

Research Progress on the Dual-medicinal and Ecological Benefits of Seabuckthorn (*Hippophae Rhamnoides L*): An Overview

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Abstract—*Seabuckthorn (Hippophae rhamnoides L., Elaeagnaceae) is an economically and ecologically important dioecious shrub. The plant is indigenous to Asia and Europe and in India; it is confined to the trans-Himalayan region. Seabuckthorn is known to be used by folk medical practitioners since 8th century for various ethnomedicinal benefits. All parts of the plant are considered to be reservoir of an array of bioactive substances. Female plant produces berries that are rich in vitamin C which is higher than amla while the male plant does not produce any berries. Whereas both the sex produces silvery green leaves which are rich in important secondary metabolites. Besides being a health promising crop, owing to the robust growth in its root system, ability to fix atmospheric nitrogen by symbiotic bacteria “Frankia” and thorny in nature, SBT is planted to prevent soil erosion, to maintain soil fertility and for biofencing thus have an ecological importance too. Cultivation of SBT on 2500 ha would fetch a net income of Rs 491 crore (USD 72 million) annually. However, currently in India, the domestic and industrial demand is largely met through harvesting the plant from natural habitat that varies in quality and quantity of active compounds further it may reduce the availability of plants in nature. Therefore, extensive study on Seabuckthorn is needed in order to fulfill the increasing medicinal and ecological demand of this elite plant. Our study will provide an overview of research progress taken to evaluate the medicinal property and ecological benefits with an aim to enhance the future study in Seabuckthorn.*

Keywords: *Seabuckthorn, active compounds, ecological use.*