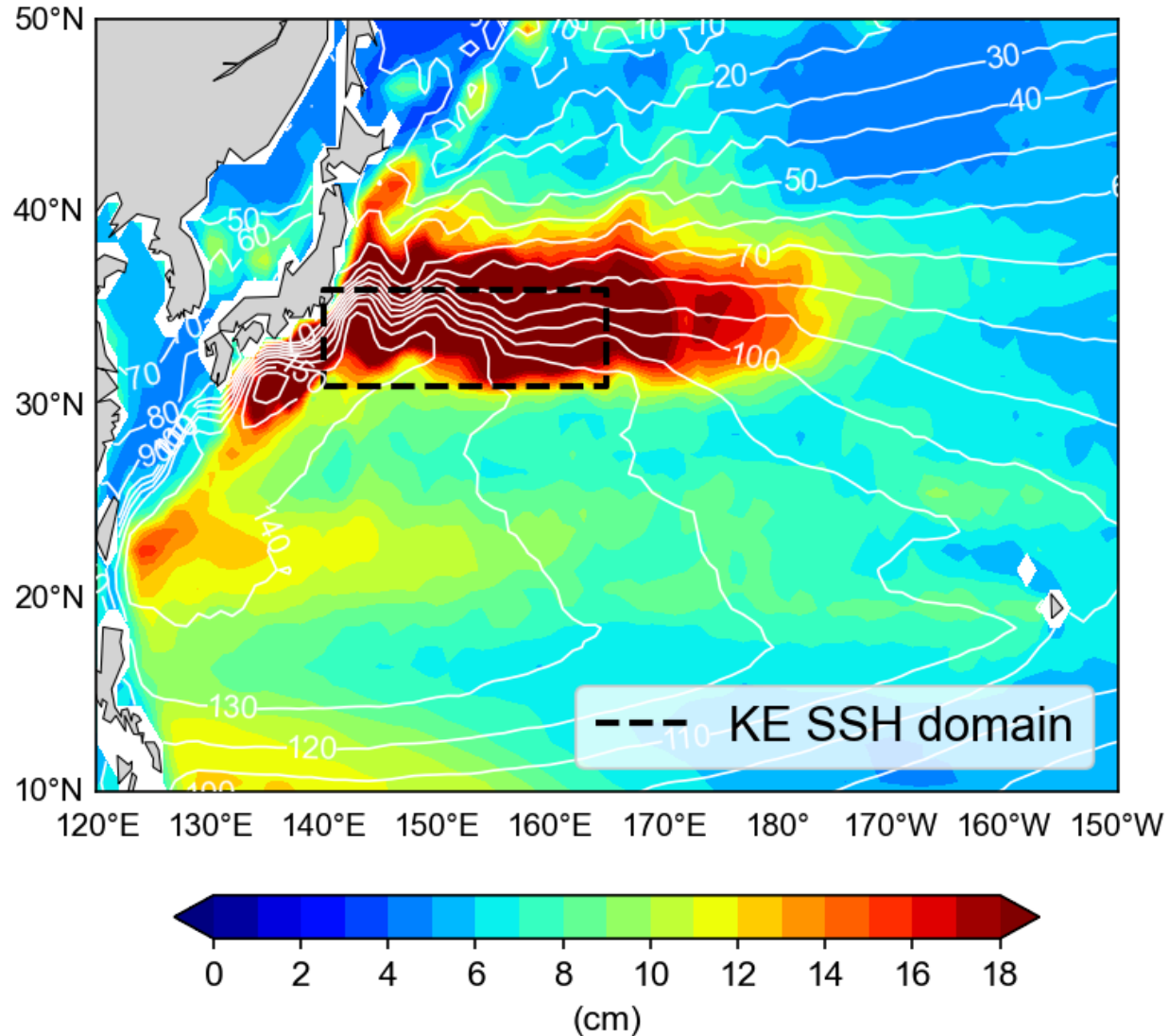


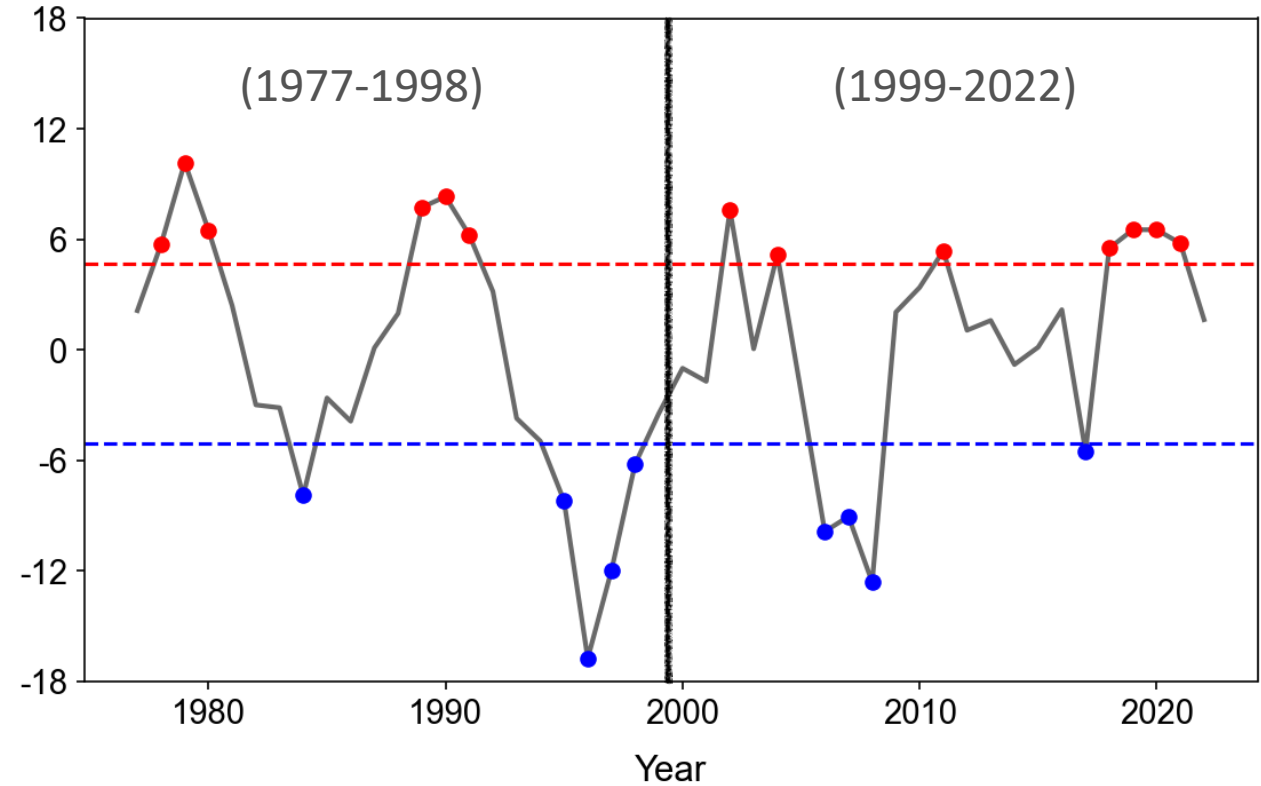
Kuroshio Extension (KE) Decadal Variability

Se-Yong Song

SSH variability (shading) & mean SSH (contour)

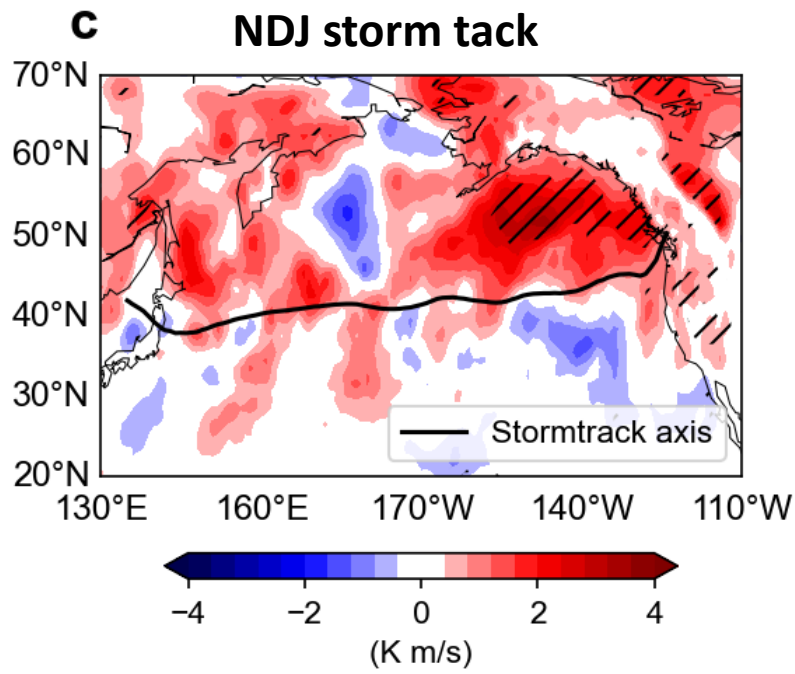
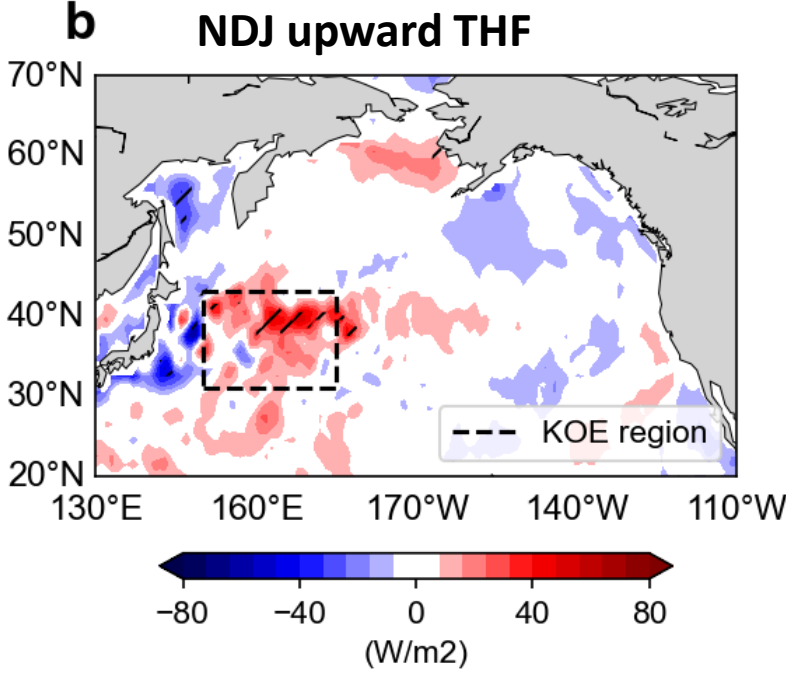
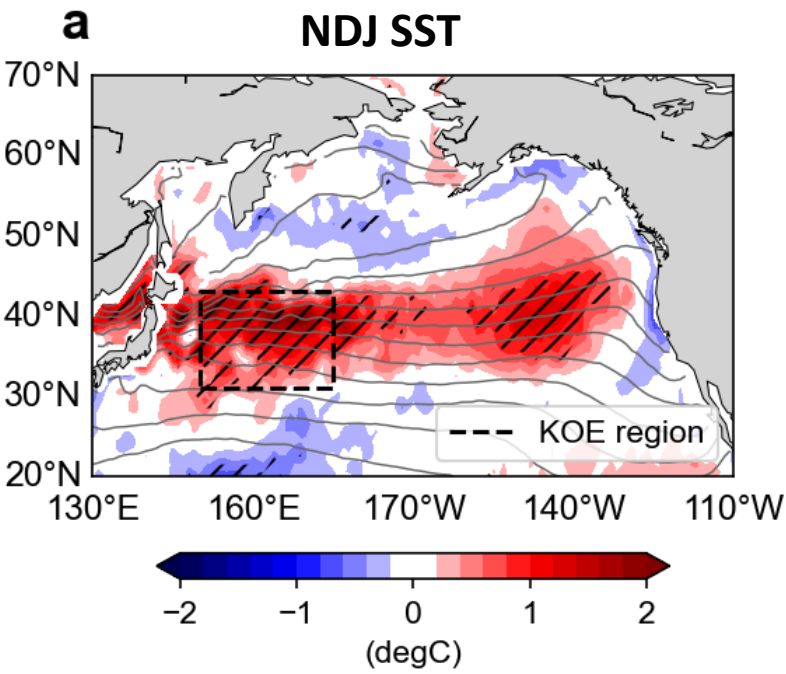


SON KE index (satellite + ocean hindcast/reanalysis)



How does the decadal KE dynamic state affect the overlying atmospheric circulation?

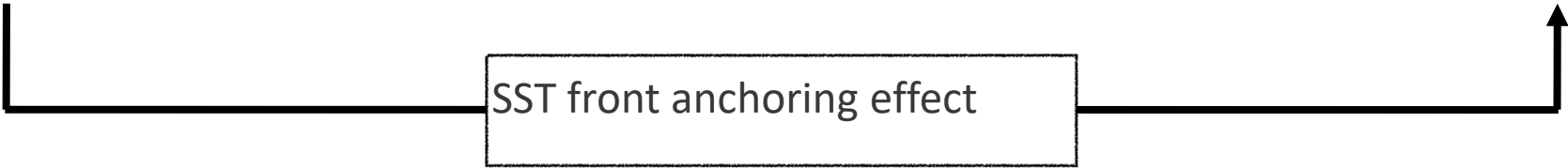
Downstream impacts of KE decadal variability ① (1977-1998)



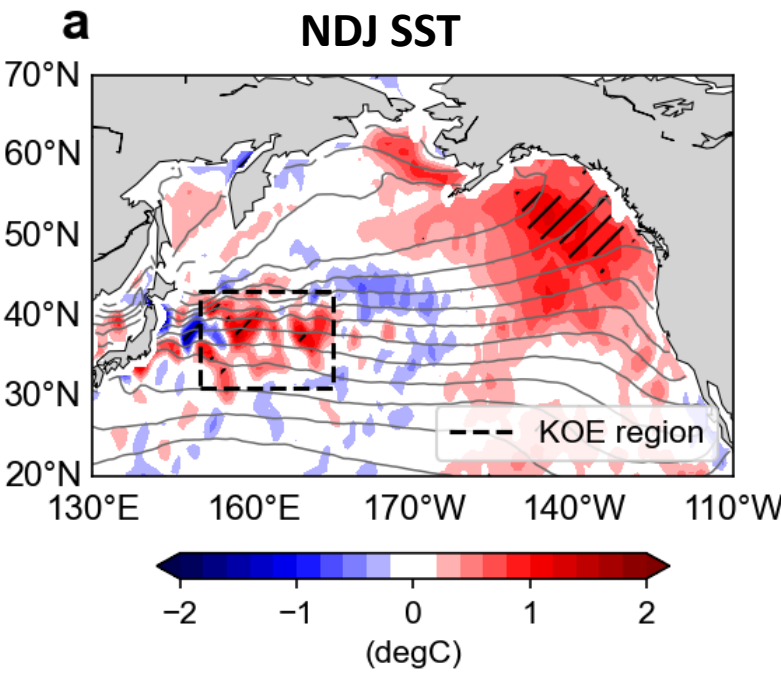
Northward shifted SST front

Weaker THF response to SST

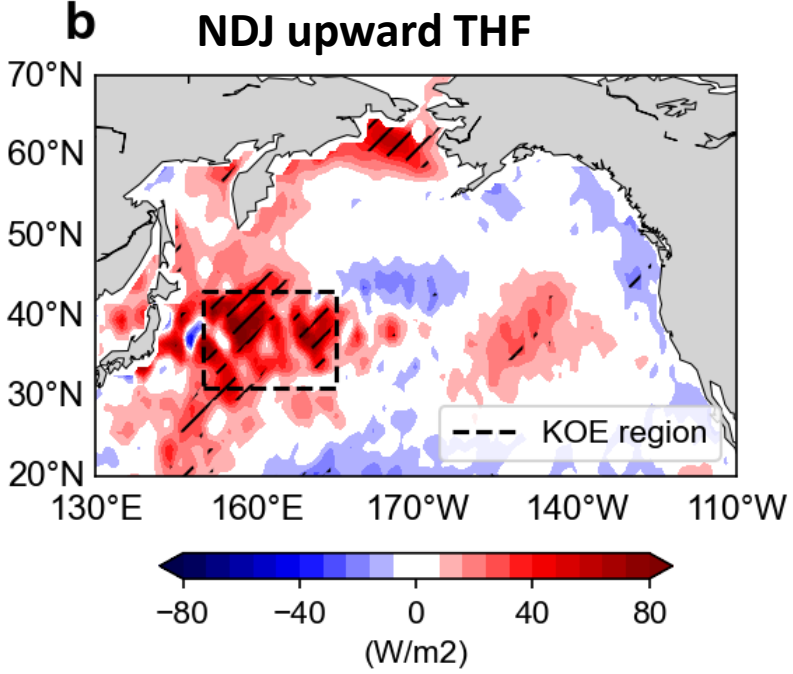
Poleward migration of storm track



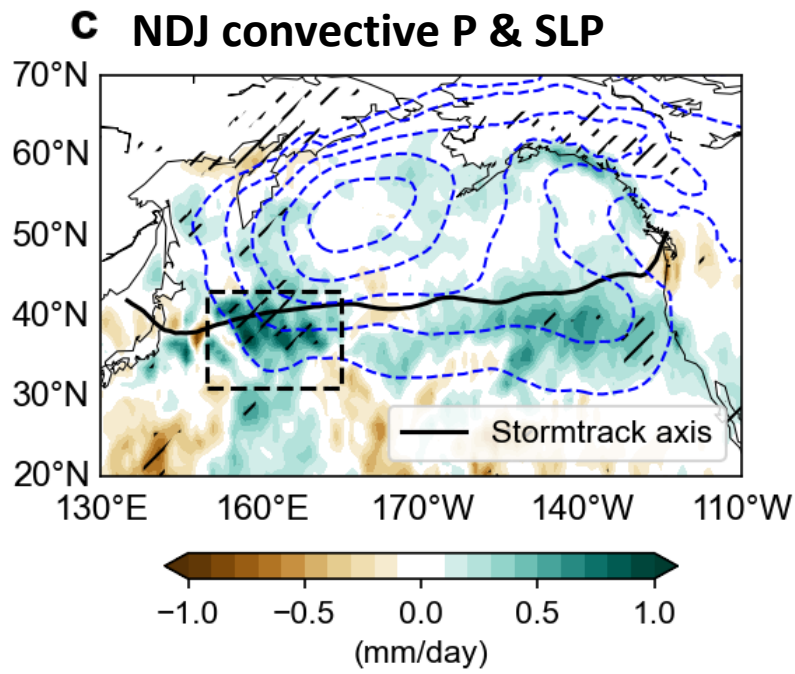
Downstream impacts of KE decadal variability ② (1999-2022)



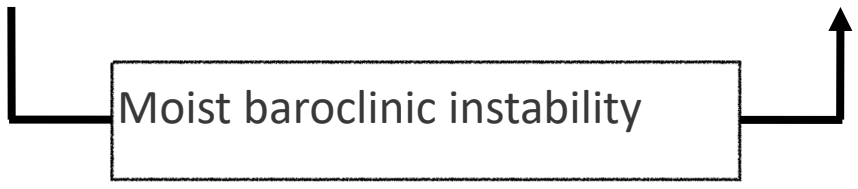
Dampened by the upward THF



Stronger THF response to SST
Evaporation from the ocean

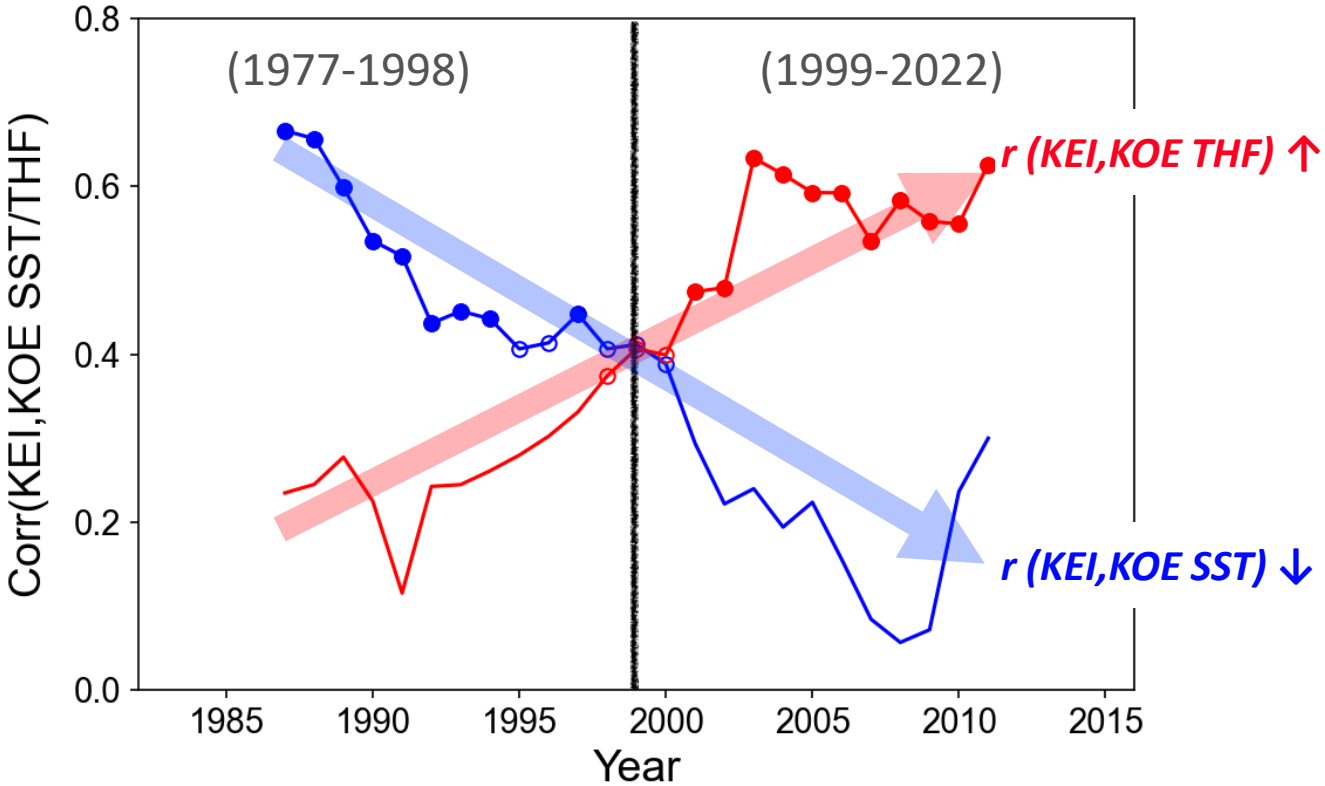


Diabatic heating - cyclonic SLP



Changes in the KE air-sea coupled dynamics

Relationship b/w the KEI & KOE SST/THF indices



PDO-related sea-air humidity difference

