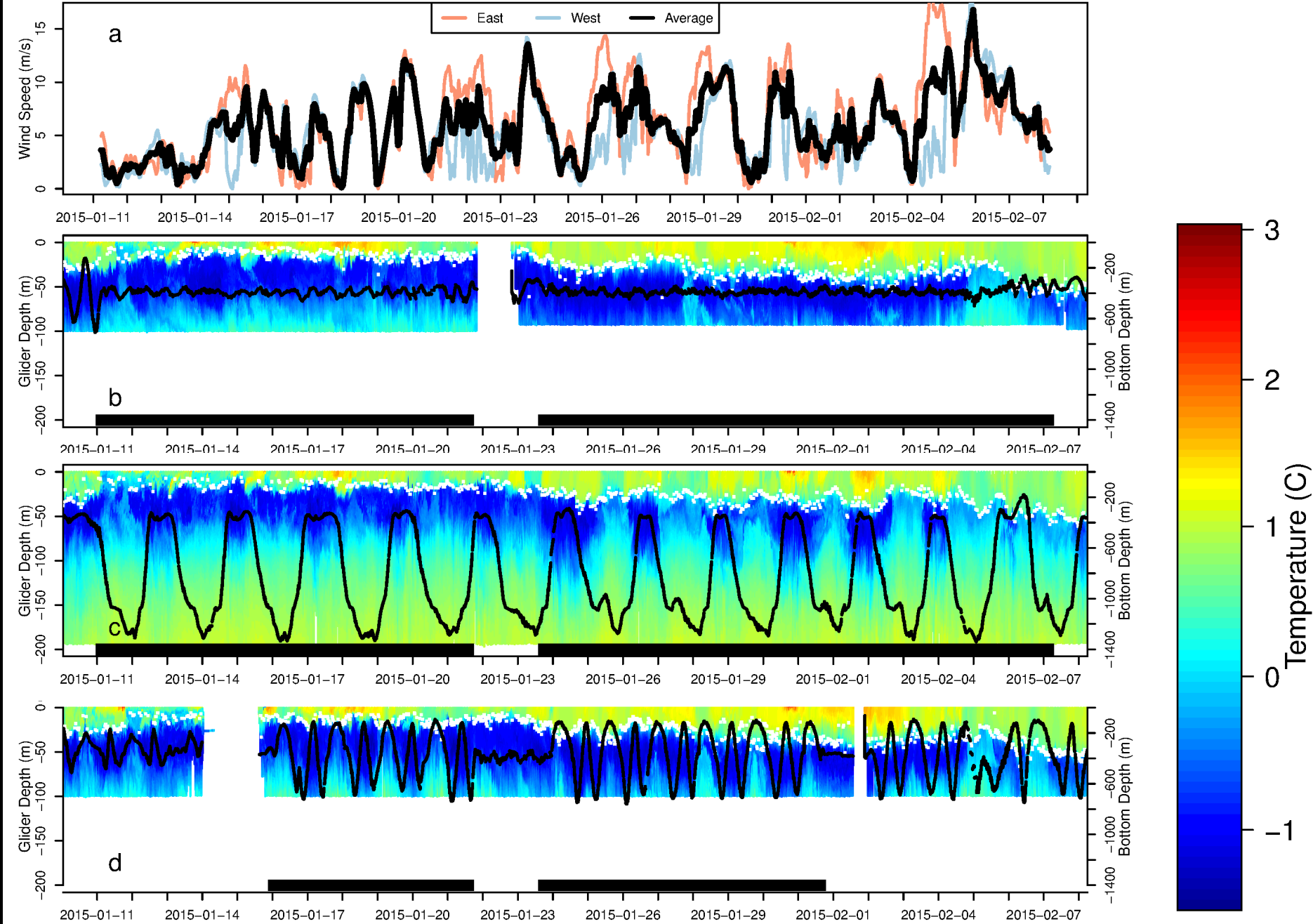
Figure 8 from Hudson et al., *in review*

Figure 2 from Hudson et al., *in review*

Station-Keeping

Along-Canyon

Across-Canyon



Along-Canyon

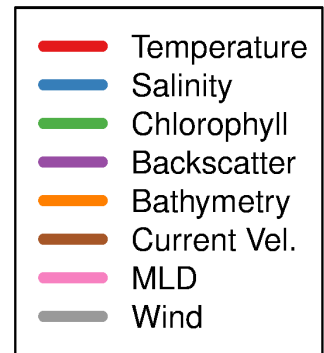
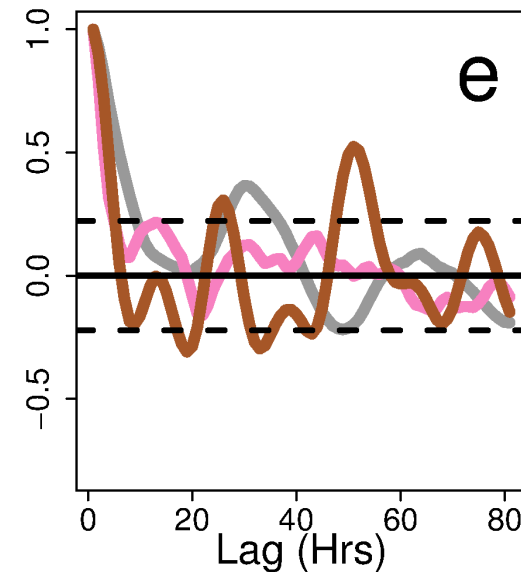
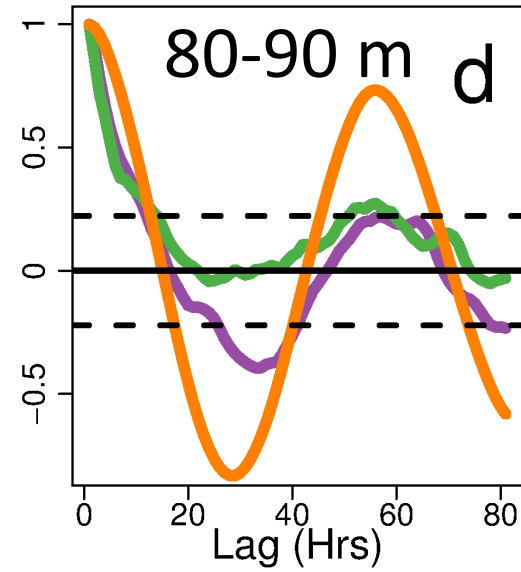
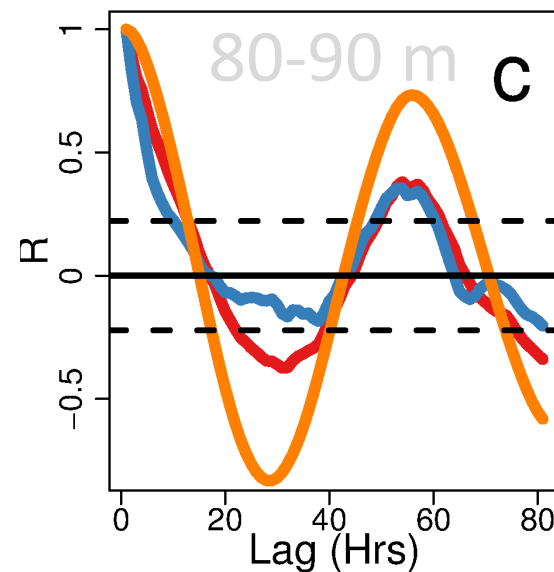
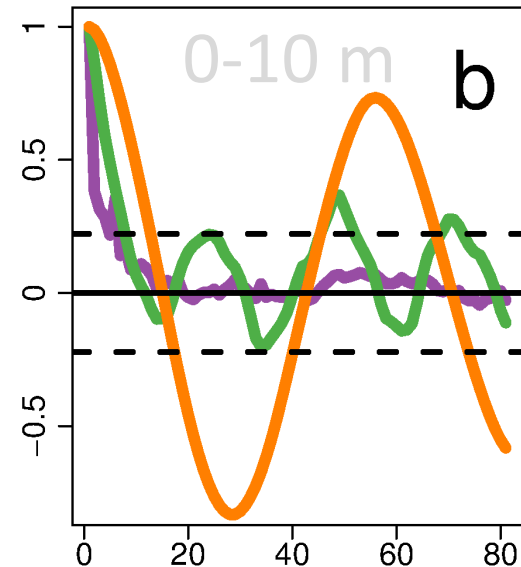
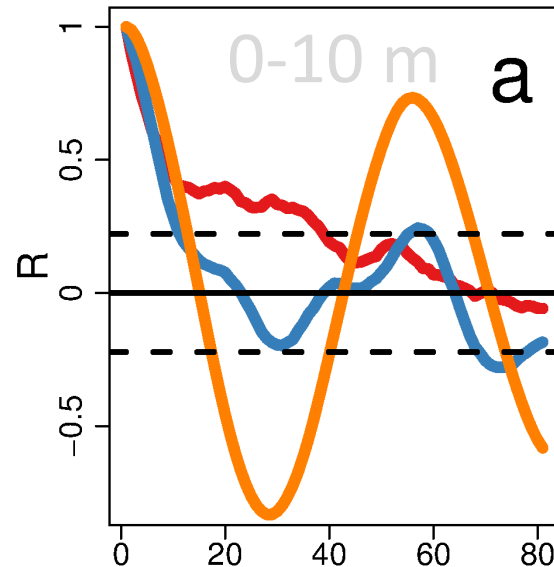
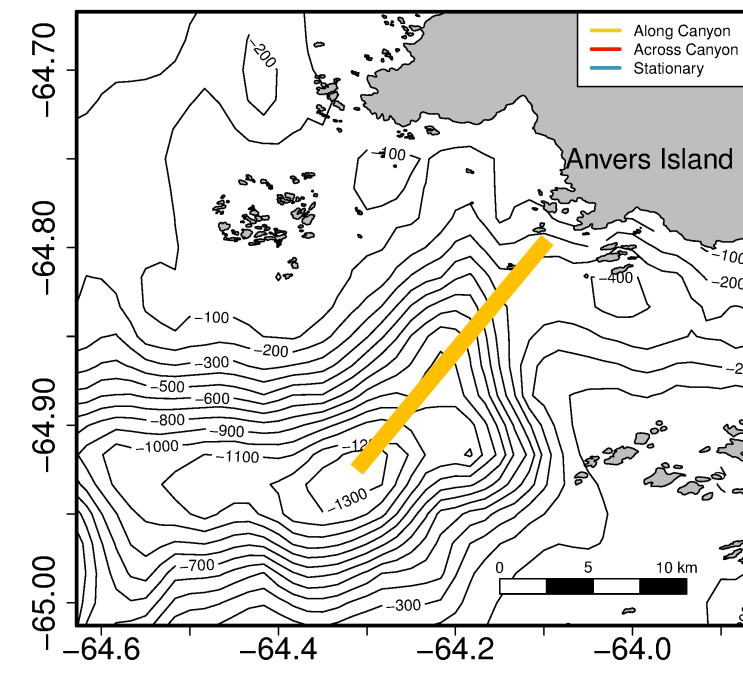


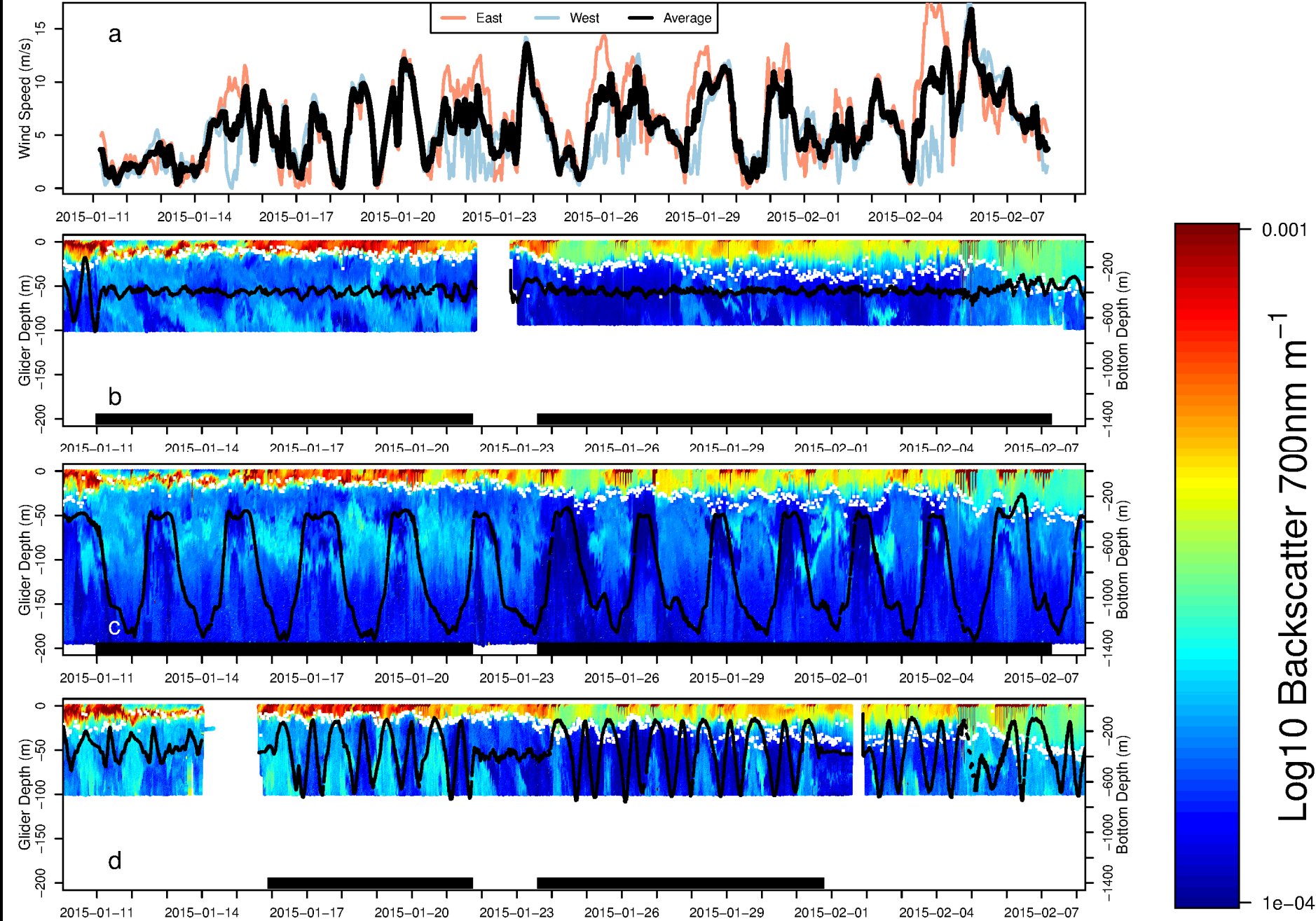
Figure 8 from Hudson et al., *in review*

Figure 4 from Hudson et al., *in review*

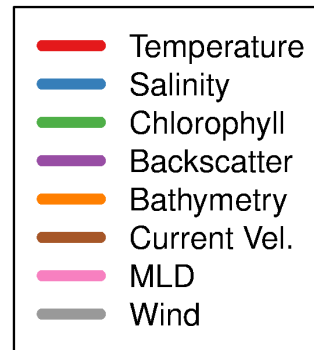
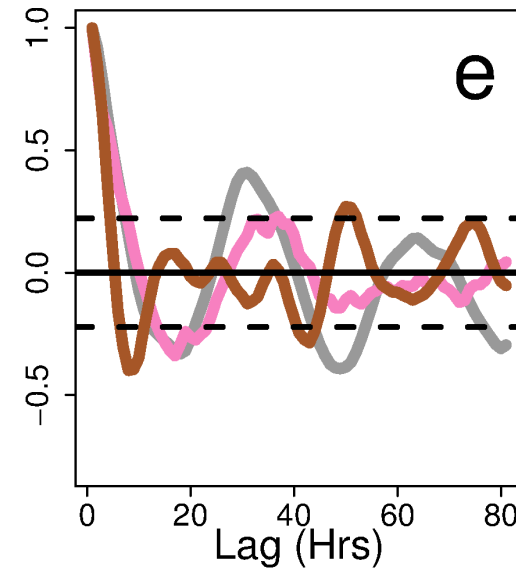
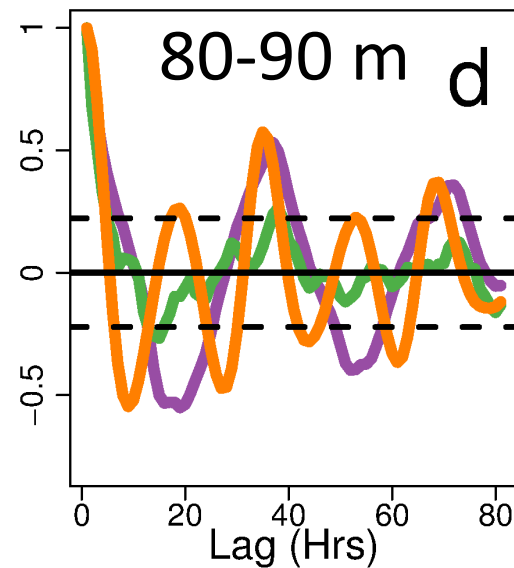
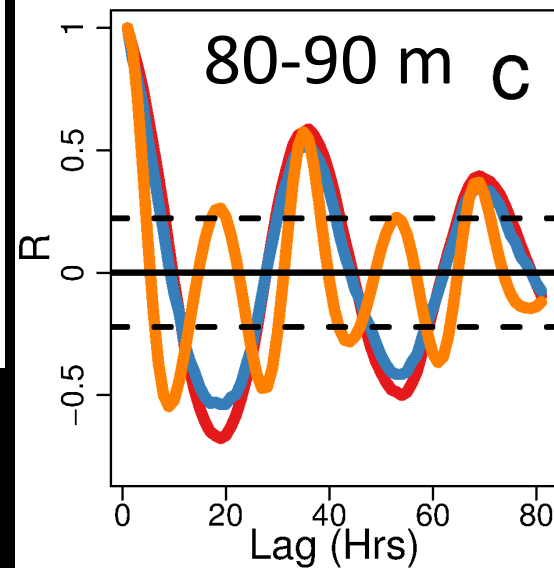
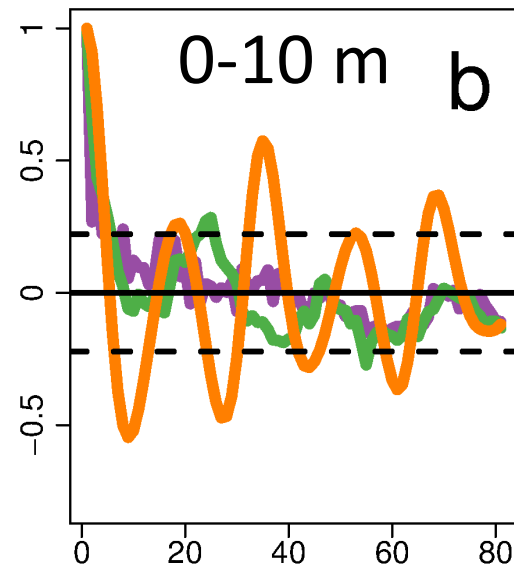
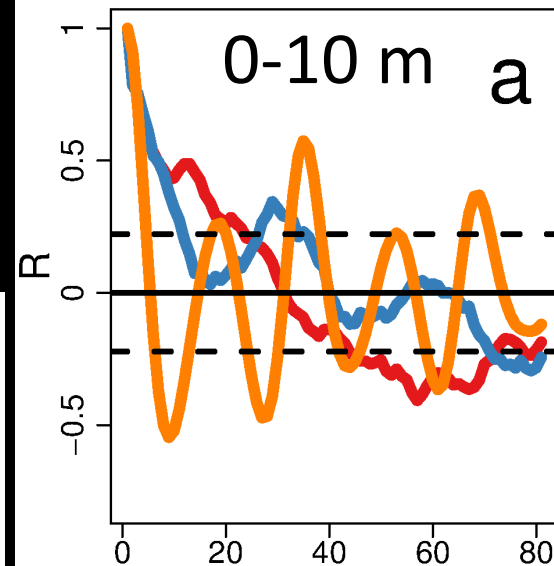
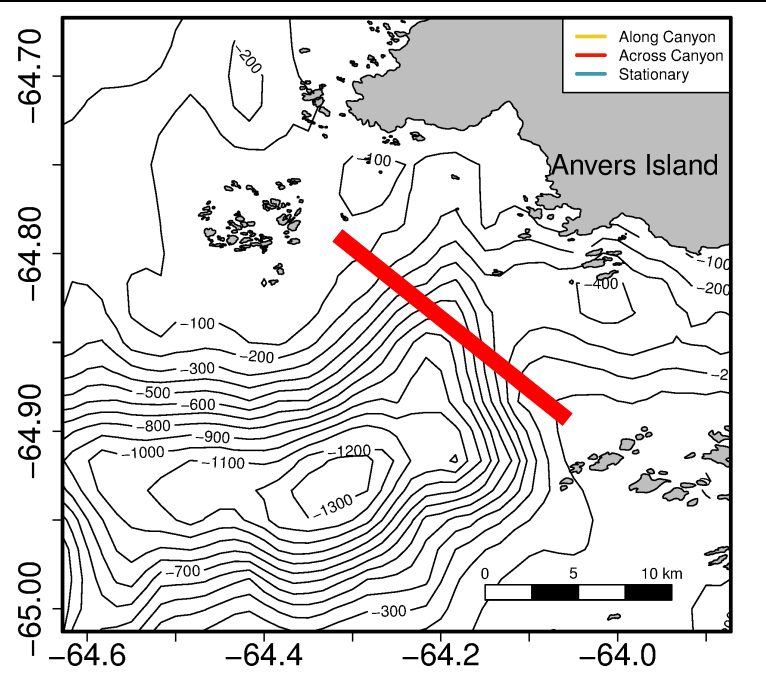
Station-Keeping

Along-Canyon

Across-Canyon



Across Canyon



Across Canyon

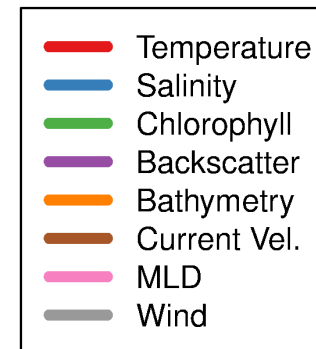
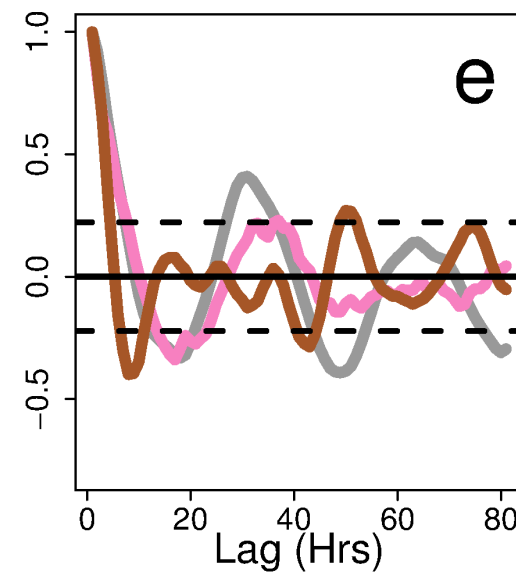
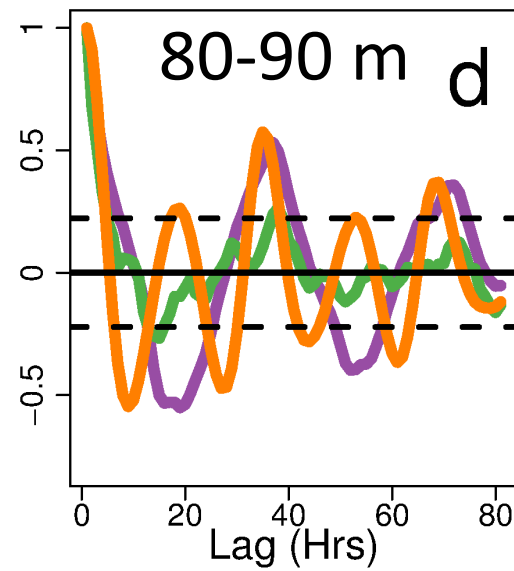
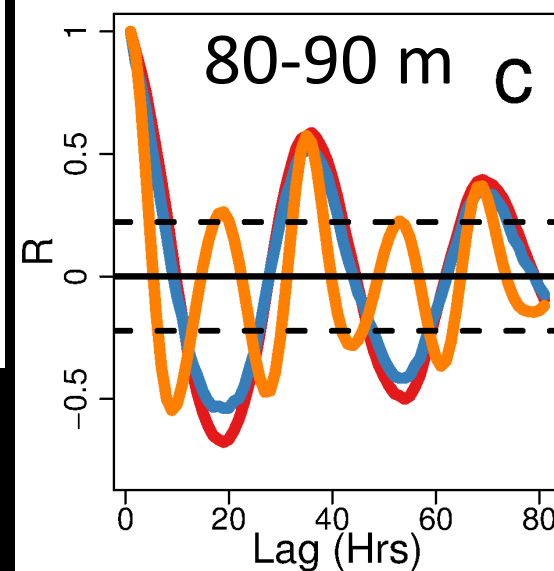
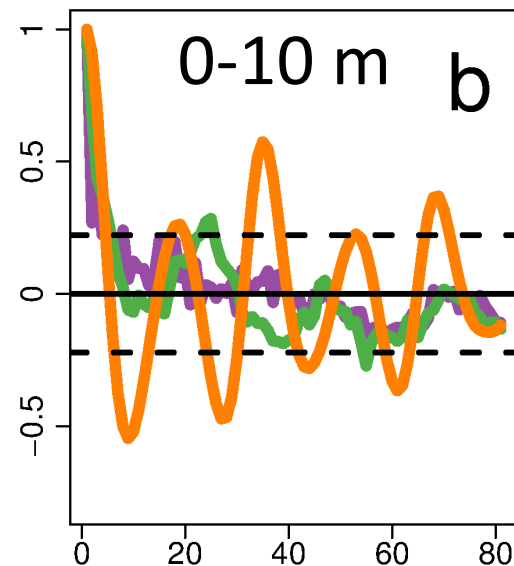
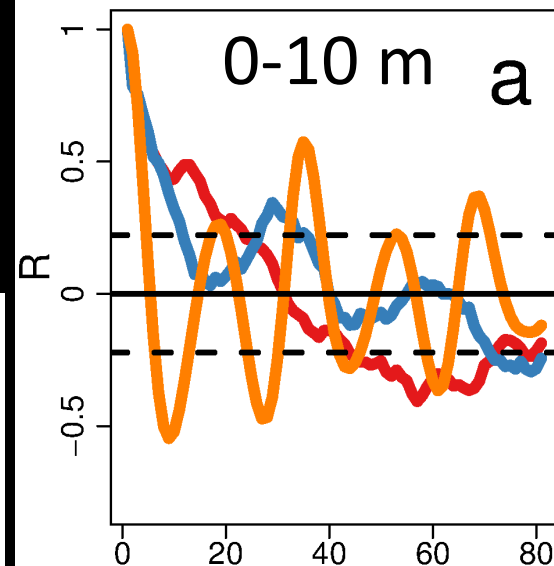
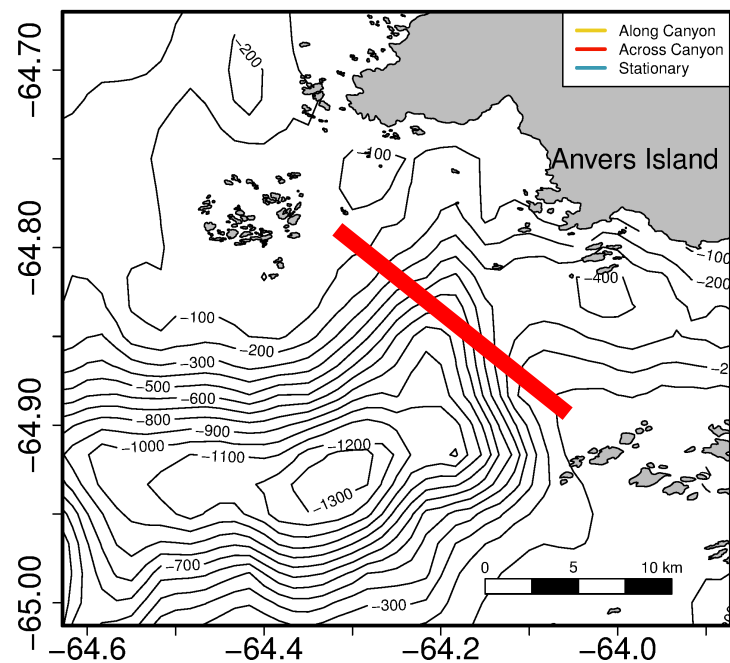
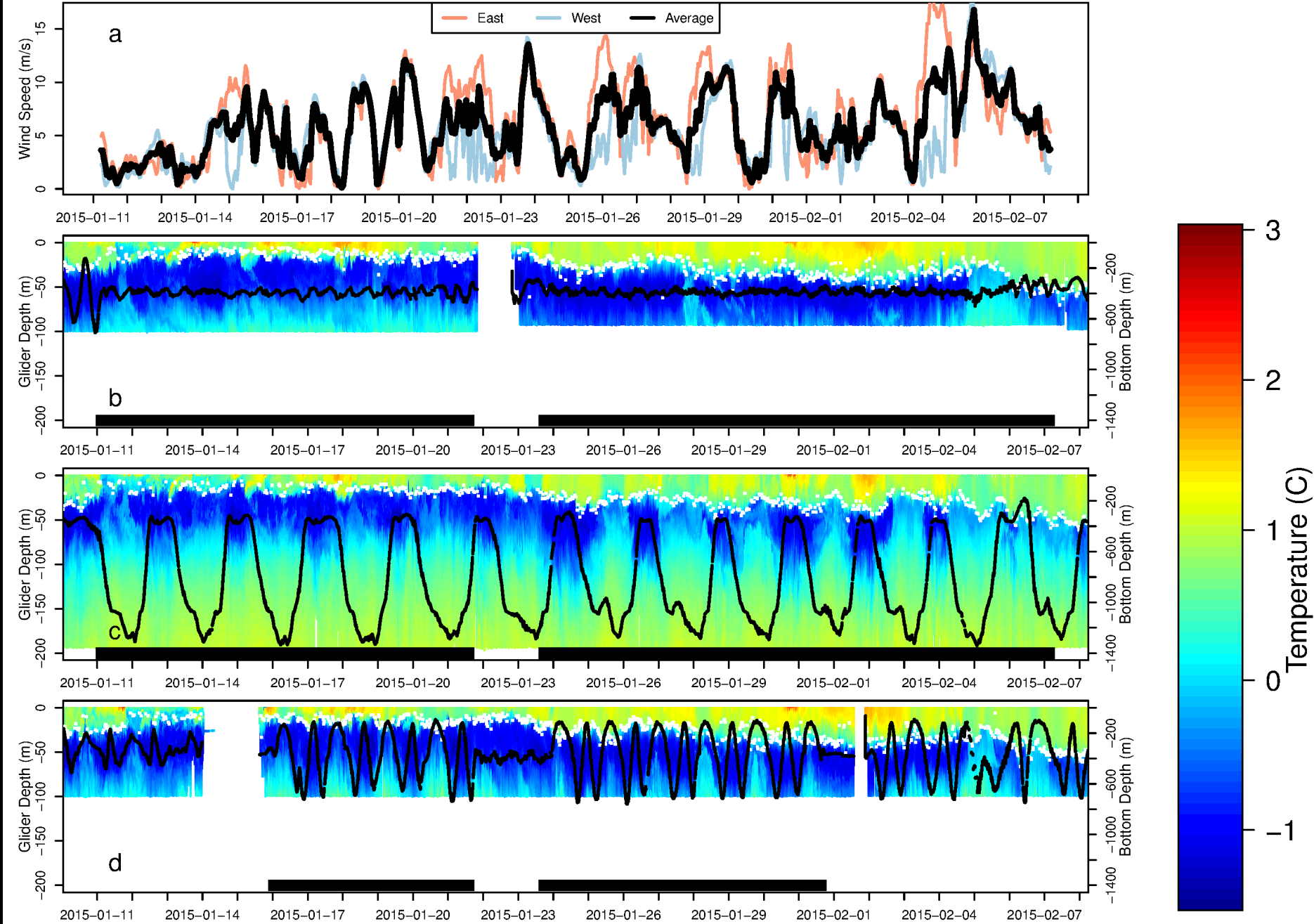


Figure 2 from Hudson et al., *in review*

Station-Keeping

Along-Canyon

Across-Canyon



Across Canyon

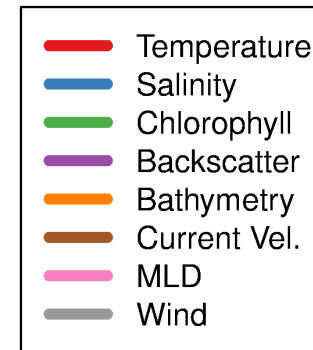
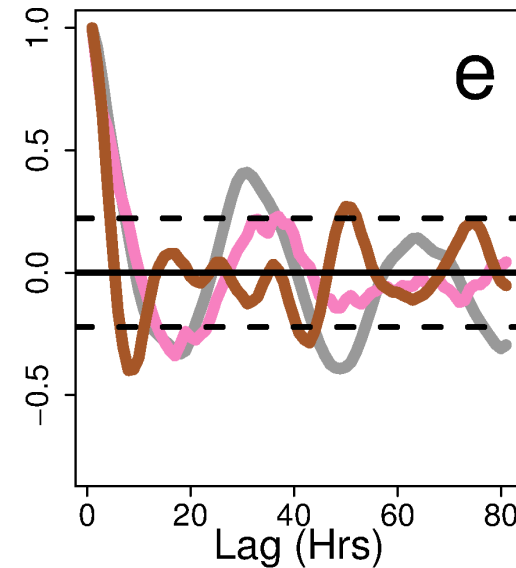
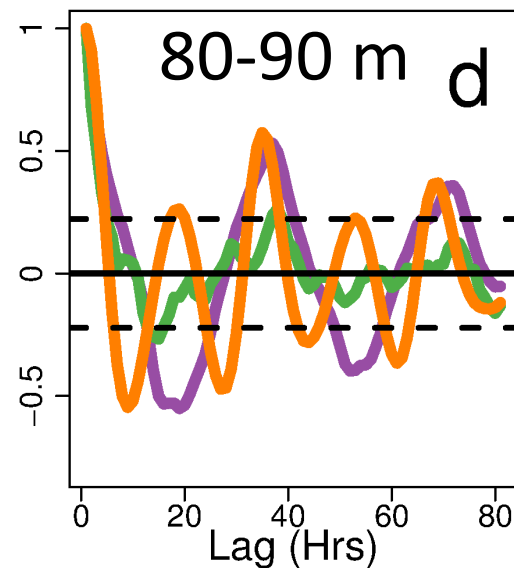
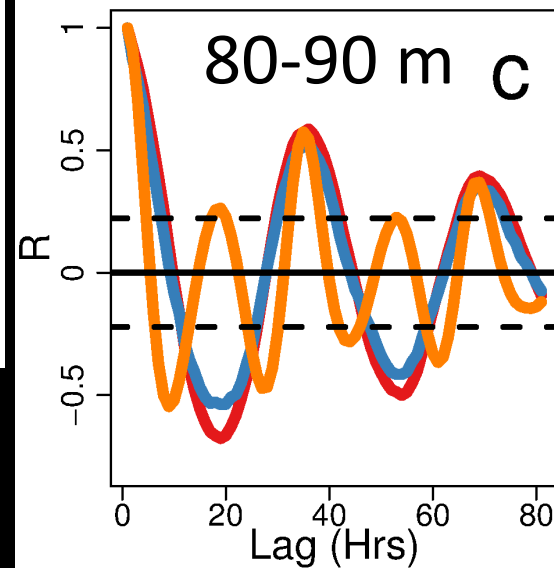
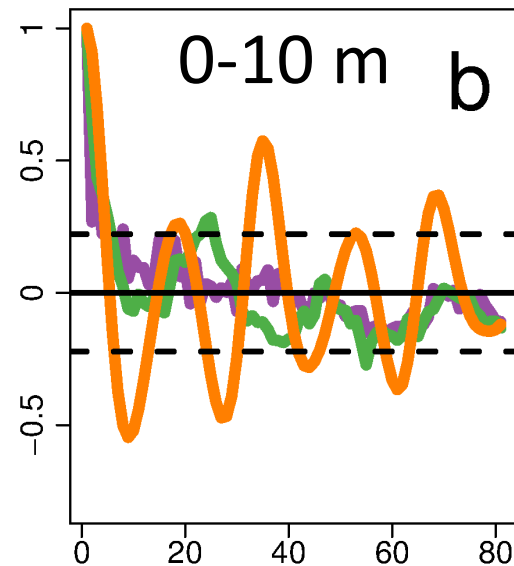
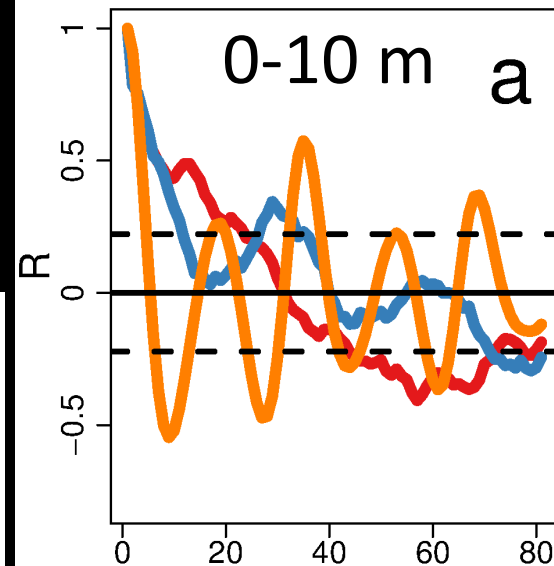
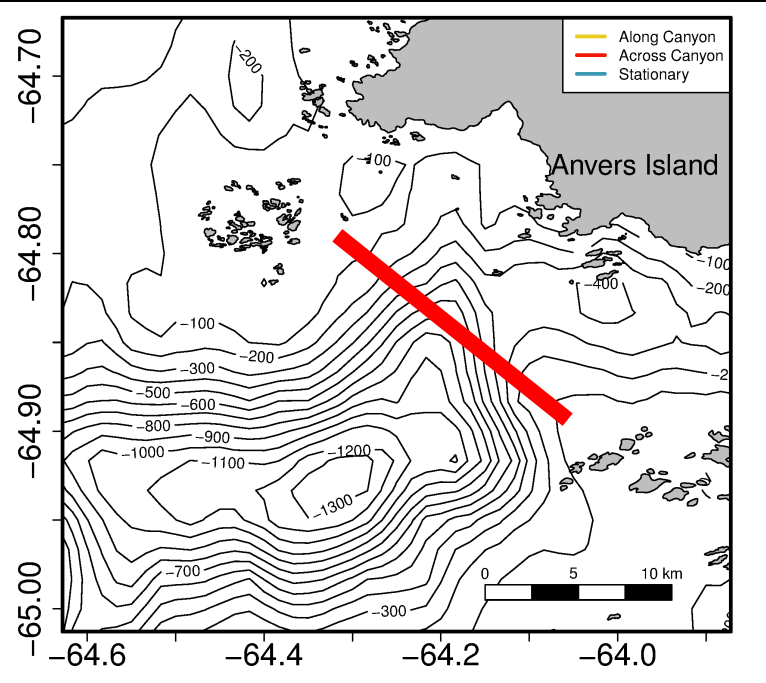
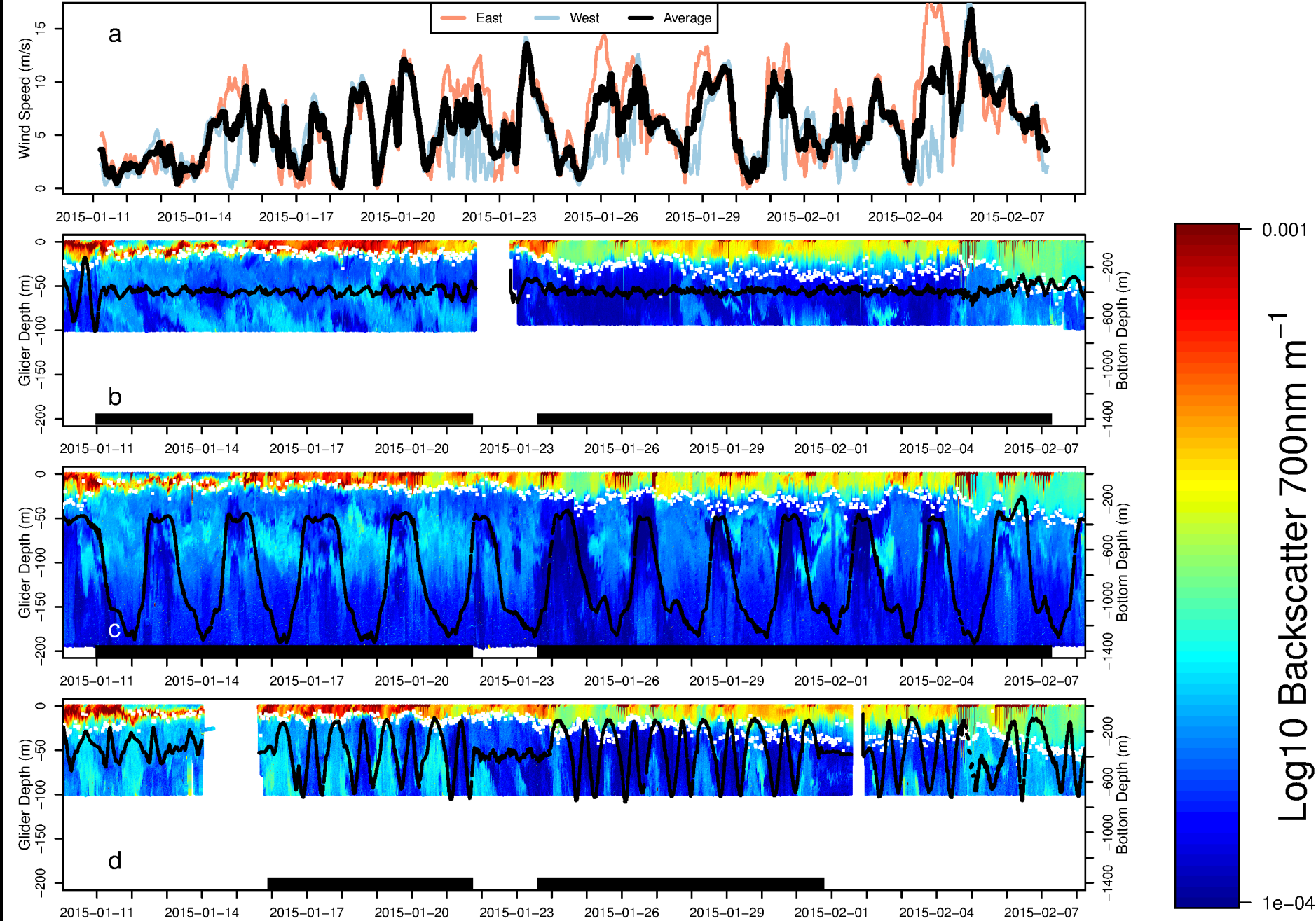


Figure 4 from Hudson et al., *in review*

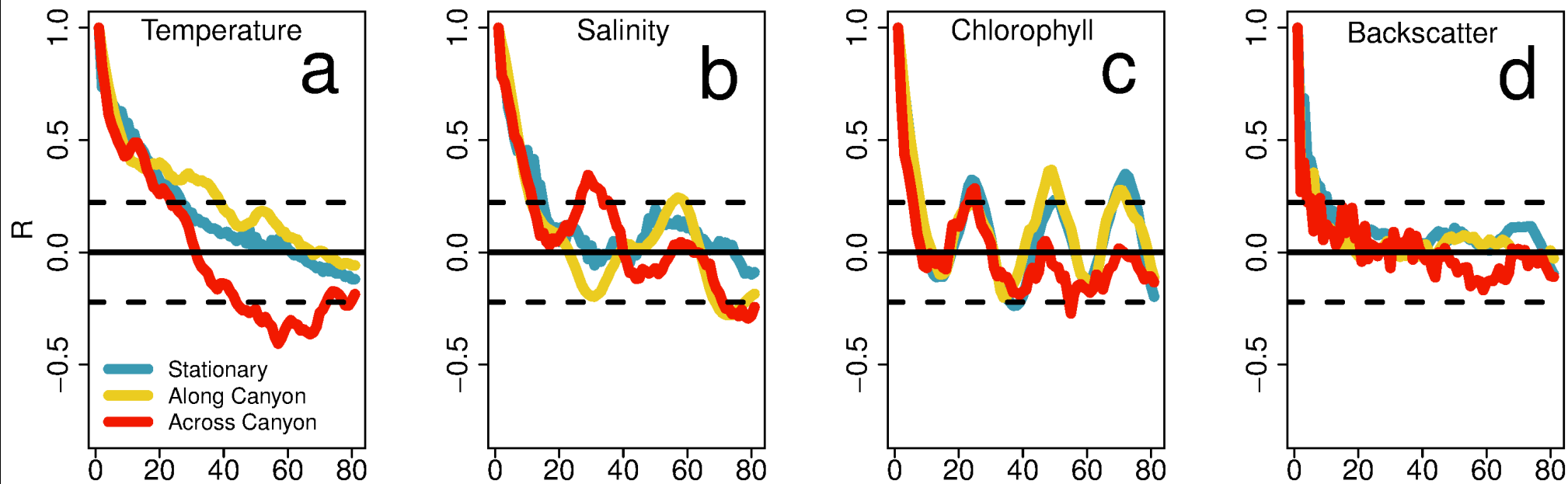
Station-Keeping

Along-Canyon

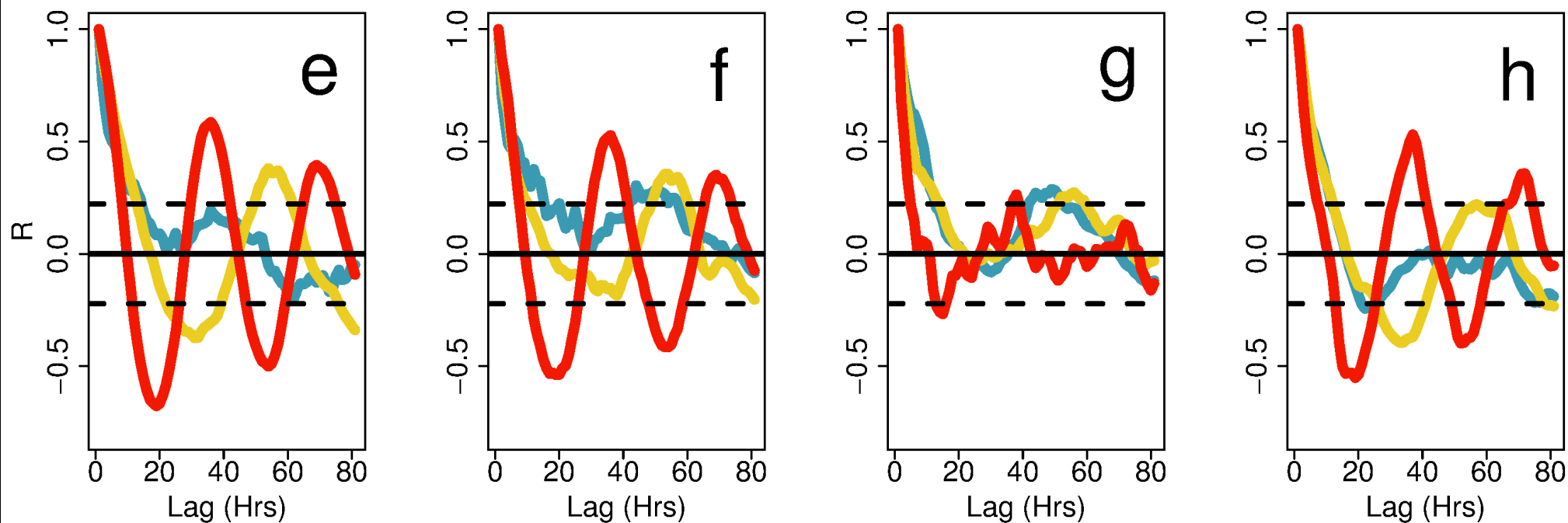
Across-Canyon



0-10 m



80-90 m



Questions?