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Eye-catching ornamental members of Fabaceae, Caesalpiniaceae and Mimosaceae

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Abstract
The present study on ornamental potential plants of Kavanur panchayath of Malappuram District of Kerala reveals that, there are about 15 genera and 20 species of plants were distributed in the three major families such as Fabaceae, Caesalpiniaceae and Mimosaceae. The ornamental potentiality is mainly due to the good looking habit or plant parts along with the attractive beautiful flowers. The domestication of many wild plants in ornamental point of view is also an ex-situ method conservation approach for conserving the natural resources.

Keywords: Ornamental members, Fabaceae, Caesalpiniaceae, Mimosaceae

1. Introduction

Mankind has enjoyed a long historical relationship with plants, using them as objects of beauty, sculpting gardens into a form of art and fashioning them into expressions of philosophical belief. From the 1970s onwards there has been a remarkable resurgence in worldwide interest in ornamental plants which resulted in renewed efforts to search for and develop new ornamental plants (Prasad and Thomas, 2015) [1]. Ornamental plants are grown usually for the purpose of beauty, for their fascinating foliage, flowers and their pleasant smell (Swarup, 1998) [2]. They plays an important role in environmental planning of urban and rural areas for abatement of pollution, social and rural forestry, wasteland development, aforestation and landscaping of outdoor and indoor spaces (Kapoor and Sharga, 1993) [3].

Ornamental plants used in horticulture should be understood as an expression of the human desire. These ornamental plants exercise a strong, positive influence on human behavior. Most of the present day flowers have come from the wild progenitors, a few of which still exist in natural habitat (Thomas *et al.*, 2011) [4]. The more attractive wild flowers have long been prized for the beauty and planted in the garden around man kinds dwelling places (Sarvalingam and Rajendran,n 2014) [5]. The domesticated wild plants are propagated in various horticultural methods such as cuttings, grafting, budding and through seeds also (Thomas *et al.*, 2011) [6]. Nature has given a wealth of wild flower and ornamental plants, unfortunately many of them have been destroyed to such an extent that several have become extinct and survival of many is endangered by over exploitation by human beings (Arora, 1993) [7]. Among these, many of these are used as both indoor as well as outdoor plants (Wright *et al.*, 2004) [8].

2. Study Area

Kavanur Panchayath of Malappuram District, Kerala

Kavanur grama panchayath is situated in Areacode block of Eranad thaluk in Malappuram district of Kerala. The district Malappuram is bounded on the north by Wayanad and Kozhikkode districts, on the northeast by Tamil Nadu, southeast by Palakkad District, southwest by Thrissur district, west by the Arabian Sea. It spreads across 31.3 square kilometer. On northern side it borders with Areacode and Urngattiri grama panchayath. On its south part it borders with Pulpatta grama panchayath. Its borders on eastern side is Edavanna and Thrikkalangode grama panchayath, similarly on west it has Areacode and Kuzhimanna grama panchayath respectively.

Kavanur panchayath was formed on 1 January 1962. It is a rural area having much priority for Agricultural activities. Ponnanchira pond, which has an area of around 900 metre square is one of the major water resources of this panchayath. In the past, when pasture land and public water resources were much common. Currently agriculture and cattle farming were the main sources of income. About 60% of the land of this panchayath which covers hill slopes, 15% of the area is of plain and the remaining 25% is clay field which is much suitable for the cultivation of paddy and other vegetables. The ground water availability of this panchayath is in 30 metre depth in plain area and 13 metre depth in clay fields (Fig.1).

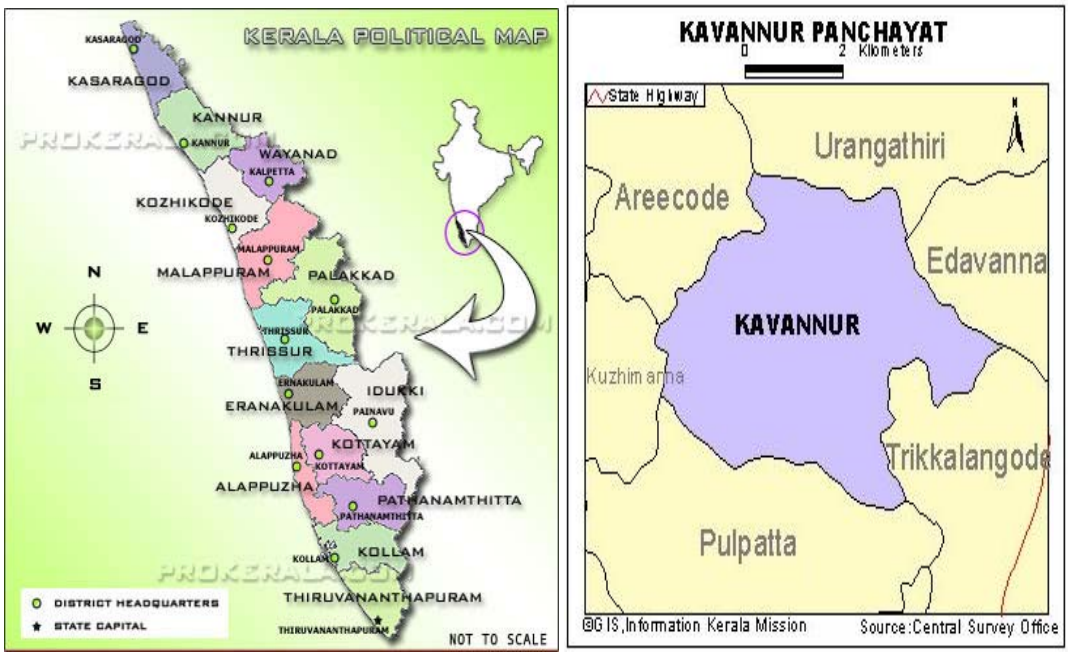

Fig 1: Map of Kerala showing Malappuram District and Kavanur Panchayath

3. Results and Discussion

The present documentation on ornamental potential plants of Kavanur panchayath of Malappuram District of Kerala reveals that, there are about 15 genera and 20 species of plants were distributed in the three major families like Fabaceae, Caesalpiniaceae and Mimosaceae (Table-1). Out of these three families the family like Caesalpiniaceae is the dominant one with 11 species followed by Fabaceae with 6 species and Mimosaceae with 3 species respectively. The ornamental potentiality is mainly due to the good looking habit or plant parts along with the attractive beautiful flowers. The flower colour analysis of the present study results that, out of 20 species documented, 7 species are possessing yellow colour followed by 4 species with pink colour, 5 species with red colour and 4 species with white colour respectively.

Similar observations were done by different authors. The exploration of wild ornamental flora of YSR District, Andhra Pradesh, India was carried out by Rajagopal Reddy *et al.* (2012) [9]. According to their observation YSR district of Andhra Pradesh had abundance of wild ornamental plants. These wild ornamental plants exhibits wide range of diversity in terms of taxa, habit and growth forms. They identified 356 species belonging to 246 genera and 105 families with potential artistic ornamental value and analyzed their characteristics and habitats. They conclude that the ornamental potential of most plants are its flowers, and some species have ornamental fruits and foliage also. Similarly Sarvalingam and Rajendran, (2014) [10] were also studied the wild ornamental climbing plants of Maruthamalai hills in the Southern Western Ghats, Tamil Nadu. Their result reveals that, the families like Convolvulaceae and Fabaceae are dominant one with diverse attractive and also good looking plants.

Observations on the ornamental flora of Banaras Hindu University campus, India was done by Singh, (2014) [11]. He explored the ornamental floristic wealth of the vast and verdant campus of Banaras Hindu University, spreading over 1,300 acres of land area. He recorded total of 390 ornamental plant species, mostly dominated by the Angiosperms. According to him Angiospermic group of plants were represented by 231 genera and it is distributed among 71 families. Out of these, the families like Fabaceae, Euphorbiaceae and Asparagaceae are the dominant ones in the campus.

Table-1 List of ornamental plants which are documented from the study area

S. No.	Botanical Name	Local Name	Family	Ornamental potentiality
1.	*Abrus precatorius* L. (Pl. 1A)	*Kunnikuru*	Fabaceae	Good looking habit with attractive flowers and red coloured seeds
2.	*Alysicarpus vaginalis* (L.) DC. (Pl. 1B)	*Nila-orila*	Fabaceae	Creeping habit with attractive flowers
3.	*Arachis glabrata* Benth. (Pl. 1C)	*Pookadala*	Fabaceae	Attractive spreading habit with beautiful bright yellow flowers
4.	*Clitoria ternatea* L.	*Sankupushpum*	Fabaceae	Attractive climbing habit and good looking blue or white flowers
5.	*Crotalaria heyneana* Graham *ex* Wight & Arn.	*Kilukilukki*	Fabaceae	Beautiful blue coloured flowers on raceme
6.	*Crotalaria pallida* Dryand.	*Kilukkampettichedi*	Fabaceae	Gorgeous yellow flowers
7.	*Bauhinia acuminata* L. (Pl. 1D)	*Veluthamandaram*	Caesalpiniaceae	Handsome white flowers and bilobed leaves
8.	*Bauhinia purpurea* L. (Pl. 2A)	*Chuvannamandaram*	Caesalpiniaceae	Striking leaves and purple coloured flowers
9.	*Bauhinia variegata* L.	*Mandaram*	Caesalpiniaceae	Attractive leaves and purple coloured flowers
10.	*Caesalpinia pulcherrima* (L.) SW.	*Rajamalli*	Caesalpiniaceae	Attractive corymb inflorescence
11.	*Cassia fistula* L.	*Kanikonna*	Caesalpiniaceae	Stunning bright yellow inflorescence
12.	*Cassia javanica* L. (Pl. 2B)	*Konna*	Caesalpiniaceae	Beautiful pink coloured flowers. Also grown as avenue tree
13.	*Delonix regia* (Boj. *ex* Hook.) Rafin.	*Poomaram*	Caesalpiniaceae	Shading habit with attractive red flowers, also grown as avenue tree

14.	*Peltophorum pterocarpum* (DC.) Backer *ex* Heyne	*Charakonna*	Caesalpiniaceae	Shading habit with eye catching yellow flowers, also grown as avenue tree
15.	*Saraca asoca* (Roxb.) de Wilde (Pl. 2C)	*Ashokam*	Caesalpiniaceae	Beautiful foliage with fragrant yellow, red or orange flowers
16.	*Senna polyphylla* (Jacq.) H.S. Irwin & Barneby (Pl. 2D)	*Poochedi*	Caesalpiniaceae	Stunning habit with attractive yellow coloured flowers
17.	*Adenanthera pavonina* L.	*Manchadi*	Caesalpiniaceae	Bright yellow seeds, also grown as avenue tree
18.	*Calliandra emarginata* Benth.	*Poovadi*	Mimosaceae	Attractive red coloured flowers
19.	*Calliandra haematocephala* Hassk.	*Bush flower*	Mimosaceae	Beautiful red globose head
20.	*Racosperma auriculiforme* (Benth.) Pedley	*Acacia*	Mimosaceae	Attractive phyllode and yellow flowers, also grown as avenue tree

Plate-1

A) *Abrus precatorius* L.

B) *Alysicarpus vaginalis* (L.) DC

C) *Arachis glabrata* Benth.

D) *Bauhinia acuminata* L.

Plate-2

A) *Bauhinia purpurea* L.

B) *Cassia javanica* L.

C) *Saraca asoca* (Roxb.) de Wilde

D) *Senna polyphylla* (Jacq.) H.S. Irwin

4. Conclusion

The present study highlights the ornamental value of some selected species of leguminosean members of the study area. These families are widely distributed and also the dominant over the study area. Besides these, they are also having some medico-potentialities to cure different ailments. The identification and exploration of wild ornamental species is one of the new areas of research and also accounts wide spectrum of uses in environmental management. There are some threatened factors such as anthropogenic activities, habitat destruction and unsustainable utilization of natural resources may adversely affects the existing plant diversity of the study area. The present observation also emphasizes the need for the conservation of natural resources for the existence of current and future generation.

5. References

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