

Bioconcentration Analysis of Iodine Species in Seaweed (*Eucheuma cottonii*) from Maluku Marine as Alternative Food Source

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Abstract : Seaweed is a type of macro algae which are good source of iodine and have been widely used as food and nutrition supplement. One of iodine species that found in ocean plant is iodate. Analysis of iodate in seaweed (*Eucheuma cottonii*) from coastal area of Maluku has been done. The determination is done by using spectrophotometric method. Iodate in sample is reduced in excess of potassium iodide in the presence of acid solution, and then is reacted with starch to form blue complex. The study found out that the highest wavelength on determination of iodate species using spectrophotometer analysis method is 570 nm. Optimum value to yield maximum absorption is used in this research. Contents of iodate in seawater from coastal area of Ambon Island, Western Seram and Southeast Maluku are 0.2655, 0.2719 and 0.1760 mg/L, respectively. While in seaweeds from Ambon Island, Western Seram, Southeast Maluku-Taar, Ohoidertawun and Wab are 6.3122, 6.3293, 6.2333, 3.7406 and 4.4207 mg/kg in dry weight. Bioconcentration (enrichment) factor of iodate in seaweed (*Eucheuma cottonii*) from the three samples (cluster) is different; in Coastal area of Ambon Island, Western Seram and Southeast Maluku respectively are 23.78, 23.28 and 27.26.

Keywords : bioconcentration, eucheuma cottonii, iodate, iodine, seaweed

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