Up Rope

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Lichens: A Climber's Eye View

By Selma Hanel

I began to collect lichens before I began to climb rocks, but not until I spent many sunny days on clifs and belay ledges did I begin to notice the favorite habitat of individual species. Usually without going off route it is possible to make a preliminary identification--for example, is that brown foliose lichen tan underneath or the much more uncommon jet black? And, I must admit, I have wondered why lichens must obscure the essential nubbins needed to climb. Though some may find them a nuisance, they are not as startling as pigeons, and in their unobtrusive nature have many intriguing qualities which I thought might interest other climbers who have also noticed them.

Lichens grow on rocks, trees and soil. They have been found growing on weevils and Galapagos turtles. They are pea green, bright red or just grey. After a rain they become brilliant in color. Many species had already been described by 1867 when the Swiss botanist Simon Schwedener discovered the apparent symbiosis between algae and the fungi. Since then, lichenologists and lichen lovers, including Beatrix Potter, have studied them. (Because it was not permitted for women to be scientists at that time, she devoted her lifeto managing a farm and to writing children's books.)

Lichens are cryptograms, lower plants including algae, fungi and mosses. They are composed of green algae or cyanobacteria and fungal threads primarily from the sac fungi (Ascomecytes). Technically, they are fungi, although it is the fungus which is a controlled parasite of the alfa. The alga found in lichens can grow independently of the fungus; the fungus has not yet been found to exist by itself. The symbiotic relationship is unusual in that the plant form, called the thallus, resembles neither algae nor fungi. Instead, it can be recognized as being one of three major types: foliose, fruticose or crustose.