

Role of aquatic and semi-aquatic plant in the treatment of infectious diseases.

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Abstract

Infectious diseases are responsible for morbidity all over India various parasites are responsible for such infectious diseases. The causal organisms of such diseases are Bacteria, viruses, protozoans, and helminthiasis. In recent past few years' infectious diseases are increased due to parasite infections. Hydrophyte herbs can be used to healing for such types of problems because some aquatic and semi-aquatic herbs are noted to have medicinal properties for a treat and curing such types of parasitic infections and infectious diseases. Because synthetic and chemical drugs are harmful to their side effect and continue using and take of such types of synthetic drugs can lead to serious issues and problems so we can move to utilize our natural resources in any form. This article revises the role of Aquatic and semi-aquatic plant as Natural drugs in the treatment of some infectious diseases and also explore the area of utilizing Aquatic and semi-aquatic plant in the form of medicine.

Keywords: Eclipta prostrata, Medicinal herb, Aquatic plant, Infectious disease.

Introduction

Like Terrestrial plants aquatic and semi-aquatic plants also place a significant ecological role as primary producers, on the other hand, these plants or aquatic Flora have a remarkable role in the aquatic ecosystem. When we are going to explore such aquatic herbs and flora we will see a lot of beneficial performance of them. Aquatic plants are extensively used for various purposes like food, fodder, fibers, edible aspect, ethano-medicinal use, and various other economic importance's [1]. Many hydro file plant species have been reported as traditional medicine and used in phytoremedies. The plants are recorded from the Tarai region of Kumaon Himalaya, Uttarakhand. The Tarai region of Kumaun Himalaya shows a greater diversity of hydrophytic plants. A year-round survey was conducted to collect these plants and explore their medicinal benefit. U.S. Nagar, Uttarakhand, India is taken as a Study area [2].

Various ponds, rivers, Taal, Sagar and various rice crop fields are the selected site for the plant sample collection. After the collection of plant samples, their medicinal characteristics are analysed, a few plants like *Alternanthera philoxeroides*, *Polygonum glabrum*, *Hydrilla verticillata*, *Pistia stratiotes* and *Eclipta prostrata* are used in various infectious diseases [3]. *Alternanthera philoxeroides* also known as alligator weed belong to the *Amaranthaceae* family. It is an aquatic perennial prostrate herb weed. *Alternanthera philoxeroides* are the dietary requirement of humans to supplement food with zinc and iron. All parts of the plant are used for medicinal purposes for Jaundice infection, skin disease and infectious diseases like

a cough. *Polygonum glabrum* is a semi-aquatic plant mostly present in the North India region. It is an annual glabrous herb with light red lanceolate leaves it belongs to the Polygonaceae family. The inflorescence is small and Racemose pink or white in color. Their roots are used in Snakebite, jaundice and piles treatment, and leaves are used for the cure of infectious Malaria diseases. *Pistia stratiotes* is a free-floating stoloniferous aquatic weed with sessile leaves. Flowers are minute and creamy white in color. Leaves are antiseptic used in ulcers, urinary disorders piles, and skin diseases. Ashes of the leaves are used to treat ringworm which is an infectious disease of Trichoderma fungus. *Hydrilla verticillata* is belong to the *Hydrocharitaceae* family [4]. The plant is the cylinder, submerged herb full roots and turion. Leaves are small in size and present in the whorl. This plant shows various benefits effect in the aquatic ecosystem for food and fodder for aquatic organisms. It is helpful in digestion, blood circulation, cardiovascular infection and various types of antibacterial activities. *Eclipta prostrata* belongs to the *Asteraceae* family. It is diffuse her found near various freshwater bodies like edges of pools and rice fields. The full plant is remarkably used to treat various skin diseases, jaundice, anemia, dental diseases, inflammation and disease of the ear, eye, liver and spleen. It is also used in hair fall and shows a beneficial effect on the cough recently in the medicinal research by reported the *Eclipta prostrata* is used against the promastigote form of *Leishmania donovani*. Authors are great full to Botany department of government postgraduate college Bajpur us Nagar, University Nainital for providing requirement. The

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Received: 28-Jun-2022, Manuscript No. AAPDDT-22-70451; Editor assigned: 30-Jun-2022, PreQC No. AAPDDT-22-70451(PQ); Reviewed: 14-Jul-2022, QC No. AAPDDT-22-70451; Revised: 19-Jul-2022, Manuscript No. AAPDDT-22-70451(R); Published: 26-Jul-2022, DOI:10.35841/aapddt-7.4.118

Citation: Kumar R, Srivastava N. Role of aquatic and semi-aquatic plant in the treatment of infectious diseases. *J Parasit Dis Diagn Ther Med.* 2022;7(4):118

authors acknowledge to help us to study herbal medicines and for his support. The present work is useful for future Medical Research work to enhance the knowledge in the field of Aquatic medicinal herbs [5].

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