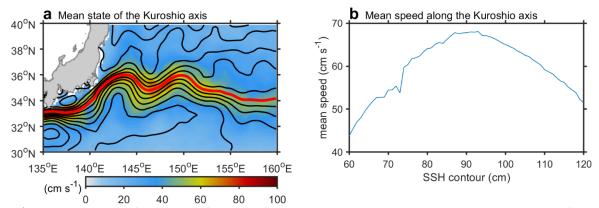
## Enhanced warming and intensification of the Kuroshio Extension, 1999-2013

## You-Lin Wang and Chau-Ron Wu



**Figure S1.** Estimation for the path of the Kuroshio extension jet. (a) Mean speed (shading), mean sea surface height (SSH) (contour), 90-cm contour of SSH (red line) are shown. (b) Mean speed along the Kuroshio axis detected by various SSH contours. Large mean speed indicates the selected SSH contour fitting the path of the KE jet. (a-b) Data from AVISO.

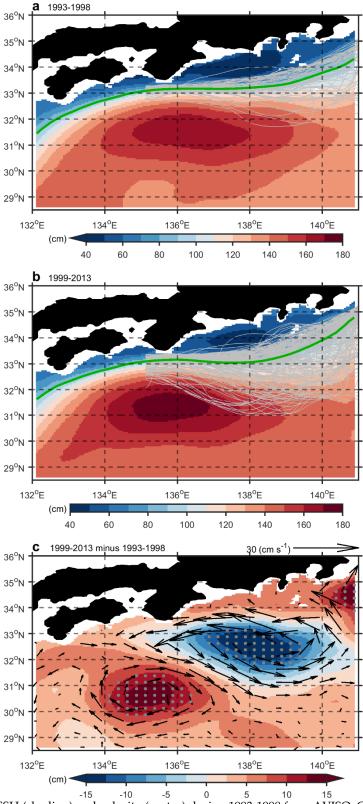
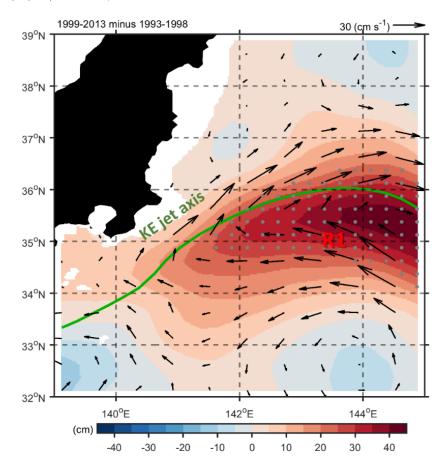


Figure S2. (a) Mean SSH (shading) and velocity (vector) during 1993-1998 from AVISO. Green and gray curves indicate the mean axis (1993-1998) and monthly axis of the KE jet, respectively. (b) Same as (a), but during 1999-2013. (c) Same as (a), but for the difference (1999-2013 minus 1993-1998). Gray dots indicate statistical significance above the 90% confidence level.



**Figure S3.** SSH difference (shading), velocity difference (vector), and mean KE jet axis (green curve) are shown (1999-2013 minus 1993-1998). R1 indicates the intensified recirculation south of the KE jet. Gray dots indicate statistical significance above the 90% confidence level.