

## Biochemical composition of the Caspian Sea red macroalga, *Laurencia caspica*

**Neda Mehdipour**

Iranian National Institute for Oceanography and Atmospheric Science, Iran

### Abstract

*Laurencia caspica*, a marine macroalga species were analyzed to determine its proximate chemical composition. The investigated species demonstrated high carbohydrate ( $25.5A \pm 0.20$  % dry wt.) protein ( $22.22A \pm 0.4$  % dry wt.), Ash ( $26.82A \pm 0.31$  % dry wt.) and moisture components ( $12.00A \pm 0.23$  % dry wt.) and low lipid content ( $0.03A \pm 0.05$  % dry wt.). Glutamic acid ( $192.24A \pm 1.4$  mg 100g<sup>-1</sup> dry wt.) and Aspartic acid ( $160.77A \pm 1.1$  mg 100g<sup>-1</sup> dry wt.) were the most abundant free amino acids, while Histidine ( $21.15A \pm 0.1$  mg 100g<sup>-1</sup> dry wt.) and Glycine ( $29.99A \pm 0.3$  mg 100g<sup>-1</sup> dry wt.) contents were the lowest in the free amino-acid profiles. All essential amino acids were detected in the species tested. Unsaturated fatty acid constituted about 64% of total fatty acids, mainly 8-Octadecenoic acid and saturated fatty acids represented 36% of the total fatty acids (mainly myristic acid). This study was conducted to create a nutritional data for *Laurencia caspica* in order to popularize its consumption and utilization in the southern coasts of the Caspian Sea.