

SOME PLANTS OF CHANDRAGIRI HILL ALONG THE TREKKING ROUTE, CENTRAL NEPAL

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Abstract

Nepal is land lock country with huge biological resources within the small boundary. As Nepal is now in Federal Democratic formation, and these resources could be utilized in different provinces for ultimate development of country. The study area comprises of Chandragiri hill in southwestern Kirtipur Municipality of Kathmandu district. The Chandragiri region has temperate type of climate at high altitude with the lower altitude of warm temperate semi tropical climate. This place is about 3 hours walk from Bista Gaon, Kirtipur. The species were noted down along the trail. This study compiles the vascular plant of Chadragiri Hill along the trekking route via Bista Gaon, Kirtipur. The vegetation was represented by 35 families with 68 taxa. Herbs were the dominated life form followed by shrub, trees, climber and twinner. Poaceae had both highest number of genera and species as well. The present study recommends for further detailed study.

Keywords: Federal Democratic, Land lock, Flora, Chandragiri

Introduction

Nepal is land lock country with huge biological resources within the small boundary (NBSAP 2014). As Nepal is now in Federal Democratic formation, and these resources could be utilized in different provinces for ultimate development of country. There has been very less study of flora of Nepal and finding more species is still a chance (Press et al., 2000). There are different trekking and hiking routes in surround Kathmandu valley, one of which is Chandragiri hill. It was one of the main route to Kathamandu valley for different people more than five decades ago (Kanai et al 1970).

This place is near to the Kirtipur city and have old trail for walking to the hill side, beside Cable Car has also been in work since few years. Despite Flora of Kathmandu valley covers plants of this hill, however, a series of vegetation survey on different places of central Nepal including the area of Chandragiri hill has been prepared by Baniya and Shakya (1999). Thus, this article has been written based on the plants observed in route to Chandragiri Hill from Kirtipur Bista Gaon.

Materials and Methods

The study area comprises of Chandragiri hill in southwestern Kirtipur Municipality of Kathmandu district. The Chandragiri region has temperate type of climate at high altitude with the lower altitude of warm temperate semi tropical climate. This place is about 3 hours walk from Bista Gaon, Kirtipur. The species were noted down along the trail. The plants identified were also verified by using relevant literatures (Polunin O. and Stainton A 1984). The information of plants were maintained in Microsoft Excel. It included the information scientific name, family name, life form and altitude.

Results

Total of 35 families and 69 taxa were observed and identified ranging from 1500 m asl to 2500 m asl. The highest taxa were of Poaceae and compositae (six each). Some of the families recorded were Acanthaceae, Amaranthaceae, Araceae, Berberidaceae, Caprifoliaceae, Commelinaceae, Compositae, Cuscutaceae, Cyperaceae, Dioscoraceae, Ericaceae, etc as in table 1.

Table 1 Different Plants

SN	Taxa	Family	Altitude (m)	Habit
1	<i>Justicia adhatoda</i> L.	Acanthaceae	1500	Shrub
2	<i>Strobilanthus wallichii</i> Nees	Acanthaceae	1600	Herb
3	<i>Achyranthus bidentata</i> Blude	Amaranthaceae	2100	Shrub
4	<i>Arisaema costatum</i> (Wall) Mart. ex Schott.	Araceae	1790	herb
5	<i>Ceropegia pubescens</i> Wall	Asclepiadaceae	2300	climber
6	<i>Berberis aristata</i> DC.	Berberidaceae	1760	Shrub
7	<i>Codonopsis viridis</i> Wall.	Campanulaceae	2340	climber

8	<i>Sambucus hookeri</i> Rehder	Caprifoliaceae	1600	shrub
9	<i>Viburnum coriaceum</i> Blume	Caprifoliaceae	2100	shrub
10	<i>Commelina palludosa</i> Blude	Commelinaceae	2100	herb
11	<i>Cynotis vaga</i> (Lour.) J.A. et J.H. Schulets	Commelinaceae	1700	herb
12	<i>Galinsoga parviflora</i> Cav.	Compositae	1500	herb
13	<i>Taraxacum officinale</i> Weber	Compositae	1760	herb
14	<i>Inula cappa</i> DC.	Compositae	1500	shrub
15	<i>Eupatorium adenophorum</i> Spreng.	Compositae	1500	herb
16	<i>Anaphalis triplinervis</i> (Sims.)	Compositae	1500	herb
17	<i>Aphalis busua</i> DC.	Compositae	1500	herb
18	<i>Cuscuta reflexa</i> Pl.	Cuscutaceae	2300	Twiner
19	<i>Mariscus sumatrensis</i> (Retz.) T. Koyama	Cyperaceae	2460	herb
20	<i>Carex setigera</i> D. Don	Cyperaceae	2410	herb
21	<i>Fimbristylis complanata</i>	Cyperaceae	2350	herb
22	<i>Dioscorea bulbifera</i> L.	Dioscoraceae	1775	climber
23	<i>Gaultheria fragrantissima</i> Wall.	Ericaceae	2400	shrub
24	<i>Lyonia Ovalifolia</i> (Wall.) Drude	Ericaceae	1920	Tree
25	<i>Rhododendron arboreum</i> Sm.	Ericaceae	2400	Tree
26	<i>Gentiana capitata</i> Buch-Ham. ex. D. Don	Gentianaceae	1920	Herb
27	<i>Juglans regia</i> L.	Juglandaceae	1600	Tree
28	<i>Lindera neesiana</i> (Nees) Kurz	Lauraceae	2180	Shrub
29	<i>Lindera pulcherima</i> (Nees) Hook. f.	Lauraceae	2110	Shrub
30	<i>Litsea elongate</i> (Nees)	Lauraceae	2300	Tree
31	<i>Disporum cantoniense</i> (Lour.) Merrill	Liliaceae	2285	Herb
32	<i>Lilium nepalense</i> D. Don	Liliaceae	2480	Herb
33	<i>Nyctanthus arbor-tristis</i> L.	Oleaceae	1500	Shrub
34	<i>Malaxis acuminata</i> D. Don	Orchidaceae	2160	Herb
35	<i>Coelgyne cristata</i> Lindl.	Orchidaceae	1800	Herb
36	<i>Tripogon trifidus</i> Monro ex Stapf	Poaceae	2500	Herb
37	<i>Thysanolaena maxima</i> (Roxb) O. Kuntz	Poaceae	2300	Herb
38	<i>Helictotrichon</i> sp.	Poaceae	2300	Herb
39	<i>Imperata cylindrica</i> (L.) P. Beauv.	Poaceae	2460	Herb
40	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	1600	Herb
41	<i>Dendrocalamus hamiltonii</i> Neeset Arn. ex Munro	Poaceae	1600	Tree
42	<i>Bistorta amplexicaulis</i> (D.Don) Greene	Polygonaceae	2340	Herb
43	<i>Ranunculus diffusus</i> DC.	Ranunculaceae	2300	Herb
44	<i>Thalictrum foliolosum</i> DC.	Ranunculaceae	2500	Herb
45	<i>Clematis bucharaniana</i> DC.	Ranunculaceae	2400	Climber
46	<i>Pyrus pashia</i> Buch. -Ham. ex D. Don.	Rosaceae	1670	Tree
47	<i>Rosa brunonii</i> Lindl.	Rosaceae	1660	Shrub
48	<i>Prunus nepalensis</i> (Ser.) Steud.	Rosaceae	1600	Tree
49	<i>Pyracantha crenulata</i>	Rosaceae	1760	Shrub
50	<i>Mussaenda macrophylla</i>	Rubiaceae	1800	Shrub

51	<i>Galium asperifolium</i> Wall. ex Roxb.	Rubiaceae	2330	herb
52	<i>Galium hirtiflorum</i> Req. ex	Rubiaceae	2200	herb
53	<i>Zanthoxylum armatum</i> DC.	Rutaceae	1600	Tree
54	<i>Houttuynia cordata</i> Thunb.	Saururaceae	1530	Herb
55	<i>Bergenia ciliate</i> (Haw.) Sternb	Saxifragaceae	2450	Herb
56	<i>Mazus pumilis</i> (Burm. f.) Steenis	Scrophulariaceae	1600	Herb
57	<i>Smilax aspera</i> L.	Smilacaceae	1700	climber
58	<i>Schima wallichii</i> (DC.) Korth.	Theaceae	1500	Tree
59	<i>Camellia kissi</i> Wall.	Theaceae	1600	Tree
60	<i>Selinum wallichianum</i> (DC.) Raizada & H. O. Saxena	Umbelliferae	2500	Herb
61	<i>Centella asiatica</i> (L.) Urban	Umbelliferae	1800	Herb
62	<i>Bupleurum hamiltonii</i>	Umbelliferae	2400	Herb
63	<i>Urtica dioica</i> L.	Urticaceae	2100	Shrub
64	<i>Pouzolzia sanguinea</i> (Blume) Merr.	Urticaceae	1900	Herb
65	<i>Boehmeria platyphylla</i>	Urticaceae	2200	Herb
66	<i>Valeriana hardwickii</i> Wall.	Valerianaceae	2180	herb
67	<i>Vitis parvifolia</i> Roxb.	Vitaceae	2200	Climber
68	<i>Roscoea purpurea</i> J.E. Sm.	Zingiberaceae	2050	herb
69	<i>Globba clarkei</i> Baker	Zingiberaceae	2200	herb

The list of life form of the plant in the study sites included herbs as major plant. Herbaceous plants represent the highest of the life forms as give in figure 2. It was followed by shrub and trees. There were also climbers and twinner but in less number.

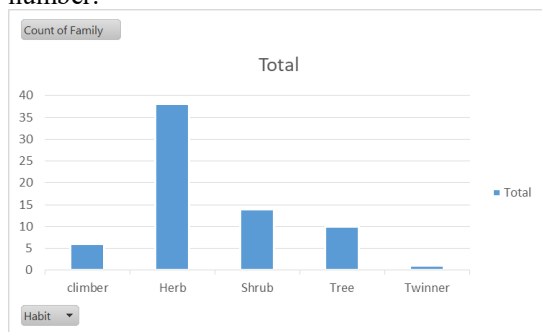


Figure 6 Life forms

Among them, dicotylodons are the highest in number followed by monocot.

Discussion and Conclusion

This study compiles the vascular plant of Chadragiri Hill along the trekking route via Bista Gaon, Kirtipur. The vegetation was represented by 35 families with 68 taxa. Herbs were the dominated life form followed by shrub, trees, climber and twinner. Poaceae had both highest number of genera and species as well. The plants presented here also represents the same plants that have been recorded in Malla et al (1986) and Baniya and Shakya (1999).

As the site is near to Kathmandu valley, the area needs detailed floristic study through which complete documentation of flora can be obtained with illustration and description with keys.

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