

Studies on the host plants of butterflies

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The study was conducted to investigate the native larval food plants utilized by the larvae of butterflies in Agroclimatic Zone III of Karnataka. The larval food plants of the butterflies of Bagalkot region coming under Zone III were identified and placed on record for the first time on the basis of studies made under laboratory and field conditions. This information is essential from the point of biodiversity conservation and formulation of management programmes for faunistic studies of butterflies of the area and to elucidate their role in co-existence of plants and pollinators.

Key words : Agroclimatic zone-III, Karnataka, Butterflies, Host plants

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INTRODUCTION

Butterflies are the most beautiful, fragile and important component of our biodiversity. They are known as the flying jewels or flying flowers. Apart from being aesthetically attractive, butterflies occupy a vital position in ecosystems and their occurrence and diversity are considered as good indicators of the health of any given terrestrial biotope (Kunte, 2000; Aluri and Rao, 2002; Thomas, 2005). Each habitat has a specific set of micro environment suitable for a species. Habitat association of butterflies can be directly related to the availability of food plants (Thomas, 1995).

There are two different functions that plants serve for butterflies:

- Nectaring plants - plants that the butterflies will sip nectar from and
- Host plants- species specific plants on which they can lay their eggs and the caterpillars will eventually eat. As herbivorous insects, the distribution of larval hosts and nectar plants has a distinct impact on the status of butterfly diversity (Culin, 1997; Solman Raju, 2004).

The choice of oviposition site by the imago is also important. There is an advantage in obvious selective oviposition by adults on suitable plants, but inappropriate choices can be overcome by movement of the larvae. A review

of long series of experiments pertinent to insects and their food plants has been made by Merz (1959). In addition, many structural and mechanical characteristics of plants modify the insect host relationships, mostly by limiting the acceptability of those plants in which they occur. The question of how and why eggs are deposited on potential hosts by females has historically been dominated by the preference – performance problem (Thompson, 1988), under the assumption that host preference has evolved to assure maximal offspring performance. Further, groups of closely related butterfly species are almost always confined to related larval host plants (Gilbert and Singer, 1975).

Though, many butterflies lay their eggs on certain food plants with great precision as stressed by Merz (1959), numerous mistakes have been recorded on the other hand. (e.g., Remington, 1952; Dethier, 1959). In such cases, larvae have to either find an appropriate plant or perish *i.e.* many starve to death if they cannot find the right plant.

Most butterflies acquire all of their nutrition during larval development; adults are only capable of refueling on carbohydrates, often in the form of nectar. Nectar and other adult food sources can provide some amino acids, to compensate for poor larval nourishment (Mevi - Schutz and Erhardt, 2003). Thus, adult and larval feeding requirements are very different.

RESEARCH METHODOLOGY

A preliminary study was conducted to analyze the diversity, habitat utilization patterns and distribution of butterflies with respect to food at the College of Horticulture, University of Horticultural Sciences Bagalkot. The study was carried out for a period of one year from December 2009 to November 2010. The college is situated at the fag end of backwaters of Upper Krishna project at 16° N latitude, 76° E longitude, and at an altitude of 526.9 m above MSL. The study was initiated to know the butterfly-host plant interaction to elucidate a unique relationship between these lepidopterans and the naturally occurring floral communities and the plantations of the study area. To confirm the food habit of each butterfly, the larvae of butterflies along with the host plants parts were brought to the laboratory, reared in the petri cages till pupation and kept in the plastic cages to observe for the emergence of adults. The food plants as well as butterfly species that were encountered during the study, were identified primarily by using the existing literature (Gunathilagaraj *et al.*, 1998, Haribal, 1992, Kunte, 2000, Singh *et al.*, 1983) and consulting to botanists.

RESEARCH FINDINGS AND ANALYSIS

The primary study which was undertaken by the authors at the same location revealed 56 species of butterflies

belonging to five families. The study was continued to know the food plants of their larvae and food habits of the butterflies in order to explore possible interdependency of plants and pollinators.

Study indicated that butterflies belonging to the family Papilionidae fed on 27 different species of plants belonging to the family Rutaceae (10), Aristolochiaceae (2), Rhamnaceae (1), Fabaceae (1), Papilionaceae (5), Lauraceae (7), Annonaceae (11), Magnoliaceae (2), Caparidaceae (2), Guttiferae (2), Rubiaceae (1). The Pierids fed on the host plants of different species belonging to the families Fabaceae (1), Papilionaceae (4), Caesalpiniaceae (6), Araceae (1), Euphorbiaceae (2), Hypericaceae (1), Caparidaceae (7), Loranthaceae (2), Salvadoraceae (2). The Nymphalids were found feeding on plants belonging to Papilionaceae (1), Annonaceae (1), Rubiaceae (1), Euphorbiaceae (2), Loranthaceae (1), Amaranthaceae (2), Acanthaceae (14), Scrophulariaceae (4), Malvaceae (4), Tiliaceae (2), Urticaceae (2), Portulacaceae (1), Cannabinaceae (1), Melastomataceae (1), Plantaginaceae (1), Lamiaceae (1), Convolvulaceae (2), Violaceae (1), Anacardiaceae (2), Moraceae (5), Rosaceae (1), Cucurbitaceae (2), Asclepiadaceae (22), Apocynaceae (7), Periplocaceae (4), Musaceae (1), Passifloraceae (2), Sapindaceae (1), Menispermaceae (1), Bambusaceae (1), Poaceae (5). The Lycaenidae members were encountered feeding on the host plants belonging to the families Rhamnaceae (2), Fabaceae

Table 1 : Butterflies and their host plants recorded in Agroclimatic Zone-III of Karnataka					
Sr. No.	Species of butterfly			Host plants	
	Common name	Scientific name		Common name / Scientific name	Family
Family Papilionidae					
1	Common Mormon	<i>Papilio polytes polytes</i> (Linnaeus)		Agnijal, <i>Clausena excavat</i> (Burm. f.) (= <i>Cookia punctata</i> Retz.) Atalantia, <i>Atalantia monophylla</i> (Roxb) DC. (= <i>Limonia monophylla</i> Roxb.non L.) Bael, <i>Aegle marmelos</i> L (= <i>Crataeva marmelos</i> L) Ban nimbu, <i>Glycosmis pentaphylla</i> (Retz)DC (= <i>G. arborea</i> DC) Curry leaf, <i>Murraya koenigii</i> (L) Spreng (= <i>Bergera koenigii</i> L.) Garden Rue, <i>Ruta graveolens</i> L Kanukpa, <i>Euodia fraxinifolia</i> Hook Lime Berry, <i>Triphasia trifolia</i> .(Burm. F.) P.Wilson Lime/Nimbu, <i>Citrus aurantifolia</i> .Christm Orange jasmine, <i>Murraya paniculata</i> (L.) Jack. (= <i>Murraya exotica</i> L.)	<i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i>
2	Crimson Rose	<i>Pachliopta hector</i> Linnaeus (= <i>Tros hector</i>)		Indian Birthwort/ Isharmul, <i>Aristolochia indica</i> L.	<i>Aristolochiaceae</i>

Table 1 contd...

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3	Common Rose	<i>Pachliopta aristolochiae</i> Fabricius (= <i>Tros aristolochiae</i>)	Chakrani, <i>Thottea siliquosa</i> . L	<i>Aristolochiaceae</i>
			Indian Birthwort/Isharmul, <i>Aristolochia indica</i> .L	<i>Aristolochiaceae</i>
4	Lime Butterfly	<i>Papilio demoleus</i> Linnaeus	Ban nimbu, <i>Glycosmis pentaphylla</i> (Retz)DC (= <i>G. arborea</i> DC)	<i>Rutaceae</i>
			Bael, <i>Aegle marmelos</i> (L.) Corr. (= <i>Crataeva marmelos</i> L.)	<i>Rutaceae</i>
			Ber, <i>Ziziphus mauritiana</i> Lamk (= <i>Z. jujuba</i> L)	<i>Rhamnaceae</i>
			Atalantia, <i>Atalantia monophylla</i> (Roxb)DC (= <i>Limonia monophylla</i>) (Roxb) DC	<i>Rutaceae</i>
			Indian Satinwood tree/Bhirra, <i>Chloroxylan swietenia</i> DC.	<i>Rutaceae</i>
			Wild durian, <i>Cullenia exarillata</i> Robyns	<i>Fabaceae</i>
			Curry leaf, <i>Murraya koenigii</i> (L.) Spreng. (= <i>Bergera koenigii</i> L.)	<i>Rutaceae</i>
			East Indian satinwood tree, <i>Zanthophyllum flavescens</i> Roxb	<i>Rutaceae</i> <i>Papilionaceae</i>
			Babchi/Fountain bush, <i>Psoralea corylifolia</i> L.	<i>Rutaceae</i>
			Fringed rue/Satari, <i>Ruta chalepensis</i> L (= <i>R. bracteosa</i> DC)	<i>Rutaceae</i>
			Lemon/Bara nimbu, <i>Citrus limon</i> L (= <i>C. medica</i> L.)	<i>Rutaceae</i>
			Lime berry, <i>Triphasia trifolia</i> (Burm)P.Wilson (= <i>T. trifolia</i> DC)	<i>Rutaceae</i>
			Lime/ Nimbu, <i>Citrus aurantifolia</i> (Christm) Swingle (= <i>Limon aurantifolia</i> Christm)	<i>Rutaceae</i>
			Orange, <i>Citrus sinensis</i> (L) Osbeck. (= <i>C. aurantium</i> L)	<i>Rutaceae</i>
			Rosewood, <i>Acronychia pedunculata</i> . (L.).Miq (= <i>A. laurifolia</i> Blume)	<i>Rutaceae</i>
			Garden Rue/Sadab, <i>Ruta graveolens</i> L.	<i>Rutaceae</i>
			Elephant/Wood apple, <i>Feronia limonia</i> (L.) Swingle.	
5	Common Blue Bottle	<i>Graphium sarpedon</i> Linnaeus (= <i>Zetides sarpedon</i>)	Avocado, <i>Persea americana</i> Mill	<i>Lauraceae</i>
			Camphor/Mushkapur, <i>Cinnamomum camphora</i> (L.) T.Nees & Eberm.	<i>Lauraceae</i>
			Cinnamon/Dalchini, <i>Cinnamomum zeylanicum</i> Blume	<i>Lauraceae</i>
			Cryptocarya, <i>Cryptocarya wightiana</i> Thw	<i>Lauraceae</i>
			Indian Laurel/Medh, <i>Litsea glutinosa</i> Lour (= <i>L. sebifera</i> Pers.)	<i>Lauraceae</i>
			Soom tree, <i>Machilus bombycina</i> Hook	<i>Lauraceae</i>
			Kari, <i>Milusa odoratissima</i> (Roxb.) Sinclair	<i>Annonaceae</i>
			Nelthare, <i>Alseodaphne semecarpifolia</i> Nees	<i>Lauraceae</i>
			Silver cloud, <i>Michelia doltsopa</i> Buch (= <i>M. exelsa</i> Blume)	<i>Magnoliaceae</i>

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6	Tailed Jay	<i>Graphium agamemnon</i> Linnaeus (= <i>Zetides agamemnon</i>)	Mitrephora, <i>Mitrephora heyneana</i> Thw	<i>Annonaceae</i>			
			Uvaria, <i>Uvaria narum</i> . (Dunal) Blume. (= <i>U. macrophylla</i> Roxb).	<i>Annonaceae</i>			
			Custard apple/Sitaphal, <i>Annona squamosa</i> L	<i>Annonaceae</i>			
			Harichampa, <i>Artabotrys uncinatus</i> (Lam.) Merr. (= <i>A. hexapetalus</i> L.f.)	<i>Annonaceae</i>			
			Ashoka/Mast tree, <i>Polyalthia longifolia</i> . Thw	<i>Annonaceae</i>			
			Champak, <i>Michelia champaca</i> .L.	<i>Magnoliaceae</i>			
			Cinnamon/Dalchini, <i>Cinnamomum zeylanicum</i> . Blume	<i>Lauraceae</i>			
			<i>Desmos chinensis</i> Lour (= <i>Unona discolor</i> Vahl)	<i>Annonaceae</i>			
			<i>Goniothalamus sesquipetalis</i> Hook	<i>Annonaceae</i>			
			Him champa / Magnolia, <i>Magnolia grandiflora</i> L.	<i>Magnoliaceae</i>			
			Kari/Kirua, <i>Miliusa tomentosa</i> (Roxb) J.Sinclair (= <i>Saccopetalum tomentosum</i> Hook & Thoms)	<i>Annonaceae</i>			
			Soursop/Mamphal, <i>Annona muricata</i> L	<i>Annonaceae</i>			
			7	Common Mormon	<i>Papilio polytes romulus</i> Cramer	Lime/Nimbu, <i>Citrus aurantifolia</i> (Christm) Swingle (= <i>Limon aurantifolia</i> Christm)	<i>Rutaceae</i>
						Pomelo/Chakotra, <i>Citrus decumana</i> L (= <i>Aurantium maximum</i> Burm)	<i>Rutaceae</i>
Citron, <i>Citrus medica</i> L (= <i>C. tuberosa</i> Mill)	<i>Rutaceae</i>						
Santara/Mandarin, <i>Citrus reticulata</i> Blanco (= <i>C. nobilis</i> Andrews)	<i>Rutaceae</i>						
Curry leaf, <i>Murraya koenigii</i> (L) Spreng. (= <i>Bergera koenigii</i> L.)	<i>Rutaceae</i>						
Lime berry, <i>Triphasia trifolia</i> .(Burm) P. Wilson (= <i>T.trifolia</i> DC)	<i>Rutaceae</i>						
Ban Nimbu, <i>Glycosmis pentaphylla</i> (Retz)DC (= <i>G. arborea</i> DC)	<i>Rutaceae</i>						
Kamini/Orange jessamine, <i>Murraya paniculata</i> L. Jack (= <i>M. exotica</i> L)	<i>Rutaceae</i>						
Wingleaf pricklyash/ Tejphal, <i>Zanthoxylum armatum</i> DC (= <i>Zanthoxylum alatum</i> Roxb.)	<i>Rutaceae</i>						
8	Common Mormon	<i>Papilio polytes stichius</i> Hubner				Indian Birthwort/Isharmul, <i>Aristolochia indica</i> L	<i>Aristolochiaceae</i>
						9	Blue Mormon
Lime/Nimbu, <i>Citrus aurantifolia</i> (Christm) Swingle (= <i>Limon aurantifolia</i> Christm)	<i>Rutaceae</i>						
Pomelo/Chakota, <i>Citrus decumana</i> L (= <i>Aurantium maximum</i> Burm)	<i>Rutaceae</i>						
Citron, <i>Citrus medica</i> (L) (= <i>C. Tuberosa</i> Mill)	<i>Rutaceae</i>						
Santara/Mandarin, <i>C. reticulata</i> Blanco (= <i>C. nobilis</i> Andrews)	<i>Rutaceae</i>						
Paramignya, <i>Paramignya monophylla</i> Wight	<i>Rutaceae</i>						
Ban nimbu, <i>Glycosmis pentaphylla</i> .(Retz)DC (= <i>Glycosmis arborea</i> DC)	<i>Rutaceae</i>						
Caper, <i>Capparis monii</i> Wight	<i>Capparidaceae</i>						
Indian caperbush/Kabra, <i>Capparis spinosa</i> L	<i>Capparidaceae</i>						
Gamboges tree/Vilaiti imli, <i>Garcinia cambogia</i> Desr.	<i>Guttiferae</i>						
Kokam/ Butter tree, <i>Garcinia indica</i> Dupetit-Thouars	<i>Guttiferae</i>						
Curry Leaf, <i>Murraya Koenigii</i> (L.) Spreng. (= <i>Bergera koenigii</i> L).	<i>Rutaceae</i>						
Papra, <i>Gardenia latifolia</i> Ait	<i>Rubiaceae</i>						

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10	Red Helen	<i>Princeps helenus</i> Linnaeus	Lime/Nimbu, <i>Citrus aurantifolia</i> (Christm)Swingle (= <i>Limon aurantifolia</i> Christm) Pomelo/Chakota, <i>Citrus decumana</i> (L)(= <i>Aurantium maximum</i> Burm) Citron, <i>Citrus medica</i> L (= <i>C. Tuberosa</i> Mill) Santara/Mandarin, <i>Citrus reticulata</i> Blanco (= <i>C. nobilis</i> Andrews) Prickly-ash, <i>Zanthoxylum limonella</i> Dennst (= <i>Z.budrunga</i> Roxb) Little Yellowwood, <i>Zanthoxylum ovalifolium</i> Wight Ban nimbu, <i>Glycosmis pentaphylla</i> .(Retz)DC. (= <i>Glycosmis arborea</i> DC) <i>Clausena dentata</i> (Willd) Roem & Schult. (= <i>C. willdenowii</i> Wight & Arn) Wild orange tree, <i>Toddalia asiatica</i> (L) Lamk. (= <i>T. aculeata</i> Pers)	<i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i> <i>Rutaceae</i>
Family pieridae				
11	Mottled Emigrant	<i>Catopsilia pyranthe</i> Linnaeus	Chaksu, <i>Cassia absus</i> L. Colocasia/Taro, <i>Colocasia esculenta</i> (L.) Schott (= <i>C.antiquorum</i>) Schott Croton, <i>Crotalaria tigilium</i> <i>Ormocarpum cochinchinense</i> (Lour) Merrill. (= <i>O. sennoides</i> DC) Bak/Agati Sesbania, <i>Sesbania grandiflora</i> (L.) Poir. Kathsula, <i>Sesbania. roxburghii</i> Merrill Balmota, <i>Sesbania. sesban</i> (L.) Merr. (= <i>S.aegyptiaca</i> Pers.)	<i>Caesalpinaceae</i> <i>Araceae</i> <i>Euphorbiaceae</i> <i>Papilionaceae</i> <i>Papilionaceae</i> <i>Papilionaceae</i>
12	Small Yellow	Grass <i>Eurema brigitta</i> Cramer	Indian senna, <i>Cassia angustifolia</i> Vahl Sickle senna/Chakunda, <i>Cassia tora</i> L. (= <i>Cassia. obtusifolia</i> L) <i>Hypericum Japonicum</i> Thunb	<i>Caesalpinaceae</i> <i>Caesalpinaceae</i> <i>Hypericaceae</i>
13	Crimson Tip	<i>Colotis danae</i> Fabricius	Hemkanda, <i>Maerua oblongifolia</i> (Forsk)A. Rich (= <i>M. arenaria</i> (DC) Hook & Thomas) Indian cadaba/Kodhab, <i>Cadaba fruticosa</i> (L) Druce Indian caperbush/Kabra, <i>Capparis spinosa</i> (L) Spreading Caper, <i>Capparis divaricata</i> (L)	<i>Capparidaceae</i> <i>Capparidaceae</i> <i>Capparidaceae</i> <i>Capparidaceae</i>
14	Small / Little Orange Tip	<i>Colotis etrida</i> Boisduval	Indian Caperbush /Kabra, <i>Capparis spinosa</i> L Indian cadaba / Kodhab, <i>Cadaba fruticosa</i> (L)Druce	<i>Capparidaceae</i> <i>Capparidaceae</i>
15	Yellow Orange Tip	<i>Ixias pyrene</i> (Linnaeus)	Indian Caperbush/Kabra, <i>Capparis spinosa</i> L	<i>Capparidaceae</i>
16	Common Gull	<i>Cepora nerissa</i> (Fabricius) (= <i>Huphina nerissa</i>)	Capparis, <i>Capparis grandis</i> (L)f. Indian Caperbush/kabra, <i>Capparis spinosa</i> L Hemkanda, <i>Maerua oblongifolia</i> (Forsk)A. Rich (= <i>M.arenaria</i>) (DC) Hook.f & Thoms Indian Cadaba/ Kodhab, <i>Cadaba fruticosa</i> (L)Druce.	<i>Capparidaceae</i> <i>Capparidaceae</i> <i>Capparidaceae</i> <i>Capparidaceae</i>
17	Common / Lemon Emigrant	<i>Catopsilia crocale</i> (Cramer)	Mountain ebony, <i>Bauhinia variegata</i> L (= <i>B.candida</i> Roxb) Flame of the forest/Palas, <i>Butea monosperma</i> (Lamk) Taubert (= <i>B. frondosa</i> Roxb) Indian laburnum/Amaltas, <i>Cassia fistula</i> L Kassod-tree, <i>Cassia siamea</i> . Lamk Sickle senna/Chakunda, <i>Cassia tora</i> (L) (= <i>C. obtusifolia</i> L)	<i>Caesalpinaceae</i> <i>Fabaceae</i> <i>Caesalpinaceae</i> <i>Caesalpinaceae</i> <i>Caesalpinaceae</i>

Table 1 Contd....

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18	Common Wanderer	<i>Pareronia valeria</i> Fabricius	Capparis, <i>Capparis grandis</i> (L.)f. Large Caper, <i>Capparis monni</i> Wight	<i>Capparidaceae</i> <i>Capparidaceae</i>
19	Great Orange Tip	<i>Hebomoia glaucippe</i> Linnaeus	Large Caper, <i>Capparis monii</i> Wight Three-leaved Caper/Barna, <i>Crataeva nurvala</i> .(Buch) Ham (= <i>C. religiosa</i> Auct. Non Frost)	<i>Capparidaceae</i> <i>Capparidaceae</i>
20	Psyche	<i>Leptosia nina</i> Fabricius	Indian Caperbush/Kabra, <i>Capparis spinosa</i> L. Three-leaved Caper/Barna, <i>Crataeva nurvala</i> .(Buch) Ham (= <i>C. religiosa</i>) Auct. (Non Frost)	<i>Capparidaceae</i> <i>Capparidaceae</i>
21	Common Albatross	<i>Appias albina</i> (Felder)	<i>Drypetes griffithii</i> Hook (=Cyclostemon <i>griffithii</i> Hook)	<i>Euphorbiaceae</i>
22	Painted Sawtooth	<i>Prioneris sita</i> (C. Felder)	<i>Dendrophthoe vitellina</i> (F.Muell.) Tiegh Honey Suckled Mistletoe/Banda, <i>Dendrophthoe falcata</i> L. (= <i>Loranthus fulcatus</i> L.)	<i>Loranthaceae</i> <i>Loranthaceae</i>
23	Pioneer White	<i>Belenois aurota</i> (Fabricius)	Capparis, <i>Capparis grandis</i> (L) f. Indian Caperbush/kabra, <i>Capparis spinosa</i> L. Hemkanda, <i>Maerua oblongifolia</i> (Forsk)A. Rich (= <i>M. arenaria</i>) (DC) Hook & Thoms	<i>Capparidaceae</i> <i>Capparidaceae</i> <i>Capparidaceae</i>
24	White Orange Tip	<i>Ixias marianne</i> (Cramer)	Indian Cadaba/Kodhab, <i>Cadaba fruticosa</i> (L)Druce	<i>Capparidaceae</i>
25	Common Jezebel	<i>Delias eucharis</i> (Drury)	Capparis, <i>Capparis grandis</i> L. Indian Caperbush/kabra, <i>Capparis spinosa</i> L.	<i>Capparidaceae</i> <i>Capparidaceae</i>
26	Plain Orange Tip	<i>Colotis eucharis</i> Fabricius	<i>Dendrophthoe vitellina</i> (Muell.) Tiegh	<i>Loranthaceae</i>
27	Small Salmon Arab	<i>Colotis amata</i> Fabricius	Honey Suckled Mistletoe/Banda, <i>Dendrophthoe falcata</i> L. (= <i>Loranthus fulcatus</i> L.)	<i>Loranthaceae</i>
28	capers	<i>Capparis</i> sp.	Indian Cadaba/Kodhab, <i>Cadaba fruticosa</i> (L.) Druce	<i>Capparidaceae</i>
	Family nymphalidae		Pilu, <i>Salvadora oleoides</i> Decne Mustard tree/Jhal, <i>Salvadora persica</i> L.	<i>Salvadoraceae</i> <i>Salvadoraceae</i>
29	Great Eggfly	<i>Hypolimnas bolina</i> Linnaeus	Indian Caperbush/Kabra, <i>Capparis spinosa</i> L.	<i>Capparidaceae</i>
			Amaranthus/Chinese spinach, <i>Amaranthus tricolor</i> L) (= <i>A. gangeticus</i>) (L.) Coromandel/Chinese violet, <i>Asystasia gangeticus</i> L. (= <i>Justicia gangetica</i> L.) Broomjute sida, <i>Sida rhombifolia</i> (L) (=S. <i>canariensis</i> Willd) Coral tree, <i>Erythrina variegata</i> L. Five Stamen Burrbark, <i>Triumfetta pentandra</i> A (= <i>T. neglecta</i> Wight) Devil Nettle, <i>Laportea crenulata</i> Roxb (= <i>L. stimulus</i> Miq) Karambal, <i>Justicia procumbens</i> L. (= <i>Rostellularia procumbens</i> L.) Mallows, <i>Malva parviflora</i> L. Gulkhair, <i>Malva sylvestris</i> L Common Purslane, <i>Portulaca oleracea</i> L. Stinging nettle/Common Nettle, <i>Urtica dioica</i> L.	<i>Amaranthaceae</i> <i>Acanthaceae</i> <i>Malvaceae</i> <i>Papilionaceae</i> <i>Tiliaceae</i> <i>Urticaceae</i> <i>Acanthaceae</i> <i>Malvaceae</i> <i>Malvaceae</i> <i>Portulacaceae</i> <i>Urticaceae</i>
30	Chocolate Pansy	<i>Junonia iphita</i> Cramer (= <i>Precis iphita</i>)	Karambal, <i>Justicia procumbens</i> L (= <i>Rostellularia procumbens</i> L) Karvy, <i>Strobilanthes callosus</i> (Nees) Starthron/Talmakhana, <i>Hygrophila auriculata</i> (Schum) (= <i>Barleria auriculata</i>) (Schum)	<i>Acanthaceae</i> <i>Acanthaceae</i> <i>Acanthaceae</i> <i>Acanthaceae</i>

Table 1 contd...

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31	Lemon Pansy	<i>Junonia lemonias</i> Linnaeus (= <i>Precis lemonias</i>)	Mongoose plant/ Sarahati, <i>Ophiorrhiza mungos</i> L.	<i>Rubiaceae</i>			
			Tadrelu, <i>Barleria cristata</i> L.	<i>Acanthaceae</i>			
			Blue Pussyleaf, <i>Nelsonia canescens</i> Lam (= <i>N.campestris</i> R.Br)	<i>Scrophulariaceae</i>			
			Blue Sage/Gulsham, <i>Eranthemum roseum</i> (Vahl) R.Br. (= <i>Dardalacanthus roseus</i> T.Anders)	<i>Acanthaceae</i>			
			Broomjute sida, <i>Sida rhombifolia</i> L. (= <i>S. canariensis</i> Willd)	<i>Malvaceae</i>			
			Hang/Charas, <i>Cannabis sativa</i> L.	<i>Cannabinaceae</i>			
			Starthron/Talmakhana, <i>Hygrophila auriculata</i> Schum (= <i>Barleria auriculata</i> Schum)	<i>Acanthaceae</i>			
			Crested Lepidagathis/Bukhar Jadi <i>Lepidagathis cristata</i> Willd	<i>Acanthaceae</i>			
			Menow weed, <i>Ruellia tuberosa</i> L.	<i>Acanthaceae</i>			
			Nadarang / Kanchari, <i>Alternanthera amoena</i> Vos (= <i>Telanthera amoena</i>) (Regal)	<i>Amaranthaceae</i>			
			White/common Jute, <i>Corchorus capsularis</i> L.	<i>Tiliaceae</i>			
			32	Peacock Pansy	<i>Junonia almana</i> Linnaeus (= <i>Precis almana</i>)	Harkuch Kanta, <i>Acanthus ilicifolius</i> L.	<i>Acanthaceae</i>
						Tadrelu, <i>Barleria cristata</i> L.	<i>Acanthaceae</i>
Starthron /Talmakhana, <i>Hygrophila auriculata</i> Schum (= <i>Barleria auriculata</i> Schum)	<i>Acanthaceae</i>						
33	Yellow Pansy	<i>Junonia hierta</i> Fabricius (= <i>Precis hierta</i>)	<i>Osbeckia cupularis</i> D.Don	<i>Melastomataceae</i>			
			Tadrelu, <i>Barleria cristata</i> L.	<i>Acanthaceae</i>			
			Squirrel's tail/ White shrimp plant, <i>Justicia betonica</i> L.	<i>Acanthaceae</i>			
			Menow-weed, <i>Ruellia tuberosa</i> L.	<i>Acanthaceae</i>			
			Prostrate wild petunia, <i>Ruellia prostrata</i> L.	<i>Acanthaceae</i>			
34	Danaid Egffly	<i>Hypolimnas misippus</i> Linnaeus (= <i>Diadema misippus</i>)	Starthron /Talmakhana, <i>Hygrophila auriculata</i> (Schum) (= <i>Barleria auriculata</i> Schum)	<i>Acanthaceae</i>			
			Coromandel/Chinese violet, <i>Asystasia gangetica</i> L. (= <i>Justicia gangetica</i> L.)	<i>Acanthaceae</i>			
			Tadrelu, <i>Barleria cristata</i> L.	<i>Acanthaceae</i>			
			Common Purslane/Kulfa, <i>Portulaca oleracea</i> L.	<i>Portulacaceae</i>			
			Country Mallow/ Kungyi, <i>Sida cordifolia</i> L.	<i>Malvaceae</i>			
35	Common Castor	<i>Ariadne merione</i> (Cramer) (= <i>Ergolis merione</i>)	Squirrel's tail/White shrimp plant, <i>Justicia betonica</i> L.	<i>Acanthaceae</i>			
			White Barleria, <i>Barleria alba</i> (Lodd)	<i>Acanthaceae</i>			
36	Blue Pansy	<i>Junonia orithya</i> (Linnaeus) (= <i>Precis orithya</i>)	Castor, <i>Ricinus communis</i> L	<i>Euphorbiaceae</i>			
			Psyllium/ Indian Plantain, <i>Plantago amplexicaulis</i> Lam.	<i>Plantaginaceae</i>			
			Soft-Stem Mintleaf, <i>Plectranthus mollis</i> (Ait) (= <i>P. incanus</i> Link)	<i>Lamiaceae</i>			
			Amaranthus/Chinese spinach, <i>Amaranthus tricolor</i> L. (= <i>A. gangeticus</i> L.)	<i>Amaranthaceae</i>			
			Coromandel/Chinese violet, <i>Asystasia gangetica</i> L (= <i>Justicia gangetica</i> L.)	<i>Acanthaceae</i>			
			Blue Daze/Hawaiian Blue Eyes, <i>Angelonia salicarifolia</i> (Humb & Bonpl)	<i>Scrophulariaceae</i>			
Jalap, <i>Convolvulus spurga</i> Wender. (= <i>Ipomoea purge</i> Wender)	<i>Convolvulaceae</i>						

Table 1 Contd...

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			Starthron /Talmakhana, <i>Hygrophila auriculata</i> Schum (= <i>Barleria auriculata</i> Schum)	<i>Acanthaceae</i>
			<i>Lepidagathis cristata</i> Willd	<i>Acanthaceae</i>
			Small Snapdragon, <i>Misopates orontium</i> (L.) Raf	<i>Scrophulariaceae</i>
			Menow weed, <i>Ruellia tuberosa</i> L.	<i>Acanthaceae</i>
			Pastel flower, <i>Pseuderanthemum variabile</i> (R.Br.) Radlk.	<i>Acanthaceae</i>
			Snapdragon, <i>Antirrhinum majus</i> L.	<i>Scrophulariaceae</i>
			Sweet Potato, <i>Ipomoea batatas</i> (L.) Lamk (= <i>Convolvulus batatas</i>) (L.)	<i>Convolvulaceae</i>
			Black-eyed susan, <i>Thunbergia alata</i> (Bojer) Sims	<i>Acanthaceae</i>
			Sweet/ Blue violet, <i>Viola odorata</i> L.	<i>Violaceae</i>
			Custard-apple/Sitaphal, <i>Annona squamosa</i> L.	<i>Annonaceae</i>
37	Baron	<i>Euthalia aconthea</i> Hewitson (= <i>Euthalia garuda</i> Moore)	Cashew/ Kaju, <i>Anacardium occidentale</i> L.	<i>Anacardiaceae</i>
			Loranthus, <i>Lorantus bracteatus</i> Willd DC	<i>Loranthaceae</i>
			Mango, <i>Mangifera indica</i> L.	<i>Anacardiaceae</i>
			Common Mulberry, <i>Morus alba</i> L.	<i>Moraceae</i>
			Bengal/china Rose, <i>Rosa Chinensis</i> Jacq (= <i>R. sinica</i> L)	<i>Rosaceae</i>
			White bryony, <i>Bryonia alba</i> (Richard Old)	<i>Cucurbitaceae</i>
38	Map Butterfly	<i>Cyrestis thyodamas indica</i>	Banyan, <i>Ficus benghalensis</i> L. (= <i>F. indica</i>) (L.)	<i>Moraceae</i>
			Cluster fig/ Gular, <i>Ficus glomerata</i> Roxb (= <i>F. goolereea</i> Roxb)	<i>Moraceae</i>
			Peepul, <i>Ficus religiosa</i> L. (= <i>Urostigma religiosum</i> (L) Gasp)	<i>Moraceae</i>
39	Common Indian Crow	<i>Euploea core</i> Cramer	Blood flower, <i>Asclepias curassavica</i> L.	<i>Asclepiadaceae</i>
			Banyan, <i>Ficus benghalensis</i> L. (= <i>F.indica</i> L.)	<i>Moraceae</i>
			Black creeper/Kalidudhi, <i>Ichnocarpus frutescens</i> L. (= <i>Apocynum frutescens</i>) L.	<i>Apocynaceae</i>
			Caustic Bush/Somlata, <i>Sarcostemma acidum</i> Roxb (= <i>S. brevistigma</i> Wight & Arn)	<i>Asclepiadaceae</i>
			Cluster fig/ Gular, <i>Ficus glomerata</i> Roxb (= <i>F.goolereea</i> Roxb)	<i>Moraceae</i>
			Corky Milk Vine, <i>Secamone elliptica</i> R.Br	<i>Apocynaceae</i>
			Karanta/ Kavli, <i>Cryptolepis buchanani</i> R &S	<i>Periplocaceae</i>
			Ivory tree/ Easter tree, <i>Holarrhena antidysenterica</i> L.	<i>Apocynaceae</i>
			Emetic swallow wort/Anantmul, <i>Tylophora indica</i> (Burm.f.)Merr. (= <i>T.asthmatica</i>)	<i>Asclepiadaceae</i>
			Anantmul kapuri/Indian sarsaparilla, <i>Hemidesmus indicus</i> (L.) Schult (= <i>Periploca indica</i>) (L.)	<i>Periplocaceae</i>
			Indrajao, <i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex DC	<i>Apocynaceae</i>
			Indian Rubber Vine, <i>Cryptostegia grandiflora</i> (Roxb) R.Br.	<i>Periplocaceae</i>
			Chiti/Jiti, <i>Marsdenia tenacissima</i> (Roxb) Moon.	<i>Asclepiadaceae</i>
			Milkpod/Mangrove, <i>Cynanchum arnottianum</i> Wight	<i>Asclepiadaceae</i>

Table contd...

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			Oleander, <i>Nerium oleander</i> L	<i>Apocynaceae</i>
			Parsonsia, <i>Parsonsia helicandra</i> (Hook & Arn) (= <i>P. spiralis</i> Wall)	<i>Apocynaceae</i>
			Peepul, <i>Ficus religiosa</i> L (= <i>Urostigma religiosum</i> L)	<i>Moraceae</i>
			Sand Paper Tree/ Khorus, <i>Streblus asper</i> Lour (= <i>Epicarpurus orientalis</i> Blume)	<i>Moraceae</i>
			Star jasmine/Chinese jasmine, <i>Trachelospermum divaricatum</i> (Thunb) K.Schum. (= <i>T. jasminoides</i> Lamk)	<i>Apocynaceae</i>
			Hoya, <i>Hoya alexicaca</i> (Jacq) Moon	<i>Asclepiadaceae</i>
			Wild cotton, <i>Gomphocarpus fruticosus</i> (L.) W.T. Aiton	<i>Asclepiadaceae</i>
40	Tawny Coster	<i>Acreae terpsicore</i> Linnaeus	Banana, <i>Musa paradisiaca</i> L. (= <i>M. sapientum</i>) L	<i>Musaceae</i>
			Red pumpkin/ Red gourd, <i>Cucurbita maxima</i> (Duch)	<i>Cucurbitaceae</i>
			Mango, <i>Mangifera indica</i> L	<i>Anacardiaceae</i>
			Edible Passion fruit, <i>Passiflora edulis</i> (Sims)	<i>Passifloraceae</i>
			Stinking Passion fruit, <i>Passiflora foetida</i> L	<i>Passifloraceae</i>
41	Joker	<i>Byblia ilithyia</i> Drury	<i>Dalechampia capensis</i> A. Radcliffe-Smith	<i>Euphorbiaceae</i>
			Stinging nettle/Common Nettle, <i>Urtica dioica</i> L.	<i>Urticaceae</i>
42	Glassy Blue Tiger	<i>Parantica aglea</i> Stoll (= <i>Danaus aglea</i> Cramer)	Khapparkadu, <i>Ceropegia bulbosa</i> Roxb	<i>Asclepiadaceae</i>
			Madar, <i>Calotropis gigantea</i> Ait	<i>Asclepiadaceae</i>
			Karanta /Kavli, <i>Cryptolepis buchanani</i> R. & S	<i>Periplocaceae</i>
			Emetic Swallow-wory/Indian Ipecac, <i>Tylophora fasciculata</i>	<i>Asclepiadaceae</i>
			Buch- Ham	
43	Plain Tiger	<i>Danaus chrysippus</i> Linnaeus (= <i>Danaus chrysippus</i>)	Karanta /Kavli, <i>Cryptolepis buchnani</i> R. & S	<i>Periplocaceae</i>
			Blood flower <i>Asclepias curassavica</i> L.	<i>Asclepiadaceae</i>
			Madar, <i>Calotropis gigantea</i> Ait	<i>Asclepiadaceae</i>
			Wild cotton, <i>Gomphocarpus fruticosus</i> (L.) Aiton	<i>Asclepiadaceae</i>
			Broom brush, <i>Leptadenia pyrotechnica</i> (Forsk) Decne (= <i>L. spartium</i> Wight)	<i>Asclepiadaceae</i>
			Jiwanti/Dodi, <i>Leptadenia reticulata</i> (Retz) Wight & Arn (= <i>Gynema aurantiacum</i> Wall Hook)	<i>Asclepiadaceae</i>
			Chiti /Jiti, <i>Marsdenia tenacissima</i> (Roxb) Moon	<i>Asclepiadaceae</i>
			Rosy Milkweed/ Dudhialata, <i>Oxystelma secamone</i> (L) Karst.	<i>Asclepiadaceae</i>
			Ambarvel, <i>Pentatropis capensis</i> (L.f.) Bullock (= <i>P. microphylla</i>) (Roxb) Wight & Arn.	<i>Asclepiadaceae</i>
			Utran, <i>Pergularia daemia</i> (Forsk) Chiov (= <i>P. extensa</i> N.E.Br)	<i>Asclepiadaceae</i>
			<i>Periploca aphylla</i> (Decne)	<i>Periplocaceae</i>
			Antamul, <i>Tylophora indica</i> (Burm) Merr (= <i>T. asthmatica</i> Wight & Arn)	<i>Asclepiadaceae</i>
			Banyan, <i>Ficus benghalensis</i> (L.) (= <i>F. indica</i> L)	<i>Moraceae</i>
			Cluster fig/ Gular, <i>Ficus glomerata</i> Roxb (= <i>F. goolereea</i> Roxb)	<i>Moraceae</i>
			Peepul, <i>Ficus religiosa</i> (L.) (= <i>Urostigma religiosum</i>)	<i>Moraceae</i>
			Sweet potato, <i>Ipomoea batatas</i> (L.) Lamk. (= <i>Convolvulus batatas</i>) (L.)	<i>Convolvulaceae</i>
			Kurpa, <i>Lepisanthes tetraphylla</i> (Vahl) Radk (= <i>Hemigyrosa canescens</i> Thw).	<i>Sapindaceae</i>

Table 1 contd.....

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44	Striped Tiger	<i>Danaus genutia</i> Cramer (= <i>Danaus plexippus</i> Linnaeus)	Antamul, <i>Tylophora indica</i> (Burm) Merr (= <i>T. asthmatica</i> Wight & Arn) Rion, <i>Marsdenia tinctoria</i> R. Br. Blood flower, <i>Asclepias curassavica</i> L. Kharpudi, <i>Ceropegia lawii</i> Hook Khandodi, <i>Ceropegia hirsuta</i> Wight & Arn Khandodi, <i>Ceropegia oculata</i> Hook Madagascar jasmine, <i>Stephanotis floribunda</i> Brongn Blood flower, <i>Asclepias curassavica</i> L. Rosy milkweed/ Dudhialata, <i>Oxystelma secamone</i> L. (= <i>Oxystelma esculentum</i> R Br.) Stephanotis, <i>Stephania glabra</i> Roxb (= <i>Stephania rotunda</i> Hook) Swallow wort, <i>Calotropis procera</i> (Willd) Dryand ex. W.Ait (= <i>Asclepias procera</i>) (Willd)	<i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Asclepiadaceae</i> <i>Menispermaceae</i> <i>Asclepiadaceae</i>
45	Common Fivering	<i>Ypthima baldus</i> Fabricius	Grasses (Not identified)	<i>Poaceae</i>
46	Common Evening Brown	<i>Melanitis leda</i> Linnaeus (= <i>Melanitis leda ismene</i> Cramer)	Grasses (Not identified) Rice, <i>Oryza sativa</i> L Jowar/Sorghum, <i>Sorghum vulgare</i> (Pers) (= <i>Andropogon sorghum</i> L) Wheat, <i>Triticum aestivum</i> (L) (= <i>T. sativum</i> Lamk)	<i>Poaceae</i> <i>Gramineae</i> <i>Gramineae</i> <i>Gramineae</i>
47	Great Evening Brown	<i>Melanitis zitenius</i> Herbst	Thorny/spiny Bamboo, <i>Bambusa arundinaceae</i> Retz (= <i>Bambusa spinosa</i>) (Roxb)	<i>Bambusaceae</i>
48	Dark Brand Bushbrown	<i>Mycalesis mineus</i> Linnaeus	<i>Microstegium ciliatum</i> Trin (= <i>Pollinia ciliate</i> Trin) <i>Oryza</i> spp	<i>Gramineae</i> <i>Germineae</i>
49	Bushbrown	<i>Mycalesis subdita</i> (Moore)	Grasses (Not identified)	<i>Poaceae</i>
Family Icaenidae				
50	Common Silverline	<i>Spindasis vulcanus vulcanus</i> Fabricius	Ber, <i>Ziziphus mauritiana</i> Lamk (= <i>Ziziphus jujube</i> L). Indian Allophylus, <i>Allophylus serratus</i> Roxb Small Jalpai, <i>Ixora arborea</i> (Roxb. ex Sm) (= <i>I. parviflora</i>) Vahl, non Lamk Chinese Ixora, <i>Ixora chinensis</i> L. Jungle flame ixora/ Rangan, <i>Ixora coccinea</i> L. Tubeflower/Bharangi, <i>Clerodendrum siphonanthus</i> L. Wild Jessamine, <i>Canthium parviflorum</i> Lamk.	<i>Rhamnaceae</i> <i>Sapindaceae</i> <i>Rubiaceae</i> <i>Rubiaceae</i> <i>Rubiaceae</i> <i>Verbenaceae</i> <i>Rubiaceae</i>
51	Branded Blue Pierrot	<i>Discolampa ethion</i> Westwood (= <i>Castalius ethion</i>)	Ber, <i>Ziziphus mauritiana</i> L. (= <i>Ziziphus jujube</i> L) Jackal ber, <i>Ziziphus oenoplia</i> L.	<i>Rhamnaceae</i> <i>Rhamnaceae</i>
52	Gram Blue	<i>Euchrysops cnejus</i> Fabricius	Pigeon Pea, <i>Cajanus cajan</i> (L.) Millsp. Jack bean, <i>Canavalia ensiformis</i> (L.) DC Subabul/Leucaena, <i>Leucaena leucocephala</i> (Lam.) de Wit	<i>Fabaceae</i> <i>Fabaceae</i> <i>Fabaceae</i>
53	Forget me not	<i>Catochrysops strabo</i> Fabricius	Sarivan, <i>Desmodium gangeticum</i> L. Beggardweed, <i>Desmodium tortuosum</i> SW Lac /Honey tree/Kusum, <i>Schleichera oleosa</i> Lour (= <i>Schleichera trijuga</i>) (Lour) Sandan, <i>Ougeinia oojeinensis</i> Roxb (= <i>Ougeinia dalbergioides</i>) (Benth).	<i>Papilionaceae</i> <i>Papilionaceae</i> <i>Sapindaceae</i> <i>Papilionaceae</i>

Table 1 contd....

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Family hesperidae					
54	Small Swift	Branded	<i>Pelopidas mathias</i> Fabricius	Bermuda grass, <i>Cynodon dactylon</i> L. (= <i>Panicum dactylon</i> L.) Gardenfan palm, <i>Corypha umbraculifera</i> L. Grasses (Not identified) Koda millet, <i>Paspalum scrobiculatum</i> L. Maize/Corn, <i>Zea mays</i> L. Ragi, <i>Eleusine coracana</i> L. Jowar/Sorghum, <i>Sorghum vulgare</i> L. (= <i>Andropogon sorghum</i>) L. Sugarcane, <i>Saccharum officinarum</i> L.	<i>Gramineae</i> <i>Palmae</i> <i>Poaceae</i> <i>Gramineae</i> <i>Gramineae</i> <i>Gramineae</i> <i>Gramineae</i> <i>Gramineae</i> <i>Gramineae</i>
55	Indian Indian Grizzled	Skipper/	<i>Spialia galba</i> Fabricius	Broomjute, <i>Sida rhombifolia</i> L. (= <i>S. canariensis</i> Willd.) Chocolate Weed/Wire bush/ Red weed, <i>Melochia corchorifolia</i> L. Shoe flower, <i>Hibiscus rosa-sinensis</i> L. Sleepy Morning, <i>Waltheria indica</i> L.	<i>Malvaceae</i> <i>Malvaceae</i> <i>Malvaceae</i> <i>Malvaceae</i>
56	Dark Branded Swift		<i>Pelopidas agna</i> Moore	Grasses (Not identified)	<i>Poaceae</i>

(3), Papilionaceae (3), Rubiaceae (4), Sapindaceae (2), Menispermaceae (1), Verbenaceae (1), while the Hesperiid fed on members of family Malvaceae (4), Gramineae / Poaceae (7), Palmae (1) (Table 1).

The Nymphalids had a maximum of 96 different species of host plants belonging to 32 families majority of them falling under family Asclepiadaceae, Acanthaceae, Moraceae. The Papilionids were found feeding on 61 different species belonging to 11 families in which family Rutaceae, Annonaceae, Lauraceae were dominant. Similarly, the Pierids utilizing 26

different species belonging to 9 families of which Capparidaceae and Caesalpiniaceae members served them to a maximum extent. The Lycaenids fed on 13 different species belonging to 5 families of which family Rubiaceae, Fabaceae and Papilionaceae were predominant. And the Hesperiid fed on 12 different species belonging to 4 different families with a maximum affinity towards Graminae members (Fig. 1). Many studies, related to the food plants of butterflies elsewhere in India and other parts of the globe (Merz, 1959; Gunathilagaraj, 1998; Solman Raju, 2004) are available to compare the present

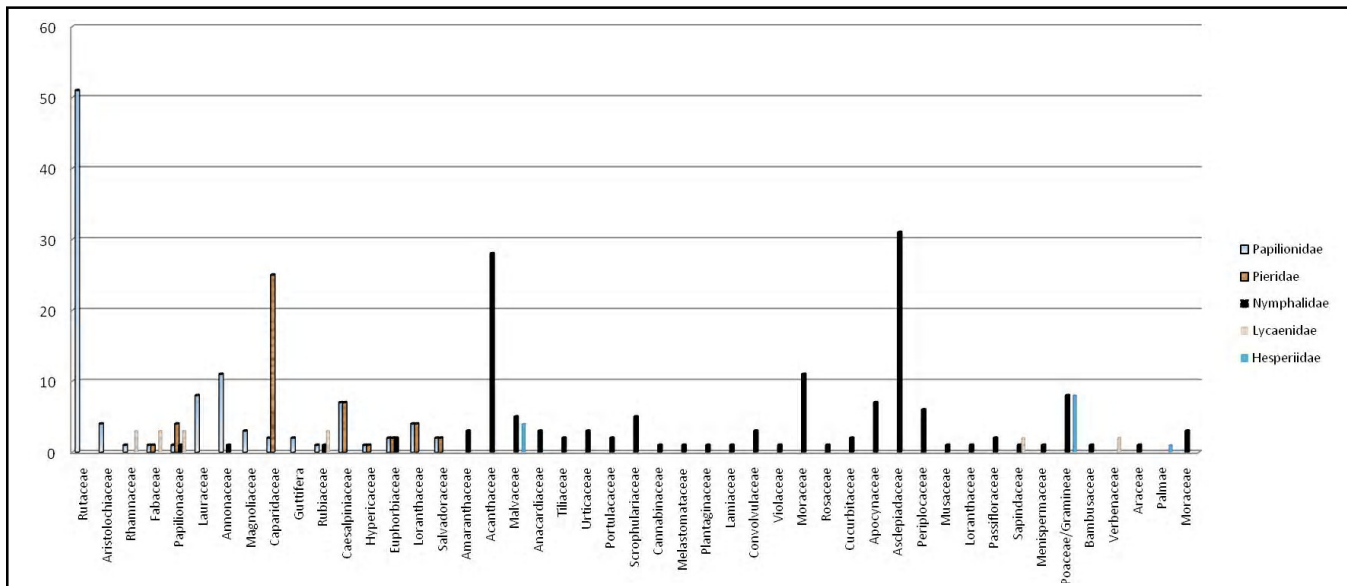


Fig. 1 : The family-family relationship between the butterflies and their host plants

findings.

It was interesting to note that some species of butterflies showed specificity in their food habit restricting to plants of a single family, eg. *Papilio polytes polytes* Linnaeus, *Papilio polytes romulus* Cramer, *Papilio polymnestor* Cramer, *Princeps helenus* Linnaeus, *Papilio demo-leus* Linnaeus fed on the plants belonging to Rutaceae only. Likewise *Graphium sarpedon* Linnaeus on plants belonging to Lauraceae, *Graphium agamemnon* Linnaeus on plants of Annonaceae, most of the *Colotis* spp, *Ixias* spp, *Cepora nerissa* Fabricius, *Pareronia valeria* Fabricius, *Hebomoia glaucippe* Linnaeus, *Leptosia nina* Fabricius, *Belenois aurota* Fabricius fed on plants of Capparidaceae, *Pachliopta hector* Linnaeus, *Papilio polytes stichius* Hubner on Aristolochiaceae, *Catopsilia crocale* Cramer and *Eurema brigitta* Cramer on Caesalpiniaceae, *Junonia hierta* Fabricius, *Junonia almanac* Linnaeus, *Junonia iphita* Cramer and *Hypolimnas misippus* Linnaeus on Acanthaceae, *Parantica aglea* Stoll, *Danaus chrysippus* Linnaeus, *Danaus genutia* Cramer on Asclepiadaceae, *Euchrysops cnejus* Fabricius on Fabaceae, *Mycalesis mineus* Linnaeus on Germinaeae, *Cyrestis thyodamas indica* on Moraceae and *Prioneris sita* Felder on Loranthaceae.

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