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ETYMOLOGY OF ENDEMIC PLANTS OF UTTARAKHAND, INDIA

Acharya Balkrishna, Anupam Srivastava, Bhasker Joshi*, Uday Bhan Prajapati

ABSTRACT

The present paper deals, etymology of endemic plants of Uttarakhand (24 epithets) with botanical name and their primary citation. Most of the species epithets belong to Mountain region; some are based on River, national Park, wild life sanctuary and holy places.

Key words: Epithet, Etymology, Endemic Plants, Uttarakhand.

INTRODUCTION

The Himalayan mountain system extending approximately 2400 km from east to west supports a remarkable assemblage of vegetational formation. Roughly 8000 species of flowering plants are estimated to occur here, of which about 50% species are endemic. Broadly subtropical, temperate, subalpine and alpine forest types are met with in this region. The subtropical and temperate zone in the west Himalaya is predominated by tall conifers, while the broad-leaved species dominate the east Himalaya (Rao, 1997).

Uttarakhand formerly known as Uttaranchal came into being on 9th November 2000 as 27th state of Indian Republic and lies from the Himalayan and adjoining northwestern districts of Uttar Pradesh. It has an area of 53,483 Km² which accounts for 1.69 per cent of the geographical area of the country and shares its borders with Himachal Pradesh on the West, Uttar Pradesh in South, Nepal in the East and China in North (77035'5"-8102'25"E to 28043'45"-31008'10"N) (ENVIS, 2013). In state total 4048 species (1198 genera, 192 families) of Angiosperms and Gymnosperms, of these nearly 116 species are specific to state, 161 species are recognized as rare or threatened

under the categorization of the International Union for Conservation of Nature (UTDB, 2018). This paper account the etymology of endemic plants of Uttarakhand (24 epithets) with botanical name and their primary citation.

1. *almorensis*

Name given on the basis of Almora district (Kumaun region) of Uttarakhand (*Rubus almorensis* Dunn, Bull. Misc. Inform. Kew 8: 310. 1921).

2. *alpina*

Derived from Latin word *alpina* means 'alpine, of upland or mountainous regions' (*Calanthe alpina* Hook.f. ex Lindl., Fol. Orchid. 6: 4. 1855).

3. *austrohimalayaensis*

Derived from Latin words *austro* means 'south' and *himalayaensis* means 'Himalaya Mountain range' (*Artemisia austrohimalayaensis* Y.R.Ling & Puri, Bull. Bot. Res., Harbin 8(3): 7. 1988).

4. *austrohimalayana*

Derived from Latin words *austro* means 'south' and *himalayana* means 'Himalaya Mountain range' (*Artemisia austrohimalayana* Y.R. Ling & Puri, Guihaia 8(1): 64. 1988).

5. *badrinathii*

Name given in the honour of Lord Badrinath, as the type locality is near

the Shrine, which is known as one of the four holiest places (Dhams) in Uttarakhand

(*Impatiens badrinathii* Pusalkar & D.K. Singh, *Taiwania* 55: 13. 2010).

6. *gangetica*

Name given on the basis of Ganges River, India [*Eragrostis gangetica* (Roxb.) Steud., *Syn. Pl. Glumac.* 1: 266. 1854].

7. *gangotriana*

Name given on the basis of type locality Gangotri National Park, Uttarakhand, India (*Silene gangotriana* Pusalkar, D.K. Singh & Lakshmin., *Kew Bull.* 59: 621. 2004)

8. *garhwalensis*

Name given on the basis of Garhwal region of Uttarakhand (India) [*Poa garhwalensis* D.C. Nautiyal & R.D. Gaur, *J. Bombay Nat. Hist. Soc.* 96(2): 285. 1999].

9. *garhwalica*

Name given on the basis of Garhwal region of Uttarakhand (India) [*Indoschulzia garhwalica* (H. Wolff) Pimenov & Kljuykov, *Kew Bull.* 50: 641. 1995].

10. *garhwalicum*

Name given on the basis of Garhwal region of Uttarakhand (India) (*Trachydium garhwalicum* H. Wolff, *Repert. Spec. Nov. Regni Veg.* 27: 124. 1929).

11. *gourigangaica*

Name given on the basis of Gauri Ganga river in Uttarakhand, India (*Aristolochia gourigangaica* N.C. Nair, *Bull. Bot. Surv. India* 10: 332. 1969).

12. *himalaicum*

Name given on the basis of Himalayan Mountains in India (*Cypripedium*

himalaicum Rolfe, *J. Linn. Soc., Bot.* 29: 319 1892).

13. *jaunsarensis*

Name given on the basis of Jaunsar Hills (Uttarakhand) in North-west Himalayas

(*Mahonia jaunsarensis* Ahrendt, *J. Linn. Soc., Bot.* 57: 310. 1961).

14. *kaliensis*

Name given on the basis of Kali River of Uttarakhand (India)

(*Impatiens kaliensis* Grey-Wilson, *Kew Bull.* 44: 65. 1989).

15. *kumaonense*

Name given on the basis of Kumaon region of Uttarakhand, India [*Hedysarum kumaonense* Benth. ex Baker, *Fl. Brit. India* 2(4): 145. 1876].

16. *kumaonensis*

Name given on the basis of Kumaon region of Uttarakhand, India (*Peristylus kumaonensis* Renz, *J. Orchid Soc. India* 1: 23. 1987).

17. *kumaunensis*

Name given on the basis of type locality Kumaun region of Uttarakhand, India (*Saxifraga subspathulata* var. *kumaunensis* Engl. & Irmsch.).

18. *nandadevica*

Name given on the basis of Nandadevi National Park, Chamoli, Uttarakhand, India (*Festuca nandadevica* Hajra, *Indian J. Forest.* 6: 79. 1983).

19. *nandadeviensis*

Name given on the basis of Nandadevi National Park, Chamoli, Uttarakhand, India (*Carex nandadeviensis* Ghildyal, U.C.Bhattach. & Hajra, *Indian J. Forest.* 9: 90. 1986).

20. *sanctuarii*

Name given on the basis of type locality Kedarnath Wild Life Sanctuary,

Uttarakhand

(*Kedarnatha sanctuarii* P.K. Mukh. & Constance, Brittonia 38: 147. 1986).

21. *sar-garhwalensis*

Name given on the basis of Sara village of Garhwal region in Uttarakhand, India

(*Ophiopogon sar-garhwalensis* R.D. Gaur & D.S. Rawat, Fl. Distr. Garhwal 714. 1999).

22. *takil*

Name given on the basis of type locality Mount Takil, Kumaon region of Uttarakhand (*Trachycarpus takil* Becc., Webbia 1: 52. 1905).

23. *tungnathii*

Name given on the basis of Tungnath, a mountain in Uttarakhand, India (*Agrostis tungnathii* Bhattacharya & S.K. Jain, Bull. Bot. Surv. India 25: 204. 1983 publ. 1985).

24. *Kedarnatha*

(*Kedarnatha sanctuarii* P.K. Mukh. & Constance, Brittonia 38: 147. 1986).

Name given on the basis of Kedarnath, India.

DISCUSSION

Overall study reveals that four species belong to Garhwal region and 'Himalaya Mountain range respectively. Three species from Kumaun region, two species from Kedarnath Wild Life Sanctuary and Nandadevi National Park respectively, one species from Jaunsar Hills, Mount Takil, Tungnath Hills, Gangotri National Park, Ganga, Gauri Ganga, Kali River, Almora district and Lord Badrinath respectively. This paper is useful for researchers and scientist to understand the floristic distribution in Uttarakhand.

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