Changes in Halophilic and Halotolerant Microbial Flora during Fermentation of Squid *Shiokara*

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Squid *shiokara* is the most popular fermented seafood in Japan. Several studies have been carried out on the microbial roles during the ripening of *shiokara*. Previously we have studied on the microbial contribution on the ripening processes and concluded that microorganisms which appeared in *shiokara* played little role for the formation of free amino acids, while they were suggested to contribute to the formation of *shiokara* flavor.

In the present study, we attempted to investigate the common features of microbial flora in respect to halophilic and halotolerant microorganisms during the ripening of *shiokara*. Total 1,005 strains of bacteria were isolated from five lots of squid *shiokara* (10% NaCl), using both 2.5% and 10% NaCl medium, and were classified at genus/species level. While *Acinetobacter, Moraxella, Pseudomonas etc.* were dominant in the bacterial flora of the initial stage, *Staphylococcus* and *Micrococcus* became dominant in the later stages in three among five *shiokara* samples. Members of the genus *Staphylococcus* and *Micrococcus* occupied 60 and 26% of the total isolates, respectively. About 90% of these *Staphylococcus* were identified to either *S. warneri* or *S. haemolyticus*, while 86% of *Micrococcus* strains identified to *M. varians*. Studies on desirable roles during the *shiokara* fermentation of these dominant bacteria are now in progress.