

---

*A REVIEW ON PRUNUS  
CERASOIDS AND ITS HISTORY*

---

PHYTOCHEMICAL & MEDICINAL USES.



**REVIEW ARTICLE**

**Sanket Sadashiv Barge<sup>1</sup>,**

**Ashvini Pandav<sup>2</sup>,**

**Dr. Nilesh chougule<sup>3</sup>.**

**Student<sup>1</sup> ,**

**Ashokrao Mane Institute of Pharmacy,Ambap**

**Assistant Professor<sup>2</sup> ,**

**Ashokrao Mane Institute of Pharmacy,Ambap**

**Principle<sup>3</sup> ,**

**Ashokrao Mane Institute of Pharmacy,Ambap .**

**ABSTRACT**

Prunus cerasoids commonly known as the Himalayan cherry tree, holds significant ethnobotanical and therapeutic value. The scientific name is Rosaceae.[1] In India, this plant is primarily found in the submontane and montane regions of the Himalayas, growing at altitudes between 500 and 2000 meters. Members of the Rosaceae family, Prunus is a broad genus of deciduous or evergreen trees and shrubs that are primarily found in the northern hemisphere's temperate zones.[2] It is especially abundant in the temperate zones of the Garhwal hills, including the Pauri, Tehari, Chamoli, and Uttarkashi districts.

The stem bark is rich in compounds such as flavonone, sakuranetin, prunatin, isoflavonone, and padmkastin. Traditionally, it is used to treat kidney stones and gravel, bleeding disorders, burning sensations, and skin conditions. It is also recognized as an effective anti-abortifacient. When combined with other herbs, the stem is prescribed for snake bites and scorpion stings. In Punjab, the fruit is believed to have anti-parasitic properties. In Indo-China, the bark is utilized to address dropsy, while the flowers are considered diuretic and laxative. The seeds are known for their antihelmintic effects. In China and Malaya, peach kernels are used for coughs, blood disorders, and rheumatism.

Prunus cerasoides is an Ayurvedic herb used to treat skin diseases and improve complexion. Additionally, the leaf extract of Prunus cerasoides is used for prostate and urinary disorders. This article compiles various aspects of Prunus cerasoides and related Prunus species, including their botanical classification, morphological characteristics, chemical constituents, pharmacological properties, and ethnomedicinal uses

**INTRODUCTION**

Ayurveda is an ancient holistic system that has been practiced for over three thousand years, aimed at promoting health and preventing disease.



It focuses on maintaining a balance among the mind, body, and spirit through the management of three doshas, or energies, which govern various bodily functions. The primary objective of Ayurvedic treatment is to harmonize these doshas, detoxify the body, and regulate essential bodily processes. It provides a comprehensive approach to achieving a long and healthy life, emphasizing the importance of diet and herbs in sustaining balance among the doshas.

India is the leading producer of medicinal plants, which are effectively utilized for managing various health conditions. In the early phases of forest succession, woody species are well-known and considered prime species. Rosaceous trees make up a smaller portion of mature mixed deciduous forests.[3]

**MORPHOLOGICAL CHARACTERISTICS**

Prunus cerasoides, commonly referred to as Himalayan wild cherry, is medium sized deciduous tree. Its smooth, brownish grey bark peels off in thin, glossy horizontal stripes to reveal a shiny, copper colour surface beneath. Its leaves are glabrous, ovate, acuminate, and doubly serrated. There are 2-4 glands at the base of the petiole. The conditions are light. October and November are the months when flowers appear. [4]

**PLANT PROFILE**

- Scientific Name: Prunus cerasoides
- Common Name: Himalayan wild cherry, bird cheery and paja
- Ayurveda: Padmak [5]

**TAXONOMICAL CLASSIFICATION**[6][7]

Kingdom	Plantae
Subkingdom	Tracheobionta (Vascular plants)
Infrakingdom	Streptophyta (Land plants)
Superdivision	Spermatophyta (Seed plants)
Division	Magnoliophyta (Flowering plants)
Subdivision	Spermatophytina (Spermatophytes)
Class	Magnoliopsida (Dicotyledons)
Subclass	Rosidae
Superorder	Rosanae
Order	Rosales
Family	Rosaceae (Rose family)
Subfamily	Amygdaloideae
Genus	Prunus
Subgenus	Cerasus
Species	cerasoides D.DON

**SYNONYMS OF PADMAK**[8]

Sanskrit	Padmavarna, Patala Pshpavarnaka
Telugu	Padma Kashtam

Marathi	Padmakastha, Padmaka, Padmakasta
English	Bird cherry, wild Himalayan cherry or sour cherry
Hindi	Padmaka, Padmak
Malayalam	Padimukham

### **AYURVEDIC PROPERTIES [9]**

Ras	Kashaya, Tikta
Guna	Laghu, Snigdha
Virya	Seeta
Vipaka	Kattu
Karma-Kapha	Pittahara, Garbhasthapana, Vedna sthapana, Vrisya, Varnya

### **AYURVEDIC INDICATIONS[10]**

P.cersoides could be a profoundly powerful herb that has been utilized as a key fixing in a few ayurvedic definitions and works as an home grown remedy. A few of the key ayurvedic signs of this **therapeutic** plant **incorporate**:

**Visarpa** : Treats herpes

**Daha** : Lightens burning sensation caused due to gastritis, neuropathy, and burning sensation within the eyes

**Visphota** : Recuperates bubbles and rankles

**Kushta** : Cures skin issues

**Asra** : Successful in treating blood disarranges like an canker, skin issues, dying clutters such as menorrhagia, nasal dying

**Visha** : Treats harmful conditions and harming

**rushna** : Facilitates over the top thirst

**Raktapitta** : Treats dying issues such as nasal dying, overwhelming periods.

**AYURVEDIC FORMULATION OF P.cerasoids[11][20]****Chandanadi taila**

- It is an ayurvedic oil used to treat burning sensation , dizziness, nasal bleeding.

**Mahabringaraj oil**

- An ayurvedic oil which is used to treat hair fall, headache , pain and stiffness

**JATYADI OIL**

- It is an ayurvedic oil preparation which is beneficial in the treatment of wounds this formulation used to external application to treat hair fall.

**Stanyajanana rasayana**

- It is in the form of confectionery to benefit lactating mothers for increasing the breast milk, immunity and body strength.

**Bala oil**

- It is oil to treat vata diseases, vomiting ,cough,,cold asthma, wound, emaciation etc. the oil is used to both externally and internally.

**Grahanimihira oil**

- Ayurvedic oil used in the treatment of diarrhea, fever, cough etc . this oil is used to both external and internal administration.

**MORPHOLOGY OF VARIOUS PRUNUS SPECIES &MEDICINAL USES[11]****2]PRUNUS AMYGDALUS**

A medium sized tree with fimbriate stipules, oblong lanceolate leaves that are grayish when fully developed, and a petiole that is at least as long as the widest part of the leaf. Flowers white, tinged with crimson, appearing before the leaves from scaly buds on last year wood pericarp dry, when ripe dividing into 2 valves, stone compressed with shallow wrinkles and minute hole. The oil relieves headaches and burning sensations and has aphrodisiac and laxative properties. Almond juice combined with sugar is used to treat coughing. Almond and fig mixtures are used as laxative and to ease intestinal pain.

**MEDICAL USES:-**

The oil acts as a laxative and aphrodisiac, and it can alleviate headaches and burning sensations. A mixture of almond juice and sugar is used to treat coughs. Additionally, almonds combined with figs serve as a laxative and help relieve bowel pain[13].

**1) PRUNUS PERSICA**

Big deciduous shrub or small tree with glabrous twigs; lanceolate, ovate lanceolate, or lanceolate oblong, acuminate leaves; usually hairy on the midrib beneath when young serrate; petiole shorter than the greatest width of the leaves; glandular or not; stipule subulate, fimbriate; usually pink flowers appear before; sometimes leaves are sessile or briefly pedicelled, usually solitary on the wood from the previous year. Long, calyx-tube campanulate, 3.8 mm. The mouth of the calyx tube is where the stamens are located. Hirsute and belligerent.

**MEDICAL USES:-**

The leaves are employed in heaps and leucoderma as anthelmintic, insecticidal, and vermifugal agents. The fruit is administered as a stomachic, antiscorbutic, and demulcent [14]. Laxative effect of leaves of *Prunus persica* are reported in traditional system of medicine may be partially due to cholinergic action.

**2) PRUNUS ARMENIACA**

The tree is medium-sized deciduous that has glabrous twigs and leaves that are twisted and broadly oval, with buds measuring 3.5–5 by 3.8–5 cm. The flowers have a very short pedicel and first appear reddish before turning white. They may show up as fascicles or on their own. Drupe, reddish-yellow, smooth on the stone, puberulous, campanulate, hairy at the base of the ovary and style, either glabrous or downy, and with a thickened sulcate border. It has a 5 mm diameter.

**MEDICAL USES:-**

The fruit is sweet, anti-diarrhoeal, antipyretic, emetic. The seeds are tonic and anthelmintic used in diseases of liver, piles and deafness. Kernels extracted during preparation of dry apricots are used for extraction of a fatty oil used for cooking, in pharmaceutical and cosmetic industry and for burning. Kernel of some variety are sweet and eaten like almonds [15].

**3) PRUNUS CERASUS**

A tiny or deciduous shrub with many root suckers, leaves that double in bud, and glands that are solid, shiny, oblong, acuminate, and serrate. Typically around the insertion on the blade's edge blooms in fascicles of two to five on slender petiole-pedicels 2.4 cm, lengthy flowerbeds typically yield a few leaves prior to blossoming, typically serrated calyx lobes, fruit globose; corolla white or pink; pale red to nearly black either sweet or black acid.

**MEDICAL USES:-**

The seed is used to treat chronic bronchitis, gonorrhoea, and scabies. The fruit is sweet and sour, and it acts as a purgative tonic for the brain. [16] Liqueurs are also made with sour cherries. Bark is used to treat diarrhoea and to calm heart palpitations. Children are given a leaf infusion to treat convulsions. A nervine tonic is made from kernels [17].

**4) PRUNUS CERASOIDES**

A medium- to large-sized tree with peeling bark that peels off in horizontal stripes, pale red wood, glossy, virtually hairless leaves that are oval, long acuminate, strongly serrated, with a blade length of 7.5–12.5 cm and a petiole length of 1.3 cm. The stipule is pinnately or palmately split, with glandular fimbriate division liner. The fruit is yellow and red, ovoid or globose, 1.3–2 cm long, and the flowers are white, pink, or crimson. They appear before the leaves in umbellate fascicles that are roughly near the end of the branch. The pedicels are slender, as long as or longer than the calyx, which is turbinate.

**MEDICAL USES:-**

The stem is bitter, acrid, antipyretic, refrigerant, vulnerary causes flatulence, cures leprosy, hallucinations, burning of the body, leucoderma, erysipelas. Useful in vomiting thirst asthma etc. It is used in vitiated condition of Pitta, burning sensation, sprains neuralgia, wound, ulcer, skin decolouration, pruritis, diarrhea.[18]

**USES OF Prunus cerasoids[19]**

The seeds of this herbal plant

- Treating Kidney Stone
- Burning sensations

The infusion of its twigs

- Strengthens the uterus
- Controls bleeding
- Treats insect bites

The bark or the heartwood

- Made into a concoction Drink
- Helps people suffering from excessive sweating
- Burning sensation of the whole body
- Treats fever.

**CHEMICAL CONSTITUENTS**

*P. cersoides* is an extremely impressive medicinal plant as every part of the plant have healing traits and is used for therapeutic purposes. The key chemical components of padmaka comprise beta-sitosterol, stigmasterol, uroslic acid, prunetinoside and neosakuranin. The plant contains flavone glucoside-puddumin A. While the seeds contain flavonoid glycosides, Naringenin-5-O- $\alpha$ -L-rhamnopyranoside, 4'-O-methyl-liquiritigenin-7-O- $\alpha$ -L-rhamnopyranoside, naringenin 4'-methylether 7-xyloside,  $\beta$ -sitosterol-3-O-D-galactopyranoside[20] and their leaves, twigs, bark, and kernels contain acyanogenetic compound. Furthermore, padmak is credited to possess wound-healing, skin-enhancing, [anti-inflammatory](#) and bolstering actions.

**PHARMACOLOGY**

*P. cerasoides* has long been praised for its potent medicinal properties. The plant hasn't been studied much pharmacologically, though. Anti-abortifacient, analgesic, carminative, conceptive, expectorant, antispasmodic, febrifuge, antioxidant, and tonic[21][22] are some of its classifications. Some of the pharmacological activity listed below has been studied in the plant and its main active chemical ingredients.

**PRUNUS CERSOIDES DOSAGE**

*P. cersoides* is available in the form of churna, powder and extracts. The right therapeutic dosage of padmak may vary from person to person depending on their health conditions, age, and nature of the disease. It is advisable to consult an ayurvedic practitioner, as he or she will completely evaluate the indications and recommend the appropriate dosage for the specific period.

**SIDE EFFECTS[23]**

There are not many side effects of *prunus cersoides*.

However, if taken in large amounts may result in weakness, muscle spasms, dilation of pupils and convulsions in a few people.

**PRECAUTIONS[24]**

Though *p. cerasoides* is safe to be taken during pregnancy, it is always recommended to consult a physician before taking this during pregnancy.

**CONCLUSION**

*Prunus cerasoides* and related species are perfect for reconstituting evergreen timberlands in dry tropical locales. The plant's outside applications incorporate utilize as a refrigerant, anti-pruritic, and complexion enhancer. Inside, it capacities as an sexual enhancer, pain relieving, cardiogenic, craving stimulant, and treatment for antidesmatosis, dying, dyspnea, and premature birth.



## REFERENCES

1. Esmaeili A (Ph.D.), Masoudi Sh (Ph.D.), Masnabadi N (M.Sc.) and Rustaiyan AH (Ph.D.). 2010, Chemical Constituents of the Essential oil of Sanguisorba minor Scop. Journal of Medicinal Plants, 9, 67-7
2. Anonymous, The Wealth of India, Publications and Information, volume 7, Directorate CSIR, Hillside road, New Delhi, reprint 1979; p 250.
3. [2] Kim E. Hummer and Jules Janick. (2009). Genetics and Genomics of Rosaceae, Plants Genetics and Genomics: Crop and Models-Book. Springer Science Business Media, LLC.
4. Prunus cerasoides D. Don syn p. puddam (wall) Roxb. ex Brandis non Miq.
5. Nino Joseph NAYCT. Prunus cerasoides D. Don: A Review on Its Ethnomedicinal Uses, Phytochemistry and Pharmacology. Int J Pharm Sci Rev Res, 48(1). 2018;48(1):62–69.
6. ITIS (Integrated Taxonomic Information System), Online Database Prunus cerasoides (<http://www.itis.gov/>) Retrieved on December 04, 2017.
7. GRIN, Prunus cerasoides information from NPGS/GRIN. Taxonomy for Plants. USDA, ARS, National Genetic Resources Program, Retrieved on December 04, 2017
8. Kirtikar KR; Basu BD, Indian Medicinal Plants, 2nd Edition, vol. 2, Published by Lalit Mohan Basu, Allahabad, India, 1989; p 959-60 11.
9. Dravyagun vijnana, vol II by Dr J.L.N. Sastri, Chaukhamba orientalia, edition: second 2005,
10. <https://m.netmeds.com/health-library/post/padamak-prunus-cerasoides-uses-health-benefits-ayurvedic-indications-side-effects-and-precautions?srsId=AfmBOoq4uw0cRqkLMC2nSTQ7q817jRIVjdeYyOXGk4a4OrzwbdxzHQ37>
11. [easyayurveda.com](http://easyayurveda.com)>2016/06/24>padamak
12. K.R. Kritikar and B.D. Basu, Indian Medicinal Plants, International Book Distributors Dehradun 2005, vol 1, P.951-964.
13. Classical uses of medicinal plants, by prof. P.V. Sharma, chaukhambha Visvabharti Varanasi, reprint 2014, page no 955.
14. [www.sciencedirect.com](http://www.sciencedirect.com). Protection against ultraviolet B and C induced DNA damage and skin carcinogenic is by the flower of Prunus persica extract
15. Narayan Das Prajapati, Dr. U.Kumar, Agros Dictionary of Medicinal Plants, Agrobios (India) Jodhpur, reprinted-2005, P274.
16. K.R. Kritikar and B.D. Basu, Indian Medicinal Plants, International Book Distributors Dehradun 2005, vol II, P.958.
17. Narayan Das Prajapati, Dr. U.Kumar, Agros Dictionary of Medicinal Plants, Agrobios (India) Jodhpur, reprinted-2005, P275.
18. Narayan Das Prajapati, Dr. U.Kumar, Agros Dictionary of Medicinal Plants, Agrobios (India) Jodhpur, reprinted-2005.
19. Google AI Meta.

20. Chakravarti D; Ghosh RP, Isolation of a new flavone from the bark of Prunus pudum (N.O. Rosaceac) Science and Culture. VIII (II): 1942-43; p 463

21. Dhar ML, Dhar MM, Mehrotra DNB, Ray C, Screening of Indian plants for biological activity Part I, Ind J Exp Biol, 6: 1968, 232.

22. Blando F, Gerardi C, Nicoletti I, Sour cherry (Prunus cerasus L.) anthocyanins as ingredients for functional foods, J Biomed Biotechnol, (5), 2004, 253.

23. <https://www.easyayurveda.com/2016/06/24/padmaka-prunus-cerasoides-wild->

[24. www.google.com](http://www.google.com)



19. Google AI Meta.

20. Chakravarti D; Ghosh RP, Isolation of a new flavone from the bark of *Prunus pudum* (N.O. Rosaceae) Science and Culture. VIII (II): 1942-43; p 463

21. Dhar ML, Dhar MM, Mehrotra DBN, Ray C, Screening of Indian plants for biological activity Part I, Ind J Exp Biol, 6: 1968, 232.

22. Blando F, Gerardi C, Nicoletti I, Sour cherry (*Prunus cerasus* L.) anthocyanins as ingredients for functional foods, J Biomed Biotechnol, (5), 2004, 253.

23. <https://www.easyayurveda.com/2016/06/24/padmaka-prunus-cerasoides-wild->

[24. www.google.com](http://www.google.com)

## REFERENCES

1. Esmaeili A (Ph.D.), Masoudi Sh (Ph.D.), Masnabadi N (M.Sc.) and Rustaiyan AH (Ph.D.). 2010, Chemical Constituents of the Essential oil of *Sanguisorba minor* Scop. Journal of Medicinal Plants, 9, 67-7
2. Anonymous, The Wealth of India, Publications and Information, volume 7, Directorate CSIR, Hillside road, New Delhi, reprint 1979; p 250.
3. [2] Kim E. Hummer and Jules Janick. (2009). Genetics and Genomics of Rosaceae, Plants Genetics and Genomics: Crop and Models-Book. Springer Science Business Media, LLC.
4. *Prunus cerasoides* D. Don syn *p. puddam* (wall) Roxb. ex Brandis non Miq.
5. Nino Joseph NAYCT. *Prunus cerasoides* D. Don: A Review on Its Ethnomedicinal Uses, Phytochemistry and Pharmacology. Int J Pharm Sci Rev Res, 48(1). 2018;48(1):62–69.
6. ITIS (Integrated Taxonomic Information System), Online Database *Prunus cerasoides* (<http://www.itis.gov/>) Retrieved on December 04, 2017.
7. GRIN, *Prunus cerasoides* information from NPGS/GRIN. Taxonomy for Plants. USDA, ARS, National Genetic Resources Program, Retrieved on December 04, 2017
8. Kirtikar KR; Basu BD, Indian Medicinal Plants, 2nd Edition, vol. 2, Published by Lalit Mohan Basu, Allahabad, India, 1989; p 959-60 11.
9. Dravyagun vijnana, vol II by Dr J.L.N. Sastri, Chaukhamba orientalia, edition: second 2005,
10. <https://m.netmeds.com/health-library/post/padmak-prunus-cerasoides-uses-health-benefits-ayurvedic-indications-side-effects-and-precautions?srltid=AfmBOoq4uw0cRqkLMC2nSTQ7q817jRIVjdeYyOXGk4a4OrzwbdxzHQ37>
11. [easyayurveda.com>2016/06/24>padamak](http://www.easyayurveda.com/2016/06/24/padamak)

12. K.R. Kritkar and B.D. Basu, Indian Medicinal Plants, International Book Distributors Dehradun 2005, vol 1, P.951-964.
13. Classical uses of medicinal plants, by prof. P.V. Sharma, Chaukhambha Visvabharti Varanasi, reprint 2014, page no 955.
14. [www.sciencedirect.com](http://www.sciencedirect.com). Protection against ultraviolet B and C induced DNA damage and skin carcinogenic is by the flower of Prunus persica extract
15. Narayan Das Prajapati, Dr. U.Kumar, Agros Dictionary of Medicinal Plants, Agrobios (India) Jodhpur, reprinted-2005, P274.
16. K.R. Kritkar and B.D. Basu, Indian Medicinal Plants, International Book Distributors Dehradun 2005, vol II, P.958.
17. Narayan Das Prajapati, Dr. U.Kumar, Agros Dictionary of Medicinal Plants, Agrobios (India) Jodhpur, reprinted-2005, P275.
18. Narayan Das Prajapati, Dr. U.Kumar, Agros Dictionary of Medicinal Plants, Agrobios (India) Jodhpur, reprinted-2005.