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Distribution of Lobariaceae (a lichen family) within the Horton Plains National Park

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The lichen family Lobariaceae has four genera including *Dendriscocaulon*, *Lobaria*, *Pseudocyphellaria* and *Sticta* and 300 species occurring on various substrata. It is widely distributed in both temperate and tropical regions and especially well developed in rainforest biomes. In Sri Lanka, 7 species of *Lobaria*, 4 species of *Pseudocyphellaria*, 11 species of *Sticta* and none of the *Dendriscocaulon* have been recorded in the past. Lichens of family Lobariaceae are widely used as indicators of ecological continuity. The objective of this study is to investigate the diversity of family Lobariaceae in selected plots within the Horton Plains National Park (HPNP).

Lobariaceae flora found on bark of trees (dbh ≥ 5 cm) up to 2 m from the ground level in ten selected sites within the HPNP were studied. Data on each species composition, its abundance and frequency were noted in one third of the host trees present in each plot.

A total number of 396 specimens of Lobariaceae belonging to 3 genera and 27 species were identified. Out of them 4 species belonged to the genus *Lobaria*, 7 to *Pseudocyphellaria* and 16 to *Sticta*. There were no new records of *Lobaria,* however, 2 unidentified species were found. Four species of *Pseudocyphellaria* (*P. desfontainii, P. sayeri, P. beccarii* & *P. dissimilis*) were found to be new records to Sri Lanka. In the genus *Sticta*, 2 species (*S. duplolimbata* & *S. subtomentella*) were new records and 10 species were unidentified.

P. beccarii had the highest cover value (7365.40 cm^2), while *L. retigera* was the second highest (2915.65 cm^2). *Sticta sp.* 4 (unidentified) showed the lowest cover value (2.30 cm^2) for the study area. According to the frequency of lichens of Lobariaceae, genus *Sticta* and genus *Pseudocyphellaria* were the predominant genera, while genus *Lobaria* was the dominant. There were no genera found to be common, rare or very rare. However, in the specie level, *P. beccarii* and *P. intricate* were the dominant species of Lobariaceae. Also *Lobaria sp.* 1, *P. dissimilis*, *S. duplolimbata, S. subtomentella*, *Sticta sp.* 2,3,4,5,6,7 and 9 were found to be very rare. The presence of *P. beccarii* and *S. cyphellulata* in all the studied sites and the absence of genus *Dendriscocaulon* in all the sites were also observed.

The knowledge in diversity of family Lobariaceae will be useful in predicting the ecological continuity of the Horton Plains National Park.

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