Plant diversity in the homegardens of Karwar, Karnataka, India

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Manuscript received: 22 May 2014. Revision accepted: 25 July 2014.

ABSTRACT

Bhat S, Bhandary MJ, Rajanna L. 2014. Plant diversity in the homegardens of Karwar, Karnataka, India. Biodiversitas 15: 229-235. A study was conducted in 50 selected home gardens of Karwar, Karnataka, India to document their floristic diversity and composition with regard to life forms and forms. As many as 210 species of flowering plants belonging to 69 families were recorded. Euphorbiaceae (13 species), Apocynaceae (11 spp.), Cucurbitaceae (10 spp.) and Fabaceae (10 spp.) are the predominant families. Shrubs are the dominant life forms (73 spp.) followed by trees (61 spp.), herbs (42 spp.) and climbers (24 spp.). Areca palm (Areca catechu), coconut palm (Cocos nucifera), mango tree (Mangifera indica), banana (Musa paradisiaca), shoe flower ( Hibiscus rosa-sinensis) and holy basil (Ocimum tenuiflorum) are the most common plants occurring in the all of the 50 studied gardens. 38% of the plant species are grown mainly for ornamental and aesthetic purposes while 33% of the species are used for obtaining food products like fruits and vegetables and 22% of the plants are mainly used for medicinal purposes. The predominance of ornamental species makes the home gardens of Karwar different from those occurring in other regions in which mostly food plants form the major component.

Key words: Biodiversity conservation, homegarden biodiversity, Karnataka, India.

INTRODUCTION

Tropical home gardens are traditional agro-forestry systems characterized by the complexity of their structure and multiple functions (Das and Das 2005). They are, presumably, the oldest form of managed land-use systems next only to shifting cultivation (Kumar and Nair 2004). Homegardens are defined as land-use systems involving deliberate management of multipurpose trees and shrubs in intimate association with annual and perennial agricultural crops and invariably livestock within the compounds of the individual houses (Fernandes and Nair 1986).

Homegardens are dynamic in their evolution, composition and uses. Besides ensuring a diverse and stable supply of socio-economic products and services such as food, medicine, firewood, fodder, timber, etc. to the families that maintain them, home gardens also are recognised as important in situ sites of biodiversity conservation, especially of agro biodiversity. They also invite the attention of researchers as interesting models of sustainable agroecosystems characterised by efficient nutrient recycling, low external inputs, soil conservation potential, ecofriendly management practices, etc (Torquebiau 1992; Jose and Shannugaratnam 1993).

Homegardens have been reported mainly from the tropical and sub-tropical regions of Asia, Africa and Mesoamerica and also from other regions like North America and Europe (Nair and Kumar 2006). In India, research on home gardens have been mainly concentrated in Kerala (Kumar et al. 1994; Puskaran 2002), Assam (Das and Das 2005) and Andaman islands (Pandey et al. 2006, 2007). No scientific data is so far available from Karnataka State but for a study of tree species in the village ecosystems (Shastri et al. 2002). This study is therefore planned with the main objectives of inventoring the plant biodiversity of homegardens of the villages of Karwar of Karnataka State, India and understanding its uses. The data thus generated will form the basis for further studies regarding the structure and socio-economic contributions of home gardens of Karnataka, India.

MATERIALS AND METHODS

Karwar is a taluk (revenue sub-division) and administrative headquarters of Uttara Kannada district of Karnataka state of India. This area is situated between 14° 48' N latitude and 74° 11'E longitude and is surrounded by the West Coast and the Western Ghats of India. The total geographical area of the taluk is 724.12 sq kms. The present study was conducted in 10 villages of Karwar namely Arga, Chandya, Amadalli, Guddalli, Shirawad, Kadawad, Kinnar, Siddar, Ulaga and Halaga (Figure 1).

The people of the region represent a mixture of rich ethnic and cultural diversity. Brahmin, Halakki Gouda, Komar Panth, Konkan Marath, etc. are the predominant communities inhabiting this region. The area is still predominantly agrarian with other livelihood activities such as forest produce and firewood gathering, small scale business, etc. Paddy (Oryza sativa) is the principal crop cultivated. ‘Konkani’ and ‘Kannada’ are the main languages.
The 50 home gardens covering the 10 chosen villages of the study area were selected for inventorying the floristic composition. In each of the home garden, a detailed survey of the plant species was made during different seasons of the study period which was extending from June 2013 to March 2014. The elder members of the household were interviewed to gather information about the local names, parts used and the uses of plant species present in their home gardens. Plants in the Home gardens were identified with the help of local flora and other relevant literature (Cooke 1967; Bhat 2003).

RESULTS AND DISCUSSION

The size of home gardens studied ranged from 0.01ha to 0.05ha, the average size being 0.02ha. A total of 210 species of flowering plants have been recorded from the 50 gardens during different seasons of the study period (Table 1). They belonged to 69 plant families. Families which are represented by 10 or more number of species are Euphorbiaceae (13 species), Apocynaceae (11sp.), Cucurbitaceae (10 spp.) and Fabaceae (10 sp.). The 21 most important families with 4 or more number of species are shown in Fig.2. The minimum number of plants recorded in a garden is 44 and the maximum recorded number in a garden is 138. Species diversity depended on size of the garden and highest percentage of gardens (32%) had species numbers ranging from 61 to 70 (Figure 3). 10 gardens had more than 70 species, out of which only one had more than 100 species.

Life-form analysis of the plant species (Figure 4) indicated that shrubs are the predominant forms with 73 species which account for 35% of the total recorded species. 61 species are trees (29%), 42 herbs (20%) and 34 are climbers (16%).

The species diversity of the home gardens of Karwar appears to be considerably high when compared to other parts of India. 122 species of plants are reported from the gardens of Barak Valley, Assam (Das and Das 2005), trees being the dominant forms. Number of plants reported from the Kerala home gardens by different workers ranges from 65 to 127 (Nair and Shreedharan 1986, Kumar et al. 1994, John and Nair 1999). However, higher diversity is found in the home gardens of Northern Thailand (230 species, Black et al. 1996), Nicaragua (324 species, Mendez et al. 2001) and West Java (602 species, Karyona 1990).

The 20 most common plants occurring in more than 75% of the studied homegardens are shown in Figure 5. Coconut palm (Cocos nucifera), mango tree (Mangifera indica), shoe flower (Hibiscus rosa-sinensis) and holy basil (Ocimum sanctum) are present in all the gardens (100% occurrence). Jack fruit tree (Artocarpus heterophyllus), areca palm (Areca catechu), banana (Musa paradisiaca) and basal leaf (Basella alba) are the other common plants which are recorded from more than 90% of the gardens.

Figure 1. Map of study locations in Karwar, Uttara Kannada, Karnataka, India. A. Karnataka of India, B. Uttara Kannada of Karnataka, C. Karwar of Uttara Kannada. D. Detailed map of study site in Karwar.
Areca palm, coconut palm and banana plants are also the most dominant and important species in the gardens of Kerala (Jose and Shanmugaratanam 1993), Assam (Das and Das 2005) and Andamans (Pandey et al. 2006). Homegardens are also used as a place to maintain a few elite mother plants of some of the economically important plants mentioned above.

The species of plants in the home gardens of Karwar can be assigned into five major use categories as ornamental, medicinal, fruit yielding, vegetable yielding and others or miscellaneous which includes plants used as firewood source, timber yielding, fencing, etc. (Figure 6). This categorization is based on the main use of the plant as defined by the home garden owners as many plants are used for more than one of the above purposes. In the present study, ornamental plants are the most important use category with 38% of the recorded species belonging to this group which out numbers both of the food yielding

![Figure 2](image2.png)
**Figure 2.** Important families of plants in the homegardens of Karwar, India.

![Figure 3](image3.png)
**Figure 3.** Number of species in the homegardens of Karwar, India.

![Figure 4](image4.png)
**Figure 4.** Composition of different plant life forms in the homegardens of Karwar, India.

![Figure 5](image5.png)
**Figure 5.** Most common plant species in the homegardens of Karwar, India.

![Figure 6](image6.png)
**Figure 6.** Different plant use categories in the homegardens of Karwar, India.
Table 1. Species diversity in the homegardens of Karwar, Karnataka, India.

| Botanical name | Family | Local Name | Habit | Uses |
|----------------|--------|------------|-------|------|
| Abelmoschus esculentus (L) Moench | Malvaceae | Malvaceae | Shrub | Veg |
| Acacia auriculiformis A.Cunn | Fabaceae | Fabaceae | Tree | Misc |
| Acalypha wilkesiana Mull.-Arg | Euphorbiaceae | Euphorbiaceae | Shrub | Orn |
| Acrorus calamus L | Araceae | Araceae | Herb | Med |
| Adhatoda zeylanica Medicus | Acanthaceae | Acanthaceae | Shrub | Med |
| Aegle marmelos (L.) Correa | Rutaceae | Rutaceae | Tree | Med |
| Aerva lanata (L.) Juss. | Amaranthaceae | Amaranthaceae | Bilindi soppu | Herb | Med |
| Albizia lebbeck (L) Benth | Fabaceae | Fabaceae | Kalbage | Tree | Misc |
| Allamanda cathartica L | Apocynaceae | Apocynaceae | Mithaihoo | Climber | Orn |
| Alocasia macrorrhiza (Schott) Engl | Araceae | Alocasia | Marasanihe | Shrub | Veg |
| Aloe vera (L.) Burm.F. | Liliaceae | Liliaceae | Lolesara | Herb | Med |
| Alpinia galanga (L.) SW. | Zingiberaceae | Zingiberaceae | Kallu shunti | Herb | Med |
| Alstonia scholaris (L.) R.Br | Apocynaceae | Apocynaceae | Haalemara | Tree | Med |
| Alternanthera bettziciana (Regel) Voss | Acanthaceae | Acanthaceae | Show gida | Shrub | Orn |
| Alternanthera dentata L. | Amaranthaceae | Amaranthaceae | Rudrakshi hoo | Herb | Orn |
| Amaranthus hybridus L. | Amaranthaceae | Amaranthaceae | Bili harige | Shrub | Veg |
| Amaranthus tricolor L | Amaranthaceae | Amaranthaceae | Harive soppu | Herb | Veg |
| Amorphophallus commutatus (Schott) Engl | Araceae | Araceae | Suvarnagadde | Shrub | Veg |
| Anacardium occidentale L. | Anacardiaceae | Anacardiaceae | Geru mara | Tree | Fr |
| Ananas comosus (L) Merr. | Bromeliaceae | Bromeliaceae | Parangi | Tree | Fr |
| Andrographis paniculata (Burm.f.) Wall | Acanthaceae | Acanthaceae | Kirath kaddi | Herb | Med |
| Angelonia salicariaifolia Humb&Bonpl | Scrophulariaceae | Scrophulariaceae | Aame hoo | Herb | Orn |
| Annona muricata L | Annonaceae | Annonaceae | Hanumaamphala | Tree | Fr |
| Annona reticulata L | Annonaceae | Annonaceae | Ramaphala | Tree | Fr |
| Annona squamosa L | Annonaceae | Annonaceae | Seetaphala | Tree | Fr |
| Antigonon leptopus Hook.&Arn. | Polygonaceae | Polygonaceae | Peppermint hovu | Climber | Orn |
| Areca catechu L | Arecales | Arecales | Adike | Tree | Fr |
| Artocarpus communis Wall | Moraceae | Moraceae | Vaate huli | Shrub | Orn |
| Artocarpus heterophyllus Lam. | Moraceae | Moraceae | Halasu | Tree | Fr |
| Artocarpus altissilis (Parkinson) Fosberg | Moraceae | Moraceae | Nilahalasu | Tree | Fr |
| Asparagus racemosus Willdl. | Liliaceae | Liliaceae | Shatavari | Climber | Med |
| Asystasia gangetica (L) Anders | Acanthaceae | Acanthaceae | Maithaikadi | Herb | Orn |
| Averrhoa bilimbi L | Oxalidaceae | Oxalidaceae | Bimbuli | Tree | Veg |
| Averrhoa carambola L | Oxalidaceae | Oxalidaceae | Karahalu | Tree | Fr |
| Bambusa arundinacea (Retz.) Roxb. | Poaceae | Poaceae | Bidiru | Tree | Veg |
| Barleria cristata L | Acanthaceae | Acanthaceae | Gorate | Shrub | Orn |
| Barleria prionitis L | Acanthaceae | Acanthaceae | Mullu gorate | Shrub | Orn |
| Basella alba L | Basellaceae | Basellaceae | Basale soppu | Climber | Veg |
| Bauhinia acuminata L | Fabaceae | Fabaceae | Bili mandara | Tree | Orn |
| Bauhinia tomentosa L | Fabaceae | Fabaceae | Mani mandara | Tree | Orn |
| Benincasa hispida (Thunb.) Cogn. | Cucurbitaceae | Cucurbitaceae | Boodukumbala | Climber | Veg |
| Beta vulgaris L | Chenopodiaceae | Chenopodiaceae | Beet root | Herb | Veg |
| Bixa orellana L | Bixa orellana L | Bixa orellana L | Sindhoorikai | Shrub | Misc |
| Boerhavia diffusa L | Nyctaginaceae | Nyctaginaceae | Punavarna | Herb | Med |
| Bougainvillea glabrifolia Choisy. | Nyctaginaceae | Nyctaginaceae | Kaagadadahoo | Shrub | Orn |
| Brassica oleracea var. Gongylodes | Brassicaceae | Brassicaceae | Navilakosu | Herb | Veg |
| Caesalpinia pulcherrima (L) Swart. | Fabaceae | Fabaceae | Huli Meesheho | Tree | Orn |
| Caladium bicolor (Ait.) Vent | Araceae | Araceae | Bannada gida | Herb | Orn |
| Calotropis gigantea (L) R.Br | Asclepiadaceae | Asclepiadaceae | Ekke | Shrub | Med |
| Cannabina eniformis (L) DC. | Fabaceae | Fabaceae | Katti avarale | Climber | Veg |
| Canna indica L | Cannaceae | Cannaceae | Kabaale | Shrub | Orn |
| Capsicum annuum L | Solanaceae | Solanaceae | Kempu menasu | Shrub | Veg |
| Capsicum minima L | Solanaceae | Solanaceae | Nuchu menasu | Shrub | Veg |
| Cardiospermum halicacabum L. | Sapindaceae | Sapindaceae | Agni balli | Climber | Med |
| Carica papaya L | Caricaceae | Caricaceae | Pappale | Tree | Fr |
| Catharanthus roseus (L) G.Don | Apocynaceae | Apocynaceae | Nityapushpa | Shrub | Orn |
| Celosia argentea L | Amaranthaceae | Amaranthaceae | Kolikombu | Herb | Orn |
| Centella asiatica (L) Urban | Apiaceae | Apiaceae | Ondelaga | Herb | Med |
| Cestrum nocturnum L | Solanaceae | Solanaceae | Raatri raani | Shrub | Orn |
| Chassalia curviflora (Wall.) Thw | Rubiaceae | Rubiaceae | Kadugarudapatala | Shrub | Med |
| Chrysanthemum indicum L | Asteraceae | Asteraceae | Sevantigehoo | Herb | Orn |
| Citrullus lanatus (Thunb.) Matsum & Nakai | Cucurbitaceae | Cucurbitaceae | Kallangadi | Climber | Fr |
| Citrus aurantiifolia Swingle | Rutaceae | Rutaceae | Nimbe | Shrub | Med |
| Citrus grandis (L) Osbeck | Rutaceae | Rutaceae | Sakkarakanchi | Tree | Fr |
| Citrus medica L | Rutaceae | Rutaceae | Madala | Shrub | Fr |
| Citrus sinensis (L) Osbeck | Rutaceae | Rutaceae | Kiitale | Tree | Fr |
Cleome speciosa L.  - Capparaceae  - Malvaviscus macrorrhizus R. Br.  - Malvaceae  - Shrub  - Orn
Clorodendrum calamitosum L.  - Verbenaceae  - Euphorboa calophylla L.  - Euphorbiaceae  - Shrub  - Orn
Clorodendrum inerme Gaertn.  - Verbenaceae  - Vismia hirsuta (L.) Blume  - Verbenaceae  - Shrub  - Orn
Clorodendrum philippinum Schau.  - Verbenaceae  - Madras tree  - Malvaceae  - Shrub  - Orn
Clorodendrum thomsoniae L.  - Verbenaceae  - Radae gida  - Euphorbiaceae  - Shrub  - Orn
Clitoria ternatea L.  - Fabaceae  - Shankhapushpa  - Leguminosae  - Shrub  - Orn
Coccinia grandis (L.) Voigt  - Cucurbitaceae  - Tonde balli  - Cucurbitaceae  - Climber  - Veg
Cocos nucifera L.  - Arecales  - Tenu  - Arecales  - Tree  - Fr
Codiaeum variegatum L.  - Euphorbiaceae  - Bannada Gida  - Euphorbiaceae  - Shrub  - Orn
Coffea arabica L.  - Rubiaceae  - Coffee  - Rubiaceae  - Shrub  - Misc
Coelos amboinicus Lour.  - Lamiaceae  - Sambhaasappu  - Lamiaceae  - Herb  - Med
Coleus scutellarioides (L.) Benth.  - Lamiaceae  - Chukke gida  - Lamiaceae  - Shrub  - Orn
Colocasia esculenta (L.) Schott  - Araceae  - Kesi  - Araceae  - Shrub  - Veg
Coriaria herbacea Willd.  - Boraginaceae  - Challehanna  - Boraginaceae  - Tree  - Misc
Cosmos sulphureus Cav.  - Asteraceae  - Ketaki  - Asteraceae  - Shrub  - Orn
Costus speciosus (Koenig) Smith  - Zingiberaceae  - Narkabbu  - Zingiberaceae  - Shrub  - Med
Crossandra infundibuliformis (L.) Nees  - Acanthaceae  - Abbalige  - Acanthaceae  - Shrub  - Orn
Cucumis sativus L.  - Cucurbitaceae  - Mullu savate  - Cucurbitaceae  - Herb  - Veg
Cucurbita moschata (Lam.) Duch.  - Cucurbitaceae  - Sihakumba  - Cucurbitaceae  - Climber  - Veg
Cucurbita maxima Duch.  - Cucurbitaceae  - Ambe kumbu  - Cucurbitaceae  - Herb  - Veg
Cucurbita pepo L.  - Cucurbitaceae  - Kuve gida  - Cucurbitaceae  - Herb  - Med
Cucurbita moschata Duch.  - Cucurbitaceae  - Arishina  - Cucurbitaceae  - Herb  - Med
Cympodea cirrata (DC.) Stapf.  - Poaceae  - Majihe hullu  - Poaceae  - Herb  - Med
Cydonia dulcyon (L.) Pers.  - Poaceae  - Garike  - Poaceae  - Herb  - Med
Dahlia tuberosa Desf.  - Asteraceae  - Derehuvi  - Asteraceae  - Shrub  - Orn
Datura metel L.  - Solanaceae  - Kepputu soppu  - Solanaceae  - Shrub  - Med
Dioscorea alata L.  - Dioscoreaceae  - Mundigenasu  - Dioscoreaceae  - Climber  - Veg
Dioscorea bulbifera L.  - Dioscoreaceae  - Heggenasu  - Dioscoreaceae  - Climber  - Veg
Dombyra burgessiae Harv.  - Sterculiaceae  - December huvu  - Sterculiaceae  - Shrub  - Orn
Draecena terniflora Roxb.  - Agavaceae  - Dracena  - Agavaceae  - Shrub  - Orn
Duranta erecta L.  - Verbenaceae  - Duranta  - Verbenaceae  - Shrub  - Orn
Emilia sonchifolia (L.) DC.  - Asteraceae  - Ilikivi  - Asteraceae  - Herb  - Veg
Ervatamia divaricata (L.) Alston  - Apocynaceae  - Nandibatulu  - Apocynaceae  - Shrub  - Orn
Eryngium foetidum L.  - Apiaceae  - Rakhasa kotyambiru  - Apiaceae  - Herb  - Med
Euphorbia cyathophora Murray  - Euphorbiaceae  - Bannada gida  - Euphorbiaceae  - Shrub  - Orn
Euphorbia nerifolia L.  - Euphorbiaceae  - Kalli gida  - Euphorbiaceae  - Shrub  - Orn
Euphorbia pulcherrima Willd.ex Klotzch  - Euphorbiaceae  - Bannada ele  - Euphorbiaceae  - Shrub  - Orn
Ficus racemosa L.  - Moraceae  - Atimmara  - Moraceae  - Tree  - Med
Ficus religiosa L.  - Moraceae  - Ashwathaa  - Moraceae  - Tree  - Misc
Garcinia indica (Dupetit-Thouars) Choisy  - Clusiaceae  - Murugulu  - Clusiaceae  - Tree  - Med
Gardenia angustia (L.) Merr.  - Rubiaceae  - Nandi Battalu  - Rubiaceae  - Shrub  - Orn
Gardenia thunbergia L.  - Rubiaceae  - Nanjattale  - Rubiaceae  - Shrub  - Orn
Gliricidia sepium (Kakuleni) Smith  - Fabaceae  - Gobbara gida  - Fabaceae  - Tree  - Misc
Gliricidia sepium (Kakuleni) Smith  - Fabaceae  - Gowri Huvu  - Fabaceae  - Climber  - Med
Gymnema sylvestre (Kurtz) R.Br.  - Asclepiadaceae  - Madhunashini  - Asclepiadaceae  - Climber  - Med
Hydrichium coronarium G. Don  - Zingiberaceae  - Sugandi  - Zingiberaceae  - Shrub  - Orn
Hibiscus mutabilis L.  - Malvaceae  - Chandrakanti  - Malvaceae  - Shrub  - Orn
Hibiscus radiatus Cav.  - Malvaceae  - Mullu dasal  - Malvaceae  - Shrub  - Orn
Hibiscus rosa-sinensis L.  - Malvaceae  - Dasavalla  - Malvaceae  - Tree  - Orn
Hibiscus schizopetalus (Mast.) Hook.f.  - Malvaceae  - Gante daasavala  - Malvaceae  - Shrub  - Orn
Hibiscus syriacus L.  - Malvaceae  - Nili dasal  - Malvaceae  - Shrub  - Orn
Holarrhena pubescens (Buch-Ham) Wall.  - Apocynaceae  - Kodasiga  - Apocynaceae  - Shrub  - Med
Holigarna armottiana Hook.f.  - Anacardiaceae  - Holagere  - Anacardiaceae  - Tree  - Misc
Impatiens balsamina L.  - Balsaminaceae  - Gourihooh  - Balsaminaceae  - Herb  - Orn
Ipomoea batatas (L.) Lam.  - Convolvulaceae  - Genasu  - Convolvulaceae  - Climber  - Veg
Ipomoea carnea Jacq.subsp.fistula  - Convolvulaceae  - Beli gida  - Convolvulaceae  - Shrub  - Misc
Isora brachiata Roxb.  - Rubiaceae  - Bili gonchalu  - Rubiaceae  - Tree  - Orn
Isora chinensis Lam.  - Rubiaceae  - Ashoka  - Rubiaceae  - Shrub  - Orn
Isora coccinea L.  - Rubiaceae  - Kusumale  - Rubiaceae  - Shrub  - Medicinal
Jasminum grandiflorum L.  - Oleaceae  - Iaaji mallige  - Oleaceae  - Climber  - Orn
Jasminum multiflorum (Burm.f.) Andr.  - Oleaceae  - Soojy mallige  - Oleaceae  - Climber  - Orn
Jatropha curcas L.  - Euphorbiaceae  - Aurala-haralu  - Euphorbiaceae  - Shrub  - Misc
Kalanche pinnata (Lam.) Pers.  - Crassulaceae  - Kudabasale  - Crassulaceae  - Herb  - Orn
Lagernya siceraria (Molina) Standl.  - Capparaceae  - Sorekai  - Capparaceae  - Climber  - Veg
Lawsonia inermis L.  - Lythraceae  - Madarangi  - Lythraceae  - Shrub  - Orn
Luffa acutangula (L.) Roxb.  - Cucurbitaceae  - Heerakai  - Cucurbitaceae  - Climber  - Veg
Luffa cylindrica (L.) Roem.  - Cucurbitaceae  - Boluhere  - Cucurbitaceae  - Climber  - Veg
Lycopersicon lycopersicon (L.) Farwell  - Solanaceae  - Tomato  - Solanaceae  - Tree  - Veg
Macaranga peltata (Roxb.) Muell.-Arg.  - Euphorbiaceae  - Chandakalamar  - Euphorbiaceae  - Tree  - Misc
Malvaviscus penduliflorus DC.  - Malvaceae  - Cheepu dasal  - Malvaceae  - Shrub  - Orn
categories of fruit and vegetable plants which together form only 33% of the species. 22% of the plants are mainly used for medicinal purposes. This is in contradiction to the general observation that food plants are the most common species in most home gardens throughout the world (Nair and Kumar 2006). The greater abundance of ornamental and commercial plants in the home gardens has been recognized as an indication of high levels of urbanization and modernization of the home gardening families (Karyono 1990; Drescher 1996). However, analysis of the socio-economic conditions of the home garden-owning families involved in the present study is needed to confirm this assumption.

CONCLUSION

A floristic survey of 50 home gardens of 10 different villages of Karwar, Karnataka, India has shown that a total of 210 species belonging to 69 families occur in them. Shrubs are found in maximum numbers and ornamental plants form the major use category which is a preliminary indication of greater urbanization of the study area. Palms like areca and coconut are among the most common plants in these home gardens, like the home gardens of other regions of India such as Kerala, Assam and Andamans. Further studies are needed to ascertain the socio-economic and ecological functions and structural dynamics of these home gardens.

ACKNOWLEDGEMENTS

The authors are grateful to all the home gardening families for their co-operation during the present study. Shivanand Bhat S. is also grateful to University Grants Commission of India for financial support in the form of a Minor Research Project and Principal, Government First Grade College, Karwar, Karnataka, for encouragement and facilities to carry out this work.

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