WAP Climate-Ecosystem Modeling

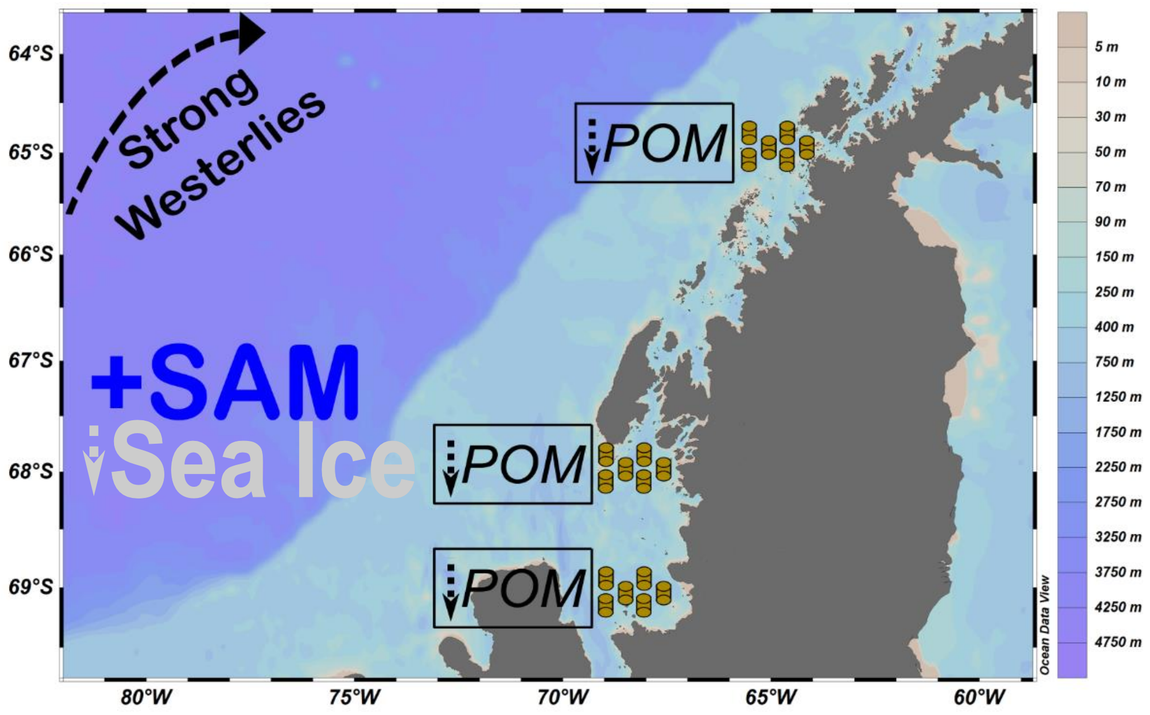

Fig. 1. *Cartoon illustrating the influence of westerly wind intensification during positive SAM and La Niña climate anomalies leading to early sea ice loss in spring/summer months and thus decreasing formation of particulate organic matter (POM) in productive regions along the WAP.*

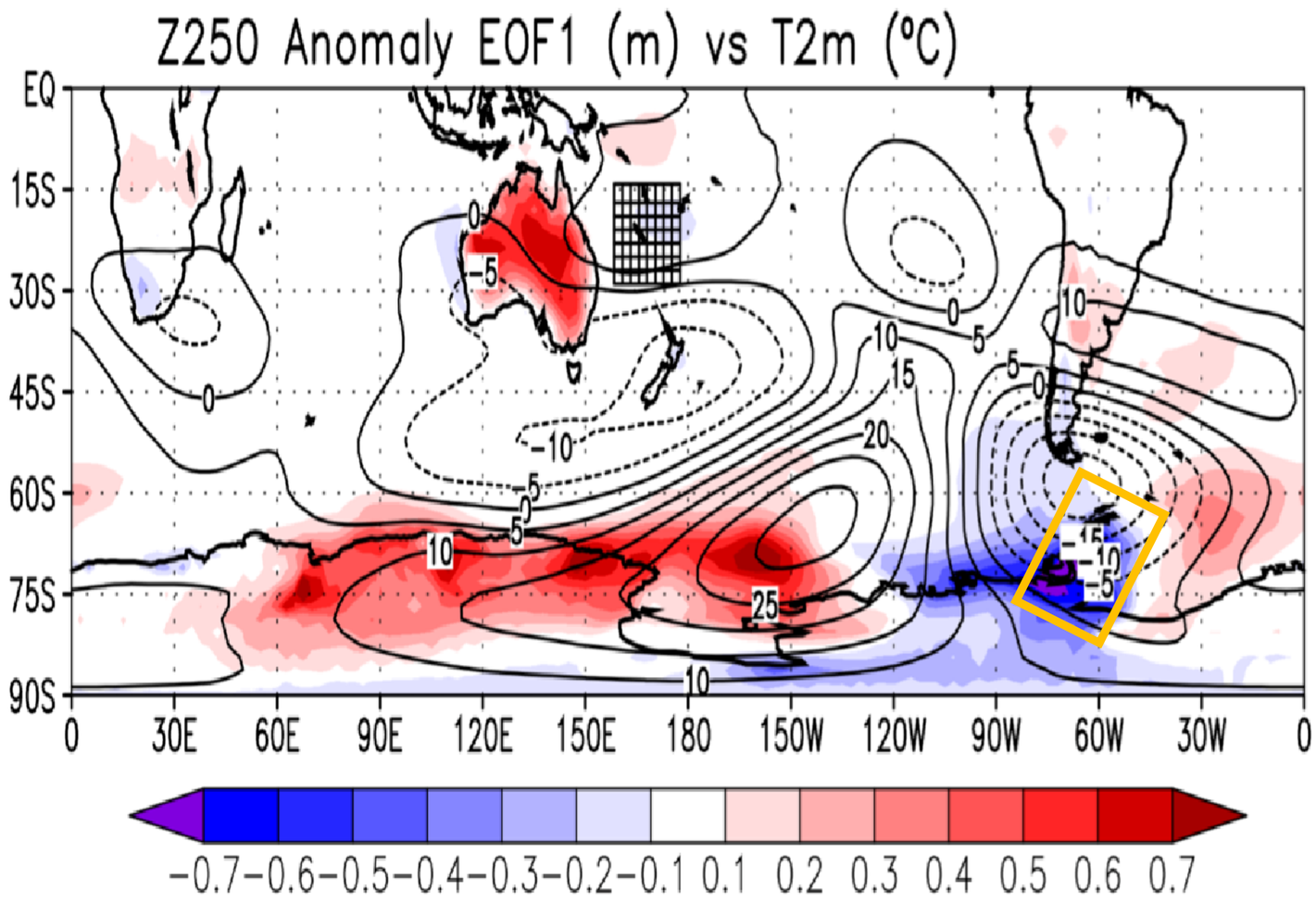

Fig. 2. *Clem et al. 2019 – Principal pattern of the SPCZ teleconnection and relationship between Southern hemisphere jet streams. EOF1 (explaining 46.5% of the variance) of monthly Z250 anomalies from the SPCZ perturbation experiment (perturbed minus control) over the South Pacific (contours; m per standard deviation) and regression of Z250 PC onto SAT (shading: °C per standard deviation, reference color bar*

- Researchers from Rutgers University and Victoria University of Wellington seek to understand the influence of large-scale climate variability on the West Antarctic Peninsula (WAP) ecosystem.
- Westerly winds along the WAP may be strengthened by SST anomalies in the South Pacific Convergence Zone (SPCZ) and/or during positive phases of the Southern Annual Mode (SAM)
- Impacts of these shifts on the WAP climate-ecosystem will be evaluated using sea ice and productivity in CESM1.2

Rutgers University – The State University of New Jersey