

西南大西洋阿根廷魷在不同資源豐度下之成長型態

陳志忻 1*、陳靜瑜 1、丘臺生 2

1.國立臺灣海洋大學海洋事務與資源管理研究所

2.國立臺灣大學生命科學系

阿根廷魷分布於西南大西洋水域，為全球重要的頭足類漁業資源之一。短生命週期物種之資源量與分布，通常呈明顯年間變異，但此變動與成長型態之關係則尚不清楚。本研究分析阿根廷魷在不同資源豐度狀態下之族群成長型態。相對於長期平均下，擇出高(1999 及 2007 年)、低(2004 及 2010 年)，及一般豐度年(2001 年及 2013 年)。週別體長頻度分布由漁獲量重量組成轉換，並套適 Logistic 曲線。結果顯示在高及低豐度年阿根廷魷之族群成長較快，且低豐度年之體型變異較大。阿根廷魷之族群成長型態可能一定程度反映其資源豐度狀態。

關鍵字：阿根廷魷、資源豐度、成長型態、西南大西洋。

E-mail: cschen@mail.ntou.edu.tw

Growth pattern of *Illex argentinus* in the Southwest Atlantic under different abundance condition

Chih-Shin Chen1*, Jing-Yu Chen1, Tai-Sheng Chiu2

1. Institute of Marine Affairs and Resource Management, National Taiwan Ocean University

2. Department of Life Science, National Taiwan University

Illex argentinus distributes in the Southwest Atlantic and is one of the world's important cephalopod resources. Abundance and distribution of short-lived species usually present wide annual variation, while relationship between such variation and population growth pattern is not clear. This study examined the population growth pattern of *I. argentinus* under different abundance condition. The years of high- (1999 and 2007), low- (2004 and 2010) and normal-abundance (2001 and 2013) were selected relative to long-term average abundance. Weekly length frequency distribution, which were transformed from catch in weight data, were fitted to a Logistic curve. The results showed that population growth of squids in high- and low-abundance years were faster than those in normal-abundance years, and great variation were found in low-abundance years. The population growth pattern of the squid might be influenced by the abundance condition.

Key words: *Illex argentinus*, abundance, growth pattern, SW Atlantic.

E-mail: cschen@mail.ntou.edu.tw