INTRODUCTION

In the year 1965, just a couple of months after completing Post-Graduation (M.Sc.), I joined as a research student under the supervision of the then world-renowned Insect Morphologist, and Taxonomist trained in the United Kingdom, [the Late] Professor Dr Shah Mashhood Alam. Prof. Alam suggested that I should work on the Taxonomy of chalcidoid parasitoids for my Ph.D. I have had at that time a very vague idea what a chalcid would look like. Prof. Alam then brought out from his almirah some books and papers, and briefly explained to me about chalcids, their ‘looks’, their biology and their importance in the Biological Control, and gave hints about their collection and rearing from host insects – that was virtually my first contact with Prof. Alam as my research supervisor. After that initial ‘introduction’ to my research topic, I was left alone to pursue my research work on the Taxonomy of chalcids for the next five years, with only occasional meetings with my supervisor. In the sixth year he began to look at the Ph.D. thesis I had prepared on the Indian chalcidoid families Encyrtidae, Aphelinidae and Signiphoridae. The point that I intend to convey from this paragraph is that Prof. Alam obviously believed in the saying ‘help yourself’ – and if you can not help yourself, then you may as well leave research and do something else!

So I have had my choice; either I quit research in Taxonomy, or I help myself in pursuit of my research work. And at that time, I believe, I made the right choice, and am still here with chalcid Taxonomy as my love and my bread.

At that time, I had very limited knowledge about the theory and practice of Taxonomy. So instead of trying to know the theoretical aspects of Taxonomy, Classification, Nomenclature, and Systematics in general, I embarked upon the practical aspects of my research on Taxonomy of the chalcidoid parasitoids:
collection and identification, activities akin to what A.J. Cain quoted in Simpson (1961) said: ‘Is it not extraordinary that young taxonomists are trained like performing monkeys, almost wholly by imitation, and that in only the rarest cases are they given any instruction in taxonomic theory?’

We have not entered the ‘computer age’ at that time. Therefore, immediately after joining research, I began searching for literature on chalcids in the Zoological Records [which even in this computer age, happens to be the best source of literature survey], and then the realization gradually dawned upon me that the world of chalcids is enormous, its published literature vast dating back to Linnaeus, Latreille and Fabricius, and Dalman, Thomson, and Walker, Westwood, Howard and Ashmead of the 18th and 19th centuries, but also large number of papers published in the 20th century by R.G. Mercet, C. Ferriere, and H. Compere, and later by G.J. Kerrich, M.N. Nikols’kaya, Z. Boucek, A. Hoffer and D.P. Annecke.

I could find some of the papers published by the 20th century chalcidologists in Prof. Alam’s collection of literature; but that was hardly sufficient to pursue any research on encyrtids and aphelinids [the two families which I had eventually chosen to work on]. Therefore, I began sending in requests to chalcid taxonomists for reprints of their papers, and fortunately nearly all of them obliged me. I have also purchased photocopies and microfilms of most earlier papers from INSDOC (New Delhi) or visited the IARI Library (New Delhi) for this purpose several times. Thus gradually and steadily increased my personal library of chalcid literature, which included literature on almost all the chalcidoid families.

Reading through some of these papers, and especially those of Compere, Annecke, Boucek and Graham, not only gave me some insight into the chalcids, but also exposed me to the methodology of writing taxonomy papers on chalcids. Further, these papers brought to the forefront the fact that what is necessary and
important in chalcidoid (or insect) taxonomy is not so much as describing new taxa [and these were abundant in the virtually unexplored Indian chalcidoid fauna], but as removing confusion existing in the described fauna. So apart from describing new species taxa from the collection I made from several Indian States during 1966 to 1972, my main aim then became study of the (types of the) described species, and trying to correct the errors, if any, made by earlier workers on Indian chalcids.

What was the state of the taxonomy of Indian encyrtids and aphelinids (and other families) when I began my research on these two families? By 1970, 95 species of Encyrtidae and 60 species of Aphelinidae were described or recorded from India, but a majority of these were unrecognizable [Some of these species were later proved either to be junior synonyms or placed in the wrong genera.]; and the condition was no better, possibly worse, for other chalcidoid families. That was the condition when I seriously thought of sending my papers for publication.

The large number of chalcid specimens collected from 1966 onwards from hosts throughout the southern and parts of the northern States of India prompted me to prepare and send papers, nearly all small papers containing descriptions of one or two or at the most four, of what I considered at that time to be new species. I was very happy seeing my name printed as the ‘author’ of my papers. But then who would not be happy to see his/her name in print as the author of a paper? I was fortunate in that the manuscripts of the papers I had sent for publication in Journals outside India, were reviewed/refereed by such foremost chalcid taxonomists as Dr Boucek and Dr Annecke. Dr Boucek even wrote to me personally regarding one of my papers. Their comments on my papers appeared at that time to be ‘harsh’, but it was those ‘harsh’ comments which eventually showed me the right path that a modern taxonomist ought to follow if he/she wants to make meaningful and worthy contributions to the taxonomy and faunistics of Indian chalcidoids. By the late 1970s, I began to realize the futility of
publishing smaller papers, unless such papers were necessary and deal with interesting facts on taxonomy, and was striving to prepare and publish larger papers on revisions, reviews or papers dealing with the taxonomic status of already described species and genera. Thus gradually my contributions mainly on the Indian Encyrtidae and Aphelinidae (and a few other families) increased. The main aim of these publications was to clarify the taxonomy of the described species including those described by me.

I now turn to one fundamental aspect of Indian chalcid taxonomy: What Indian chalcidologists have done so far?

Indian chalcid taxonomy has had very poor beginnings in the early part of the 20th century. The earlier contributions (upto 1925) were by British and American naturalists/taxonomists (such as, Howard; Cameron) and these pertained to records and descriptions of parasitoids of a few economically important pest species. Ayyar (1925) published a checklist of the Indian and the Ceylonese [=Sri Lanka] chalcidoids. The credit must, however, be given to Prof. M.S. Mani [died; January 8, 2003] for the fresh impetus his contributions gave to taxonomic studies on the Indian chalcids. His catalogue of Chalcidoidea of India and the adjacent countries (1938) records 232 species from India. Prof. Mani's interest in chalcids can be gauged from the fact that he and his students continued to publish on chalcids up to about the late 1980s, and finally culminated in a volume (in two parts) on Chalcidoidea in the Fauna of India series (Mani, 1989).

From the 1950s and especially when the role played by chalcid parasitoids in the Biological Control of pests of economic importance came to be gradually recognized, that taxonomic studies were initiated again by Dr B.R. Subba Rao (then at the Division of Entomology, Indian Agricultural Research Institute, New Delhi), Drs S.M. Alam, M.M. Agarwal, M. Hayat, S.A. Shafee (Zoology Department, Aligarh Muslim University, Aligarh), and Drs K.J. Joseph and T.C. Narendran (Department of Zoology, University of Calicut, Calicut). These authors
and especially Narendran, Shafee and Hayat and their students published a large number of papers on chalcids. The steady progress made on chalcid taxonomy becomes evident when we compare the 232 species recorded by Mani in 1938 to the more than 1360 species listed in the catalogue edited by Subba Rao and Hayat (1986). From 1985 onwards tremendous progress was made in Indian chalcid taxonomy with the publication of a large number of papers on various families, and of monographic revisions. Of the latter, the following deserve mention: Monographic revision of the Oriental Chalcididae (Narendran, 1989), Torymidae and Eurytomidae of the Indian subcontinent (Narendran, 1994), Indo-Australian Ormyridae (Narendran, 1999), generic review of the Indo-Pacific Encyrtidae (Noyes & Hayat, 1984), Revision of the Oriental Anagyrini (Noyes & Hayat, 1994), and Revision of the Indian Aphelinidae (Hayat, 1998).

The main emphasis in chalcid taxonomy has been, and still continues to be, to describe species reared from host insects. It was only in the last thirty years that apart from host-bred material, other methods of collecting adult parasitoids from every habitat were used in India. These methods proved very productive yielding large number of specimens (and species) spread over several families. These collections laid the foundation for the faunistic studies on various chalcidoid families. But the host-bred method remains the preferred collecting method. This is essential if we look at the main, though not the only, aim of research on taxonomy of the parasitic Hymenoptera: a knowledge of the host insects parasitized by chalcids so that these parasitoids may be available for use in the biological control of pest species.

After more than 35 years research work and publication of a number of papers, books and revisions, and reaching almost the end of my academic career, I still feel that my contributions to the Indian chalcid taxonomy is a mere speck compared to the contributions of other world chalcidologists.
CONTRIBUTIONS OF M. HAYAT TO THE TAXONOMY OF THE INDIAN CHALCIDOIDEA

My contributions to the chalcidoid taxonomy mainly concerns Encyrtidae and Aphelinidae, with some contributions on the Indian Mymaridae (12 papers), Signiphoridae (6 papers), Trichogrammatidae (9 papers), Eulophidae (5 papers) and Eupelmidae (3 papers). A list of all my papers is given in the following pages (pages 16-25). A set of all available reprints or their photocopies of the papers are attached. [For Copyright reasons only photocopies of two or three initial pages and the last page of the two books are attached.]

Although the present thesis for the award of the D.Sc. degree of the Aligarh Muslim University is restricted to my contributions to the Indian Encyrtidae, it must be emphasized that I have singularly made substantial contributions to the Aphelinidae mainly of India. Of the 181 species of Aphelinidae known from India (Hayat, 1998), 71 species (excluding synonyms) were described by me, and about 26 species were recorded by me for the first time from India. I have published a total of 55 research papers, including catalogues, revisions, chapters in books, and finally a book (1998) on Indian Aphelinidae. Some of the papers deal with fauna from other regions/countries of the world, including a key to the world genera (1983) and review of some genera on a world basis.

CONTRIBUTION OF M. HAYAT TO INDIAN ENCYRTIDAE

My contributions to the taxonomy of the Encyrtidae mainly pertains to the Indian fauna, but I have also published [with Dr J.S. Noyes] two works, a monographic work dealing with the Review of the Indo-Pacific genera (Noyes & Hayat, 1984), and a Book on the Oriental Anagyrini (Noyes & Hayat, 1994). Also Dr B.R. Subba Rao and myself have edited a 2-part keys and catalogues of the Chalcidoidea of India and the adjacent countries (1985, 1986), besides making substantial contributions myself in these two publications. In all I have a total of 54 research publications including a book, revisional studies and monographs.
In terms of numbers, my contributions on the Indian Encyrtidae are as follows:

Valid genera described: 23 [excluding 10 extra-limital genera]
Valid species described: 184 [excluding 41 extra-limital species]
Genera recorded for the first time from India: 62
Species recorded for the first time from India: 55
Total number of genera synonymized. [This includes a large number of
Girault genera synonymized by Noyes & Hayat (1984): 124
Total number of (mostly) Indian species synonymized: 99.

LIST OF INDIAN GENERA AND SPECIES OF ENCYRTIDAE
DESCRIBED BY M. HAYAT

The genera and species listed are arranged in alphabetical order for the two
subfamilies, Tetracneminae and Encyrtinae. For genera and species, which proved
to be synonyms, the valid names are given first followed by the invalid synonyms.

GENERATION:

Subfamily: TETRACNEMINAE

*Adektitopus* Noyes & Hayat, 1984
*Eotopus* Noyes & Hayat, 1984
*Manicnemus* Hayat, 1981b
*Neocharitopus* Hayat et al., 1975
*Paraclausenia* Hayat, 1980
*Ruanderoma* Noyes & Hayat, 1984
*Sakencyrtus* Hayat, 1981b
Subfamily: ENCYRTINAE

*Agarwalencyrtus* Hayat, 1981b

*Amicencyrtus* Hayat, 1981b

*Bolangera* Hayat & Noyes, 1986

*Coagerus* Noyes & Hayat, 1984

*[Coccidencyrtus* Ashmead, 1900 = *Neoadelencyrtus* Hayat et al., 1975]

*Diaphorencyrtus* Hayat, 1981a

*Eithoris* Noyes & Hayat, 1984

*Gentakola* Noyes & Hayat, 1984

*Haligra* Noyes & Hayat, 1984

*Indaphyicus* Hayat, 1981b

*Kataka* Noyes & Hayat, 1984

*Mashhoodiella* Hayat, 1972

*[Mayridia* Mercet, 1921 = *Indoencyrtus* Hayat & Verma, 1978]

*Nathismusia* Noyes & Hayat, 1984

*Neperpolia* Hayat, in Hayat et al., 2003

*Pasulinia* Noyes & Hayat, 1984

*[Prochiloneurus* Silvestri, 1915 = *Prochiloneuroides* Hayat et al., 1975]

*Psyllaphycus* Hayat, 1972

*Saucrencyrtus* Hayat & Singh, 2002

SPECIES:

Subfamily: TETRACNEMINAE

*Adektitopus gordhi* Noyes & Hayat 1984

*[Aenasius advena* Compere, 1937 = *Pseudanasius clavus* Hayat et al., 1975]

*Anagyrus aceris* Noyes & Hayat, 1994

*Anagyrus alami* Hayat, 1970a

*Anagyrus aquilonaris* (Noyes & Hayat, 1984)

*Anagyrus chrysos* Noyes & Hayat, 1994
Anagyrus discolor Noyes & Hayat, 1994
Anagyrus elizabethae Noyes & Hayat, 1994
Anagyrus floris Noyes & Hayat, 1994
Anagyrus gracilis (Hayat, 1970a)
Anagyrus gravis Noyes & Hayat, 1994
Anagyrus impar Noyes & Hayat, 1994
[Anagyrus indicus (Subba Rao, 1967) = Leptanus indica Hayat et al., 1975]
Anagyrus jenniferae Noyes & Hayat, 1994
Anagyrus levis Noyes & Hayat, 1994
Anagyrus lutescens Noyes & Hayat, 1994
Anagyrus obodas Noyes & Hayat, 1994
Anagyrus qadrii (Hayat et al., 1975)
Anagyrus rubinae Noyes & Hayat, 1994
Anagyrus sabas Noyes & Hayat, 1994
Anagyrus scimitar Noyes & Hayat, 1994
Anagyrus shahidi Hayat, 1979a
[Anagyrus subflaviceps (Girault, 1915) = Anagyrus longiventris Hayat, 1979a]
Anagyrus theon Noyes & Hayat, 1994
Anagyrus umairi Noyes & Hayat, 1994
Anagyrus vochos Noyes & Hayat, 1994
Anomalencyrtus longicornis Hayat & Verma, 1980
Anomalencyrtus paeones Noyes & Hayat, 1994
Apoleptomastix attenboroughi Noyes & Hayat, 1994
Dusmetia fuscipennis (Noyes & Hayat, 1984)
Gyranusoidea cinga Noyes & Hayat, 1994
Leptomastidea minyas Noyes & Hayat, 1994
Leptomastidea spinipes Noyes & Hayat, 1994
Leptomastix ephyra Noyes & Hayat, 1994
Leptomastix kirkleyae Noyes & Hayat, 1994
[Leptomastix nigrocincta Risbec, 1959 = Leptomastix lyciae
Noyes & Hayat, 1994]

[Leptomastix nigrocoxalis Compere, 1928 = Leptomastix brevis
Hayat et al., 1975]

Leptomastix salemensis Hayat et al., 1975
Leptomastix sylva Noyes & Hayat, 1994
Leptomastix tetrica Noyes & Hayat, 1994
Metaphaenodiscus aligarhensis Hayat, 1981b

[Metaphaenodiscus aligarhensis Hayat, 1981b = Ramalia proxima
Hayat, 1981b]

Paraclausenia herbicola Hayat, 1980
Rhopus atys Noyes & Hayat, 1994
Rhopus conon Noyes & Hayat, 1994
Rhopus corni Noyes & Hayat, 1994
Rhopus gramineus Hayat, 1970a
Rhopus harena Noyes & Hayat, 1994
Rhopus humilis Noyes & Hayat, 1994
Rhopus milo Noyes & Hayat, 1994
Rhopus sandalli Noyes & Hayat, 1994
Rhopus segestes Noyes & Hayat, 1994
Rhopus somos Noyes & Hayat, 1994
Ruanderoma sankarani Noyes & Hayat, 1984
Sakencyrtus mirus Hayat, 1981b
Tetracnemus narendrani Hayat & Kazmi, 1999
Tetracnemus perspicuus Hayat & Kazmi, 1999

Subfamily: ENCYRTINAE

Acerophagus solidus Hayat, 1981b
Adelencyrtus coxalis Hayat et al., 1975
Adelencyrtus funicularis Hayat et al., 1975
Adelencyrtus longiclavatus Hayat et al., 1975
[Adelencyrtus moderatus (Howard, 1897) = Adelencyrtus mysorensis Hayat et al., 1975]

Adelencyrtus orissanus Hayat, 2003a
Agarwalencyrtus dispar Hayat, 2003a
Ageniaspis fulvicornis Kazmi & Hayat, 1998
Amicencyrtus obscurus Hayat, 1981b
Anicetus aligarhensis Hayat et al., 1975
Anicetus angustus Hayat et al., 1975
Anicetus ashmeadi Hayat et al., 1975
Anicetus howardi Hayat et al., 1975
Anicetus inglisiae Hayat, in Hayat et al., 2003
Bolangera sankarani Hayat & Noyes, 1986
Caenohomalopoda longiclava Basha & Hayat, 2002
Carabunia bicoloripes Hayat, 2003a
Carabunia zora Hayat, 2003a
Cerapteroceroides ghorpadei Hayat, 2003a
Cerapterocerus augustus Hayat, 2003a
Cerchysiella harlige Hayat & Basha, 2003
Cerchysiella meghaiana Hayat & Basha, 2003
Cerchysius bashai Hayat, 2003a
Cheiloneurus axillaris Hayat et al., 1975
Cheiloneurus basiri Hayat et al., 1975
Cheiloneurus bouceki Anis & Hayat, 2002
Cheiloneurus callidus Anis & Hayat, 2002
Cheiloneurus coimbatorensis Anis & Hayat, 2002
Cheiloneurus diversicolor Hayat et al., 1975
Cheiloneurus hadrodorys Anis & Hayat, 2002
Cheiloneurus kerrichi Hayat et al., 1975
Cheiloneurus latifrons Hayat et al., 1975
Cheiloneurus latiscapus (Girault, 1916) = C. albifuniculus Hayat et al., 1975

Cheiloneurus longicornis Hayat et al., 1975
Cheiloneurus nigricornis Hayat et al., 1975
Cheiloneurus nitidulus Anis & Hayat, 2002
Cheiloneurus noyesi Anis & Hayat, 2002
Cheiloneurus tenuistigma Anis & Hayat, 2002
Cheiloneurus udaghamundo Anis & Hayat, 2002
Cheiloneurus zeyai Anis & Hayat, 2002
Coagerus bouceki Noyes & Hayat, 1984
Coccidencyrtus clavatus (Hayat et al., 1975)
Coccidencyrtus mandibularis (Hayat et al., 1975)
Coccidencyrtus shafeei (Hayat et al., 1975)
Coccidoctonus terebratus (Hayat et al., 1975)
Copidosoma bouceki Kazmi & Hayat, 1998
Copidosoma brevitruncatellum Kazmi & Hayat, 1998
Copidosoma coimbatorense Kazmi & Hayat, 1998
Copidosoma exiguum Kazmi & Hayat, 1998
Copidosoma dasi Hayat, 2003b
Copidosoma horaxis Kazmi & Hayat, 1998
Copidosoma ilaman Kazmi & Hayat, 1998
Copidosoma indicum Kazmi & Hayat, 1998
Copidosoma jucundum Kazmi & Hayat, 1998
Copidosoma longiclavatum Kazmi & Hayat, 1998
Copidosoma lucidum Kazmi & Hayat, 1998
Copidosoma manaliense Kazmi & Hayat, 1998
Copidosoma notatum Kazmi & Hayat, 1998
Copidosoma noyesi Kazmi & Hayat, 1998
Copidosoma oreinos Kazmi & Hayat, 1998
Copidosoma rarum Kazmi & Hayat, 1998
Copidosoma spinosum Kazmi & Hayat, 1998
Copidosoma transversum Kazmi & Hayat, 1998
Copidosoma vinnulum Kazmi & Hayat, 1998
Copidosomopsis indicus Kazmi & Hayat, 1998
Copidosomopsis meridionalis Kazmi & Hayat, 1998
[\textit{Diversinervus elegans} Silvestri, 1915 = \textit{D. intermedius}
Hayat \textit{et al.}, 1975]

\textit{Diversinervus madgaoensis} Hayat \textit{et al.}, 1975
\textit{Echthrogonatopus nigricornis} (Hayat, 1980)
\textit{Echthrogonatopus parvus} (Hayat, 1980)
\textit{Encyrtus albidus} Hayat, 1970b.
\textit{Epiblatticida breviterebrata} Hayat, 2003a
\textit{Epiblatticida psyllidiphaga} Hayat & Singh, 2002
\textit{Ethoris dahmsi} Noyes & Hayat, 1984
\textit{Forcipestricis dasys} Hayat, 2003a.
\textit{Forcipestricis magnioculis} Hayat, 2003a.
\textit{Haligra concolor} Noyes & Hayat, 1984
\textit{Helegonatopus pulchricornis} Hayat & Verma, 1978
\textit{Hemencyrtus hirsutus} Hayat, 2003a
\textit{Hemileucoceras longicornis} Hayat, 2003a
\textit{Homalotylus agarwali} Anis & Hayat, 1998
\textit{Homalotylus ferrierei} Hayat \textit{et al.}, 1975
\textit{Homalotylus formosus} Anis & Hayat, 1998
\textit{Indaphycus planus} Hayat, 1981b.
\textit{Kataka mudigerensis} Noyes & Hayat, 1984
\textit{Mayridia caerulea} (Hayat & Verma, 1978)
\textit{Mashhoodiella echthromorpha} Hayat, 1972
\textit{Mayridia caerulea} (Hayat & Verma, 1978)
\textit{Mayridia dunensis} Hayat, 2003a.
\textit{Mayridia miranda} Hayat, 2003a.
\textit{Mayridia splendida} Hayat, 2003a.
Meniscocephalus foveolatus Hayat, 2003a.
Meniscocephalus notialis Hayat, 2003a.
Meniscocephalus optabilis Hayat, 2003a.
Metaphycus bolangerae Hayat, in Hayat et al., 2003
Microterys agaeus Hayat, in Hayat et al., 2003
Microterys asoris Hayat & Singh, 2000b.
Microterys coffeae Singh & Hayat, 2002
Microterys imphalensis Singh & Hayat, 2002
Microterys jorhatensis Singh & Hayat, 2002
Microterys ouasii Singh & Hayat, 2002
Nathismusia southwoodi Noyes & Hayat, 1984
Neperpolia bangalorensis Hayat, in Hayat et al., 2003
Ooencyrtus kerriae Hayat, in Hayat et al., 2003
Paratetracnemoidea insulana Hayat & Singh, 2002
Pasulinia gentha Noyes & Hayat, 1984
Philosindia inglisiae Hayat, in Hayat et al., 2003
Prochiloneurus albifuniculus (Hayat et al., 1975)
Proleurocerus litoralis Hayat & Kazmi, 1996
Psyllaephagus bengalensis Hayat, 2003b.
Psyllaphycus diaphorinae Hayat, 1972
Rhytidothorax callistus Hayat et al., 2002
Saucencyrtus insulanus Hayat & Singh, 2002
Syrphophagus hofferi (Hayat, 1973)
Tassonia calunica Hayat, 2003a.
Thomsonisca indica Hayat, 1970b.
Trechnites alhipodus Kazmi & Hayat, 1995
Trechnites aligarhensis Hayat et al., 1975
Trechnites concinnus Kazmi & Hayat, 1995
Trechnites manaliensis Hayat et al., 1975
Trichomasthus assamensis Hayat & Basha, 2003
Tyndarichus nitidulus Hayat, 2003a.
Xenostryxis brevicauda Hayat, 2003a.
LIST OF PUBLICATIONS OF M. HAYAT

The list is arranged family-wise. Under each family the publications are listed in the following order: papers published independently by M Hayat, publications in joint authorship with M. Hayat as the senior author, and publications in joint authorship with M. Hayat as the junior author.

Family: ENCYRTIDAE

Book


Research papers (including monographs, revisions and reviews):

Hayat, M


Publications in joint authorship: M. Hayat as SENIOR AUTHOR.


Publications in joint authorship: M. Hayat as JUNIOR AUTHOR.


Family: APHELINIDAE

Book


Chapters in Books.


Research papers

Hayat, M.

01. 1971a. The species of *Coccophagus* Westwood, 1833 (Hym.: Aphelinidae) from India. *Entomophaga*, 16, 421-432.
34. 1991b.  Taxonomic studies on Aphelinus (Hymenoptera: Aphelinidae). IV. A new and three known species from Nepal. Entomon, 16, 183-186. [Fig. 8 omitted].


Publications in joint authorship, **M. Hayat as SENIOR AUTHOR**


03. Hayat, M. & Singh, S. 1989. Description of a new *Coccophagus* of the *lycimnia*-group (Hymenoptera: Aphelinidae) from the Khasi Hills, with some other species records from India. Colemania, 5, 29-34.


Publications in joint authorship, **M. Hayat as JUNIOR AUTHOR**


03. ----- & ----- 1992. A revision of the genera *Dirphys* Howard and *Encarsiella*

Family: MYMARIDAE

Chapter in a Book


Research papers

05. ------ & ------ 1999c. The Indian species of Polynema with notes on Stephanodes reduvioli (Hymenoptera: Mymaridae). Oriental Ins., 33, 315-331.
Family: TRICHOGRAMMATIDAE

Research papers


Family: SIGNIPHORIDAE

Research papers


Family: EUPELMIDAE

Research papers


Family: EULOPHIDAE

Research papers


CHALCIDOIDEA


TWO COMPENDIA edited by B.R. Subba Rao and M. Hayat:


REFERENCES CITED


