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# Utilization of Some Exotic Plants in Ethnobotany of Malegaon Tehsil from Nashik District, Maharashtra

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**ABSTRACT**

The present work covers the several exotic plants from Malegaon Region of Nashik District, many of which are under cultivation and several species are wild which are of many ethnobotanical importances in the region. The data collected in the present work is both of qualitative as well as quantitative type. The present work documents 29 exotic plant species studied in the region belonging to 22 families, of which 18 are Dicotyledons and 4 are monocotyledons with of variable occurrence. The dominant families include Amaranthaceae & Euphorbiaceae. 15 plant species are herbs, 2 plant species are shrubs, 10 plant species are trees, 2 species are climber. Though these plant species are exotic but most of them are naturalized and now they are becomes the part of vegetation in the region. The different plant parts such as root, stem, bark, leaves, flower, fruit, seed, gum, latex, etc. are used for the medicinal purposes.

Key words – Ethnobotany, Exotic, Nashik

## Introduction

The plants which are non native and introduced in a specific area where the plant does not occur naturally or their centre of origin is not indigenous such plants are known as exotic plants. The exotic species are also known as *Alien Species, Non–indigenous species, Non–native species, Foreign species or Introduced species.* The exotic plants may show adverse effect or may be beneficial to local ecosystem and causes significant changes in the environment. At the beginning of introduction of the species, the plants were entered through anthropogenic activities. Once the species survive and sustain in the environment they get acclimatized and started their reproduction for the continuation of species. These plants are transported from one geographical region to another based on needs, uses, and purposes. Later on this species automatically shows invasion in the area and get distributed throughout the region through pollinators. Sometimes the foreign species are used as biological control agent who produces harm to certain species. Exotic species adapt easily to any condition and leads to threat and extinction of native species. The birds, insects and other organisms which rely on native species are in danger to survive and breed. Exotic species are mostly showy in nature and does not produce nectar, fruits and useful products. They are not enough, in good condition to provide shelter to the living organisms in the area. Generally the plants are brought in the region for ornamental purpose because of their showy, attractive, colourful and draught resistant nature. As days pass, the local peoples get familiar with the plants and they started ethnobotanical uses as per their convenience and results in day today life. Now the local peoples are using the plants as medicine, food, fodder, timber etc.

## Methodology

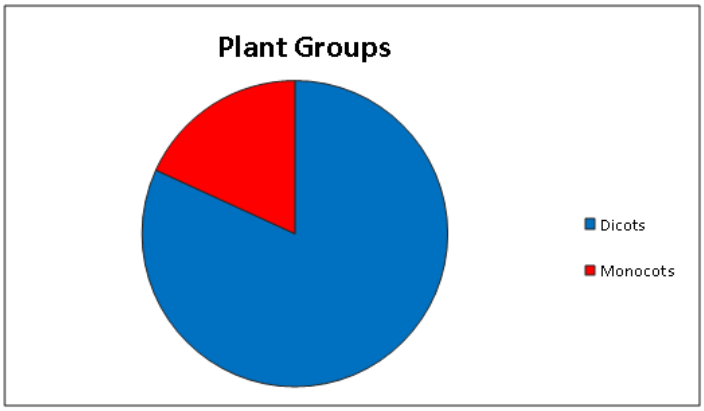
The plants were documented by continuous field visits of the study area during June 2020 to February 2022. Structured, semi structured and oral interviews of local peoples were taken. The plants were identified by using research articles, Monograph, and from senior plant taxonomist. The plants are arranged alphabetically with their scientific names, local names, habit, and native place.

**Enumeration of plants**

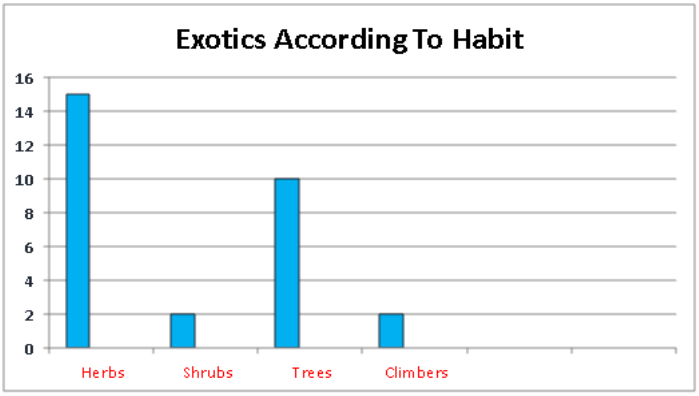
| Sr.No. | Botanical Name | Local Name | Family | Habit | Uses |
|---|---|---|---|---|---|
| 1 | *Acacia nilotica ssp.indica* (Bth.) Benan | Vedibabhul | Mimosaceae | Tree | Wound healing, toothache, timber, charcoal, fodder, agricultural implements. |
| 2 | *Agave americana* L. | Ghaypat | Amaryllidaceae | Herb | Wound healing, Fibre, Insect repellent |
| 3 | *Achyranthus aspera* L. | Aghada | Amaranthaceae | Herb | Cough, Bronchitis, Rheumatism, malarial fever, Dysentery, Piles, Fistula, Asthma, hypertension, Kidney stone, Religious uses |

| | | | | | |
|---|---|---|---|---|---|
| 4 | *Aloe vera* (L.) Burm. F. | Korphad | Liliaceae | Herb | Burns, Wounds, Rashes, Constipation, Dyspepsia, Herbal uses |
| 5 | *Amaranthus spinosus* L. | Kateri math | Amaranthaceae | Herb | Spermatorrhoea, Diuretic, Ophthalmic, Gonorrhea, Diarrhea, Dysentery |
| 6 | *Argemone mexicana* L. | Bilayat | Papaveraceae | Herb | Scorpion bite, Fever, Toothache, Muscle pain, Inflammation, Wound healing , constipation, Abdominal colic, Rheumatism |
| 7 | *Annona reticulata* L. | Ramphal | Annonaceae | Tree | Edible, Timber, Insect repellent |
| 8 | *Anona squamosa* L. | Sitaphal | Annonaceae | Tree | Dysentery, Urinary troubles, Veterinary uses, Religious |
| 9 | *Azadirachta indica* A Juss. | Neem | Meliaceae | Tree | Wound healing, Antifungal, Scorpion & Honeybee sting, Religious, Timber |
| 10 | *Bauhinia racemosa* Lam. | Apata | Ceasalpiniaceae | Tree | Antidiabetic, Headache, Fewer, Skin diseases, Blood diseases, Dysentery, Diarrhea, Dyspepsia |
| 11 | *Brassica juncea* (L) Czern. & Coss | Mohari | Brassicaceae | Herb | Ulcers, Antibiotics, Headache, Fibre |
| 12 | *Butea monosperma* (Lam.) Taub. | Palas | Fabaceae | Tree | Anthilmentic,Appetizer, Aphrodisiac,Laxative, Dyspepsia,Diarrhoea, Dysentery, Diabetes, Ulcer |
| 13 | *Cardiospermum helicacabum* L. | Kapalphodi | Sapindaceae | Climber | Rheumatism, Swelling, Laxative, Fibre |
| 14 | *Calotropis procera* Ait. | Rui | Asclepiadaceae | Shrub | Leprosy, Ringworm, Guinea worm blisters, Scorpion sting, Venereal sore, Ophthalmic disorders, Snakebite, Religious uses |
| 15 | *Catharanthus roseus* (L.) G Don | Sadaphuli | Apocynaceae | Herb | Menstrual complaint, Blood pressure, Muscle pain, Anticancer |
| 16 | *Celosia argentea* L. | Kombada | Amaranthaceae | Herb | Vegetable, Eye diseases, Vegetables |
| 17 | *Commelina forsskalaei* vahl. | Kenpat | Commelinaceae | Herb | Redness and itching, Ethnoveterinary, Vegetable, Fodder |
| 18 | *Convolvulus arvensis* L. | Chandvel | Convolvulaceae | Trailing herb | Diuretic, Laxative, Fever and wound healing, menstrual problems, urinary troubles |
| 19 | *Cuscuta reflexa* Roxb. | Amarvel | Cuscutaceae | Climber | Control Bleeding and reduced inflammation, promote strong hair root, Scabies, appetizer and liver stimulant. |
| 20 | *Cymbopogon citratus* (DC) Stapf. | Gawatichaha | Poaceae | Herb | Cold, Fever, Cough, headaches, stomachache, abdominal pain, and muscle pain. |
| 21 | *Emblica officinalis* Gaertn. | Awala | Euphorbiaceae | Tree | Indigestion, Diarrhea, Gonorrhoea |
| 22 | *Euphorbia hirta* L. | Dudhi | Euphorbiaceae | Herb | Kidney stone, Asthma, Cough, Burns, |
| 23 | *Mirabilis jalapa* L. | Gulbakshi | Nyctaginaceae | Herb | Menstrual disorders,Inflammation Anticancer drugs |
| 24 | *Opuntia elatior* Mill. | Nivdung | Bignoniaceae | Shrub | Inflammation and joints, Asthma, Anemia, Inflammatory disorders, Bone fracture |
| 25 | *Oscimum americanum* L. | Rantulsi | Lamiaceae | Herb | Wounds, Burns, Cough, Rheumatism, soaps and cosmetics |
| 26 | *Psidium guajava* L. | Peru | Myrtaceae | Tree | Cholera, Diarrhoeatic, Astringent, Diarrhoea and Dysentery, |
| 27 | *Ricinus communis* L. | Erand | Euphorbiaceae | Tree | Muscular pain, Fractured part of animals, skin problems |
| 28 | *Syzygium cumini* (L.) Skeels | Jambhul | Myrtaceae | Tree | Blood pressure, Kidney stone, Diabetes |
| 29 | *Tridax procumbens* L. | Ghawatichaha | Asteraceae | Herb | Wound healing, Swelling, Insect repellent |

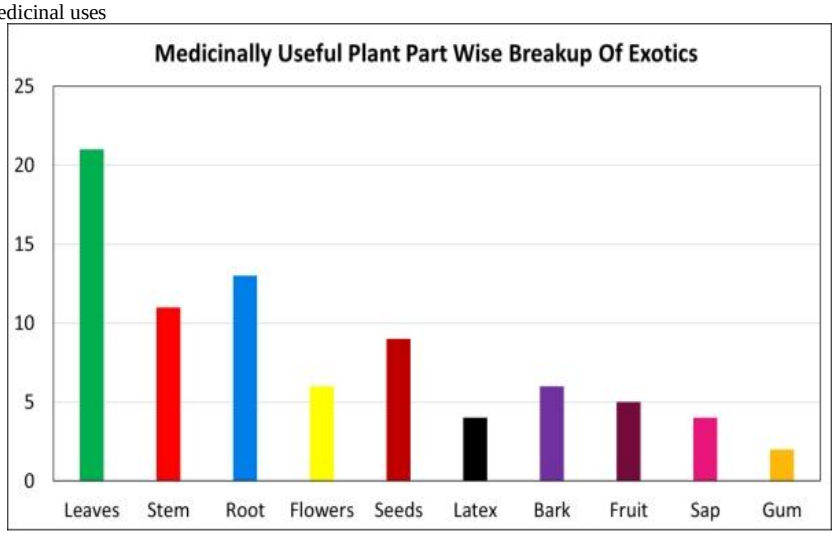
Graph 1: The graph shows number of dicot and monocot plant number




Graph 2: Plants accordibg to habit




Graph 3: Plant part wise medicinal uses




## Result and Discussion

Exotic plants found in Maharashtra naturalized, in some parts of the forest along dams, roadsides, canals around villages, on hedges of fields and in agriculture and they are dominating to the natural vegetation. Some earlier reports on this plants having ethnobotanical values reported by Kothale and Rothe (2009), WHO (2002), WHO (2004).

It is said that exotics can be harmful to the composition of natural vegetation but they are fulfilling the demands of the society with vital roles in maintaining the ecosystem. Observation during the study revealed that the flora of the region is rich in the several exotic plant species. The present work covers the several exotic plants species in Malegaon, many of which are under cultivation and several species are wild which are of many ethnobotanical and medicinal importance in the region. The data collected in the present work is both of qualitative as well as quantitative type. The

present work is done on 29 exotic plant species studied under the region belonging from 22 families, of which 18 are Dicotyledons and 4 are monocotyledons which all of variable occurrence. The dominant families include Amaranthaceae & Euphorbiaceae. 15 plant species are herbs, 2 plant species are shrubs, 10 plant species are trees and 2 species are climber. Though these plant species are exotic but most of them are naturalized and now they are becomes the part of vegetation in the region. The different plant of the exotics such as root, stem, bark, flower, fruit, seed, gum, latex, etc. are used for the medicinal purposes.

## Conclusion

Since ancient time, the human society as well as all living organisms relies on plants for fulfillment of their basic demands. Introduction of exotic species to the particular area have both positive and negative consequences. From the study done, it can be concluded that, the region is rich in exotic species and most of the exotic species are under cultivation & in wild. Exotics have also potential use in traditional medicines. Though these exotics have potential uses but some exotic species today are just invasive and vanishes the natural vegetation. For instance, invasion of Congress (Parthenium sps.) and Cassia sps. dominated over last ten years of span in the region have caused loss and unnecessary wastage of nutrients from soil and apart from this they also caused significant loss of agricultural produce. Today the global trade, travel and human interference is the main cause of exotic introduction and the climate changing pattern is also in favor for the successful establishment invasion of exotics. The present work mainly emphasized the valuable aspects of exotics species but still we cannot forget to conclude that they have contributed a lot in the destruction or depletion of native ness of the flora and also fauna of the r since time immemorial.

**References**

1) Almeida M. R. (1996-2009) Flora of Maharashtra. Vol. I - V Orient Press, Mumbai.
2) Anonymous, 1960. Valmiki Ramayana (along with Hindi translation) Gita Press, Gorakhpur.
3) Bailey, L. H. (1949). Manual of cultivated plants, New York.
4) Balapure, K. M., J. K. Maheshwari & R. K. Tandon. (1987). Plants Of Ramayana Ancient Science of Life, Vol No. Vii No. 2, 76 – 84.
5) Bhattacharjee, S.K. (2008) Handbook of Medicinal Plants (5th Rev. Edn.). Pointer Publishers, Jaipur.
6) Cooke, T. (1958 Repr. Ed.). Flora of the Presidency of Bombay, Vol I-II Reprinted (2nd ed.) 1967. BSI, Kolkata, Govt. of India.
7) Dalzell, N. A. and Gibson, A. (1861). The flora of Bombay. Vol. 2. Bombay.
8) D'Antonio, C.M. (2000) Fire, plant invasions and global change in Invasive Species in a Changing World (Mooney, H.A. and Hobbs, R.J.,eds), pp. 65–93, Island Press
9) Hopkins, E. W. (1901). Epic versification" The Great Epic of India. New York: C. Scribner's Sons. PP191-192.
10) Jain, S..K.and. R..R..Rao. (1977). A Handbook of Field and herbarium methods. Today and Tomorrow's publishers.
11) Kapoor, L.D., 2001. Handbook of Ayurvedic Medicinal Plants, CRC Press LLC.
12) Karnick, C. R. Ethnobotanical records of drug plants described in Valmiki Ramayana and their uses in Ayurvedic system of medicine Quart. J. Crude drug Res. 13, pp. 143 – 154 (1975).
13) Kshirsagar S.R. (2005). Origin, present status and distribution of exotic plants in south Gujarat. Indian Journal of Forestry 28: 136-143.
14) Macdonell and Keith, 1912. Pancavimsa Brahmana, Jaiminiya Upanisad Brahmana, Katyayana Srauta Sutra, Latyayana Srauta; tra, Sankhayana Srauta Sutra;, II:55.
15) Matthew K.M. (1969). Exotic flora of Kodaikanal and Palni hills. Records of Botanical Survey of India 20(1): 1-241.
16) Mulay, J.R. and P. P. Sharma, 2014. Some Underutilised Plant Resources as a source of food from Ahmednagar District, Maharashtra, India. Discovery, 2014, 9(23), 58-64.
17) Naik V.N. (1998), Flora of Marathwada Amrut Prakashan, Aurangabad.
18) Naik V.N. (1998) Marathwadyatil Samanya Vanauoshadhi, Amrut Prakashan, Aurangabad.
19) Pradhan, S.G, Singh, N. P. Flora of Ahmednagar District, Maharashtra. 1999. Bishen Singh Mahendra Pal Singh, Dehradun.
20) Prasad, S. and Misra, A. K. A comparative study of the floristic account in Ramayana of Valmiki and Tulsidas (Ramcharit Manas). Recent Advances in Plant Sciences, (Seminar) Abstracts of Papers, Kalyani 91976).
21) Reddy, K. N., Chiranjibi P., Reddy, C. S and Raju, V. S. 2007. Traditional knowledge on wild food Plants in Andhra Pradesh. Indian Journal of Traditional Knowledge, 6 (1), 223-229.
22) Sagreiya, K. P. 2005. Forest and Forestry, National Book Trust, India.
23) Sharma B.D. (1984). Exotic flora of Allahabad. BSI, Dehra Dun.
24) Shastri, H. P. The Ramayana of Valmiki (translated) Shanti Sadan, London. 1957.
25) Shirke, D.R. 1983. The study of the flora of Ahmednager. J. Univ. the flora of Ahmednager. J. Univ. Poona Sci. Tech. 1983, 56, 55-70
26) Singh NP, Karthikeyan S. (Eds). 2000. Flora of Maharashtra State Dicotyledones. Botanical Survey of India, Kolkata, 2000, 1
27) Singh, N. P., Laxminarasimhan, P., Karthikeyan, S., Prasanna, P. V. (Eds). 2001. Flora of Maharashtra State Dicotyledones. Botanical Survey of India, Kolkata, 2001, 2
28) Talbot, V. A. (1909-11). Forest flora of Bombay Presidency and Sind, Vol.2.
29) WHO (2000) Promoting the role of Traditional Medicine in Health System: a strategy for the African Region 2001-2010. Harare, World Health Organization.
30) WHO (2004) The legal Status of Traditional and Complementary Medicine. London, BMJ Books.