

Sensory Evaluation and Lipid Analysis of Marlin *Kajikia audax* for Sashimi

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Identifying the sensory properties of fish consumers is important for providing their preferred seafood. The sensory preference for fish is affected by odor, flavor, texture, and appearance. Moreover, several compounds are involved with sensory preference. In this study, we focused on fats that enhance the intensity of umami and examined the lipid content preference in the marlin *Kajikia audax* sashimi. First, we compared the lipid contents and fatty acid compositions of marlin by different individual size and body parts. Furthermore, the preference for total, taste, texture, odor, and lipid content in marlin sashimi taken from different parts of the body with different amounts of lipid was investigated by the paired-preference method. We also evaluated the relationship between the lipid content preference and total, taste, texture, and odor preferences by the chi-square test. The lipid contents in the bigger-sized marlin were higher than that in the small-sized. In bigger-sized marlin dorsal parts, the lipid contents in the anterior parts were the higher than that in the posterior parts. No differences were observed in the fatty acid composition of different size and body parts. The lipid content preference for the anterior dorsal part (high lipid part) was higher than that for the posterior dorsal part (low lipid part). The lipid content preference was associated with total and taste preferences. Therefore, the lipid content was found to be associated with the preference for marlin sashimi.

Keywords: sensory preference, sashimi, lipid content