

ABSTRACT

Hippophae salicifolia D. Don or Sea buckthorn is one species that has great potential for improving ecological and economic developments in the mountain areas of North Sikkim. The plant is found naturally at altitudes ranging from 2,377 to 3,093 m. in riverine (riverside or torrential side) and non-riverine (non river or non torrential side) areas where geo-physico-chemical parameters like aerial temperature, aerial moisture, soil pH, soil temperature, and soil moisture varied significantly. We analyzed ecological parameters and species association using standard quadrates. Actinorhizal plants invade nitrogen-poor soils because of their ability to form root nodule symbioses with N₂-fixing actinomycetes known as Frankia. Variation in nodulation with respect to plant height was also observed. This was higher in riverine areas compared to non riverine sites at higher altitudes.

**Keywords H. salicifolia . Ecological factor .
Temperate forest . Subalpine forest . Riverine . Non-riverine .
Torrential . Frankia . Sea buckthorn**