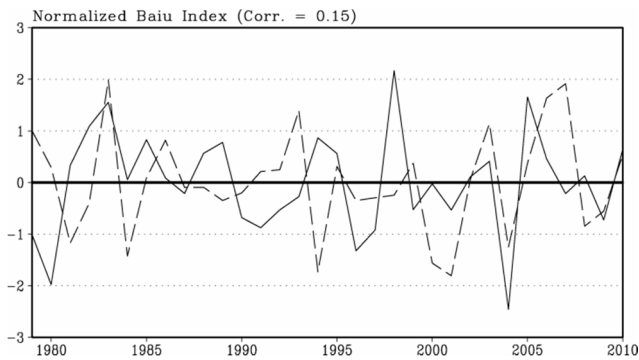


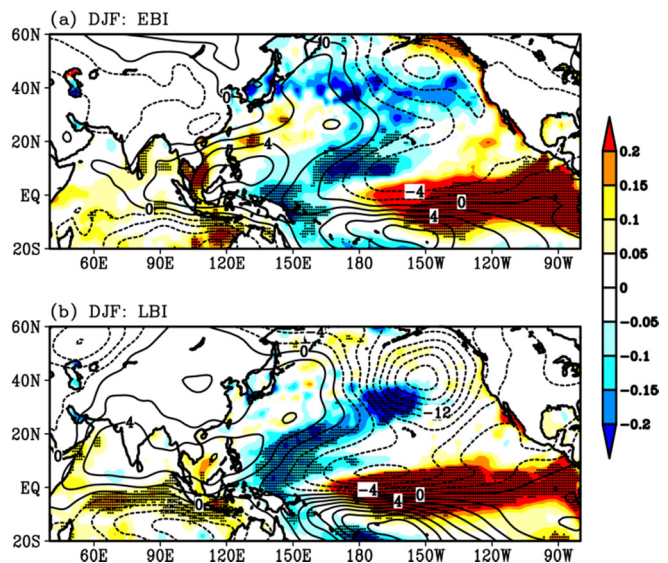
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<http://dx.doi.org/10.2151/jmsj.2014-403>



→ Figure 2. Regressions of SST (shading) and of stream function at 850 hPa (contours; $10^5 \text{ m}^2 \text{ s}^{-1}$) in the preceding winter (Dec–Feb) based on the (a) EB and (b) LB indices. The contour interval is $2 \times 10^5 \text{ m}^2 \text{ s}^{-1}$. Dots are put on the grids with statistical significance at the 10% level for the correlations of SST as a reference.

← Figure 1. Normalized time series of the early Baiu (EB; solid line) and late Baiu (LB; dashed line) precipitation indices. The ordinate indicates multiples of the standard deviation.



- The climatological atmospheric state near Japan is changed around late June, and the Baiu season can be divided into two by this change. The early period is from 26 May to 24 June (pentad 30–35), and the late period is from 25 June to 19 July (pentad 36–40). This division is related to the onset of the summer monsoon over the southwestern Philippine Sea with a specific meridional circulation referred to as the Pacific–Japan pattern.
- The interannual variability of Baiu precipitation is different between the two periods (Fig. 1). The Pacific–East Asian teleconnection controls the interannual variability in the early Baiu period, while the Indian Ocean capacitor adjusts the variability in the later one. Both of them follow the preceding wintertime El Niño/Southern Oscillation (ENSO) with different oceanic and atmospheric anomalies, especially in the tropical Indian Ocean (Fig. 2).
- The decay process of the ENSO induces the interannual variability of the Baiu precipitation. The positive sea surface temperature anomalies (SSTAs) in the central–eastern equatorial Pacific are common between the two processes in the previous winter (Fig. 2). However, the teleconnection to the Indian Ocean and the detailed distribution of SSTAs in the tropical Pacific are different in the following spring, leading to a weak and insignificant correlation between the EB and LB indices (Fig. 1). These differences have potential to lead more accurate prediction of the interannual tendency in the Baiu precipitation.