618/E2

A new brominated sesquiterpene from a red alga *Laurencia hetroclada*

M H Haroon*, M I Choudhry, and H R W Dharmaratne
[1]*Natural Products Programme, Institute of Fundamental Studies, Kandy*
[2]*Faculty of Applied Sciences, South Eastern University of Sri Lanka, Oluvil*
[3]*H.E.J Research Institute of Chemistry, University of Karachi, Pakistan*

As a part of our continuing biochemical investigations on Sri Lankan flora, in this study we have examined the MeOH extract of *Laurencia hetroclada*, a red seaweed collected from Tangalle, Sri Lanka. The above extract which was subjected to column chromatography followed by PTLC gave a new compound (1) and three known compounds, algoane (2), cholesterol (3) and caulerpin (4).

The ^{13}C NMR spectrum and the DEPT experimental data revealed that the new compound comprised 15 carbon signals corresponding to four methyl, five methylene groups, one methine and five quaternary carbon atoms. The down field carbon atoms resonated at δ 133.6 and 135.2 were assigned to olefinic carbon atoms. The ^{1}H NMR spectrum of the unknown compound showed signals for four methyl groups, five methylene groups and a methine proton. The low field methine proton resonated at δ 4.71 (1H, dd, J = 4.6, 12.5 Hz) was supposed to be attached to a halogen bearing carbon atom. The positive CI MS of this compound showed its molecular ion peak at m/*z* 317 along with isotopic peak at *m/z* 319 corresponding to M +2, confirming the presence of a halogen atom. Therefore, the molecular formula of the unknown compound was deduced to be $C_{15}H_{25}O_2Br$ with three degree of unsaturation. Comparison of the NMR data of **1** with previously reported compound **2** from the same algal species indicated **1** and **2** to have comparable skeletons. Further studies suggested that **1** and **2** differ in substitution pattern of halogen and unsaturation. Considering above evidence, the structure of the new compound was proposed as 2β-bromo-1β-methyl-4-(1β,2,3-trimethyl-2-cyclopentenyl)cyclohexane-1α,4α-diol (1).