ABSTRAK

Teripang hidup menyebar secara global di perairan tropis, sub tropis sampai perairan dingin. Teripang segar, asap dan garam bernilai ekonomi tinggi dipasarkan sebagai bahan baku makanan dan industri. Proses pengolahan pasca panen teripang diduga dapat berpengaruh terhadap kandungan protein yang disusun oleh senyawa asam amino. Tujuan penelitian adalah menganalisis kandungan protein dan asam amino teripang hitam (*Holothuria atra* Jaeger 1833) segar, asap dan garam dari perairan Cilacap pada bulan September 2020-Maret 2021. Analisis protein dilakukan berdasarkan metode Kjeldahl dan analisis asam amino berdasarkan metode HPLC. Kandungan rataan protein teripang asap diperoleh lebih tinggi dibanding garam dan segar. Kandungan protein meningkat empat kali pada teripang digaram dan lima kali pada teripang diasap. Analisis asam amino diperoleh 17 senyawa dan kandungan asam amino tertinggi pada teripang segar, digaram dan diasap diperoleh pada senyawa asam amino yang sama yaitu asam glutamat, glisin dan asam aspartat. Konsentrasi kandungan rataan asam amino tertinggi diperoleh pada teripang diasap (3214,72 ppm), selanjutnya teripang digaram (2024,96 ppm) dan teripang segar (552 ppm). Uji beda kandungan protein dan pasangan asam amino yang sama pada teripang segar terhadap teripang diasap dan digaram diperoleh berbeda sangat nyata, dan teripang digaram terhadap teripang diasap diperoleh berbeda nyata, kecuali pasangan asam amino teripang digaram terhadap diasap pada glisin, treonin, arginin dan alanin yang tidak berbeda. Penanganan pasca panen penggaraman dan pengasapan meningkatkan kandungan protein dan asam amino teripang.

***Kata kunci** : teripang, protein, asam amino*

ABSTRACT

The existence of sea cucumbers spread globally in tropical, sub-tropical to cold waters. Fresh, smoked and salted sea cucumbers with high economic value are marketed as raw materials for food and industry. Post-harvest processing process of sea cucumbers can affect the protein content which is composed of amino acid compounds. The aim of the research was to analyze the protein and amino acid content of fresh black sea cucumbers (Holothuria atra Jaeger 1833), smoke and salt from Cilacap waters in September 2020-March 2021. Protein analysis was carried out based on the Kjeldahl method and amino acid analysis based on the HPLC method. The average protein content of smoked sea cucumbers was found to be higher than salted and fresh. The protein content was found increase four times in salted sea cucumbers and five times in smoked sea cucumbers. Amino acid analysis was obtained 17 compounds. The highest amino acid content for fresh, salted and smoked sea cucumbers was obtained the same amino acid compounds, namely glutamic acid, glycine and aspartic acid. The highest average concentration of amino acid was obtained in smoked sea cucumbers (3214,72 ppm), followed by salted sea cucumbers (2024,96 ppm) and fresh sea cucumbers (552 ppm). The difference in protein content and the same pair of amino acids for fresh sea cucumbers compared to smoked and salted sea cucumbers were found to be very significantly different, and salted sea cucumbers to smoked sea cucumbers were found to be significantly different, except for the amino acid pairs of salted sea cucumbers compared to smoked sea cucumbers for glycine, threonine, arginine and alanine which were no different. Post-harvest handling of salting and smoking increases the protein and amino acid content of sea cucumbers.

***Key words** : sea cucumber, protein, amino acid*