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Population fluctuation of the Northwestern Pacific stock of Japanese anchovy

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Stock assessment for the Japanese anchovy (*Engraulis japonicus*) in the northwestern Pacific was conducted based on VPA, considering the spawning stock biomass (SSB) estimated by the annual egg production method (AEPM), because of the limited fishing grounds compared to their broad distribution areas. Total landing of the Japanese anchovy was 401×10^3 metric tons and one-year old fish dominated more than 86% in weight in 2004. The SSB estimated by the AEPM varied annually and was $1,828 \times 10^3$ metric tons in 2004. However, the long-term trends of SSB were similar to those of the VPA estimates. Thus, the results of VPA were adopted and the estimated stock biomass was $1,244 \times 10^3$ metric tons at the beginning of 2004. From the historical datasets, the current stock status is still at the high level during recent 20 years, although the recruitment was smallest in 2004 among recent 4 years.

Keywords: Stock assessment, Japanese anchovy, *Engraulis japonicus*, AEPM, SSB