

Picture of megathrust earthquake

[Tohoku-oki & Nankai Trough events]

GNSS-A has made a number of contributions to seismology and earthquake disaster prevention engineering.

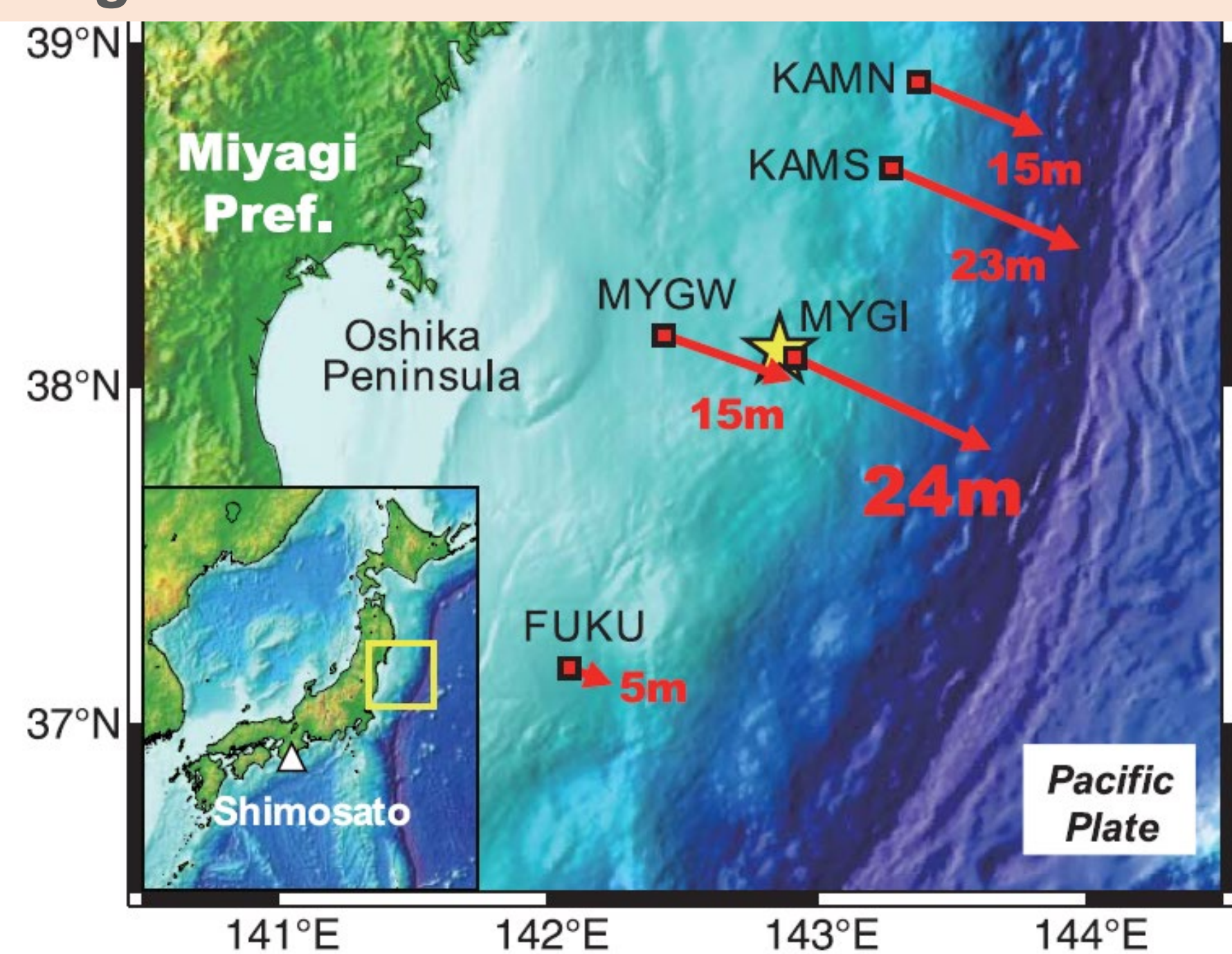
We introduce the past contributions that Yokota Lab has been involved in.

In addition, we will introduce activities for the realization of long-term stable observation, basic observation network, and ocean geodetic base observation network.

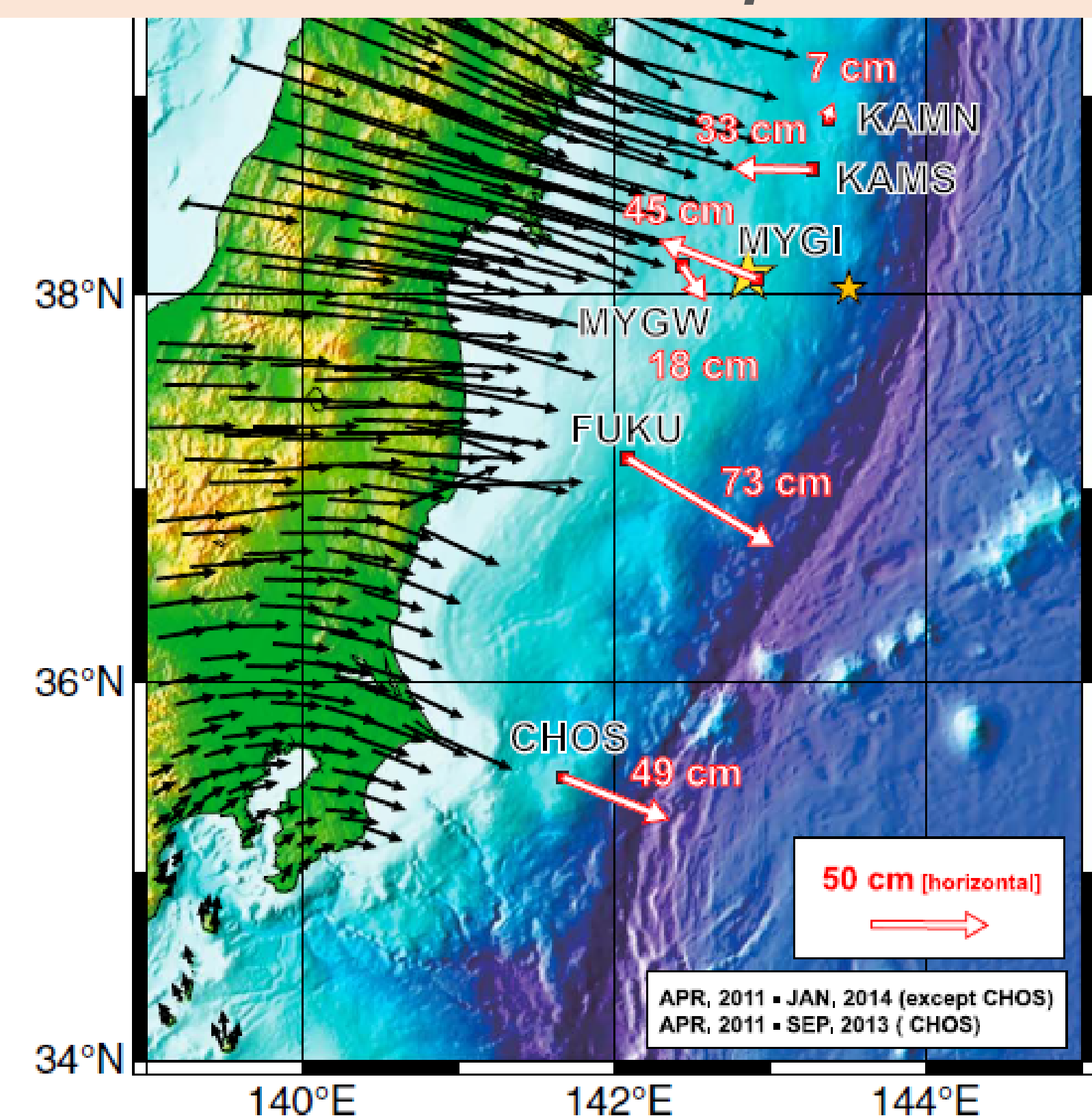
The 2011 Tohoku-oki earthquake

*Complex fluctuations were observed after the earthquake.
=> Viscoelastic behavior under the plate*

*Huge fluctuations were observed during the earthquake.
=> Cause of the huge tsunami*



Sato et al., 2011, Science



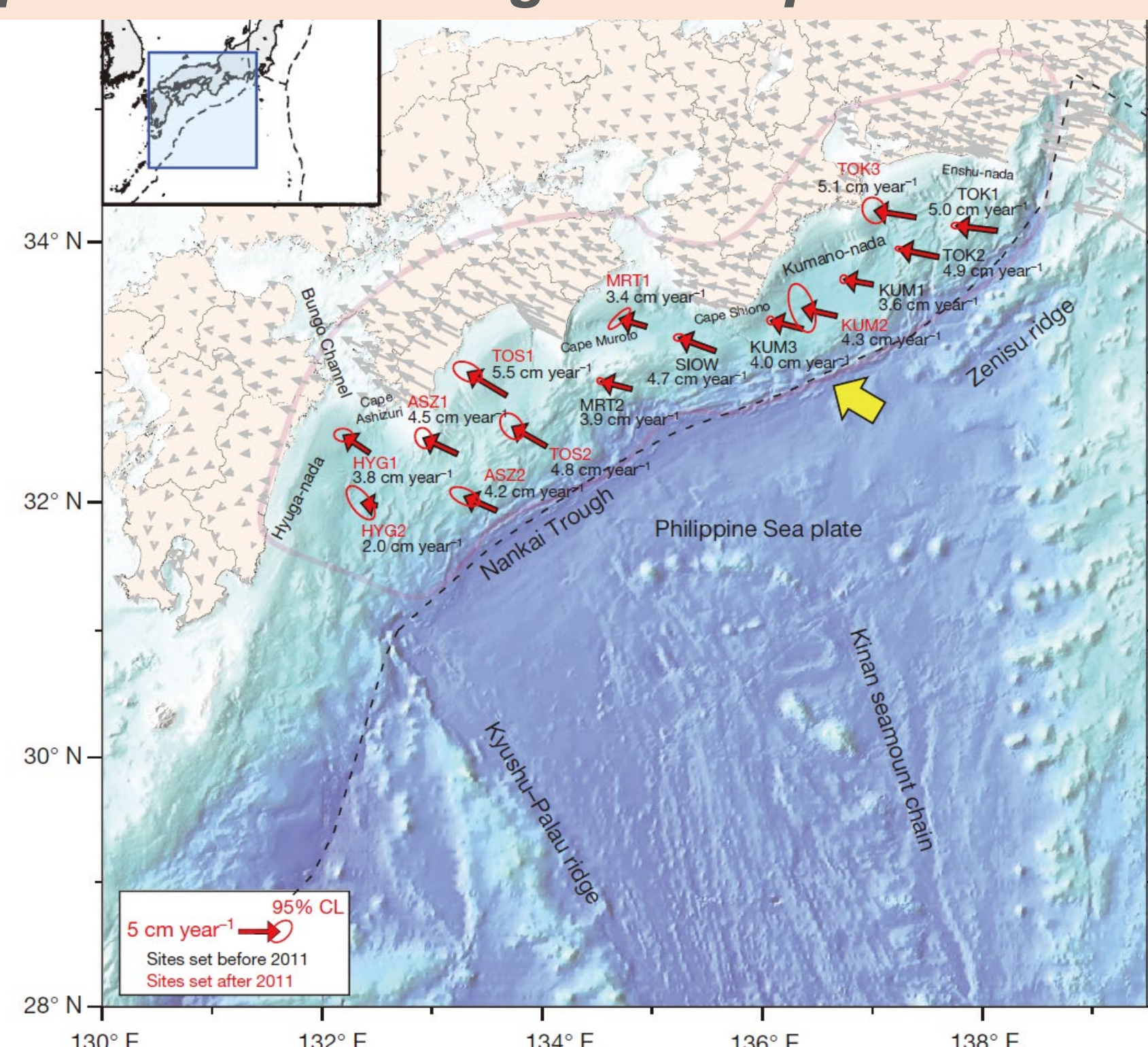
Watanabe et al., 2014, GRL

The Nankai Trough earthquake

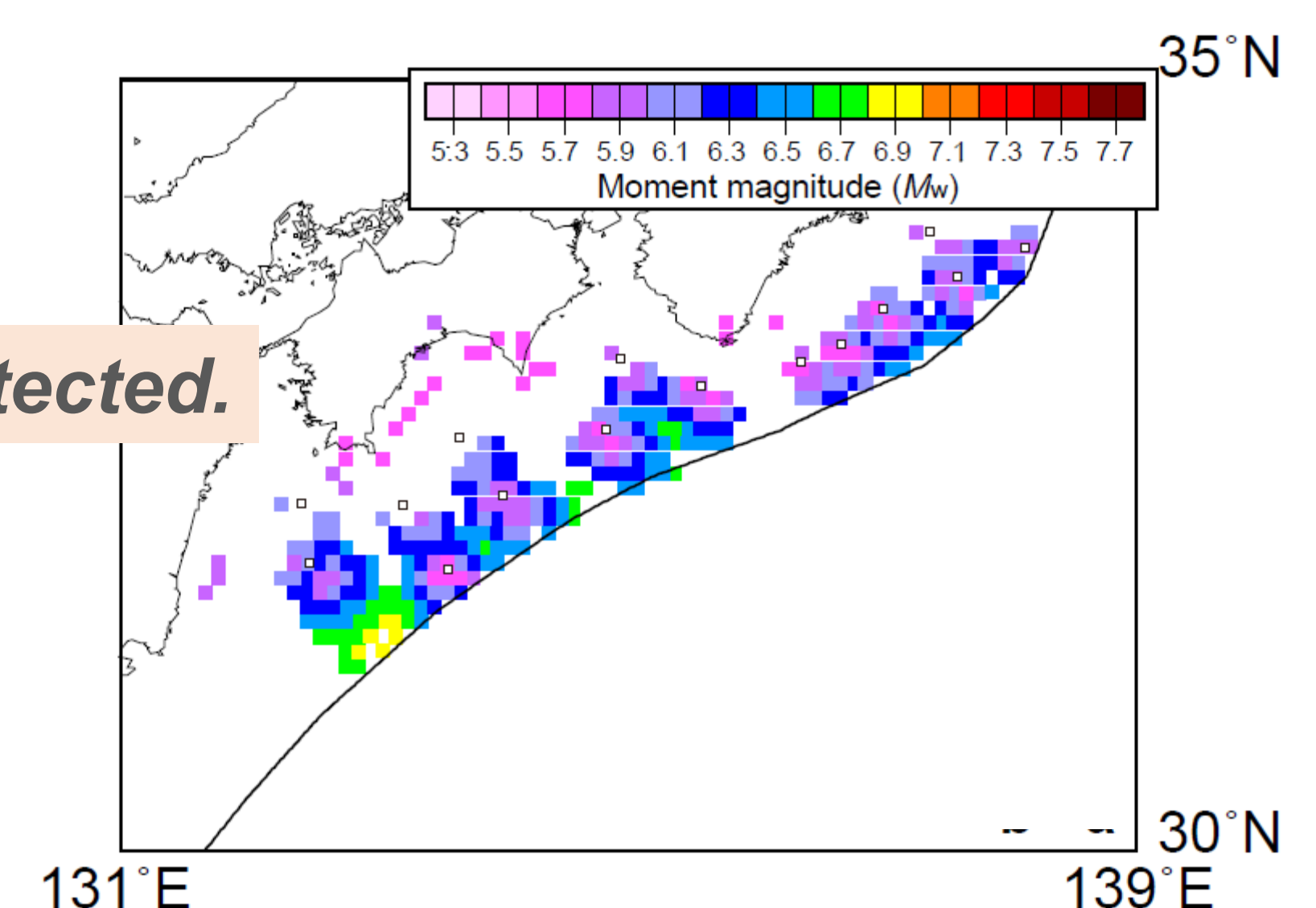
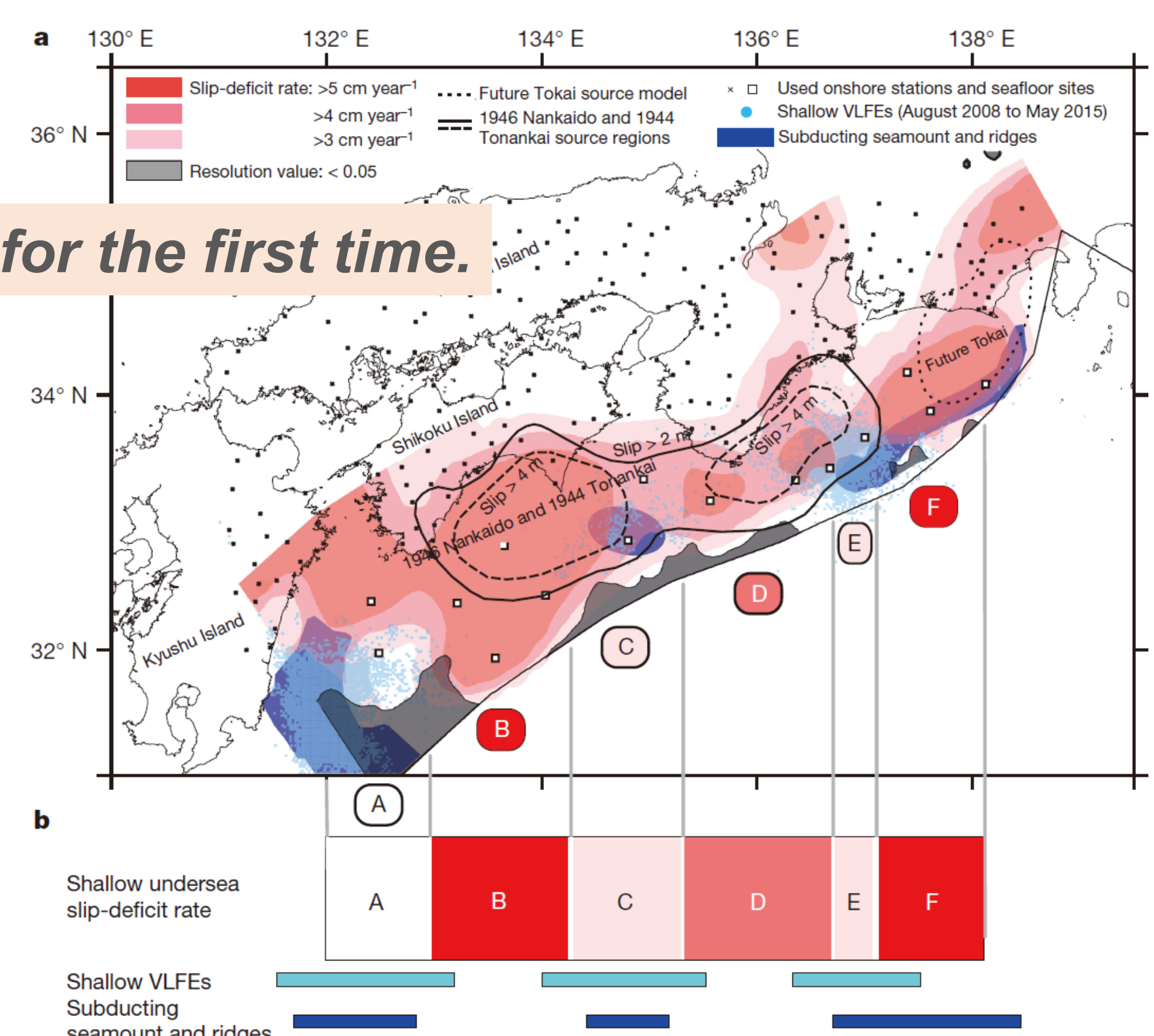
Yokota et al., 2016, Nature

There is a gap in the seafloor movement of the Nankai Trough.

The picture of the huge earthquake source area was elucidated for the first time.



As a result of high sensitivity, slow slip can now be detected.



Joint research with the Japan Coast Guard and others