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## Phylogenetic analysis of myxosporean detected from emaciated olive flounder, Paralichthys olivaceus in Korea

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This study, phylogenetic classification was performed by analyzing sequences of the produced SSU rDNA and LSU rDNA primers from the sequences of myxosporean parasites obtained from GenBank (NCBI, USA). The myxosporean was confirmed morphologically. Morphological identification of the microscopic inspection of the fish species suffering from emaciation demonstrated two forms of spore, the first of which was observed to be 16-18 µm long and 4-5 µm wide with two complete polar capsules arranged parallel, anti-parallel or gathered to one side. The other form had smaller spores 5-8 µm in long and 7-9 µm wide. The second spore form had a single polar capsule and was lacked the second polar capsule observed in the first spore form. These spores were morphologically similar to *Parvicapsula anisocaudata* and *Parvicapsula pseudobranchicola* n. sp. that identified in olive flounder farms of Korea. Small subunit ribosomal DNA and large subunit ribosomal DNA primers were selected according to the base sequences of myxosporean parasites, whose data were obtained from GenBank (NCBI, USA) to confirm the cause of local emaciation disease in Korea. According to phylogenetic analysis, four spores isolated from rotten olive flounder were found to belong to *Parvicapsula* sp. and showed genetic homology of 99.70~99.76%. In addition, gene comparative analysis using GenBank database demonstrated that *P. petuniae* had a 92% homology in 18S rRNA region. The cause of emaciation disease in olive flounder that occurred domestically has been identified as *Parvicapsula* sp. through morphological and phylogenetic analysis.

## **Biography**

Lyu Jin Jun has completed his PhD from Pukyong National University and Postdoctoral studies from Jeju National University of Marine Biomedical Science. Currently, she is working as a Researcher at Jeju National University. She studied various diseases of fishes and has published more than 10 papers in reputed journals.

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