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Report On The Occurrence of *Vibrio tapetis* in Korean Waters: Characterization and Its Impact On Clam Health

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Vibrio tapetis, a causative agent of brown ring disease (BRD), has been reported as the cause of mass mortality in the clam *Ruditapes philippinarum* and *R. decussatus* occurring on Atlantic coasts of France, Spain and England. In the present study, *V. tapetis* was isolated from the Manila clam *Ruditapes philippinarum* distributed on Anmyoendo Island, the west coast of Korea. *V. tapetis* grow at 4 and 18 °C but not at 30 °C. Fatty acid composition, amino acid composition and protein profile of *V. tapetis* were very similar to *V. tapetis* (NCIMB 13622). In addition, partial 16S rRNA gene sequences of *V. tapetis* showed 99.48–99.63% similarity to LP2 and 99.71–99.85 % similarity to CECT4600, respectively. These results suggest that *V. tapetis* isolated from the Manila clam in Korea is the same species or taxonomically close to *V. tapetis* reported from Europe. Prevalence of BRD in the present study area was 47% and most of the infected clams showed early phase of the infection (conchiolin deposit group I). Infection intensity of BRD was negatively correlated with condition index of clams ($p < 0.5$), suggesting that BRD has negative impacts on the host clams.