



Wild edible plants of Gorumara National Park, Jalpaiguri, West Bengal

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Abstract

Knowledge of wild edible plants is essential to enrich our dietary diversity. These plants can be used to rescue as food at times of disasters, droughts and famines. The floristic composition of the Gorumara National Park (GNP) was studied through extensive field surveys from 2008 to 2012 and enumerated 350 taxa under 260 genera belonging to 90 families of angiosperms. During the study, authors collected information on 50 wild edible plants from the tribals and local people. A list of these plants along with their family, phenology and parts used has been provided.

Keywords: Gorumara National Park, Jalpaiguri, West Bengal, Wild edible plants.

Introduction

Plants for human consumption accounts for about 5% of the total plant species of the world (Asfaw and Tadesse, 2001). These plants can come to rescue as food at times of disasters, droughts and famines (Debabrata, 2002). Forest of Gorumara National Park (GNP) provides large number of plants whose fruits, seeds, tubers, leaves, barks, flowers etc. make an important contribution to the diet of wild animals (Ranjan and Kumar, 2011), local people and tribes. Forest has a large and indispensable role in improving the food security and livelihood of the tribal society (Yesodharan and Sujana, 2007). Since, wild edible plants are freely accessible within natural habitats. Indigenous people have more knowledge in gathering and preparing food items from these wild plant resources (Somnasang and Moreno-Black, 2000). A large number of wild spices used by the tribal in meeting their daily requirement are through the diverse vegetation of that area.

West Bengal has wide range of wild plant species whose leaves, flowers, and fruits are used as raw or cooked (Biswas and Paul, 2002; Arunachalam et al., 2007; Bandyopadhyay and Mukherjee, 2009; Biswas et al., 2011; Biswas and Mondal, 2012; Chowdhury and Mukherjee, 2012; Banerjee et al., 2013; Chowdhury et al., 2014).

The Duars region of West Bengal is inhabited by mixed tribes. Since early times, edible wild fruits have played a very vital part in supplementing the diet of the people and to meet their basic need of food, mostly the tribal people, and some of which are preserved for use in dry period or sold in rural market (Deshmukh and Waghmode, 2011). They also form an additional income (for small landholders and landless) living near forest and fringes through sale in local market (Pradheep et al., 2016; Khruomo and Deb, 2018). Wild edible plants contribute immensely to the nutrition of the local inhabitants of the region (Irfan, 2018).

The Gorumara National Park (GNP) is one of the oldest reserve forests in India. Since 1895, the area was recognized as reserve forest and later in the year 1949, it was declared as Wildlife Sanctuary and afterwards it was declared as National Park in 1994. The area has excellent climatic and edaphic factors which support the luxuriant growth of the trees and climbers. The dense forest and suitable niche have rendered protection of several threatened and endangered species of plants and animals. Apart from the plant diversity, park acts as a gene pool reserve for the great Indian one horned rhinoceros. GNP provides a beautiful view of watching birds and wildlife and scenic landscape to the visitors.

The park is situated in Jalpaiguri district of West Bengal and lies between 26°47'25.6" -26°43'25.6" N and 88°52'4.2" -88°47'7.3" E and 120-130 m elevation. It is bounded in the north by Batabari-Nagrakata road, in south by Bichabhanga road, in the east by Jaldhaka river and in the west by NH-31. It covers an area of ca. 79 km² and for administrative set up it is divided into

two ranges viz., Gorumara south range and Gorumara north range; 6 Beats viz., Gorumara, Dhupjhora, Bichabhanga, Ramsai in south range and Murti, Khunia in north range; 7 camps (check post) viz., Bamni, Gorati, Zero, Bundh, Medla, Chukchuki in south range and Tondu in north range. There are 13 revenue villages, 04 forest villages and 05 tea gardens around the park.

The floristic composition of the park was studied through extensive field surveys from 2008 to 2012 and enumerated 350 taxa under 260 genera belonging to 90 families of angiosperms (Ranjan and Kumar, 2020). The present study was undertaken to document the wild edible plants as a source of sustainable resources for food while working on floristic assessment of Gorumara National Park (GNP). All plant specimens after following herbarium technique and proper identification are kept at Central National Herbarium (CAL). A list of these plants along with their family, phenology and parts used has been provided in Table 1.

Table 1: Wild edible plants of Gorumara National Park.

Sl. No.	Name of species	Name of family	Phenology	Edible part/s	Voucher specimen
1	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Amaranthaceae	Throughout	Young leaves and shoot	VK & AK 44435
2	<i>Amaranthus spinosus</i> L.	Amaranthaceae	May–Sep.	Young leaves and shoot	VK & AK 44605
3	<i>Artocarpus heterophyllus</i> Lam.	Moraceae	Feb.–Jun.	Fruits	VK & AK 49969
4	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Mar.–Jun.	Young leaves	VK & AK 49965
5	<i>Bauhinia purpurea</i> L.	Caesalpiniaceae	Sep.–Feb.	Flowers	VK & AK 45323
6	<i>Bridelia stipularis</i> (L.) Blume	Euphorbiaceae	Sep.–Mar.	Fruits	VK & AK 45289
7	<i>Callicarpa arborea</i> Roxb.	Verbenaceae	May–Sep.	Bark	VK & AK 44498
8	<i>Castanopsis indica</i> (Roxb. ex Lindl.) A.DC.	Fagaceae	Sep.–Feb.	Nuts	VK & AK 44623
9	<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Aug.–Jan.	Leaves	VK & AK 44699
10	<i>Chenopodium murale</i> L.	Chenopodiaceae	Dec.– Mar.	Leaves	VK & AK 45340
11	<i>Citrus aurantifolia</i> (Christm.) Swingle	Rutaceae	Nov.–Mar.	Fruits	VK & AK 50045
12	<i>Combretum decandrum</i> Jacq.	Combretaceae	Nov.– Feb.	Bark	VK & AK 45374
13	<i>Commelina benghalensis</i> L.	Commelinaceae	Sep.–Nov.	Young leaves and shoot	VK & AK 44485

14	<i>Desmodium triflorum</i> (L.) DC.	Fabaceae	Sep.–Feb.	Leaves	VK & AK 44602
15	<i>Dillenia indica</i> L.	Dilleniaceae	Mar.–Apr.	Sepals	VK & AK 45445
16	<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Jul.–Nov.	Aerial bulbs	VK & AK 44510
17	<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Throughout	Young leaves and shoot	VK & AK 44648
18	<i>Ficus hispida</i> L.f.	Moraceae	Jan.–Jun.	Figs	VK & AK 44686
19	<i>Glinus oppositifolia</i> (L.) DC.	Molluginaceae	Dec.–Feb.	Young leaves and shoot	VK & AK 45332
20	<i>Lantana camara</i> L.	Verbenaceae	May–Sep.	Fruits	VK & AK 44641
21	<i>Litchi chinensis</i> Sonn.	Sapindaceae	Feb.–May	Fruits	VK & AK 45348
22	<i>Maesa indica</i> (Roxb.) A. DC.	Myrsinaceae	Feb.–May	Leaves and fruits	VK & AK 44483
23	<i>Melastoma malabathricum</i> L.	Melastomataceae	Sep.–Mar.	Fruits	VK & AK 44468
24	<i>Momordica charantia</i> L.	Cucurbitaceae	Aug.–Nov.	Fruits	VK & AK 44643
25	<i>Moringa oleifera</i> Lam.	Moringaceae	Jan.–Jun.	Flowers and fruits	VK & AK 45313
26	<i>Mussaenda roxburghii</i> Hook.f.	Rubiaceae	Sep.–Mar.	Leaves and flowers	VK & AK 44583
27	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Sep.–Feb.	Leaves	VK & AK 49937
28	<i>Nymphaea nouchali</i> Burm.f.	Nymphaeaceae	Throughout	Stalk and flowers	VK & AK 44664
29	<i>Oxalis corniculata</i> L.	Oxalidaceae	Jan.–Aug.	Fruits	VK & AK 49948
30	<i>Peperomia pellucida</i> (L.) Kunth	Piperaceae	Feb.–Oct.	Fruits	VK & AK 44615
31	<i>Phlogacanthus thyriformis</i> (Roxb. ex Hardw.) Mabb.	Acanthaceae	Nov.–Mar.	Leaves and fruits	VK & AK 45224
32	<i>Piper longum</i> L.	Piperaceae	Jan.–Aug.	Fruits	VK & AK 45210
33	<i>Piper nigrum</i> L.	Piperaceae	Aug.–Oct.	Fruits	VK & AK 49968
34	<i>Psidium guajava</i> L.	Myrtaceae	Apr.–Jul.	Fruits	VK & AK 49967
35	<i>Rhynchosyche ellipticum</i> (Wall. ex D. Dietr.) A. DC.	Gesneriaceae	Sep.–Feb.	Leaves	VK & AK 44445
36	<i>Saurauia punduana</i> Wall.	Saurauiaceae	Apr.–Sep.	Fruits	VK & AK 45428
37	<i>Saurauia roxburghii</i> Wall.	Saurauiaceae	Mar.–Sep.	Fruits	VK & AK 44427

38	<i>Schima wallichii</i> (DC.) Korth.	Theaceae	Apr.–Oct.	Leaves	VK & AK 44545
39	<i>Schisandra grandiflora</i> (Wall.) Hook.f. & Thomson	Schisandraceae	Jul.–Sep.	Fruits	VK & AK 50001
40	<i>Sesamum indicum</i> L.	Pedaliaceae	Sep.–Oct.	Seeds	VK & AK 49949
41	<i>Solanum nigrum</i> L.	Solanaceae	Sep.–Feb.	Young leaves and shoot	VK & AK 45320
42	<i>Sterculia villosa</i> Roxb.	Sterculiaceae	Feb.–Jun.	Seeds	VK & AK 45252
43	<i>Stixis suaveolens</i> (Roxb.) Pierre	Capparaceae	Oct.–Feb.	Fruits	VK & AK 45293
44	<i>Syzygium praecox</i> (Roxb.) Rathakr. & N.C. Nair	Myrtaceae	Nov.–Feb.	Fruits	VK & AK 44525
45	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Throughout	Fruits	VK & AK 44619
46	<i>Tetrastigma serrulatum</i> (Roxb.) Planch.	Vitaceae	Jun.–Oct.	Leaves	VK & AK 45392
47	<i>Thunbergia grandiflora</i> Roxb.	Acanthaceae	Aug.–Nov.	Leaves	VK & AK 44455
48	<i>Trichosanthes cucumeriana</i> L.	Cucurbitaceae	Aug.–Dec.	Fruits	VK & AK 49990
49	<i>Typhonium trilobatum</i> (L.) Schott	Araceae	May–Jun.	Leaves	VK & AK 49964
50	<i>Ziziphus jujuba</i> Mill.	Rhamnaceae	Sep.–Feb.	Fruits	VK & AK 49958

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