# スピッツベルゲン島ニーオルスン日本基地北側斜面における 2003 年から 2012 年のコケ生息性ピシウム菌の種構成と分離頻度の変化

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# Population changes of moss inhabiting *Pythium* at the north side cliff of Japanese Ny-Ålesund observatory, Spitsbergen Island, Norway from 2003 to 2012

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Mosses play an important role as primary producer in Polar Regions. *Pythium* spp., known as soilborne plant pathogens, have an indigenously habitat in moss colonies in Spitsbergen Island, Norway. In our preliminary observation we assumed that they actively attack mosses (Hoshino et al. 1999, Tojo et al. 2012). The purpose of this study was to clarify population changes of *Pythium* spp. in moss on the Island. Changes of population and species construction of moss inhabiting fungi were investigated in summer seasons from 2003 to 2012 at the north side cliff of Japanese Ny-Ålesund observatory (78° 55′ 47″ N, 11° 52′ 08″ E), Spitsbergen Island, Norway. Identification of the *Pythium* spp. were based on sequences of the internal transcribed spacer (ITS) of the ribosomal DNA and morphological and growth rate studies. Five of the six *Pythium* species, categorized as *Pythium*. sp. 1, sp. 2 (= *Pythium polare*), sp. 3, sp. 4, sp. 5, sp. 6 in previous study, have been isolated from moss colonies. Their total population was increased during 2003 to 2012, but patterns of population change was different among the six *Pythium* spp.

極地においてコケ類は植生の主要な位置を占めている。*Pythium* 属菌は極地のコケに普遍的に生息する卵菌類であり、コケ類に感染するため、その生存に影響を及ぼしている可能性がある（Hoshino et al. 1999, Tojo et al. 2012）。そこで、ノルウェー領スピッツベルゲン島ニーオルスン日本基地の北側斜面のカギハイゴケ群落に生息する *Pythium* 属菌の分離頻度と種構成の変化について 2003, 2004, 2005, 2006, 2008, 2010 および 2012 年の夏季に調査した。*Pythium* 属菌は素寒天培地や同属菌の選択分離培地を用いて分離した。同定は培養形態と菌糸生育温度および rDNA-ITS 領域の塩基配列に基づいて行なった。その結果、これまでの調査 (2003~2010 年) で生息が確認されている種レベルで互いに異なる低温生育性の 6 つの *Pythium* 属菌の菌株群のうち筆者らが記載した *Pythium polare* を含む 5 つが認められた。ここでは 2003 年から 2012 年におけるこれらの分離頻度の年次変化を菌種ごとに報告する。

**References**

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