

Documentation of flora of Rara lake and adjoining areas in mid-western region of Nepal

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Rara National Park is the smallest national park of the country. It is rich in floral and faunal diversity. Rara is one of the sacred lakes and is listed as a Ramsar site. The aim of the study was to compile the representative flora of Rara lake and to present status of available vegetation. The research used both primary and secondary sources of data. Field visit was conducted in June, 2010 during which more than 300 plant specimens were collected. The secondary data were collected from Rara and adjoining area like Gamgadi. These data were thoroughly analyzed to understand the composition of vegetation. The study revealed the existence of about 224 flowering plant species in the area, under 173 genera and 67 families. Compositae was found to be the largest family (21 species and 17 genera) followed by Rosaceae (19 species and 10 genera).

Key words: Rara lake, Ramsar site, floral composition, alpine flora, flowering plants

Mugu district lies in Karnali zone in the mid-western development region of Nepal. It is inaccessible due the lack of motorable road. There is a newly established airport at Talcha which is about two hours journey from Rara lake and Gamgadi, the district headquarters of Mugu. There is regular flight from Nepalgunj and Surkhet, the regional headquarters of the mid-western region of Nepal. The main attraction of Mugu district is the Rara National Park (RNP). The park was established in 1976 with an objective of protecting the unique flora and fauna of the Humla-Jumla Region of Nepal. It was also declared as Ramsar site (number 1695) in 2007. The park covers an area of 106 km² as core area and 197.76 km² as buffer zone. The park ranges in elevation from 1,800 m to 4,039 m at Chuchemara Peak on the southern side of Rara Lake. On the northern side, the peaks of Ruma Kand and Malika Kand exist (Bhujju *et al.*, 2007).

Despite being the country's smallest national park, RNP encloses the largest lake of Nepal (area: 10.8 km², depth: 167 m). The lake belongs to alpine freshwater category and lies at an altitude of 2,990 m. It is oval-shaped with an east-west axis. It has a length of 5 km and a width of 3 km, and drains into Mugu-Karnali River via Nijar Khola.

The physiography of the study area comprises trans-Himalayan range covering entirely the temperate and sub-alpine flora. Mountains above 4,000 m runs

along west to east with different patches of vegetation composition in different aspects around Rara lake.

The botanical exploration of Karnali zone started with the visit of Col. Bailey in 1956. He visited different parts of Karanali zone including Rara lake for botanical collection. Fifteen years later, British scientists gathered a large number of plants from this area. Stainton travelled the major parts of the zone in 1963 to explore its flora. Similarly, Itoh and Rajbhandary in 1965, and other Nepalese botanists also visited the zone on different occasions and assembled a large number of plants for herbarium, garden and other laboratory purposes (Manandhar, 1984). Ferro who visited it in 1979 has compiled limnological and biological data. Morphological, physical, chemical and biological information of Rara lake has already been published by Tokio and Yashiro in 1986.

Materials and methods

The research is based on both primary and secondary data. For the primary information, a field visit was conducted in June, 2010 during which, more than 300 plant specimens under different families were collected as herbarium specimens, with collection number, locality and plant habit. The secondary data was based on herbaria collected from Rara Lake and adjoining areas by different collectors at different times, and deposited by them at National Herbarium

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(KATH). Such data were further analyzed in accordance with family, generic and specific names.

The collected specimens were thoroughly examined and identified by using relevant references as Hooker (1883–1887), DPR (1994), Polunin and Stainton (1984). They were crosschecked with the herbarium specimens deposited at KATH. The nomenclature given in latest taxonomic literatures (Press *et al.*, 2000; DPR, 2001) were adopted. The herbarium specimens are deposited at National Herbarium KATH, Godawari, Lalitpur, Nepal.

Results and discussion

The flora of the study area comprised a total of 224 species, 173 genera and 67 families of flowering plants (Annex 1). The research found Compositae to be the largest family (21 species under 17 genera) followed by Rosaceae (19 species under 10 genera), and Labiatae. They are followed by Graminae (14 species under 11 genera), Cyperaceae (13 species and 9 genera) and Umbelliferae (9 species under 7 genera). Twenty nine families were counted as least species number holding family. These included, Acanthaceae, Amaranthaceae, Asclepiadaceae, Balasminaceae, Buxaceae, Campanulaceae, Cannabinaceae, Coriariaceae, Dioscoreaceae, Dipsacaceae, Holoragaceae, Juglandaceae, Lentibulariaceae, Loranthaceae, Menyanthaceae, Onagraceae, Orchidaceae, Oxalidaceae, Phytolacaceae, Plantaginaceae, Primulaceae, Rubiaceae, Rutaceae, Tamaricaceae, Taxaceae, Thymelaceae, Urticaceae, Vitaceae and Zygiberaceae. Other 32 families had low number of species ranging from having two to eight species in each family. The family names followed by genus and species' names are arranged alphabetically (Annex 1).

Regarding the diversity of the species in the surrounding area, least number of species was observed under pine forests, especially in the planted area near Milli Chaur. High number of herbaceous plant was found in Lower Milli along the side of pasture land designated by the Park. Although collection of aquatic macrophyte remained the focus of interest during the field study, only a few numbers of such species could be collected because of difficult field situations. *Myriophyllum spicatum* under the family Holoragaceae, *Urticularia australis* under the family Lentibulariaceae and three species of *Potamogeton* were recorded during the field survey. In

addition, species like *Isolepis setacea* under the family Cyperaceae and *Rumex* under the family Poygonaceae were observed in semi-aquatic habitats.

More detailed survey of vegetation is required in order to deeply understand the availability of endemic and other endangered plant species. It is suggested that a comprehensive research be conducted in future in collaboration with academic universities within the budgetary frame of the Department of National Parks and Wildlife Conservation.

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Annex 1: List of the family wise species and genera

S.No.	Collection number	Name of collector	Scientific Name	Family name
1.	0104	Basnet, B.K.	<i>Aechmanthera gossypina</i> (Wall.) Nees	Acanthaceae
2.	0069	Basnet, B.K.	<i>Cyathula tomentosa</i> (Roth) Moq.	Amaranthaceae
3.	0113	Basnet, B.K.	<i>Arisaema flavum</i> (Forsk.) Schott	Araceae
4.	0114	Basnet, B.K.	<i>Acorus calamus</i> L.	Araceae
5.	0219	Basnet, B.K.	<i>Arisaema consanguineum</i> Schott	Araceae
6.	0002	Basnet, B.K.	<i>Vincetoxicum hirundinaria</i> Medicus	Asclepiadaceae
7.	P14	Basnet, B.K.	<i>Impatiens laxiflora</i> Edgew.	Balasmnaceae
8.	0003	Basnet, B.K.	<i>Berberis chitria</i> Lindl.	Berberidaceae
9.	P005	Basnet, B.K.	<i>Berberis koebneana</i> C.K. Schneid.	Berberidaceae
10.	0112	Basnet, B.K.	<i>Betula alnoides</i> Buch.-Ham. Ex D.Don	Betulaceae
11.	0115	Basnet, B.K.	<i>Alnus nitida</i> (Spach) Endl.	Betulaceae
12.	0110	Basnet, B.K.	<i>Buxus polystachya</i>	Buxaceae
13.	0004	Basnet, B.K.	<i>Codonopsis</i>	Campanulaceae
14.	0118	Basnet, B.K.	<i>Cannabis sativa</i> Linn	Cannabinaceae
15.	0005	Basnet, B.K.	<i>Triosteum himalayanum</i> Wall.	Caprifoliaceae
16.	0047	Basnet, B.K.	<i>Lonicera angustifolia</i> Wall	Caprifoliaceae
17.	20674	Basnet, B.K.	<i>Lonicera quinquelocularis</i> Hardw.	Caprifoliaceae
18.	206741	Basnet, B.K.	<i>Lonicera obovata</i> Royle	Caprifoliaceae
19.	P008	Basnet, B.K.	<i>Lonicera acuminata</i> Wall	Caprifoliaceae
20.	P008	Basnet, B.K.	<i>Lonicera lanceolata</i> Wall	Caprifoliaceae
21.	P008a	Basnet, B.K.	<i>Lonicera spinosa</i> Jaquem. Ex Decne.) Walp. Wall	Caprifoliaceae
22.	0006	Basnet, B.K.	<i>Arenaria sikiimensis</i> Majumdar	Caryophyllaceae
23.	0168	Basnet, B.K.	<i>Gypsophylla cerastioides</i> D.Don	Caryophyllaceae
24.	7018	Manadhar, N.P.	<i>Stellaria lanata</i> Hook. F. ex Edgew & Hook.f.	Caryophyllaceae
25.	8010	Manadhar, N.P.	<i>Cerastium fontanum</i> Baumg	Caryophyllaceae
26.	0121	Basnet, B.K.	<i>Euonymus amygdalifolius</i> Franch.	Celastraceae
27.	0126	Basnet, B.K.	<i>Euonymus sanguineus</i> Loes.ex Diels.	Celastraceae
28.	0220	Basnet, B.K.	<i>Euonymus fimbriatus</i> Wall.	Celastraceae
29.	0013	Basnet, B.K.	<i>Gnaphalium affine</i> D.Don	Compositae
30.	0010	Basnet, B.K.	<i>Gnaphalium hypoleucum</i> DC.	Compositae
31.	0085	Basnet, B.K.	<i>Ligularia fischeri</i> (Ledeb.) Turcz.	Compositae
32.	0092	Basnet, B.K.	<i>Morina polyphylla</i> Wall.	Compositae
33.	0117	Basnet, B.K.	<i>Anaphalis busua</i> (Buch. – Ham. ex D.Don) DC.	Compositae
34.	0124	Basnet, B.K.	<i>Conyza stricta</i> Wall.	Compositae
35.	0133	Basnet, B.K.	<i>Conyza leucantha</i> (D.don) Ludlow & Raven	Compositae
36.	0134	Basnet, B.K.	<i>Aster peduncularis</i> Wall. Ex Nees	Compositae
37.	0135	Basnet, B.K.	<i>Cremanthodium arnicoides</i> (DC. Ex Royle) R. Good	Compositae

38.	0156	Basnet, B.K.	<i>Dubyaea hispida</i> DC.	Compositae
39.	0157	Basnet, B.K.	<i>Leontopodium stracheyi</i> (Hook.f.) C.B. Clarke ex Hemsley	Compositae
40.	0177	Basnet, B.K.	<i>Dipsacus inermis</i> Wall	Compositae
41.	0178	Basnet, B.K.	<i>Crassocephalum crepidioides</i> (Benth.) S. Moore	Compositae
42.	7038	Manadhar, N.P.	<i>Cirsium verutum</i> (D.Don) Spreng	Compositae
43.	8143	Manadhar, N.P.	<i>Carpesium nupalense</i> Less.	Compositae
44.	P0, P013	Basnet, B.K.	<i>Erigeron acer</i> Linn	Compositae
45.	P001	Basnet, B.K.	<i>Taraxacum officinale</i> Wigg.	Compositae
46.	P002	Basnet, B.K.	<i>Artemisia caruifolia</i> Buch.-Ham.	Compositae
47.	P010	Basnet, B.K.	<i>Conyza canadensis</i> (L.) Cornq.	Compositae
48.	P034	Basnet, B.K.	<i>Myriactis nepalensis</i> Less	Compositae
49.	P18	Basnet, B.K.	<i>Conyza japonica</i> (Thunb.) Less. Ex Dc.	Compositae
50.	0011	Basnet, B.K.	<i>Coriaria napalensis</i> Wall.	Coriariaceae
51.	0012	Basnet, B.K.	<i>Capsella bursa-pastoris</i> (L.) Medikus	Cruciferae
52.	0166	Basnet, B.K.	<i>Cardamine impatiens</i> Linn.	Cruciferae
53.	0181	Basnet, B.K.	<i>Cardamine macrophylla</i> Willd.	Cruciferae
54.	0194	Basnet, B.K.	<i>Cardamine loxostemonoids</i> O.E. Schulz	Cruciferae
55.	P015	Basnet, B.K.	<i>Thlaspi arvense</i> Linn.	Cruciferae
56.	206712	Basnet, B.K.	<i>Juniperus indica</i> Bertol.	Cupressaceae
57.	0089	Basnet, B.K.	<i>Anthoxanthum bookeri</i> (Griseb.) Rendle	Cyperaceae
58.	0122	Basnet, B.K.	<i>Cyperus squarrosus</i> L.	Cyperaceae
59.	0127	Basnet, B.K.	<i>Carex hirtella</i> Drejer	Cyperaceae
60.	0130	Basnet, B.K.	<i>Cyperus cyperoides</i> (Retz.) Kuntze	Cyperaceae
61.	0138	Basnet, B.K.	<i>Arundo donax</i> Linn.	Cyperaceae
62.	0139	Basnet, B.K.	<i>Cyperus difformis</i> L.	Cyperaceae
63.	0145	Basnet, B.K.	<i>Cyperus niveus</i> Retz.	Cyperaceae
64.	0159	Basnet, B.K.	<i>Eleocharis congesta</i> D.don	Cyperaceae
65.	0169	Basnet, B.K.	<i>Carex inanis</i> Kunth	Cyperaceae
66.	0173	Basnet, B.K.	<i>Isolepis setacea</i> (L.) R.Br	Cyperaceae
67.	0188	Basnet, B.K.	<i>Fimbristylis complanata</i> (Retz.) Link	Cyperaceae
68.	0192	Basnet, B.K.	<i>Schoenoplectus juncooides</i> (Roxb.)Palla	Cyperaceae
69.	P027	Basnet, B.K.	<i>Arundinella setosa</i> Trin.	Cyperaceae
70.	0191	Basnet, B.K.	<i>Dioscorea deltoidea</i> Wall. Ex Kunth	Dioscoreaceae
71.	0171	Basnet, B.K.	<i>Dipsacus inermis</i> Wall.	Dipsacaceae
72.	0182	Basnet, B.K.	<i>Eleagnus kanaii</i> Momiyama	Elaeagnaceae
73.	P009	Basnet, B.K.	<i>Eleagnus parvifolia</i> Wall.	Elaeagnaceae
74.	0014	Basnet, B.K.	<i>Rhododendron arboreum</i> Smith	Ericaceae
75.	0094	Basnet, B.K.	<i>Lyonia ovalifolia</i> (wall.) Drude	Ericaceae
76.	0176	Basnet, B.K.	<i>Gaultheria trichophylla</i> Royle	Ericaceae
77.	0015	Basnet, B.K.	<i>Rhododendron lepidotum</i> Wall. Ex G.Don	Ericaceae
78.	0105	Basnet, B.K.	<i>Quercus semicarpifolia</i> Sm.	Fagaceae
79.	0107	Basnet, B.K.	<i>Quercus griffithi</i> Hook.f. & Thomas. ex Miq.	Fagaceae
80.	0057	Basnet, B.K.	<i>Corydalis elegans</i> Wall.ex Hook.f. &Thomas	Fumariaceae
81.	0059	Basnet, B.K.	<i>Corydalis govaniana</i> Wall	Fumariaceae
82.	0016	Basnet, B.K.	<i>Gentiana pedicellata</i> (D.Don) Griseb.	Gentianaceae
83.	0017	Basnet, B.K.	<i>Swertia bimaculata</i> (Sieb. & Zucc.) C.b. Clarke	Gentianaceae
84.	0165	Basnet, B.K.	<i>Swertia nervosa</i> (G.Don) C.B. Clarke	Gentianaceae
85.	P13	Basnet, B.K.	<i>Swertia chirayita</i> (Roxb. ex Fleming) Karstrn	Gentianaceae
86.	0190	Basnet, B.K.	<i>Geranium himalayense</i> Klotzsch	Geraniaceae
87.	8091	Basnet, B.K.	<i>Geranium wallichianum</i> D.Don ex Sweet	Geraniaceae
88.	6997	Manadhar, N.P.	<i>Geranium lambertii</i> Sweet	Geraniaceae
89.	0074	Basnet, B.K.	<i>Microstegium petiolare</i> (Trin.) Bor.	Gramineae
90.	0080	Basnet, B.K.	<i>Oryzopsis lateralis</i> (Regel) Stapf	Gramineae
91.	0116	Basnet, B.K.	<i>Cappilipedium parviflorum</i> (R.Br.) Stapf.	Gramineae

92.	0119	Basnet, B.K.	<i>Agrostis pilosula</i> Trin	Gramineae
93.	0120	Basnet, B.K.	<i>Agrostis stolonifera</i> Linn	Gramineae
94.	0136	Basnet, B.K.	<i>Elymus nayarii</i> Karthik	Gramineae
95.	0137	Basnet, B.K.	<i>Brachypodium sylvaticum</i> (Huds.) P. Beauv.	Gramineae
96.	0140	Basnet, B.K.	<i>Agrostis petelotii</i> (Hitcch.) Noltie	Gramineae
97.	0163	Basnet, B.K.	<i>Themeda bookeri</i> (Griseb.) A. Camus.	Gramineae
98.	0174	Basnet, B.K.	<i>Heteropogon contortus</i> (L.) Beauv.	Gramineae
99.	0189	Basnet, B.K.	<i>Eragrostis nigra</i> Nees & Steud.	Gramineae
100.	0193	Basnet, B.K.	<i>Cymbopogon munroi</i> (C.B. Clarke) Noltie	Gramineae
101.	0195	Basnet, B.K.	<i>Agrostis nervosa</i> Nees ex Trin.	Gramineae
102.	0224	Basnet, B.K.	<i>Chrysopogon gryllus</i> (L.) Trin.	Gramineae
103.	0018	Basnet, B.K.	<i>Myriophyllum spicatum</i> Linn.	Haloragacae
104.	7062	Manandhar, N.P	<i>Hypericum choisianum</i> Wall. Ex N. Robson	Hypericaceae
105.	0184	Basnet, B.K.	<i>Hypericum elodeoides</i> Choisy	Hypericaceae
106.	0019	Basnet, B.K.	<i>Iris goniocarpa</i> Baker	Iridaceae
107.	0072	Basnet, B.K.	<i>Iris kemaonensis</i> D.Don ex Royle	Iridaceae
108.	0179	Basnet, B.K.	<i>Iris decora</i> Wall.	Iridaceae
109.	0148	Basnet, B.K.	<i>Juglans regia</i> Linn.	Juglandaceae
110.	0076	Basnet, B.K.	<i>Luzula muetiflora</i> (Retz.) Lejeune	Juncaceae
111.	0141	Basnet, B.K.	<i>Juncus leucanthus</i> Royle ex D.Don	Juncaceae
112.	0020, P025	Basnet, B.K.	<i>Thymus linearis</i> Benth.	Labiatae
113.	0021	Basnet, B.K.	<i>Nepeta laevigata</i> (D.Don) Hand.-Mazz.	Labiatae
114.	0022	Basnet, B.K.	<i>Verbascum Thapsus</i> Linn.	Labiatae
115.	0073	Basnet, B.K.	<i>Clinopodium umbrosum</i> (M.Bieb.) C. Koch	Labiatae
116.	0096	Basnet, B.K.	<i>Phlomis setigera</i> Falc. ex Benth.	Labiatae
117.	0155	Basnet, B.K.	<i>Leonurus cardiaca</i> Linn.	Labiatae
118.	0175	Basnet, B.K.	<i>Coleus forskohlii</i> Briq.	Labiatae
119.	0200	Basnet, B.K.	<i>Salvia nubicola</i> Wall.	Labiatae
120.	206760	Basnet, B.K.	<i>Dracocephalum wallichii</i> Sealy	Labiatae
121.	206787	Basnet, B.K.	<i>Colubounia coccinea</i> Wall	Labiatae
122.	5156	Manadhar, N.P.	<i>Phlomis bracteosa</i> Royle ex Benth.	Labiatae
123.	7049	Manadhar, N.P.	<i>Elsholtzia fruticosa</i> (D.Don) Rehder	Labiatae
124.	8577	Manadhar, N.P.	<i>Elsholtzia blanda</i> Benth.	Labiatae
125.	P003	Basnet, B.K.	<i>Salvia campanulata</i> Wall.	Labiatae
126.	P12	Basnet, B.K.	<i>Origanum vulgare</i> Linn.	Labiatae
127.	P4	Basnet, B.K.	<i>Salvia hians</i> Royle ex Benth.	Labiatae
128.	0023	Basnet, B.K.	<i>Caragana gerardiana</i> Marquand	Leguminosae
129.	0024	Basnet, B.K.	<i>Astragalus melanostachys</i> Benth.ex Bunge	Leguminosae
130.	0025	Basnet, B.K.	<i>Lathyrus lutens</i>	Leguminosae
131.	0026	Basnet, B.K.	<i>Trigonella emodi</i> Benth.	Leguminosae
132.	6923	Manadhar, N.P.	<i>Caragana brevispina</i> Royle	Leguminosae
133.	7010	Manadhar, N.P.	<i>Vicia angustifolia</i> L.	Leguminosae
134.	8136	Manadhar, N.P.	<i>Indigofera hebeptala</i> Benth. ex Baker	Leguminosae
135.	P019	Basnet, B.K.	<i>Lotus corniculatus</i> L.	Leguminosae
136.	0147	Basnet, B.K.	<i>Urticularia australis</i> R.Br.	Lentibulariaceae
137.	0167	Basnet, B.K.	<i>Polygonatum verticillatum</i> L. All.	Liliaceae
138.	0183	Basnet, B.K.	<i>Smilax menispermoides</i> A.DC.	Liliaceae
139.	0186	Basnet, B.K.	<i>Smilacina purpurea</i> Wall.	Liliaceae
140.	0199	Basnet, B.K.	<i>Scurrula elata</i> (edgew.) Danser	Loranthaceae
141.	0027	Basnet, B.K.	<i>Menyanthes trifolita</i> Linn.	Menyanthaceae
142.	0028	Basnet, B.K.	<i>Syringa emodi</i> Wall.	Oleaceae
143.	0029	Basnet, B.K.	<i>Jasminum humile</i> Linn.	Oleaceae.
144.	P017/2	Basnet, B.K.	<i>Oenothera rosea</i> L.Herit & Aiton	Onagraceae
145.	0172	Basnet, B.K.	<i>Epipactis helleborine</i> (L.) Crantz	Orchidaceae
146.	0031	Basnet, B.K.	<i>Oxalis corniculata</i> Linn	Oxalidaceae
147.	0063	Basnet, B.K.	<i>Meconopsis regia</i> G. Taylor	Papaveraceae
148.	0067	Basnet, B.K.	<i>Meconopsis napaulensis</i> DC	Papaveraceae

149.	0032	Basnet, B.K.	<i>Phytolaca acinosa</i> Roxb.	Phytolacaceae
150.	0008	Basnet, B.K.	<i>Pinus wallichiana</i> A.B. Jackson	Pinaceae
151.	0078	Basnet, B.K.	<i>Picea smithiana</i> (Wall.)Boiss.	Pinaceae
152.	0158	Basnet, B.K.	<i>Tsuga dumosa</i> (D.Don) Eichler	Pinaceae
153.	0170	Basnet, B.K.	<i>Cedrus deodara</i> (Roxb. ex D.Don) G.Don	Pinaceae
154.	0180	Basnet, B.K.	<i>Abies pindrow</i> Royle	Pinaceae
155.	0034	Basnet, B.K.	<i>Plantago major</i> Linn.	Plantaginaceae
156.	0088	Basnet, B.K.	<i>Polygala sibirica</i> Linn.	Polygalaceae
157.	P017	Basnet, B.K.	<i>Polygala abyssinica</i> R.Br. ex Fresen	Polygalaceae
158.	P035	Basnet, B.K.	<i>Polygonum aviculare</i> Linn.	Polygonaceae
159.	0009	Basnet, B.K.	<i>Oxyria digyna</i> (L.) Hill	Polygonaceae
160.	0164	Basnet, B.K.	<i>Bistorta amplexicaulis</i> (D.Don) Greene	Polygonaceae
161.	0201	Basnet, B.K.	<i>Rumex acetosa</i> Linn.	Polygonaceae
162.	0035	Basnet, B.K.	<i>Potamogeton natans</i> Linn.	Potamogetonaceae
163.	0036	Basnet, B.K.	<i>Potamogeton pusillus</i> Linn.	Potamogetonaceae
164.	0102	Basnet, B.K.	<i>Potamogeton distintus</i>	Potamogetonaceae
165.	P032	Basnet, B.K.	<i>Primula denticulata</i> Sm.	Primulaceae
166.	0129	Basnet, B.K.	<i>Anemone rivularis</i> Buch.-Ham. ex DC	Ranunculaceae
167.	0161	Basnet, B.K.	<i>Thalictrum javanicum</i> Bl.	Ranunculaceae
168.	0162	Basnet, B.K.	<i>Thalictrum virgatum</i> Hook. f. & Thoms	Ranunculaceae
169.	P015	Basnet, B.K.	<i>Thalictrum chelidonii</i> DC	Ranunculaceae
170.	P037	Basnet, B.K.	<i>Caltha palustris</i> Linn.	Ranunculaceae
171.	P21	Basnet, B.K.	<i>Clematis connata</i> DC	Ranunculaceae
172.	0007	Basnet, B.K.	<i>Sorbaria tomentosa</i> (Lindl.) Rhed.	Rosaceae
173.	0001	Basnet, B.K.	<i>Rosa macrophylla</i> Lindl.	Rosaceae
174.	0040	Basnet, B.K.	<i>Potentilla argrophylla</i> Wall. ex Lehm.	Rosaceae
175.	0041	Basnet, B.K.	<i>Rubus foliolosus</i> D.Don	Rosaceae
176.	0043	Basnet, B.K.	<i>Potentilla nepalensis</i> Wall. ex Hook	Rosaceae
177.	0060	Basnet, B.K.	<i>Cotoneaster nitidus</i> Jacques	Rosaceae
178.	0100	Basnet, B.K.	<i>Prunus domestica</i>	Rosaceae
179.	0103	Basnet, B.K.	<i>Rosa brunonii</i> Lindl.	Rosaceae
180.	0106	Basnet, B.K.	<i>Pyrus pashia</i> Buch.-Ham. ex D.Don	Rosaceae
181.	0132	Basnet, B.K.	<i>Prunus cornuta</i> (Wall. ex Royale) Steud.	Rosaceae
182.	A2/P004	Basnet, B.K.	<i>Potentilla griffithii</i> Hook. f.	Rosaceae
183.	P004	Basnet, B.K.	<i>Agrimonia pilosa</i> Ledeb.	Rosaceae
184.	P007	Basnet, B.K.	<i>Cotoneaster tibeticus</i> Klotz	Rosaceae
185.	P014/0094	Basnet, B.K.	<i>Cotoneaster microphyllus</i> Wall. ex Lindl.	Rosaceae
186.	P020/P011	Basnet, B.K.	<i>Fragaria nubicola</i> Lindl. ex Lacaita	Rosaceae
187.	P021	Basnet, B.K.	<i>Rosa sericea</i> Lindl.	Rosaceae
188.	P029	Basnet, B.K.	<i>Cotoneaster taylori</i> Yu	Rosaceae
189.	P030	Basnet, B.K.	<i>Potentilla leuconota</i> D.don	Rosaceae
190.	P11	Basnet, B.K.	<i>Spiraea hypoleuca</i> Dunn	Rosaceae
191.	P0 52	Basnet, B.K.	<i>Rubia manjith</i> Roxb. ex Fleming	Rubiaceae
192.	0044	Basnet, B.K.	<i>Skimmia anquetilia</i> N.P. Tylor & Airy Shaw	Rutaceae
193.	0045	Basnet, B.K.	<i>Populus ciliata</i> Wall. ex Royle	Salicaceae
194.	0046	Basnet, B.K.	<i>Salix daltoniana</i> Andress.	Salicaceae
195.	2067103	Basnet, B.K.	<i>Viburnum cotinifolium</i> D.Don	Sambucaceae
196.	206719	Basnet, B.K.	<i>Viburnum erubescens</i> Wall. ex DC.	Sambucaceae
197.	0093	Basnet, B.K.	<i>Bergenia ciliata</i> (Haw.) Sternb.	Saxifragaceae
198.	0095	Basnet, B.K.	<i>Saxifraga parnassifolia</i> D.Don.	Saxifragaceae
199.	0097	Basnet, B.K.	<i>Astilbe rivularis</i> Buch.-Ham. ex D.Don	Saxifragaceae
200.	0098	Basnet, B.K.	<i>Parnacea nubicola</i> Wall. Ex Royale	Saxifragaceae
201.	0079	Basnet, B.K.	<i>Sopubia trifida</i> Buch.- Ham. Ex D.Don	Scrophulariaceae
202.	0101	Basnet, B.K.	<i>Hemiphragma heterophyllum</i> Wall.	Scrophulariaceae
203.	0108	Basnet, B.K.	<i>Mazus surculosus</i> D.don	Scrophulariaceae
204.	0109	Basnet, B.K.	<i>Pedicularis gracilis</i> Wall. Ex Benth.	Scrophulariaceae
205.	0146	Basnet, B.K.	<i>Verbascum thapsus</i> L.	Scrophulariaceae

206.	0083	Basnet, B.K.	<i>Datura stramonium</i> Linn.	Solanaceae
207.	0091	Basnet, B.K.	<i>Hyosyamus niger</i> Linn.	Solanaceae
208.	0049	Basnet, B.K.	<i>Myricaria rosea</i> W.W.Sm.	Tamaricaceae
209.	0048	Basnet, B.K.	<i>Taxus contorta</i> Griff	Taxaceae
210.	P019/2	Basnet, B.K.	<i>Stellera chamaejasme</i> Linn.	Thymelaceae
211.	0065	Basnet, B.K.	<i>Torilis japonica</i> (Houtt.) DC.	Umbelliferae
212.	0070	Basnet, B.K.	<i>Pleurospermum hookeri</i> C.B. Clarke	Umbelliferae
213.	0077	Basnet, B.K.	<i>Bupleurum longicaule</i> Wall. ex DC.	Umbelliferae
214.	0081	Basnet, B.K.	<i>Acronema tenerum</i> (DC.) Edgew.	Umbelliferae
215.	0082	Basnet, B.K.	<i>Bupleurum tenue</i> Wall. ex DC	Umbelliferae
216.	0084	Basnet, B.K.	<i>Heracleum nepalense</i> D.Don	Umbelliferae
217.	8561	Manadhar, N.P.	<i>Bupleurum candoleii</i> Wall. ex DC.	Umbelliferae
218.	8775	Manadhar, N.P.	<i>Pimpinella diversifolia</i> DC.	Umbelliferae
219.	P024	Basnet, B.K.	<i>Eryngium foetidum</i> Linn.	Umbelliferae
220.	0075	Basnet, B.K.	<i>Urtica dioica</i> Linn.	Urticaceae
221.	0058	Basnet, B.K.	<i>Dipsacus inermis</i> Wall.	Violaceae
222.	0062	Basnet, B.K.	<i>Viola biflora</i> Linn.	Violaceae
223.	0071	Basnet, B.K.	<i>Partbenocissus semicordata</i> (Wall) Planch.	Vitaceae
224.	0052	Basnet, B.K.	<i>Roscoea alpina</i> Royle	Zingiberaceae