Project Update: November 2010

The sampling was done by laying 50 x 10m transects at proposed sites. The lichen communities were searched along transects distributed in different types of vegetation. We recorded climatic factors like light intensity, temperature, humidity, rainfall and altitude of all the habitats and also recorded the host specificity of the lichens. The species abundance and species richness will be determined. In the present collection, corticolous lichens dominated and terrricolous were less prevalent - details given in Fig 1. A different group of algal species were support for lichen formation in the identified lichen species (Fig 2).

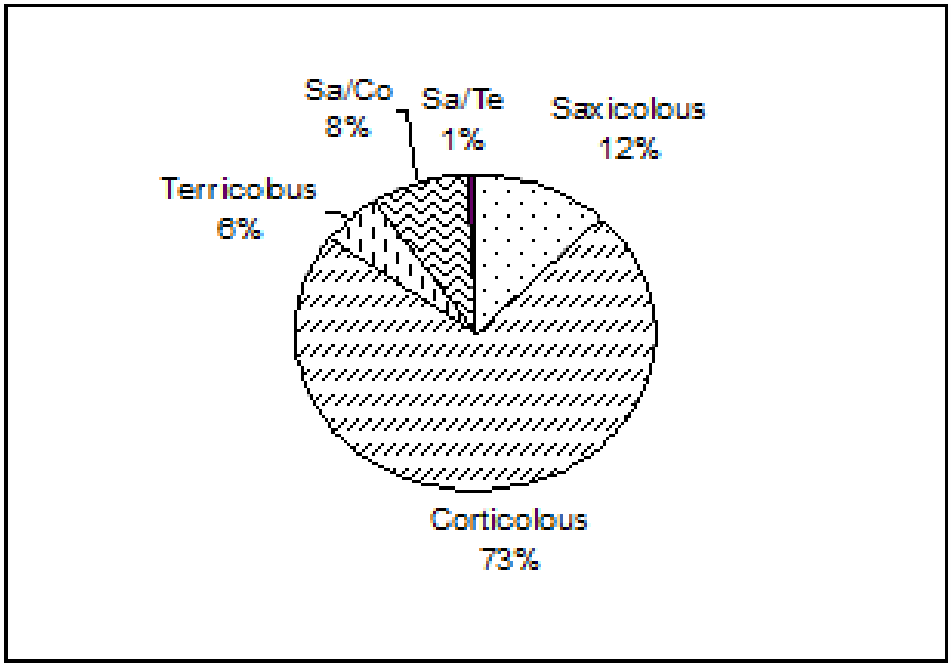

Fig 1: Percent of lichens which were growing on different substrates

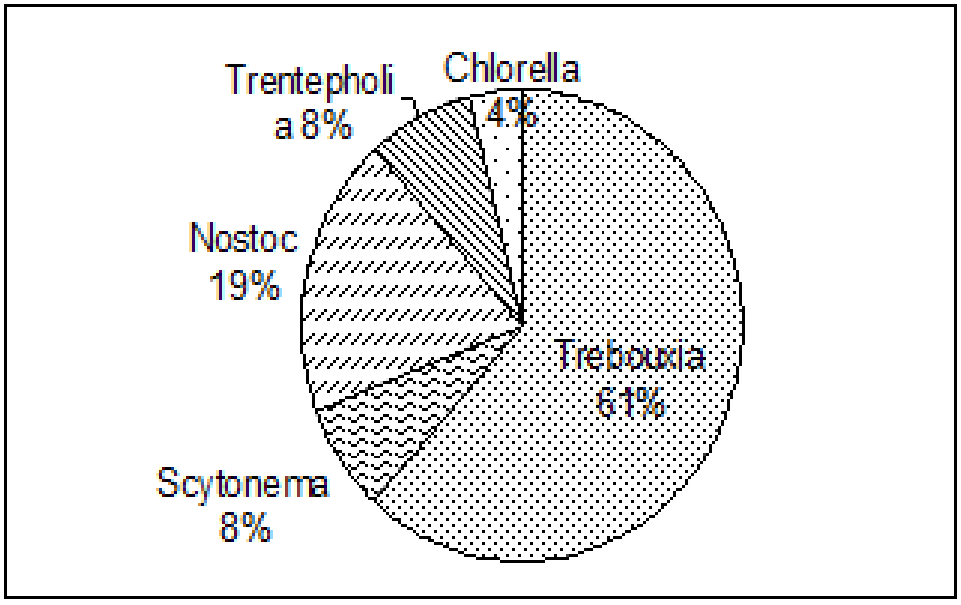

Fig 2: Chart showing association of different groups of algae in lichen formation in the identified lichen species.

Table 1: Association of some algal species in lichens

Sl. No.	Lichen genus	Algal partner
1	*Bulbothrix*	*Trebouxia*
2	*Caloplaca*	*Pseudotrebouxia*
3	*Canoparmelia*	*Trebouxia*
4	*Candelaria*	*Trebouxia*
5	*Cladonia*	*Pseudotrebouxia*
6	*Coccocarpia*	*Scytonema*
7	*Collema*	*Nostoc*
8	*Dirinaria*	*Trentepholia*
9	*Endocarpon*	*Trebouxia*
10	*Everniastrum*	*Trebouxia*
11	*Evernia*	*Trebouxia*
12	*Flavopunctelia*	*Trebouxia*
13	*Heterodermia*	*Trebouxia*
14	*Hypotrachyna*	*Trebouxia*
15	*Lepraria*	*Stichococcus*
16	*Lecanora*	*Trebouxia*
17	*Leptogium*	*Nostoc*
18	*Lobaria*	*Myrmecia*
19	*Nephroma*	*Nostoc*
20	*Parmeliella*	*Scytonema*
21	*Parmotrema*	*Trebouxia*
22	*Peltigera*	*Coccomyxa*
23	*Peltula*	*Nostoc*
24	*Physciea*	*Trebouxia*
25	*Phaeophyscia*	*Trebouxia*
26	*Physma*	*Nostoc*
27	*Pseudocyphellaria*	*Chlorella*
28	*Pyxine*	*Nostoc*
29	*Ramalina*	*Trebouxia*
30	*Rimelia*	*Trebouxia*
31	*Roccella*	*Trentepholia*
32	*Sticta*	*Myrmecia*
33	*Usnea*	*Trebouxia*
34	*Xantoria*	*Trebouxia*

Microhabitat preference of particular lichens is responsible for their differential distribution. However, in spite of their abundance in the vegetation only a small fraction of trees actually harboured lichens on trunk. Many of these trees have bark, which is somewhat smooth, medium and rough in texture. We studied the texture, pH and moisture content of barks of different host trees in different forest types.

Table 2: Showing bark texture, moisture, pH and number of colonies on different host tree species in deciduous forest.

Sl. No.	Host tree	Bark texture	Bark moisture	Bark pH	No of colonies	Dominant genera
1	*Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guill. and Perr.	Smooth	17.4	4.9	2	-
2	*Bauhinia malabarica* Roxb.	Moderate	21.2	5.5	9	*Parmotrema*
3	*Butea monosperma* (Lam.) Taub.	Moderate	12.9	5.5	5	-
4	*Canthium* sp.	Moderate	12	6.8	12	-
5	*Cassia siamea* Lamk.	Rough	11.5	5.5	11	*Heterodermia*
6	*Cassine glauca* (Rottb.) Kuntze	Rough	9.6	4.8	14	*Parmotrema* and *Pyxine*
7	*Dalbergia latifolia* Roxb.	Moderate	21	5.6	9	*Parmotrema*
8	*Delonix regia* (Bojer ex Hook.) Raf.	Moderate	18	5.4	8	*Parmotrema*
9	*Diospyros melanoxylon* Roxb.	Very Rough	14.6	6.4	17	*Pyxine* and *Dirinaria*
10	*Diospyros montana* Roxb.	Rough	11.6	6.5	12	*Pyxine*
11	*Ficus racemosa* L.	Moderate	23.7	5.7	14	*Parmotrema*
12	*Grewia tilifolia* Vahl.	Rough	9.8	6.1	10	*Pyxine*
13	*Lagerstroemia microcarpa* Wight	Smooth	18.3	4.9	4	-
14	*Maduca latifolia* (Roxb.) Macbride	Moderate	16.4	6.4	9	-
15	*Polyalthia cerasoides* (Roxb.) Bedd.	Rough	13.4	6.3	15	*Parmotrema*
16	*Polyalthia longifolia* (Sonn.) Thw.	Moderate	17.3	6.1	13	*Drineria*
17	*Pterocarpus marsupium* Roxb.	Rough	20.2	6.2	12	-
18	*Radermachera xylocarpa* (Roxb.) K. Schum.	Moderate	15.3	5.7	11	-
19	*Randia dumetorum* (Retz.) Poir.	Moderate	15.4	6.1	19	*Parmotrema*
20	*Santalum album* L.	Moderate	17	5.9	12	*Ramalina*
21	*Schefflera oleosa* (Lour.) Oken.	Rough	12.8	5.6	10	-
22	*Syzygium cumini* (L.) Skeels	Rough	16.2	4.8	7	*Parmotrema*
23	*Tectona grandis* L. f.	Rough	12.8	4.6	6	*Hetrodremia*
24	*Terminalia bellirica* (Gaertn.) Roxb.	Moderate	14.7	4.8	6	-
25	*Terminalia paniculata* Roth	Rough	13.8	5.6	15	*Parnotrema*
26	*Terminalia tomentosa* (Roxb. ex DC.) Wight and Arn.	Very Rough	15	5.8	8	-
27	*Wrighitia tomentosa* Roem. And Sch.	Moderate	15.3	5.1	12	-
28	*Xylia xylocarpa* (Roxb.) Taub.	Rough	14.3	5.1	10	*Ramalina*
29	*Ziziphus xylopyrus* (Retz.) Willd.	Moderate	9.8	5.8	9	*Bulbothrix*
30	*Ziziphus rugosa* Lam.	Rough	18.5	5.1	11	*Heterodermia*