Bioactive Metabolites From Two Aquatic Plants of Bangladesh And Their Associated Endophytic Fungi

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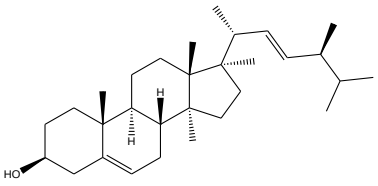
Abstract

There is a general call for new antibiotics and chemotherapeutic agents that are highly effective and possess low toxicity. Plants and microorganisms, being the major source of many drugs, have attracted scientists from ancient times. Endophytes provide an abundant reservoir of bioactive metabolites for medicinal exploitation, and an increasing number of novel compounds are being isolated from endophytic fungi. This study was conducted to characterize and explore the bioactive metabolites from two aquatic plants of Bangladesh namely *Monochoria hastata* (L.) Solms and *Aponogeton undulatus* Roxb. as well as their associated endophytic fungi. Extracts from the plants and endophytic fungi were screened for bioactivities followed by isolation and characterization of the active constituents by various chromatographic and spectroscopic methods.

Preliminary screening of crude extracts from plants and endophytic fungi showed significant bioactivities and revealed the presence of interesting metabolites (1,2,3,4,5 and 6).



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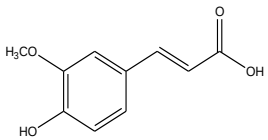

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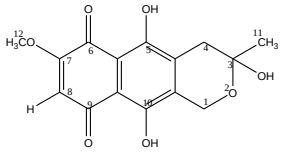

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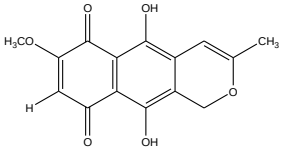

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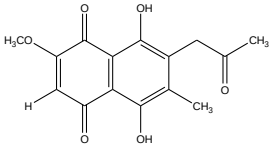

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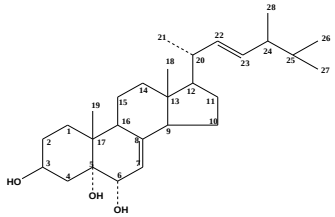

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Biography

Nargis Sultana Chowdhury is a PhD student of pharmacy department of Jahangirnagar University and Doctoral fellow of Bangladesh Council of Scientific and Industrial Research (BCSIR) Laboratories, Dhaka, Bangladesh. Chowdhury received her B.Pharm and M.Pharm degree from Jahangirnagar University, Dhaka, Bangladesh. Her primary research interests are in the field of natural products. She has published more than 15 papers in reputed international and national journals. She is working as an assistant professor in Manarat International University in the department of pharmacy, Dhaka, Bangladesh.