

## 北太平洋ジャイア振動と冬の北半球成層圏

## The North Pacific Gyre Oscillation and northern hemisphere stratosphere in winter

\*山崎 孝治<sup>1</sup>、中村 哲<sup>1</sup>、星 一平<sup>2</sup>

\*Koji Yamazaki<sup>1</sup>, Tetsu Nakamura<sup>1</sup>, Kazuhira Hoshi<sup>2</sup>

1. 北海道大学、2. 新潟大学

1. Hokkaido University, 2. Niigata University

The North Pacific Gyre Oscillation (NPGO) is the 2nd EOF mode of northeast Pacific sea surface temperature/sea surface height. The NPGO is associated with the atmospheric dipole pattern named North Pacific Oscillation. The relationship between the NPGO and the winter stratospheric circulation is examined by using the ERAinterim reanalysis dataset from 1979 to 2016. It is found that the winter polar vortex in the Arctic stratosphere is weak in the positive NPGO years, in particular in December. The major sudden stratospheric warming (SSW) before early January only occurs in the positive NPGO years. Moreover, the SSWs in the positive NPGO years show both wavenumber 1 and 2 signatures and propagate to the troposphere, while those in the negative NPGO years show only wavenumber 1 signature and do not propagate to the troposphere.

キーワード：北太平洋ジャイア振動、極渦、成層圏突然昇温、成層圏-対流圏結合、北太平洋振動

Keywords: North Pacific Gyre Oscillation, polar vortex, sudden stratospheric warming, stratosphere-troposphere coupling, North Pacific Oscillation