

FLORAL BIODIVERSITY OF LILY FAMILY IN BAGESHWAR DISTRICT OF UTTARAKHAND

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Abstract: Floral biodiversity is regulated by climate, altitudinal variation, soil types and rainfall. The present paper describes an account of Lily family species, which are used for various purposes including medicinal found in Bageshwar district of Kumaon region of Uttarakhand. Uttarakhand is one of the smaller hilly states, which is situated in the northern side of India. It includes 13 important angiospermic Ranunculaceae species like *Allium cepa* Linn., *A. sativum* Linn., *Asparagus curillus* Buch.-Ham., *A. racemosus* Willd. L.N. Satawar, *Disporum cantoniense* (Lour.) Merrill., *Fritillaria roylei* Hook. F., *Gloriosa superba* Linn., *Polygonatum cirrhifolium* Royle. L.N. Ameda, *P. multiflorum* All., *P. verticillatum* All. L.N. Mahameda etc. This paper records 04 species which have not been reported by Rao (1960), while 02 species have not been reported by R. Strachey (1906).

Keywords: Biodiversity, Bageshwar, Lily family

INTRODUCTION

Biodiversity is the degree of variety in surrounding nature. Plant species are being lost at alarming rate as according to biologist three species are losing in every hour. The success and achievement of biodiversity is that biologist have worked out and classified only 20% (nearly 1.75 million) species so far among total existing species. It has become essential to identify, classify and conserve plant species as in-situ and ex-situ. Angiosperm covers largest numbers of species in plant kingdom and Ranunculaceae is one primitive most and 1st family of angiosperm.

The whole world has become a global village, so plants of one region affects many process of other regions. However Uttarakhand state is well known for its floral biodiversity due to many rivers, hills, peaks, valleys and glaciers. Bageshwar district has very rich floral biodiversity due to dense forest and altitudinal variations. Bageshwar is situated at confluence of river Saryu and Gomti in hilly region of Uttaranchal at 29° 50' N latitude and 79 ° 46' E longitudes with an elevation of 850 m. It includes like Baijnath, Kausani, Pindari Glacier and Kafni Glacier. It comprises mainly alpine, temperate and subtropical types of vegetation. The identification of species was carried out by comparing the herbarium specimens with authentic specimens kept in the Herbarium of Botanical Survey of India, Dehradun (U.K.) for authenticity.

Earlier work

The history of plant collections in this region begins with T. Hardwick (1796), the first European. The flora of Kumaon is known through the collections of Strachey and Winterbottom made during 1846-1849 and published as a catalogue with over 2000 species. Duthie (1906) revised and supplemented the

Catalogue of plants of Strachey and Winterbottom. Osmaston (1927) published the Forest Flora of Kumaon, which enumerates shrubs and trees only. There are several other workers who made significant contributions to the plants of this region. These include Raizada (1931), Sinha (1954), Rao (1959, 1960), Singh & Kumar (1975) and Paliwal *et al.* (2005-06, 2008).

METHODOLOGY

The mention investigation was carried out in many parts of Bageshwar district. Regular visits and surveys were carried for field work and collection.

1. *Allium cepa* Linn. LN. Piyaj (Onion).
Herb. Leaves fistular, bifarious.
Collection: Aarey 2860. Alt.: 900 m.
2. *A. sativum* Linn. LN. Lahsun.
Annual herb. Leaves flat, scape slender.
Collection: Bageshwar 2821. Alt. 900 m.
3. *Asparagus curillus* Buch.-Ham.
Under shrub. Flowers white 1.3 mm in diam.
Collection: Kapkot 2419. Alt.: 1800 m.
4. *A. filicinus* Hamilt. ex D. Don.
Unarmed glabrous shrub. Flowers white.
Collection: Furkia 1772. Alt.: 3200 m.
5. * *A. racemosus* Willd. L.N. Satawar
Climbing, erect, much branched.
Collection: Bageshwar 2849. Alt. 900 m.
6. *Disporum cantoniense* (Lour.) Merrill.
Erect, herb. Flowers greenish-white.
Collection: Loharkhet 2530. Alt: 2100 m.
7. *Fritillaria roylei* Hook. F.
Erect, herb. Flowers greenish-yellow.
Collection: Furkia 2726. Alt.: 3200 m.
8. * *Gloriosa superba* Linn.
Herb, climbing by means of its leaves.
Collection: Harsila 2495. Alt.: 1500 m.
9. * *Lloydia serotina* Reichb.

- Glabrous, herb. Flowers white sub-erect.
Collection: Pindari 1611. Alt.: 3600 m.
10. *Paris polyphylla* Sm.
Glabrous herb. Flowers greenish-yellow.
Collection: Dhakuri 2554. Alt.: 2700 m.
11. *Polygonatum cirrhifolium* Royle. L.N. Ameda
Erect herb. Flowers greenish-white.
Collection: Dhakuri 1911. Alt.: 2700 m.
12. * *P. multiflorum* All.
Glabrous herbs. Fruit berry globose.
Collection: Loharkhet 2534. Alt. 2000 m.
13. *P. verticillatum* All. L.N. Mahameda
Herbs, creeping. Fruit berry globose.
Collection: Dwali 2684. Alt.: 2750 m.

RESULT AND DISCUSSION

This paper records 04 species with asteric mark (*) which have not been reported by Rao (1960), while 02 species with round mark (°) have not been reported by R. Strachey (1906). In this paper 13 enumerated lily family species are described with their family, local name and habit. Due to more demand of medicinal plants like ameda, mahameda, satawar and more profit, local villagers motivated for cultivation of such medicinal plants.

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