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Antibacterial Activity of Libyan Seaweed Extracts

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Abstract : Marine organisms are potentially prolific sources of highly bio active secondary metabolites that might represent useful leads in the development of new pharmaceutical agents. The Libyan marine biodiversity including macroalgae remains partially unexplored in term of their potential bio activities. The phytochemical analysis of the alcoholic extracts of some commonly occurring seaweed Cystoseira compressa, enteromorpha intestinals, corallina, and Ulva lactuca and their evaluated for antibacterial activity by well diffusion assay were studied. Four different solvents namely water, ethanol 99 %, methanol 99 %, and methylated spirit 95 % were used for extraction. The phytochemical analysis revealed the presence of carbohydrates, steroids, tannin & phenols, saponins, proteins, and glycosides. The extracts were subjected for study of antibacterial activity. The zone of inhibition ranged between 8 to 16 mm in aqueous extract and up to 16 mm in methanol extract. The maximum activity (16 mm) was recorded from methanol extract of Ulva lactuca against Staphylococcus aureus and, minimum activity (8mm) recorded by Cystoseira compressa against S. aureus.

Keywords : macroalgae, phytochemicals, antibacterial activity, methanolic extract
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