

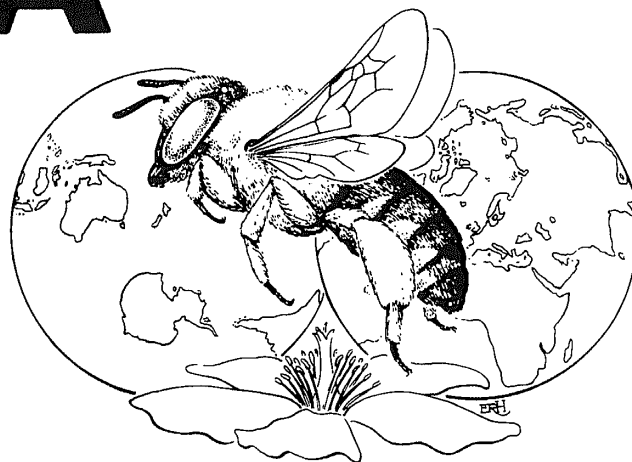
MELISSA

Melittologist's Directory

Editors:

Ronald J. McGinley
Department of Entomology
Smithsonian Institution, NHB-105
Washington, D.C. 20560

Charles D. Michener
Entomological Museum, Snow Hall
University of Kansas
Lawrence, Kansas 66045



February, 1986

This directory to melittologists and pollination ecologists is based on 347 responses to a questionnaire distributed between September and December 1985. The following information is included for each entry: complete address and telephone number; summary of research interests; geographic area of interest; bee taxa willing to identify and/or exchange; research interest key words [categories not responded to are omitted]. Contributions were received from workers in 47 countries as follows:

ARGENTINA	1	FINLAND	4	PORTUGAL	1
AUSTRALIA	11	FRANCE	6	ROMANIA	2
AUSTRIA	4	HUNGARY	1	SOUTH AFRICA	9
BANGLADESH	1	INDIA	2	SPAIN	2
BELGIUM	5	INDONESIA	1	SRI LANKA	1
BRASIL	25	ISRAEL	4	SWEDEN	11
CANADA	17	ITALY	3	SWITZERLAND	5
CHILE	2	JAPAN	10	THAILAND	1
CHINA	2	MALAYSIA	3	TURKEY	1
COLOMBIA	1	MEXICO	4	UNITED KINGDOM	10
COSTA RICA	2	NETHERLANDS	9	UNITED STATES	121
CUBA	1	NEW ZEALAND	6	U.S.S.R.	5
CZECHOSLOVAKIA	1	NORWAY	2	VENEZUELA	1
DENMARK	5	PANAMA	1	WEST GERMANY	23
EAST GERMANY	2	PHILLIPINES	1	YUGOSLAVIA	5
EGYPT	1	POLAND	3		

Clearly the above representation is strongly biased by our initial mailing list and not indicative of the actual number of melittologists internationally. Hopefully this situation will be corrected in a future update. Send additions and corrections to Ron McGinley.

Identifications

The material in this section has been culled from responses received. It will doubtless need correcting, updating, and reprinting. Please send in corrections and additions. When requesting identifications it is standard procedure to write the appropriate systematist before actually sending specimens (check directory for mailing addresses and conditions for identification services).

COLLETIDAE

Colletidae from Cuba (G. Alayon); from The Netherlands (B. Lefebvre)
Colletinae from North and Central America (R.R. Snelling); Old World Colletes (C. O'Toole); Colletes from Oriental region (S. Ikudome)
Euryglossinae (E. Exley)
Hylaeinae from New World and Ethiopian region (R.R. Snelling); Hylaeinae from Australia (T.F. Houston); palaearctic Hylaeus (H. Dathe); Hylaeus from Oriental region (S. Ikudome); Palaeorhiza from New Guinea and Australia (Y. Hirashima)

STENOTRITIDAE: Ctenocolletes (T.F. Houston)

HALICTIDAE

Halictidae (general): from Central and South America (J.R. Cure); Palaearctic halictids (P.A.W. Ebmer; see directory for details); North American halictids (especially Dialictus, will attempt other genera except Sphecodes), Caribbean halictids to species, Neotropical halictids to genus, occasionally to species (G.C. Eickworth); Oriental halictids to genus and subgenus (Fan Jian-guo); Old World halictines, especially Evyllaes (L. Packer); halictids from Palaearctic (Y.A. Pesenko); Halictinae from Australia (K. Walker)
Agapostemon, Agapostemonoides, Dinagapostemon, Paragapostemon, Pseudagapostemon, Rhinotula (R.B. Roberts)
Augochlorella (E. Ordway); Evyllaes, Lasioglossum (s.s.) from New World (R.J. McGinley); Nomia (Epinomia) (E.A. Cross); Sphecodes from Nearctic region (M.S. Arduser)

ANDRENIIDAE: Panurginae (L. Ruz); Palaearctic Panurginae (K.H. Schwammberger); Calliopsis (A.F. Shinn); Nomadopsis (J.G. Rozen)
Andrena from Europe and North Africa (F. Gusenleitner); Andrena (W.E. LaBerge); from Palaearctic region (H.G.M. Teunissen); Andrena subgenera: Diandrena, Hesperandrena, Onagrandrena (R.W. Thorp);

MELITTIDAE: Melittidae from New World (R.R. Snelling); Melittidae from southern Africa (V.B. Whitehead)

MEGACHILIDAE

Megachilidae (general): from Cuba (G. Alayon); from Canada and East and Central United States (M.S. Arduser); from anywhere, especially Osmiini (T. Griswold); from Australia, South Pacific (J. King); some megachilids (F.D. Parker); from New World (R.W. Rust)
Anthidiini from New World (L.A. Stange); Anthidium (W.E. LaBerge); Anthidium from Palaearctic (G. van der Zanden)

Chalicodoma from Palaearctic (G. van der Zanden); Chelostoma/Heriades (s.l.) from Palaearctic (G. van der Zanden); Megachile from neotropics (A. Raw); Megachile (some) (K.W. Richards); Megachile from Palaearctic (G. van der Zanden); Osmia (s.l.) (by prior arrangement, D.S. Peters); Osmia from anywhere (R.W. Rust); Osmia (s.l.) from Palaearctic (G. van der Zanden); Trachusa (R.W. Thorp)

FIDELIIDAE: Fideliidae from southern Africa (V.B. Whitehead)

ANTHOPHORIDAE

Anthophoridae (general): from Cuba (G. Alayon); many groups of Anthophoridae (R.W. Brooks); southwestern Arizona bees (especially anthophorids) to genus (S.L. Buchmann)

Centridini (R.R. Snelling); Eucerini from Eastern Mediterranean (C. O'Toole); Exomalopsini (J.L. Neff)

Nomadini, excluding Nomada (S.S. Shanks); Nomadini from the New World (R.R. Snelling); Nomada of subgenera Holonomada, Callinomada and Pachynomada (will sort to subgenus, D.K. Broemeling); Oreopasites (J.G. Rozen); Osiris (S.S. Shanks)

Anthophora (s.l.) from Europe (P. Westrich); Diadasia (R.W. Thorp); Melissodes (W.E. LaBerge); Svastra (W.E. LaBerge)

Xylocopini: allodapine bees from southern Africa (C.D. Eardley); allodapines (C.A.M. Gordon); Ceratina and relatives from Africa, Europe and New World (H.V. Daly); Xylocopa from Mexico (R. Ayala); Xylocopa from southern Africa (C.D. Eardley); Xylocopa from Belgium, France (P. Rasmont)

APIDAE: Bombini: Bombus (general or area not specified): S. Cameron; T.M. Lavery; R.C. Plowright; K.W. Richards (limited numbers); Bombus from Cuba (G. Alayon); from Mexico (R. Ayala); from eastern North America (L.D. Harder); from Asia, New Zealand (R.P. Macfarlane); from North America (R.M. Fisher; L.W. Macior; R.B. Miller; R.E. Owen); from Norway (A. Mjelde); from West-Europe (A. Pouvreau); from Iceland, Great Britain and Eire (O.E. Prys-Jones); from Belgium, France, Anatolian region, Afghanistan, Siberia (P. Rasmont); from Europe (A. Scholl); from Balkan Peninsula (A.M. Stevanovic); from northern Europe (B.G. Svensson); American Bombus (R.W. Thorp); Bombus, especially from Asia (P.H. Williams)

Psithyrus: T.M. Lavery; R.C. Plowright); Psithyrus from eastern North America (L.D. Harder); from North America (R.M. Fisher; R.B. Miller); from Iceland, Great Britain and Eire (O.E. Prys-Jones); American Psithyrus (R.W. Thorp)

Meliponinae (general): J.S. Moure; D.W. Roubik; M.C. de Almeida; Meliponinae from Cuba (G. Alayon); from Mexico (R. Ayala); from Neotropics (J.M.F. de Camargo); from Malaysia (Khoo Soo Ghee); from northern South America (J.M. Gonzalez); from Indopacific (S.F. Sakagami); from neotropics A. Wille); Trigona from Africa (R. Darchen)

Euglossini: L.S. Kimsey, D.W. Roubik, N.H. Williams; Euglossini from Central America (J.D. Ackerman)

GENERAL IDENTIFICATIONS:

Primarily New World:

General, "limited numbers; bee specimens should be sent through IIBIII. I will probably be inundated with honeybee APHIS samples soon and will have little time for other bees; willing to exchange specimens." (S.W.T. Batra) [Identification requests should be directed through Dr. Lloyd Knutson, Systematic Entomology Laboratory, IIBIII, Agricultural Research Service, USDA, c/o U.S. National Museum, MNH, Washington D.C. 20560.] Pollinating insects to generic level, species where possible and needed (T. Griswold).

Bees from southwestern Arizona (especially anthophorids) to genus (S.L. Buchmann); bees of local interest in mid Atlantic region (U.S.A.) (D.M. Caron); bees of Surinam (F.N. Dingemans-Bakels); bees from central U.S.A., especially Indiana (M. Johnson); bees from the Neotropics (J.S. Moure); bees from Texas (preferably central Texas) excluding Nomadini and Lasioglossum (s. lat.) (J.L. Neff); bees from tropical areas to genus (D.W. Roubik); bees from North America to genus for pollination studies (R.W. Thorp)

Old World or Worldwide:

Bees from Switzerland (F. Amiet); Old World bees, excluding Australian fauna (D.B. Baker); bees from New Zealand, New Caledonia and Pacific Islands (B.J. Donovan); bees from Middle Europe (V. Haeseler); bees from Australia to subgenus (by prior arrangement, T.F. Houston); bees from northern Europe (A. Loken; O. Lomholdt; L. Noren); Worldwide (by prior arrangement, C.D. Michener); parasitic bees from western Palaearctic (M. Schwarz); bees from China (Wu Y.-r.)

Directory

James D. Ackerman, Associate Professor and Curator of the Herbarium, Department of Biology, University of Puerto Rico, Rio Piedras, PUERTO RICO 00931 [809-764-0000 ext. 2023]. INTERESTS: "My primary interests are orchid systematics and evolution as well as pollination ecology in general." AREA: Neotropics. IDENTIFICATIONS: Central American Euglossini. [behavior; pollination; seasonality; Apidae]

Margaret Adey, Director, International Bee Research Association, Hill House, Gerrards Cross, Buckinghamshire SL9 0NR, UNITED KINGDOM [0753-885011]. INTERESTS: "Pollination of legumes, particularly by solitary bees. I am interested in the structure and function of the floral parts." AREA: World-wide but I have worked mainly in the Mediterranean. EXCHANGE: yes. [pollination; all bee families]

Lennart Ågren, Deputy Director, Research Assistant, Ecological Station of Uppsala University, Olands Skogsby 6280, S-386 00 Farjestaden, SWEDEN [Int+ 485 381 58, 383 56]. INTERESTS: "Receptor physiology and morphology of all bees, including structure of pheromone-producing glands." AREA: Scandinavia. [behavior; morphology]

João Batista Vicentin Aguilar, Graduate Student, Departamento de Ecologia Geral, Instituto de Biociências - USP, 05.508 - São Paulo - SP. BRASIL [011-210-2122 R/244]. INTERESTS: "General biology of Apidae." AREA: Tropics. [behavior; pheromones; nesting biology; Meliponinae; Apis]

Girardo Alayon García, Jefe de Grupo en Direcc. Nac. Flora y Fauna, Apartado Postal #20, San Antonio de los Baños, La Habana, CUBA [2-6150; 2-5258]. INTERESTS: Faunistics research; conservation. AREA: West Indies. IDENTIFICATIONS: Colletidae, Megachilidae, Anthophoridae, Meliponinae and Bombus from Cuba; willing to exchange. [systematics; behavior; pollination; nesting biology; collecting; Colletidae; Halictidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Bombus; Apis]

Byron Alexander, Graduate student, Department of Entomology, Comstock Hall, Cornell University, Ithaca, New York 14853, U.S.A. [607-256-2096]. INTERESTS: "Evolution of cleptoparasitism, especially in the Nomadinae." [systematics; behavior; morphology; chemical ecology; nesting biology; collecting; Anthophoridae (Nomadinae)]

Maria Christina de Almeida, Graduate Student, Departamento de Zoologia, Universidade Federal do Paraná, Caixa Postal 3034, 80.000 Curitiba, Paraná, BRASIL [041-2663633/Ramal 147]. INTERESTS: "Recently, I have been working on a revision of a group of nine species of Trigona (s. str.). Presently I'm revising remaining Trigona species. I have also been working on Lestrimelitta (Apidae, Meliponinae) and Niltonia virgilii, a specialized species of Paracolletini (Colletidae). I'm interested in such topics as bee behavior, bionomics, nest structure and the taxonomy of bees in general." AREA: Bees of the Neotropical region and Meliponinae of the World. IDENTIFICATIONS: "Principally Meliponinae (holotypes are sent back to the responsible museums or to the National Museum of the country, otherwise, types are deposited in the collection of the Museum of Entomology, Department of Zoology, Universidade Federal do Paraná." [systematics; behavior; pollination; morphology; chemical ecology; physiology; genetics; immatures; nesting biology; collecting; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Bombus]

Felix Amiet, Bezirkslehrer, Forststrasse 7, CH-4500 Solothurn, SWITZERLAND [065 23 12 31]. AREA: "Schweiz und angrenzende Lander." IDENTIFICATIONS: Bees of Switzerland. [systematics; behavior; collecting; all bee groups except Euglossini, Meliponinae]

Bonnie Amos, Assistant Professor, Department of Biology, Baylor University, Waco, Texas 76798, U.S.A. [817-755-2911]. INTERESTS: Pollination ecology. AREA: Texas, southern United States. EXCHANGE: Yes. [pollination]

Dennis L. Anderson, Scientist (Bee Pathologist), DSIR, Entomology Division, Mt. Albert Research Centre, Private Bag, Auckland, NEW ZEALAND [893-660 ext. 777]. INTERESTS: "My interests are diseases of the honey bee Apis mellifera, although I also study diseases of bumble bees and leaf cutter bees. Have mainly dealt with virus diseases in the past but am currently involved in research on the other diseases (fungal, bacterial, protozoan and mite). AREA: New Zealand and Australia (and viruses of honey bees around the world). EXCHANGE: yes. [pathology; pollination; chemical ecology; Megachilidae, Apis]

Gregory J. Anderson, Biological Sciences Group U-43, University of Connecticut, Storrs, Connecticut 06268, U.S.A. [203-486-4555/486-4322]. INTERESTS: "Pollination biology (primarily from the plant perspective); plant

reproductive biology and "buzz" pollination." AREA: North and South America, Australia. EXCHANGE: yes. [systematics; pollination; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus]

Gustl Anzenberger, Research Scientist, Psychologisches Institut der Universität Zurich, Biologisch-Mathematische Abteilung, Attenhoferstrasse 9, CH-8044 Zurich, SWITZERLAND [01/257 2045]. AREA: Worldwide. EXCHANGE: yes. [systematics; behavior; nesting biology; Anthophoridae (Xylocopa)]

Michael S. Arduser, Graduate student, Department of Biology, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Missouri 63121, U.S.A. [314-553-6200]. INTERESTS: "Primary interest in the systematics of Sphecodes (s.l.) of the world, including host relationships, behavior and biogeography." AREA: "Particularly the Great Lakes area, the Ozarks (Missouri, Oklahoma, Arkansas) and the Appalachians." IDENTIFICATIONS: Osmia, Megachile, Coelioxys and other megachilids of Canada and East and Central United States; Sphecodes of the Nearctic region (no conditions; willing to exchange). [systematics; behavior; pollination; morphology; nesting biology; collecting; all bee families except Melittidae and Apidae]

W. Scott Armbruster, Assistant Professor, Department of Biology, Fisheries and Wildlife and Institute of Arctic Biology, University of Alaska, Fairbanks, Alaska 99775-0180, U.S.A. [907-474-7161]. INTERESTS: "Systematics, biogeography and host use of arctic and subarctic bees; pollination by bees especially in the tropics and the arctic/subarctic; use of plant resins by bees; attraction of bees by fragrances, especially male euglossines." AREA: Arctic, Subarctic, Tropics. EXCHANGE: on a limited basis. [systematics; behavior; pollination; Megachilidae; Euglossini]

Enrique Asensio de la Sierra, Leader, Plant Protection Department, Agricultural Research Service, Apartado 733, 47080 Valladolid, SPAIN [983-33-83-43]. INTERESTS: "My interest in systematics and immatures is limited; I consider both items as a tool to understanding behavior and pollination." AREA: Iberian Peninsula. EXCHANGE: perhaps. [systematics; behavior; pollination; immatures; nesting biology]

Ricardo Ayala-Barajas, Técnico Académico Asociado, Estación de Biología Chamela UNAM, Apartado Postal 21, 48980 San Patricio, Jalisco, MEXICO [(333) 70200]. AREA: México. IDENTIFICATIONS: "Puedo identificar las especies Mexicanas de Meliponinae y los géneros Xylocopa y Bombus. La condición es dejarme una muestra de los ejemplares para la colección del Instituto in el que trabajo." EXCHANGE: yes. [systematics; behavior; pollination; nesting biology; collecting; Anthophoridae (Xylocopa); Meliponinae]

Manfred Ayasse, Student, Institut Biologie III, Entwicklungsphysiologie, Universität Tübingen, Auf der Morgenstelle 28, 7400 Tübingen, WEST GERMANY [07071-29-4822]. AREA: Europe, USA. EXCHANGE: yes. [systematics; behavior; chemical ecology; physiology; genetics; evolution; nesting biology; Andrenidae; Halictidae; Megachilidae]

D.B. Baker, St. John's College, Oxford OX1 3JP, UNITED KINGDOM. AREA: Old World excluding Australia. IDENTIFICATIONS: yes; willing to exchange. [systematics; morphology; Andrenidae (excluding Andrena); Halictidae (Nomiinae); Megachilidae (Stelis, Dioxys and related genera); Anthophoridae (primitive and parasitic Old World groups; Anthophorini and Eucerini)]

Gunter Baldovski, Teacher, DRR 8900 Görlitz, Liebigstrasse 6 41-15, EAST GERMANY [21181]. INTERESTS: "Lokalfauna: Oberlausitz in der DDR." AREA:

Middle-Europe. EXCHANGE: yes. [pollination; collecting; all bee families except Apidae]

Stephen B. Bambara, Agricultural Extension Service, Department of Entomology, Box 7626, North Carolina State University, Raleigh, North Carolina 27695, U.S.A. [919-737-3140]. AREA: U.S., especially Southeast. EXCHANGE: yes. [behavior; pollination; Apis]

Józef Banaszak, Assistant Professor, Department of Agrobiolgy and Forestry, Polish Academy of Sciences, Świerczewskiego 19, 60-809 Poznań, POLAND [456-01]. INTERESTS: "Resources of Apoidea (species composition and density); ecology of bees (regularities and occurrence of Apoidea in habitats)." AREA: Poland, Rumania and other countries in Europe. EXCHANGE: "yes, my private collection of Apoidea has approximately 15,000 specimens." [systematics; pollination; nesting biology; collecting; all bee families except Euglossini and Meliponinae]

Edward M. Barrows, Associate Professor, Department of Biology, Georgetown University, 37th and O Streets N.W., Washington, D.C. 20057, U.S.A. [202-625-8807]. INTERESTS: "I am interested in bee biology in general." AREA: North America. [behavior; pollination; collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Bombus]

Suzanne W. T. Batra, Research Entomologist, Systematic Entomology Laboratory, Building 476, Beltsville Agricultural Research Center, USDA, Beltsville, Maryland 20705, U.S.A. [301-344-2384/344-3183]. INTERESTS: Sociobiology of bees; bees of India. AREA: North America, South Asia. IDENTIFICATIONS: "Limited numbers; I will probably be inundated with honeybee APHIS samples soon and will have little time for other bees; willing to exchange specimens." [Identification requests should be directed through Dr. Lloyd Knutson, Systematic Entomology Laboratory, IIBIII, Agricultural Research Service, USDA, c/o U.S. National Museum, MNH, Washington D.C. 20560.] [systematics; behavior; pollination; morphology; chemical ecology; physiology; nesting biology; all bee families except Melittidae, Euglossini, Meliponinae, Bombus]

Luci Rolandi Bego, Professor of Animal Ecology, Depto. Ecologia, Instituto de Biociências, Universidade de São Paulo, CEP - 11461 - São Paulo (SP), BRASIL [011-8134151]. INTERESTS: "All aspects related to the bionomics of bees." AREA: Tropical (mainly). EXCHANGE: yes. [systematics; behavior; Halictidae; Meliponinae]

Darvin Beig, Assistant Professor, Depto. de Biologia, Instituto de Biociências, UNESP - Campus de Rio Claro, Cx. Postal 178, 13500 - Rio Claro, SP, BRASIL [0195-34-0244]. INTERESTS: "Embryonic development; postembryonic development; neuroendocrine systems and control of egg production." EXCHANGE: yes. [behavior; morphology; development; immatures; nesting biology; Meliponinae; Bombus; Apis]

Ron M. Bitner, President, Pollination and Pest Management Consulting Services, Inc., Rt. 4, Box 585, Caldwell, Idaho 83605, U.S.A. [208-454-0086]. INTERESTS: "Management of Megachile and Osmia spp. for commercial pollination." AREA: northwestern states, California, Canada. [pollination; chemical ecology; nesting biology; Andrenidae; Megachilidae; Apis]

Nina N. Blagoveschenskaya, Division of Zoology, Ulyanovsky Pedagogical Institute, Ulyanovsk, 432700, U.S.S.R. [9-48-09]. INTERESTS: "Solitary bee

fauna; pollination ecology; coevolution of bees and plants; nesting biology." AREA: Soviet Union, Middle Volga. [systematics; behavior; pollination; nesting biology; collecting; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus; Apis]

Karin Bohrer, Student, Institut für Biologie III, Entwicklungsphysiologie, Universität Tübingen, Auf der Morgenstelle 28, D-7400 Tübingen, WEST GERMANY [07071-29-4822]. INTERESTS: "Caste determination in Halictidae." AREA: Europe. EXCHANGE: on limited basis. [systematics; behavior; pollination; chemical ecology; immatures; nesting biology; collecting; Halictidae]

Alan Bolten, Graduate Student, Department of Zoology, Bartram Hall, University of Florida, Gainesville, Florida 32611, U.S.A. [904-392-1107]. INTERESTS: "Reproductive biology of Africanized honey bees in South America; identification of Africanized honey bees using cuticular hydrocarbons; taxonomy of genus Apis using cuticular hydrocarbons." AREA: worldwide. [behavior; pollination; chemical ecology; nesting biology; Apis]

Padre Bruno Bonelli, Italian National Academy of Entomology, Via Avisio II 38033 Cavalese (Trento), ITALY [(0462) 31174]. AREA: Palearctica, Etiopica, Neotropica. [behavior; nesting biology; collecting; Halictidae; Megachilidae; Anthophoridae]

Anna-Karin Borg-Karlson, Ecological Station of Uppsala University, Ölands Skogsby 6280, S-38600 Farjestaden, SWEDEN [08-259406 or 0485-38158]. INTERESTS: "Insect-plant relationships; odour communication; chemical analyses of odouriferous compounds; pollination biology; Ophrys orchids; pollination allelopathy." AREA: Europe, Mediterranean region. [behavior; pollination; chemical ecology; mimicry; all bee families except Meliponinae, Bombus, Apis]

John K. Bouseman, Associate Entomologist, Section of Economic Entomology, Illinois Natural History Survey, 607 E. Peabody, Champaign, Illinois 61820, U.S.A. [217-333-2668]. INTERESTS: "Apoidea of the midwestern United States; biology of insect-mediated pollination (especially oligolectic bees); biological relationships of Apoidea with meloid and rhipiphorid beetles." AREA: "World (practical emphasis on the midwestern United States, especially Illinois)." [systematics; behavior; pollination; morphology; immatures; nesting biology; collecting; all bee families except Apidae]

Michael D. Breed, Associate Professor, EPO Biology, University of Colorado, Boulder, Colorado 80309-0334, U.S.A. [303-492-7687]. [behavior; physiology; nesting biology; Halictidae; Apis]

Derek K. Broemeling, Graduate Student/Museum Technician, Bee Biology & Systematics Lab, Utah State University, Logan, Utah 84322-5310, U.S.A. [801-750-2526]. INTERESTS: "Taxonomy and biology of Nomada, especially late summer and fall species." AREA: North America, especially Western States. IDENTIFICATIONS: "Nomada of subgenera Holonomada, Callinomada, and Pachynomada; will sort to subgenus. If a series is present, some specimens will be retained for the USDA Bee Biology & Systematics Lab.; willing to exchange." [systematics; pollination; nesting biology; collecting; Megachilidae; Anthophoridae]

Robert W. Brooks, Collections Manager, Entomological Museum, Snow Hall, University of Kansas, Lawrence, Kansas 66045, U.S.A. [913-864-4610]. INTERESTS: "My main interest lies in the phylogeny of higher bee taxa such as the tribes of the Anthophoridae and the families of bees. In the field my

main interests lie in behavior such as nesting biology and pollinator-plant relations such as oligolecty and coevolution between plants and bees, also male territoriality and chemical cues such as marking and aggregation or alarm pheromones." AREA: Worldwide, especially Madagascar, Central Asia, and New World tropics. IDENTIFICATIONS: "I will identify many groups of Anthophoridae and to lesser extent other bee groups. If the material is identified to species I usually retain up to 25%. Material from anywhere can usually be sorted at least to genus. Willing to exchange specimens." [systematics; behavior; pollination; morphology; chemical ecology; immatures; nesting biology; collecting; Halictidae; Megachilidae; Anthophoridae]

Denis J. Brothers, Professor, Department of Entomology, University of Natal, P.O. Box 375, Pietermaritzburg, 3200 SOUTH AFRICA [+27-331-63320]. AREA: World, but especially southern Africa. [systematics; behavior; pollination; morphology; immatures; nesting biology; all bee families]

Anne Bruneau, Graduate Student (Botany), Department of Ecology and Evolutionary Biology, U-43, The University of Connecticut, Storrs, Connecticut 06268, U.S.A. [203-486-4156]. INTERESTS: Pollination ecology. AREA: North America (east of the Mississippi River). [pollination; Megachilidae]

Stephen L. Buchmann, Research Entomologist, USDA-ARS, Carl Hayden Bee Research Center, 2000 East Allen Road, Tucson, Arizona 85721, U.S.A. [602-629-6167/297-8764]. INTERESTS: "Pollination ecology - Insect pollinated plants of agricultural importance and native plants. Buzz pollination of angiosperms with porose anthers. Function of U.V. floral patterns. Isolation and identification of floral volatiles. Ecology of oil-producing flowers and their bees. Management of honey bees and native bees (alkali bee, alfalfa leafcutter bee, squash bees, blue orchard bee) for optimum pollination efficiency. Computer models for commercial pollination and development of pollination efficiency indices. Ecology of wind pollinated crops (jojoba and pistachio) and impact of Apis on these systems. Determination of nutritional ecology of bees on a per bee, per colony and community basis (i.e., how many pollen grains to make a bee). Determination, for agricultural and natural ecosystems, of the daily and seasonal amounts of nectar and pollen produced by a plant community. Research on carrying capacities for honey bees and native bees in these environments based on nectar and pollen production. Chemistry of exocrine gland secretions in bees. Territoriality and male mating strategies in solitary bees." AREA: U.S. (especially California and Arizona), Southern Mexico, Costa Rica and Panama. IDENTIFICATIONS: "Only southwestern Arizona bees (esp. anthophorids) to genus; willing to exchange." [systematics; behavior; pollination; chemical ecology; nesting biology; collecting; Colletidae; Anthophoridae (especially Anthophora, Centris, Emphoropsis, Epicharis); Euglossini; Meliponinae; Bombus; Apis]

Stephen H. Bullock, Investigador Titular, Estación de Biología Chamela, UNAM, Apartado Postal 21, San Patricio, Jalisco 48980, MÉXICO [(333) 70200]. INTERESTS: "Plant population biology; demographic consequences of breeding and dispersal systems." AREA: seasonally dry North and Central America. EXCHANGE: yes. [pollination]

João Maria Franco de Camargo, Professor of Entomology, Departamento de Biologia, Faculdade de Filosofia Ciências e Letras de Ribeirão Preto, USP, 14.100 Ribeirão Preto, São Paulo, BRASIL [016-634-6255]. AREA: Neotropical and Pantropical. IDENTIFICATIONS: "Neotropical Meliponinae bees; no conditions; willing to exchange." [systematics; behavior; pollination; morphology; nesting biology; collecting; all bee families]

Sydney A. Cameron, Postdoctoral Researcher, [until August 1986] c/o Dr. R.R. Askew, Department of Zoology, University of Manchester, Manchester M13 9PL, UNITED KINGDOM [(0625) 530 728]. INTERESTS: "Social structure of bumble bees: caste development and age-polyethism; male nest behavior; intra-colony communication (pheromones, buzzing, dominance hierarchies among workers)." AREA: North America, Neotropics. IDENTIFICATIONS: Bombus ("If I have time.") [systematics; behavior; social evolution; Bombus]

Evandro Camillo, Professor, Department of Biology, Facultad de Filosofia, Ciências e Letras de Ribeirão Preto, USP, 14,100, Ribeirão Preto, São Paulo, BRASIL [016-634-6255]. [behavior; pollination; nesting biology; collecting; Megachilidae; Anthophoridae; Bombus]

James H. Cane, Assistant Professor, Department of Zoology/Entomology, Auburn University, Auburn, Alabama 36849, U.S.A. [205-826-4850]. AREA: southeast and southwest United States. EXCHANGE: yes. [systematics; behavior; pollination; chemical ecology; nesting biology; all bee families except Apidae]

Dewey Caron, Professor, Department of Entomology and Applied Ecology, University of Delaware, Newark, Delaware 19717, U.S.A. [302-451-2526]. INTERESTS: "Reproductive biology of bees; pollination of crops and foraging behavior of Apis and non-Apis species." AREA: Eastern U.S.; Central America. IDENTIFICATIONS: "Bees of local interest in mid Atlantic region; willing to exchange." [behavior; pollination; nesting biology; Bombus; Apis]

Björn Cederberg, Morafolkhögskola, S-79200 Mora, SWEDEN [0250/16918]. AREA: northern Europe. EXCHANGE: yes. [behavior; chemical ecology; nesting biology; Bombus]

Jan E. Christensen, Student, Morberhaven 18-41, DK-2620 Albertslund, DENMARK. AREA: western Palearctic. [systematics; behavior; pollination; nesting biology; collecting]

Linda Clark, Graduate student, Department of Botany and Microbiology, University of Oklahoma, Norman, Oklahoma 73019, U.S.A. [405-325-4321]. AREA: Southeastern U.S. EXCHANGE: yes. [systematics; behavior; pollination; collecting]

Anita M. Collins, Research Geneticist, Honey Bee Breeding, Genetics & Physiology Research, 1157 Ben Hur Road, Baton Rouge, Louisiana 70820, U.S.A. [504-766-6064]. INTERESTS: "Behavior genetics of nest defense in Apis mellifera particularly as it is related to Africanized bees. Reproductive behavior, subspecies identification, alarm communication." AREA: South Central and North America, Africa. EXCHANGE: yes. [behavior; genetics; pheromones; Apis]

Clarence H. Collison, Associate Professor, Entomology Extension, Department of Entomology, 106 Patterson Building, The Pennsylvania State University, University Park, Pennsylvania 16802, U.S.A. [814-863-0617]. INTERESTS: "Pollination research projects have been in the area of cucumber and Lotus pollination. Have also worked in the areas of factors affecting drone production in honey bee colonies and the effects of insecticides on honey bee colonies and pollination behavior." AREA: Pennsylvania. EXCHANGE: yes. [behavior; pollination; collecting; Bombus; Apis]

Kenneth W. Cooper, Professor Emeritus of Biology, Department of Biology, University of California, Riverside, California 92521, U.S.A. [714-686-4535/757-3608]. [systematics; behavior; pollination; morphology; genetics; immatures; nesting biology; collecting; Megachilidae]

Sarah A. Corbet, University Lecturer, Department of Applied Biology, University of Cambridge, Pembroke St., Cambridge CB2 3DX, UNITED KINGDOM [0223 358381]. INTERESTS: Floral biology. AREA: Worldwide. [behavior; pollination; chemical ecology; Bombus]

Rollin E. Coville, Research Associate, Division of Entomology and Parasitology, 201 Wellman Hall, University of California, Berkeley, California 94720, U.S.A. [415-525-7959]. AREA: World. [systematics; behavior; pollination; chemical ecology; nesting biology; all bee groups except Apis]

Robin M. Crewe, Professor of Zoology, Department of Zoology, University of the Witwatersrand, 1 Jan Smuts Ave., Johannesburg, 2001 SOUTH AFRICA [011-716-2318]. INTERESTS: "Investigation of pheromones, organization of social structures and kin/nestmate recognition behavior." AREA: Southern Africa. EXCHANGE: yes. [behavior; pollination; chemical ecology; nesting biology; Anthophoridae; Meliponinae; Apis]

Earle A. Cross, Professor of Biology, Department of Biology, University of Alabama, Tuscaloosa, Alabama 35486, U.S.A. [205-348-1823; 348-1824]. INTERESTS: "I am largely inactive with respect to bees per se; mites associated with bees are of special interest to me." IDENTIFICATIONS: Nomia (Epinomia). [systematics; behavior; pollination; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus]

R.H. Crozier, Associate Professor, School of Zoology, University of New South Wales, P.O. Box 1, Kensington, New South Wales, AUSTRALIA 2033 [2/697-2119; 2/349-1014]. INTERESTS: "Sociobiology and genetics." AREA: Worldwide. [behavior; sociality; chemical ecology; genetics]

Carmina da Cruz-Landim, Professor Titular, Departamento de Biologia, Instituto de Biociências de Rio Claro, Universidade Estadual Paulista Julio de Mesquita Filho, 13.500 Rio Claro, São Paulo, BRASIL. INTERESTS: "Glandular anatomy, histology and ultrastructure; developmental changes related to behavior." AREA: Brasil. [behavior; morphology; Meliponinae]

José Ricardo Cure, Graduate Student, Departamento de Zoologia, Universidade Federal do Paraná, Caixa Postal 3034, 80.000 Curitiba, Paraná, BRASIL [041-266-3633 Ramal 140]. INTERESTS: "Systematics and ecology of Apoidea, especially halictid systematics; community ecology especially as it relates to pollination." AREA: South and Central America. IDENTIFICATIONS: Halictidae, duplicates are retained from series. [systematics; behavior; pollination; morphology; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae]

Amotz Dafni, Senior Lecturer, Institute of Evolution, University of Haifa, Haifa 31999, ISRAEL [04-240382]. INTERESTS: Pollination ecology. AREA: Mediterranean region. [behavior; pollination; nesting biology]

Giancarlo Ricciardelli D'Albore, Associate Professor, Istituto di Entomologia Agraria, Università degli Studi di Perugia, Borgo XX Giugno, 06100 Perugia, ITALY [075/33018]. INTERESTS: Biology of Bombus; pollination. AREA:

Italy (melittopalynology and apoid foraging behavior worldwide). [behavior; pollination; morphology; physiology; collecting; Bombus; Apis]

Howell V. Daly, Professor of Entomology, Department of Entomological Sciences, University of California, Berkeley, California 94720, U.S.A. [415-642-9018/642-3327]. INTERESTS: "Bee biology and taxonomy." AREA: Europe, Africa, Americas (North, Central and South). IDENTIFICATIONS: "Ceratina and relatives from Africa, Europe and the Americas." [systematics; behavior; pollination; morphology; chemical ecology; physiology; genetics; immatures; nesting biology; collecting; Anthophoridae (Ceratinini); Apis]

Robert G. Danka, Entomologist, ARS, USDA Honey-bee Breeding, Genetics and Physiology Research, 1157 Ben Hur Road, Baton Rouge, Louisiana 70820, U.S.A. [504-766-6064]. AREA: United States, neotropics. EXCHANGE: yes. [behavior; pollination; morphology; chemical ecology; genetics; nesting biology; Apis]

Roger Darchen, Station Biologique, 24620 LES EYZIES, FRANCE [53 06 97 24]. AREA: Africa, Mexico, Ecuador. IDENTIFICATIONS: African Trigona; willing to exchange. [systematics; behavior; pollination; physiology; Meliponinae; Apis]

Holger H. Dathe, Akademie der Wissenschaften der DDR, Forschungsstelle für Wirbeltierforschung (im Tierpark Berlin), DDR - 1136 Berlin, Am Tierpark 125, EAST GERMANY. INTERESTS: "Taxonomy, zoogeography and bionomics of the genus Hylaeus F. in the Palearctic region." AREA: Palearctic, especially North Africa, Central and Middle Asia. IDENTIFICATIONS: Palearctic Hylaeus (with retention of duplicates); limited exchange. [systematics; behavior; morphology; Colletidae (Hylaeus)]

David De Jong, Research Associate, Depto. de Genética, Faculdade de Medicina, Universidade de São Paulo, 14.100 Ribeirão Preto, SP, BRASIL [016 634 6035 r. 238]. INTERESTS: Biology of Apis. AREA: Brasil, Central America. EXCHANGE: yes. [behavior; pollination; Varroa; Apis]

Suzzette Delgado, Graduate student, University of Puerto Rico, Box 5846, College Station, Mayagüez, PUERTO RICO, 00709 [809-834-4040]. INTERESTS: Pollination ecology, especially of the Piperaceae. AREA: Puerto Rico, New World tropics. EXCHANGE: yes. [pollination; collecting]

Miroslav Demajo, Research Assistant, Institute of Nuclear Sciences, Dept. 090, POB 522, 11001 Beograd, YUGOSLAVIA [(011) 4440-871/303]. INTERESTS: Although I am by training a biologist, professionally I work in the field of mammal physiology and radiobiology. In the field of bumble-bees I work as an amateur in collaboration with other experts, mainly my colleague A. Stevenovic. AREA: Balkan Peninsula. EXCHANGE: yes. [systematics; behavior; pollination; morphology; nesting biology; collecting; Bombus]

Ir. Lutgart De Wael, Assistant, State Research Station for Nematology and Entomology, Van Gansberghelaan 96, B-9220 Merelbeke, BELGIUM [91-52.20.85]. AREA: Belgium. [behavior; pollination; physiology; pathology; genetics; Bombus; Apis]

Syed Md. Abdul Latif Dewan, Executive Director, Bangladesh Inst. of Apiculture, Street No. 1, House No. 8, Shyamoli, Dhaka - 7, BANGLADESH [311585]. INTERESTS: "Foraging behavior of honey bees; affect and effect of cross pollination by honey bees; palynological and melittopalynological

studies." AREA: Asia, Europe, Americas. EXCHANGE: yes. [systematics; behavior; pollination; morphology; physiology; genetics; nesting biology; collecting; Meliponinae; Apis]

Mark Deyrup, Invertebrate Ecologist, Archbold Biological Station, P.O. Box 2057, Lake Placid, Florida 33852, U.S.A. [813-465-2571]. AREA: Florida, especially Florida scrub habitats. EXCHANGE: yes. [behavior; pollination; seasonality]

Alfred Dietz, Professor, Department of Entomology, University of Georgia, Athens, Georgia 30602, U.S.A. [404-542-8711]. AREA: U.S. and South America, Southeast Asia. EXCHANGE: yes. [behavior; pollination; morphology; chemical ecology; physiology; genetics; collecting; Apis; Africanized bees]

Fokeline N. Dingemans-Bakels, Curator of Entomology, Natuurhistorisch Museum, Bosquetplein 7, 6211 KJ Maastricht, THE NETHERLANDS [043-292222]. AREA: NW Europe, tropical S. America, especially Surinam. IDENTIFICATIONS: willing to identify bees "from areas indicated above; willing to exchange." [systematics]

Clifton Dixon, Department of Geography, Texas A & M University, College Station, Texas 77843-3147, U.S.A. [409-845-7141]. INTERESTS: "My research involves the role bees (Apis and meliponines) play in the agricultural ecology of traditional agriculturalists in Mexico and Central America. Some of my work includes identifying the bees the farmers are using and their ecological role in their agricultural systems." AREA: Mexico and Central America. EXCHANGE: yes. [pollination; Meliponinae; stingless beekeeping]

Heidi E.M. Dobson, Visiting Lecturer, Department of Botany, University of California, Berkeley, California 94720, U.S.A. [415-841-8920/642-6712]. INTERESTS: "Oligolectic bees: host-plant associations and general biology. Bases of oligolecty: relative roles of genetic and environmental (conditioning) factors. Chemical signals used by bees to distinguish their pollen host plants among other co-occurring plant species. Use of flower aromas, including pollen aromas, by bees to recognize host plants." AREA: Southwest USA; California. [behavior; pollination; chemical ecology; Colletidae; Andrenidae; Megachilidae; Anthophoridae]

Anne Dollin, Commonwealth Scientific and Industrial Research Organization, P.O. Box 74, North Richmond, N.S.W. 2754, AUSTRALIA [045-761249]. INTERESTS: "As a hobby I collect Australian stingless bees (genus Trigona) and record information about nests, behaviour, distributions, use by Australian Aborigines in the past, etc.; this genus is distributed in the remote areas of Northern Australia, therefore, this kind of study requires extensive field work." AREA: Australia. EXCHANGE: yes. [systematics; behavior; pollination; morphology; genetics; nesting biology; collecting; Meliponinae (Trigona)]

Barry J. Donovan, Scientist: Co-ordinator, Legume Seed Research, Entomology Division, D.S.I.R. Lincoln, Private Bag, Christchurch, NEW ZEALAND [Christchurch 252-511]. INTERESTS: "Introduction of new species for pollination of specific crops." AREA: South Pacific. IDENTIFICATIONS: Will identify "native bees of New Zealand, New Caledonia and South Pacific Islands; willing to exchange." [systematics; behavior; pollination; management; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Bombus; Apis]

Laurence J. Dorr, Assistant Curator, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, U.S.A. [314-577-5177]. AREA: United States; Madagascar. EXCHANGE: yes. [pollination; nesting biology]

Richard M. Duffield, Associate Professor, Department of Zoology, 415 College Street, N.W., Howard University, Washington, D.C. 20059, U.S.A. [202-636-6127/636-6933]. INTERESTS: "Chemical ecology of bees: chemical mediated behaviors, bee/plant relationships, glandular morphology, biosynthesis of exocrine products." AREA: World. EXCHANGE: yes. [behavior; pollination; chemical ecology; nesting biology; collecting; all bee families except Apis]

Louise Dumouchel, Technician, Biosystematics Research Institute, Agriculture Canada, Ottawa, Ontario, CANADA K1A 0C6 [613-996-1665 ext. 268]. INTERESTS: See entry for Henri Goulet.

Connal D. Eardley, Senior Agricultural Researcher, National Collection of Insects, Plant Protection Research Institute, Private Bag X134, 0001 Pretoria, SOUTH AFRICA [012-285140 X16]]. INTERESTS: "I am primarily involved in research on the systematics of Afrotropical bees (especially southern African bees, for practical reasons). I have completed a revision of the southern large Carpenter bees and am busy revising the southern African Anthophorini and am planning a supra-specific study of the Afrotropical Halictidae. I am also trying to compile a catalogue of the Afrotropical Apoidea, excluding Apis mellifera." AREA: Afrotropical region. IDENTIFICATIONS: Southern African species of Xylocopa and allodapine bees; no conditions; willing to exchange. [systematics; behavior; pollination; morphology; immatures; nesting biology; collecting; all bee families except Euglossini, Bombus, Apis]

P. Andreas W. Ebmer, Konsulent für Wissenschaft der öö. Landesregierung, Kirchenstrasse 9, A-4040 Puchenu bei Linz, AUSTRIA [Austria, 0732/22 10 44]. INTERESTS: "Systematik aller Halictidae; Bereich der Publikation Paläarktis; Interesse zum Tausch Halictidae der ganzen Welt. Systematik aller europäischen Bienen." AREA: Halictidae Paläarktis/Weltweit; alle Bienen/Europa. IDENTIFICATIONS: "Paläarktische Halictidae: Halictus, Lasioglossum, Dufourea, Rophites, Rophitoides, Systropha, Morawitzia - alle Arten der Paläarktis, Nominiinae nur Westpaläarktis und Ostpaläarktis nur im Norden, Nomioides nur Europa und Norafrika; nicht Sphecodes. Alle Exemplare genadelt und etikettiert, kein Material in Alkohol. Determination gegen Behalten von Dubletten [willing to exchange]." [systematics; Halictidae]

George C. Eickwort, Professor of Entomology, Department of Entomology, Cornell University, Ithaca, New York 14853, U.S.A. [607-256-2096]. INTERESTS: "Systematics, comparative behavior (especially nesting behavior, reproductive behavior, and primitive social behavior) of wild bees, and of mites associated with bees." AREA: North America; Neotropics (esp. Caribbean). IDENTIFICATIONS: "Halictidae: North American (esp. Dialictus, will attempt other genera except Sphecodes); Halictidae: Neotropical to genus, occasionally species; Halictidae: Caribbean, to species; willing to exchange." [systematics; behavior; pollination; morphology; immatures; nesting biology; Halictidae; Megachilidae]

George R. Else, Higher Scientific Officer, Department of Entomology, British Museum (Natural History), Cromwell Road, London SW7 5BD, UNITED KINGDOM [01-589-6323 ext. 326]. AREA: Worldwide. EXCHANGE: yes. [systematics; behavior; pollination; morphology; chemical ecology; immatures; nesting biology; collecting; all bee families]

Stellan Erlandsson, Senior Master of Biology, Section of Entomology, Swedish Museum of Natural History, Box 50007, S-104 05 Stockholm, SWEDEN [08/60 64 76 and 15 02 40]. AREA: Palaearctic area, especially the Scandinavian countries and adjacent territories; the European Mediterranean countries. [systematics; nesting biology; all bee families except Euglossini, Meliponinae, Apis]

James R. Estes, Professor and Curator of Botany, Robert Beff Herbarium, Department of Botany and Microbiology, University of Oklahoma, Norman, Oklahoma 73019, U.S.A. [405-325-6443/325-4321]. INTERESTS: "Pollination biology of members of the Compositae (= Asteraceae)." EXCHANGE: yes. [systematics; behavior; pollination; nesting biology; collecting]

Francis C. Evans, Professor Emeritus of Zoology, Division of Biological Sciences, University of Michigan, Ann Arbor, Michigan 48109-1079, U.S.A. [313-764-2435]. INTERESTS: "I have been making an inventory of the bee fauna of an old field in southern Michigan, recording dates when each species is flying and what species of flower is being visited. My interest is to see how the floral resources of the field are partitioned among the 170 bee species taken so far." AREA: Central and eastern U.S.A. EXCHANGE: yes, to a limited extent. [systematics; pollination; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Bombus; Apis]

Howard E. Evans, Professor, Department of Entomology, Colorado State University, Fort Collins, Colorado 80523, U.S.A. [303-491-5365/484-1514]. INTERESTS: No research specifically on bees but working on a monograph of the behavior and natural history of beewolves (Sphecidae, Philanthus). [behavior; chemical ecology; immatures; nesting biology]

Elizabeth M. Exley, Head, Department of Entomology, University of Queensland, St. Lucia, Brisbane 4067, AUSTRALIA. AREA: Australia. IDENTIFICATIONS: Euryglossinae (Colletidae). [systematics; behavior; pollination; morphology; nesting biology; collecting; Colletidae; Halictidae; Megachilidae; Meliponinae]

Fan Jian-guo, Post-Graduate Student, Department of Insect Taxonomy and Faunistics, Institute of Zoology, Academia Sinica, 7 Zhongguancun Lu, Haidian, Beijing, CHINA. INTERESTS: "Systematics and biology of Halictidae." AREA: China and Asia. IDENTIFICATIONS: halictid genera and subgenera; willing to exchange. [systematics; pollination; morphology; genetics; Halictidae]

Andrew W. Ferguson, Higher Scientific Officer, Entomology Department, Rothamsted Experimental Station, Harpenden, Hertfordshire AL5 2JQ, UNITED KINGDOM [Harpenden (05827) 63133]. INTERESTS: "Social behavior of honeybees, particularly the role of pheromones. Use of pheromones to improve colony management for pollination and honey production. Pollination - particularly of new crops or varieties." AREA: Worldwide, but emphasis on pollination of U.K. crops. [behavior; pollination; chemical ecology; physiology; Bombus; Apis]

Richard M. Fisher, Postdoctoral Student, Department of Zoology, University of Oxford, South Parks Road, Oxford OX1 3PS, UNITED KINGDOM [Oxford 56789, ext. 500]. INTERESTS: "Evolution of obligate and facultative social parasitism in bees." AREA: World. IDENTIFICATIONS: Bombus and Psithyrus from Europe and North America; willing to exchange. [behavior; chemical ecology; nesting biology; social parasitism; Bombus]

Caroline Fonta, CNRS-INRA, Laboratoire de Neurobiologie Sensorielle de L'Insecte, Station de Recherches sur L'Abeille et les Insectes Sociaux, 91440

Bares sur Yvette, FRANCE [69-07-56-75]. INTERESTS: "Chemical communication in social insects and plant-insect relationships; neurobiological studies (analyses of neural mechanisms underlying detection and integration of chemical interspecific and intraspecific signals." [physiology; communication; Bombus; Apis]

Gordon W. Frankie, Professor of Entomology, Department of Entomological Sciences, University of California, Berkeley, California 94720, U.S.A. [415-642-0973]. INTERESTS: "Behavior, ecology and evolution of Centris and Epicharis (Anthophoridae) in tropical forest habitats. Also, biology and behavior of Xylocopa and megachilids in tropical habitats." AREA: Central America (especially Costa Rica) and to a lesser extent northern California. EXCHANGE: yes. [behavior; pollination; general ecology; chemical ecology; nesting biology; Megachilidae; Anthophoridae; Euglossini]

John B. Free, Senior Principal Scientific Officer, Rothamsted Experimental Station, Harpenden, Hertfordshire AL5 2JQ, UNITED KINGDOM [05827 63133]. INTERESTS: "Social organization of bees and their behaviour within the colony and in the field. Improving beekeeping practices to obtain increased honey production and better yields of insect pollinated agricultural and horticultural crops." AREA: U.K. and tropics. [behavior; pollination; chemical ecology; physiology; nesting biology; Bombus; Apis]

Amnon Freidberg, Curator of Entomology, Department of Zoology, Tel-Aviv University, Tel-Aviv 69978, ISRAEL [03-420808]. AREA: Worldwide, but mainly Near East (Israel). EXCHANGE: only to a very limited extent. [systematics; behavior; all bee families]

David R. Frohlich, Graduate Student, Department of Biology, UMC 53, Utah State University, Logan, Utah 84321, U.S.A. [801-750-2551/753-4177]. INTERESTS: "Chemical ecology, especially detoxication systems, nutrition." [behavior; pollination; chemical ecology; physiology; nesting biology; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae]

Candace Galen, Assistant Professor, Biological Sciences Department, Bowling Green State University, Bowling Green, Ohio 43403, U.S.A. [419-372-8330]. INTERESTS: "Plant reproductive ecology; pollination biology." AREA: Rocky Mountains. [behavior; pollination; chemical ecology; Bombus]

Carlos Alberto Garofalo, Professor, Department of Biology, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto - USP, 14.100 Ribeirão Preto - SP, BRASIL [016-634-6255]. [behavior; nesting biology; collecting; Euglossini; Meliponinae; Bombus]

Norman E. Gary, Professor of Entomology, Department of Entomology, University of California, Davis, California 95616, U.S.A. [916-752-0480]. INTERESTS: "Behavior, especially foraging, defensive, mating; Africanized bee research; tracheal mites; pheromones." AREA: California. EXCHANGE: yes. [behavior; pollination; chemical ecology; Apis]

Dan Gerling, Professor, Department of Zoology, Tel-Aviv University, Tel-Aviv 69978, ISRAEL [03 420808]. INTERESTS: Xylocopa biology and behavior. AREA: Worldwide. EXCHANGE: yes. [behavior; nesting biology; Anthophoridae (Xylocopa)]

Friedrich (Fred) Wolfgang Gess, Curator, Department of Entomology and Arachnology, Albany Museum, Grahamstown 6140, SOUTH AFRICA [(0461) 2243]. INTERESTS: "My primary research interest, pursued in conjunction with Sarah Gess, is in the nesting ethology of aculeate wasps and our interest in bees is mainly centered upon their interaction with the former at a community level and with regard to aspects such as: 1) competition for nesting sites; 2) the use by wasps nesting in pre-existing cavities of bee nests (e.g., the abandoned burrows of Xylocopa spp.); 3) the use by bees nesting in pre-existing cavities of wasp nests (e.g., the abandoned burrows of ground-nesting spp.); 4) the usurpation by bees nesting in pre-existing cavities of wasp nests still being used by the wasps. We are further interested in the parallels in the nature of the nests and nesting behaviour of wasps and bees." AREA: Southern Africa. EXCHANGE: on a limited basis. [systematics; behavior; pollination; morphology; chemical ecology; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae]

Sarah Kathleen Gess, Research Associate, Department of Entomology and Arachnology, Albany Museum, Grahamstown 6140, SOUTH AFRICA [(0461) 2243]. See entry for F.W. Gess.

Khoo Soo Ghee, Associate Professor, Department of Zoology, University of Malaya, Kuala Lumpur, MALAYSIA. INTERESTS: "I am presently making a taxonomic study of Malaysian Trigona bees based on morphology and nesting habits. The problem group is the subgenus Tetragonula which seems to have a number of cryptic species. Studies have also been carried out on the foraging behaviour and swarming of stingless bees as well as their possible role as pollinators." AREA: Oriental region. IDENTIFICATIONS: stingless bees from Malaysia. [systematics; behavior; pollination; morphology; nesting biology; collecting; culture methods; Meliponinae; Apis]

Jorge Gonzalez, Edif. Don Luis, Apto. 501, Piso 5, Esquina Horcones, El Conde, Caracas, D.F. 1010, VENEZUELA [Caracas, 219317]. INTERESTS: "Mostly systematics and general behavior." AREA: Neotropics, especially northern South America. IDENTIFICATIONS: Meliponinae of northern South America. EXCHANGE: "yes, and I could help collect other bees, not only Meliponinae." [systematics; behavior; pollination; chemical ecology; nesting biology; collecting; Meliponinae]

Mark Goodwin, Graduate Student, Department of Zoology, University of Auckland, Auckland, NEW ZEALAND [737-999]. INTERESTS: "Dance language, orientation, recruitment, chronobiology and foraging." [behavior; pollination; Apis]

Charlotte A.M. Gordon, Graduate student, Zoology Department, University of Witwatersrand, 1 Jan Smuts Avenue, Johannesburg 2001, SOUTH AFRICA [012-7162299/011-645973]. IDENTIFICATIONS: "Allodapines only, and I am not particularly confident about these; willing to exchange." [behavior; pollination; nesting biology; Halictidae; Anthophoridae; Meliponinae; Bombus; Apis]

David M. Gordon, Graduate Student, Department of Entomology, University of California, Davis, California 95616, U.S.A. [916-752-0482]. INTERESTS: "Coastal dune faunas; mating behavior." AREA: California. EXCHANGE: yes. [behavior; mating behavior; pollination; chemical ecology; nesting biology; collecting; Halictidae; Anthophoridae; Apis]

Gerhard K. Gottsberger, Professor, Director of Botanical Garden, Botanisches Institut I der Justus-Liebig-Universität, Senckenbergstrasse 17-25, D-6300 Giessen, WEST GERMANY [(0641) 702-8465]. INTERESTS: "Mainly pollination ecology in neotropical environments." AREA: Neotropics, especially Brasil. [behavior; pollination; all bee families]

Katuo Goukon, Assistant, Biological Laboratory, Tohoku Gakuin University, 1-3-1 Tsuchitai, Sendai 980, JAPAN [0222-64-6408]. INTERESTS: Bee biology. EXCHANGE: yes. [behavior; pollination; nesting biology; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Bombus]

Henri Goulet, Research Scientist, Biosystematics Research Institute, Agriculture Canada, Ottawa, Ontario, CANADA K1A 0C6 [613-996-1665 ext. 268]. INTERESTS: "We [Goulet and Louise Dumouchel] are both involved in curating the rich Canadian National Collection of bees. We hope to start taxonomic research on North American bee genera after consultation with bee specialists. Our responsibilities extends in the very distantly related sawflies. Presently we do our best in providing identification services on bees for Canadians. L. Dumouchel is in charge of most of the bees; H. Goulet mainly in Megachilidae." AREA: "Immediate interest in bees of Canada and U.S.A; we are both developing a worldwide collection." EXCHANGE: yes. [systematics; collecting; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae]

Verne Grant, Professor of Botany, Department of Botany, University of Texas, Austin, Texas 78712, U.S.A. [512-471-5858]. INTERESTS: "Pollination ecology; evolution." AREA: Western North America. [pollination]

Terry Griswold, Research Entomologist, USDA Bee Biology & Systematics Laboratory, Utah State University, UMC 53, Logan, Utah 84322-5310, U.S.A. [801-750-2526]. INTERESTS: "Interested in apoid systematics generally but with special emphasis on Megachilidae." AREA: Worldwide with emphasis on Nearctic region. IDENTIFICATIONS: "pollinating insects - generic level, species where possible and needed; willing to exchange." [systematics; nesting biology; collecting; Megachilidae]

Fritz Gusenleitner, Department of Entomology, Oberösterreichisches Landesmuseum, Museumstr. 14, A-4020, Linz, AUSTRIA [0732/273450]. AREA: West-Palaearctic. IDENTIFICATIONS: Andrena of Europe and North Africa; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; collecting; Andrenidae]

Glenn A. Hackwell, Professor of Zoology, Department of Biological Sciences, California State University, Stanislaus, Turlock, California 95380, U.S.A. [209-667-3481]. INTERESTS: "Biology and nesting behavior of Panurginus (Andrenidae)." AREA: western North America. EXCHANGE: yes. [systematics; behavior; pollination; nesting biology; collecting; Andrenidae; Halictidae]

V. Haeseler, Professor, FB 7 Universität Oldenburg, Ammerländer-Heerstrasse 67-69, D-2900 Oldenburg, WEST GERMANY [0441-798-3274]. INTERESTS: "Ecology of Apoidea in primary and secondary ecosystems of northern Germany." AREA: West Europe. IDENTIFICATIONS: "yes, species of Middle Europe; willing to exchange." [systematics; behavior; nesting biology; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus]

Oldřich Haragsim, Senior Research Worker, Vinohradská 44, 120 00 Prague, CZECHOSLOVAKIA, [Prague 255 94 90]. INTERESTS: "General Apiculture; Apis and Bombus behaviour; pollination, mainly of agricultural and forest areas." AREA: Middle Europe. [behavior; pollination; chemical ecology; parasites; pathology; physiology; Bombus; Apis]

Lawrence D. Harder, Lecturer, Department of Zoology, University of Western Ontario, London, Ontario, CANADA N6A 5B7 [519-679-6898]. AREA: North America. IDENTIFICATIONS: "Eastern North American Bombus and Psithyrus; willing to exchange." [behavior; pollination; morphology; nesting biology; Bombus]

Klaus Hartfelder, Institut Biologie III, Entwicklungsphysiologie, Universität Tübingen, Auf der Morgenstelle 28, 7400 Tübingen, WEST GERMANY [07071-29-4650]. INTERESTS: "Caste development in meliponine bees: influence of larval food on endocrine regulation of caste differentiation." AREA: South America. [physiology; immatures; Meliponinae]

Timothy Heard, Post-Graduate Student, Department of Entomology, University of Queensland, St. Lucia, Brisbane 4067, AUSTRALIA [07-3773651]. INTERESTS: "Behaviour of Trigona in relation to pollination." AREA: SE Queensland, Australia. EXCHANGE: yes [pollination; Meliponinae (Trigona)]

Abraham Hefetz, Senior Lecturer, Department of Zoology, Tel-Aviv University, Ramat Aviv, 69978, ISRAEL [03-420807]. INTERESTS: Evolution of glands their products and function in bees. AREA: Worldwide. EXCHANGE: yes. [behavior; chemical ecology; nesting biology]

Bernd Heinrich, Professor of Zoology, Department of Zoology, University of Vermont, Burlington, Vermont 05405, U.S.A. [802-656-2922]. [behavior; pollination; physiology]

Richard L. Hellmich, II, Research Entomologist, Honey-Bee Breeding, Genetics and Physiology Research, 1157 Ben Hur Road, Baton Rouge, Louisiana 70820, U.S.A. [504-766-6064]. INTERESTS: "I am interested in the pollen-hoarding behavior of Apis mellifera and the mating biology of A. m. scutellata and A. m. ligustica." AREA: "Currently our lab is working in Acariqua, Venezuela." [behavior; pollination; physiology; genetics; Apis]

H.R. Hepburn, Reader, Department of Physiology, University of the Witwatersrand, Medical School, York Road, Parktown 2193, Johannesburg, SOUTH AFRICA [647-2159]. INTERESTS: "I am interested in both the material and biological properties of nest substances, the ways in which they are produced, the factors which influence their production and how the constructs themselves act as modifiers of further bee behaviour." AREA: southern Africa. EXCHANGE: "yes, I am prepared to exchange bees for nest structures of bees." [chemical ecology; physiology; nesting biology; Euglossini; Meliponinae; Bombus; Apis]

Yoshihiro Hirashima, Professor of Entomology, Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka, 812 JAPAN [092-641-1101 ext. 6168]. INTERESTS: "Palaeorhiza of New Guinea and Nesoprosopis of Hawaii (their adaptive radiation)." AREA: Asia, Pacific Islands, New Guinea. IDENTIFICATIONS: Palaeorhiza of New Guinea and Australia; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; collecting; all bee families except Apidae]

Svend Nørgaard Holm, Associate Professor, Department of Crop Husbandry & Plant Breeding, The Royal Veterinary & Agricultural University, Højbakkegaard, Agrovej 10, DK-2630 Taastrup, DENMARK [45 2 992613]. INTERESTS: "Management

of solitary bees for pollination." AREA: Scandinavia. EXCHANGE: yes. [behavior; pollination; Megachilidae; Bombus; Apis]

Terry F. Houston, Curator of Insects, Western Australian Museum, Francis Street, Perth, WESTERN AUSTRALIA 6000 [619-3284411]. AREA: Australia. IDENTIFICATIONS: Australian Hylaeinae and Stenotritidae (Ctenocolletes) to species level; any others to subgenus (by prior arrangement only). [systematics; behavior; morphology; immatures; nesting biology; collecting; Colletidae; Stenotritidae; Halictidae; Megachilidae; Anthophoridae]

Zhiyong Huang, Graduate Student, Environmental Biology, University of Guelph, Guelph, Ontario, CANADA N1G 2W1 [519-824-4120 ext. 8548]. INTERESTS: "Honey bee social behavior, especially communication; ecology of the Apidae." AREA: Asia (especially China). EXCHANGE: yes. [behavior; pollination; chemical ecology; physiology; genetics; immatures; Apidae]

Shuichi Ikudome, Lecturer, Laboratory of Biology, Kagoshima Women's Junior College, 1-59-1, Murasakibaru, Kagoshima 890, JAPAN [0992-54-9191 ext. 32]. INTERESTS: Hylaeus of Japan and Oriental Region; phylogenetic relationships and biogeography of Xylocopa of the Northern Ryukyus; pollination of kiwi fruit. AREA: Palaearctic and Oriental regions. IDENTIFICATIONS: "Colletidae (Colletes and Hylaeus); willing to exchange." [systematics; behavior; pollination; morphology; nesting biology; collecting; Colletidae; Anthophoridae]

Vera Lucia Imperatriz Fonseca, Assistant Professor, Departamento de Ecologia Geral, Instituto de Biociências - USP, 05.508 - São Paulo - SP. BRASIL [(011) 813-4151; (011) 210-2122 R/244]. INTERESTS: "The behaviour of stingless bees is my main interest. The increase of Apis populations verified in the last years, and the damage to the environment made ecological studies necessary. The ecological niches of some species of stingless bees were studied, as were the bee populations of the University Campus and the relative abundance of social bees in some monocultures." AREA: Brasil (south). EXCHANGE: yes. [behavior; competition; collecting; Meliponinae]

Tamiji Inoue, Lecturer, Entomological Laboratory, College of Agriculture, Kyoto University, Kyoto 606, JAPAN [075-751-2111 6134]. INTERESTS: "Ecology (colony multiplication, colony management systems, polyethism, pollinator communities)." AREA: southeast Asia. EXCHANGE: yes. [behavior; pollination; Meliponinae; Apis]

David W. Inouye, Associate Professor, Department of Zoology, University of Maryland, College Park, Maryland 20742, U.S.A. [301-454-4085]. AREA: Rocky Mountains (Colorado); Austria; Central America. EXCHANGE: yes. [behavior; ecology; pollination; Bombus]

Henrik Byrial Jacobsen, Student, Agricultural University of Copenhagen, Blaesensborgvej 9. Box 81, 4320 Lefre, DENMARK [02 380533/01 378405]. INTERESTS: "Domestication of Bombus; climatic factors influence on pollen vitality." AREA: temperate zone. EXCHANGE: yes. [pollination; genetics; nesting biology; Andrenidae; Megachilidae; Bombus; Apis]

Rudolf Jander, Professor, Department of Entomology, University of Kansas, Lawrence, Kansas 66045, U.S.A. [913-864-3457]. INTERESTS: "Foraging; orientation; learning and perceptual behavior." [behavior; pollination; Apis]

Daniel H. Janzen, Professor of Biology, Department of Biology, University of Pennsylvania, Philadelphia, Pennsylvania 19104, U.S.A. [215-898-5636]. INTERESTS: "Ecology of tropical animal-plant interactions: bees where appropriate." AREA: Tropical ecology: the tropics. Bees: Santa Rosa National Park, northwestern Costa Rica. EXCHANGE: sometimes: in return for identifications. [pollination]

Lars-Åke Janzon, Curator, Swedish Museum of Natural History, Box 50007, S-104 05 Stockholm, SWEDEN [Sweden 08/150240]. AREA: Scandinavia, Mediterranean countries, Africa. EXCHANGE: yes. [systematics; behavior; pollination; morphology; chemical ecology; immatures; nesting biology; collecting; all bee families except Apidae]

Elbert R. Jaycox, Entomology & Plant Pathology Department, Box 3BE, New Mexico State University, Las Cruces, New Mexico 88003, U.S.A. [505-522-7538]. AREA: Worldwide. [behavior; pollination; chemical ecology; physiology; Megachilidae; Apis; mites and bees]

Ola Jennersten, Department of Zoology, Uppsala University, Box 561, S-751 22 Uppsala, SWEDEN [046-18-182674]. INTERESTS: "Just finished my thesis on pollination biology of Viscaria vulgaris and Ustilago (bumblebees, butterflies and moths); future works will include pollination and island biology, and bumblebee ecology with special interest in foraging and time budgets." AREA: Sweden. [behavior; pollination; nesting biology; Bombus]

Michael Johnson, Associate Professor of Zoology, Department of Biological Sciences, DePauw University, Greencastle, Indiana 46135, U.S.A. [317-658-4779]. AREA: Central U.S. (Indiana). IDENTIFICATIONS: "Small numbers, Central U.S. especially Indiana; I am most familiar with Megachilidae. I am familiar with and can identify most Indiana species; willing to exchange." [systematics; behavior; pollination; immatures; nesting biology; collecting; Andrenidae; Megachilidae; Anthophoridae]

R.P. Kapil, Professor of Zoology and Dean, Postgraduate Studies, Haryana Agricultural University, Hissar-125004, INDIA [4091, 3721 ext. 219]. INTERESTS: General bee biology and floral associations. AREA: Subtropical Indian subcontinent. EXCHANGE: yes. [behavior; pollination; chemical ecology; physiology; nesting biology; all bee families]

Markku Kämpylä, Lecturer, Department of Biology, University of Jyväskylä, SF-40100 Jyväskylä 10, FINLAND [941-291211]. AREA: Northern Europe. EXCHANGE: yes. [pollination; ecology; melittopalynology]

Eisuke Katayama, Shimoishigami 1780-57, Otawara City, Tochigi Pref., 329-26, JAPAN [(02872)-9-0162]. AREA: Himalayan and Mongolian regions. EXCHANGE: yes. [behavior; pollination; nesting biology; Halictidae; Megachilidae; Anthophoridae; Apidae]

Warwick E. Kerr, Professor of Genetics, Departamento de Biologia, Universidade Federal do Maranhão, Largo dos Amores, 21, 065000 São Luis, Maranhão, BRASIL [098-221-1354/227-2445]. INTERESTS: "Sex determination of bees; caste determination (Melipona); reproduction, management of Melipona hives." AREA: South America, hot areas. EXCHANGE: yes. [behavior; pollination; chemical ecology; genetics; nesting biology; Apidae]

Peter G. Kevan, Associate Professor, Department of Environmental Biology, University of Guelph, Guelph, Ontario, CANADA, N1G 2W1 [519-824-4120 ext. 2479]. INTERESTS: "Pollination from both botanical and zoological viewpoints;

coevolutionary ecology." EXCHANGE: yes. [behavior; pollination; Andrenidae; Halictidae; Megachilidae; Bombus; Apis]

Lynn S. Kimsey, Visting Postdoctoral Associate, Department of Entomology, University of California, Davis, California 95616, U.S.A. [916-752-0493]. AREA: Central and South America. IDENTIFICATIONS: Euglossini; willing to exchange. [systematics; behavior; morphology; physiology; nesting biology; Euglossini]

Judith King, Research Assistant, Department of Entomology, University of Queensland, St. Lucia, Brisbane, 4067 AUSTRALIA. INTERESTS: Systematics, nesting behaviour and pollination activities of Megachilidae." AREA: Australia, S.E. Asia, Pacific basin. IDENTIFICATIONS: Megachilidae. [systematics; behavior; pollination; morphology; nesting biology; collecting; Megachilidae]

Jeff E. Klahn, Post-Doctoral Research Associate, Department of Biology, University of Iowa, Iowa City, Iowa 52242, U.S.A. INTERESTS: "Foraging behavior; recruitment behavior; colony usurpation (intraspecific and interspecific)." [behavior; pollination; chemical ecology; physiology; nesting biology; Megachilidae; Bombus]

Astrid Kleinert-Giovannini, Post-Graduate Student, Departamento de Ecologia Geral, Instituto de Biociências - USP, 05.508 - São Paulo - SP. BRASIL [(011) 813-4151; (011) 210-2122 R/244]. INTERESTS: "Behaviour of stingless bees, mainly in relation to queen and virgin queen's role in the colony's structure. I have also worked with pollen analysis of food collected from the pots of several species of stingless bees in an attempt to establish the ecological role of each of them." AREA: Neotropics. EXCHANGE: Meliponinae. [behavior; competition; chemical ecology; nesting biology; Meliponinae]

Gerd Knerer, Associate Professor, Zoology Department, University of Toronto, 25 Harbord Street, Toronto, Ontario, CANADA, M5S 1A1 [416-978-8769]. AREA: Europe, North America. [systematics; behavior; physiology; nesting biology; Halictidae]

Fatima do Rosario Naschenveng Knoll, Post-Graduate Student, Departamento de Ecologia Geral, Instituto de Biociências - USP, 05.508 - São Paulo - SP. BRASIL [(011) 210-2122 R/244). INTERESTS: Apoid communities. AREA: Neotropics. [collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Bombus; Apis]

Alois Kofler, Maximilianstrasse 15, A-9900 Lienz, Osttirol, AUSTRIA [04852/3344]. AREA: Austria, especially Tyrol. EXCHANGE: yes. [systematics; behavior; pollination; morphology; nesting biology; Anthophoridae; Meliponinae; Bombus; Apis]

Steven A. Kolmes, Assistant Professor of Biology, Department of Biology, Hobart and William Smith Colleges, Geneva, New York 14456, U.S.A. [315-789-5500 ext. 335]. INTERESTS: "Studying colony-level responses of honey bees to a variety of economic and environmental factors; investigating colony integration and efficiency/resiliency of colonies." [behavior; Apis]

Anselm Kratochwil, Institut für Biologie II/Geobotanik, Universität Freiburg, Schänzlestrasse 1, D-7800 Freiburg, WEST GERMANY [0761-203 3402]. INTERESTS: "Study of synecological interactions between flowers and insects on the complex level of plant communities and communities of flower-visiting

insects (Hymenoptera Apoidea, Lepidoptera, Diptera: Syrphidae); area-geographical analysis and evolutionary aspects of flower-visiting behaviour; study of the conservation of endangered biotopes." AREA: Palaearctic. [behavior; pollination; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus]

Kristjan Kristjansson, Graduate Student, The Royal Veterinary and Agricultural University, Kagså Kollegiet 193, 2730 Herlev, DENMARK [02-849790/01-351788]. INTERESTS: "Pollination of cultivated crop plants in orchards and greenhouses with bees, especially solitary bees (Osmia spp.); domestication of Bombus spp." AREA: Northern Europe/Nordic countries. [pollination; nesting biology; domestication; Megachilidae; Bombus; Apis]

Miloje Krunic, Professor, Institute of Zoology, Faculty of Science, University of Belgrade, Studentski trg 16, 11000 Belgrade, YUGOSLAVIA [(11) 637-024]. AREA: Europe, North Africa, Near East. EXCHANGE: yes. [pollination; morphology; Megachilidae; Megachile rotundata; Apis]

Penelope F. Kukuk, Postdoctoral Associate, Department of Entomology, Cornell University, Ithaca, New York 14853, U.S.A. [607-256-2096/273-4806]. AREA: northeastern United States, southeast Australia. [behavior; chemical ecology; genetics; nesting biology; Halictidae]

Wallace E. LaBerge, Head, Faunistics Section, State Natural History Survey Division, 607 E. Peabody, Champaign, Illinois 61820, U.S.A. [217-333-6846/333-6847]. AREA: Primary interest in North and Central America; secondary interest in South America and Eurasia. IDENTIFICATIONS: Andrena, Melissodes, Anthidium, Svastra (prefer pinned specimens); willing to exchange. [systematics; behavior; pollination; morphology; genetics; nesting biology; Andrenidae; Megachilidae; Anthophoridae; Bombus]

Juan M. Labougle, Investigador Asociado, Apartado Postal 70-233, Instituto de Biología, UNAM, Coyoacan México 04510 D.F., MEXICO [(5) 584-2906; (5) 548-8207]. INTERESTS: "Geographic distribution and taxonomy of Bombus; impact of the African bee on the native bee fauna of Chiapas, Mexico (in general, biogeography and behavior of bees in Mexico and Central America)." AREA: Mexico and Central America (in part, South American Andes). IDENTIFICATIONS: Bombus, Psithyrus; willing to exchange. [systematics; behavior; pollination; nesting biology; collecting; Megachilidae; Bombus; Apis]

Harry H. Laidlaw, Jr., Professor Emeritus, University of California, Davis, 761 Sycamore Lane, Davis, California 95616, U.S.A. [916-756-7230]. INTERESTS: "At the moment these include honey bee genetics, breeding, semen shipment, queen rearing and general beekeeping. However, I am not doing research in these areas because I am retired." AREA: Worldwide. [behavior; morphology; genetics; Apis]

Sebastião Laroca, Professor, Departamento de Zoologia, Universidade Federal do Paraná, Caixa Postal 19.020, 80.000 Curitiba, Paraná, BRASIL [266-3633, ramal 148]. INTERESTS: "I have been working on various aspects of bee ecology since 1960. My contribution in this field includes articles on interspecific interactions at the food site; wild bee assemblages of restricted areas (biocoenotics approach, including bees of urban environments); cleptobiotic behavior (Lestrimelitta); nesting biology in Bombus, Hylaeus, Hypanthidioides, Melissoptila, Megachile, etc. Presently, I am working on nectar gathering behavior of a specialized species of short-tongue bee and writing simple computer programs for data manipulation in

community studies." AREA: Neotropical region. [systematics; behavior; pollination; morphology; nesting biology; collecting; all bee families]

Folke K. Larsson, Psychologist, Student of Zoology, Lillakersuagen 49, S-18159 Lidings, SWEDEN [046-87659215]. INTERESTS: "Mate choice and sexual selection in natural populations; gregarious nesting behaviour in solitary species; natal area fidelity in solitary species; bee ecology." AREA: Scandinavia, Tropical areas. [behavior; sexual selection; mate choice; nesting biology; Colletidae]

Terence M. Laverty, Postdoctoral Fellow, Department of Zoology, University of Toronto, Toronto, Ontario M5S 1A1, CANADA [416-978-4582]. INTERESTS: "Co-evolution of bumble bee foraging strategy and flower morphology; learning in bumble bees; key to bumble bees of North America." AREA: Neotropics, Arctic, Asia, North America. IDENTIFICATIONS: Bombus/Psithyrus, with condition that some specimens can be retained if unusual or from under-collected areas; willing to exchange. [systematics; behavior; pollination; nesting biology; collecting; Bombus]

Jean Leclercq, Professor, Zoologie Générale et Faunistique, Fac. Gembloux, rue de Bois-de-Breux, 190, B 4500 Liège, BELGIUM. INTERESTS: "Solitary Bees and Wasps of Europe." AREA: Europe. EXCHANGE: yes. [systematics; behavior; nesting biology; collecting]

B.A. Lefeber (Brother Virgilius), Co-operator Scientific Honorair, Brusselstraat 38, 6211 PG Maastricht, THE NETHERLANDS [043-212114]. INTERESTS: "faunistics (especially Netherlands)." AREA: Benelux. IDENTIFICATIONS: Colletidae; no conditions; willing to exchange. [systematics; behavior; morphology; nesting biology; collecting; Colletidae; Andrenidae; Melittidae; Megachilidae; Anthophoridae]

Paitoon Leksawasdi, Associate Professor, Biology Department, Faculty of Science, Chiang Mai University, Chiang Mai, THAILAND 50002 [Thailand 053-222468 ext. 32]. INTERESTS: Research on Anthophoridae, Meliponinae, Bombus and Apis. AREA: Tropics. EXCHANGE: yes. [systematics; behavior; pollination; morphology; nesting biology; Anthophoridae; Meliponinae; Bombus; Apis]

M.D. Levin, Supervisory Research Entomologist, USDA, ARS Carl Hayden Bee Research Center, 2000 E. Allen Road, Tucson, Arizona 85719, U.S.A. [602-629-6329]. INTERESTS: "Pollination ecology involving honey bees (Apis mellifera) and agricultural crops; physiology/nutrition of A. mellifera." [behavior; pollination; Apis]

Remko Leys, Student, Utrechtseweg 305, 3731 GA DeBilt, THE NETHERLANDS [030-764658]. INTERESTS: Systematics and biology of Andrenidae. AREA: West Palearctic region. IDENTIFICATIONS: yes; willing to exchange. [systematics; behavior; chemical ecology; genetics; immatures; nesting biology; collecting; Andrenidae; Halictidae; Anthophoridae]

M. Lindauer, Zoologisches Institut (II) der Universität Würzburg, Röntgenring 10, D-8700 Würzburg, WEST GERMANY [0931-31695]. INTERESTS: "Sensory physiology; sociobiology; orientation." [behavior; morphology; physiology; genetics; Meliponinae, Bombus; Apis]

E. Gorton Linsley, Professor of Entomology Emeritus, Department of Entomological Sciences, 201 Wellman Hall, University of California, Berkeley, California 94720, U.S.A. [415-642-9810]. AREA: Deserts of southwestern United

States and northern Mexico; neotropics, especially Central America. [systematics; behavior; pollination; nesting biology; collecting]

Danielle H. Lobreau-Callen, Chargée de Recherche CNRS, UA 218 CNRS, Arboretum de Chevreloup, Museum National d'Histoire Naturelle, Route de Maule-Rocquencourt, 78150 LE CHESNAY, FRANCE [3955 5090]. INTERESTS: Plant-insect interrelationships. [behavior; pollination; plant-insect coevolution; collecting; Halictidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Apis]

Astrid Løken, Department of Biology, University of Oslo, P.O. Box 1050, Blindern, N-0316 Oslo 3, NORWAY [47-02-454503]. AREA: northern Europe. IDENTIFICATIONS: "only a small number of pinned and labelled specimens, preferably from northern Europe (males with genitalia prepared). [systematics; behavior; pollination; nesting biology; Bombus; Psithyrus]

Ole Lomholdt, Lecturer, Zoological Museum, Universitetsparken 15, DK-2100 Copenhagen, DENMARK [01-35 41 11]. INTERESTS: "Hymenoptera systematics and phylogeny." AREA: Primarily Europe. IDENTIFICATIONS: "yes, northern European; willing to exchange." [systematics; behavior; pollination; morphology; chemical ecology; physiology; genetics; immatures; nesting biology]

Roderick P. Macfarlane, Scientist, Entomology Division, D.S.I.R., Private Bag, Christchurch, NEW ZEALAND [252 511]. INTERESTS: "Pollination of agricultural and horticultural crops particularly red clover and kiwifruit. The economic development and management of bumble bees as pollinators. The Zoogeography and taxonomy of bumble bees." AREA: New Zealand, Europe, South America, Asia. IDENTIFICATIONS: "Bombus - Asia, New Zealand, if some specimens can be retained and preferably in relation to a scientific study or pollination; would give referral advice; willing to exchange Bombus." [systematics; pollination; nesting biology; Bombus; natural enemies of Bombus]

Maria de Lourdes Maciel de Almeida Correia, Professor, Laboratorio de Ecologia, Instituto de Ciências Biomédicas, "Abel Salazar", Largo do Prof. Abel Salazar, 2,4000 Porto, PORTUGAL [31.03.59 31.93.82 ext. 268]. INTERESTS: "Survey of the native wild bee fauna of Portugal with goal of determining the best pollinators for Trifolium and Medicago." AREA: Northwestern Portugal. EXCHANGE: yes. [behavior; pollination; nesting biology; Megachilidae; Bombus]

Lazarus W. Macior, Professor of Biology, Department of Biology, The University of Akron, Akron, Ohio 44325, U.S.A. [216-375-7155]. INTERESTS: "Primary interest is pollination ecology of Bombus-pollinated flowers, specifically in the Scrophulariaceae - Pedicularis (Louseworts), in relation to plant speciation and historical disjunction geographically." AREA: North America, Asia (currently Japan). IDENTIFICATIONS: Bombus - North America; willing to exchange. [behavior; pollination; chemical ecology; nesting biology; collecting; Anthophoridae; Bombus; Apis]

Yasuo Maeta, Associate Professor, Laboratory of Insect Management, Faculty of Agriculture, Shimane University, Matsue 690, JAPAN [0852-21-7100 ext. 674]. INTERESTS: "Management of wild bees; social behavior of Xylocopinae." AREA: South Asia. EXCHANGE: yes. [behavior; pollination; nesting biology; Andrenidae; Halictidae; Megachilidae; Anthophoridae]

Osmar Malaspina, Assistant Professor, Department of Biology, Instituto de Biociências de Rio Claro, UNESP, Cx. Postal 178 - CEP 13.500, Rio Claro, São

Paulo, BRASIL [0195-340244]. AREA: South America. [behavior; genetics; collecting; Apis]

Javier Herrera Maliani, Scientific Collaborator of the Spanish C.S.I.C., Estación Experimental de Zonas Áridas, Almería, SPAIN; PRESENT ADDRESS: Dept. of Botany, Facultad de Biología, Sevilla, SPAIN [Sevilla - 954 617011]. INTERESTS: Pollination; plant reproduction. AREA: Mostly Mediterranean Basin; tropical areas. [behavior; pollination; chemical ecology; nesting biology]

Makhdzir Mardan, Lecturer, Plant Protection Department, Faculty of Agriculture, Universiti Pertanian 43400, Serdang, Selangor, MALAYSIA [03-9486101]. INTERESTS: "My research interests are mainly on the rearing technology of Apis dorsata, A. cerana and Trigona species. I am also involved in studies of the pheromones of A. dorsata and A. cerana for practical uses." AREA: Peninsular Malaysia and Borneo, tropical Asia. EXCHANGE: yes. [systematics; behavior; pollination; chemical ecology; physiology; genetics; immatures; nesting biology; Euglossini; Apis]

Tatjana Pavlovna Marikowskaja, AS Kaz SSR, Institute of Zoologie, Institute of Zoology AN Kaz SSR, Akademgorodok, Alma-Ata 480032, U.S.S.R. [440632]. AREA: Anthophoridae, worldwide. EXCHANGE: yes. [systematics; behavior; pollination; morphology; genetics; immatures; nesting biology; artificial rearing of solitary bees; collecting; Halictidae; Megachilidae; Anthophoridae]

Robert W. Matthews, Sandy Beaver Professor of Entomology, Department of Entomology, University of Georgia, Athens, Georgia 30602, U.S.A. [404-542-2816]. INTERESTS: "Evolution of social behavior; social parasitism." AREA: Nearctic, Neotropical, Australian. [behavior; nesting biology; Colletidae; Megachilidae; Anthophoridae (Ceratina)]

Daniel F. Mayer, Extension and Research Entomologist, Washington State University, IAREC - Box 30, Prosser, Washington 99350, U.S.A. [509-786-2226]. INTERESTS: "Tree fruit pollination; vegetable seed pollination; toxicity of insecticides to bees." EXCHANGE: yes. [behavior; pollination; Halictidae; Apis]

Ronald J. McGinley, Research Entomologist, Department of Entomology, Smithsonian Institution, NHB-105, Washington, D.C. 20560, U.S.A. [202-357-2834]. INTERESTS: Systematics and biology of Apoidea (especially Halictidae); higher classification of Hymenoptera. AREA: Worldwide. IDENTIFICATIONS: New World Evylaeus and Lasioglossum (s.s.); other taxa only by prior arrangement; very willing to exchange (can provide species listings of Smithsonian holdings for exchange purposes). [systematics; behavior; pollination; morphology; immatures; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; secondary interests in other families]

Maria Luiza S. Mello, Professor, Department of Cell Biology, Institute of Biology - UNICAMP, 13100 Campinas (SP), BRASIL [192 39-1561 ext. 2306]. INTERESTS: "Cytogenetics; cytochemistry (quantitative)." [morphology; genetics; cell biology; molecular biology; immatures; nesting biology; Megachilidae; Meliponinae; Bombus; Apis]

Randolf Menzel, Professor and Head of Institut of Neurobiology, Freie Universität Berlin, Institut für Tierphysiologie, D-1000 Berlin 33, WEST GERMANY [30/8383930]. INTERESTS: "Neurobiology of behavior; color vision; learning (physiology and behavior); sensory ecology (pollination behavior,

search strategy)." AREA: Europe, South America, New Zealand. [behavior; pollination; morphology; physiology; genetics; Apidae]

Samie J. Merritt, Assistant Curator, Department of Entomology, Texas A & M University, College Station, Texas 77843, U.S.A. [409-845-9711]. AREA: Texas and other southwestern states including Chihuahuan Desert; Mexico. [systematics; pollination; collecting; Anthophoridae; Meliponinae]

Adam Messer, Graduate Student, Department of Entomology, Cornell University, Ithaca, New York 14853, U.S.A. [607-256-5441]. INTERESTS: "Chemistry and biology of insect-plant interactions, with emphasis on tree resins used in bee nest construction." AREA: Southeast Asia and Australia. EXCHANGE: yes. [behavior; chemical ecology; physiology; nesting biology; resins; Megachilidae (Chalicodoma); Meliponinae]

Charles D. Michener, Watkins Professor of Entomology and of Systematics and Ecology, Entomological Museum, Snow Hall, University of Kansas, Lawrence, Kansas 66045, U.S.A. [913-864-4610]. AREA: World. IDENTIFICATIONS: yes, but only by prior arrangement; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; all bee families]

Eugene Miliczky, 27576 Anchor Place NW, Poulsbo, Washington 98370, U.S.A. [206-779-6524]. INTERESTS: "Comparative behavior and nesting biology of Andrena spp.; behavior and nesting biology of bees in general; behavior of parasitic bees especially Nomada spp.; ecology and behavior of bees visiting Salix spp. - utilization of Salix pollen and nectar by oligolectic and polylectic bees (especially Andrena), importance of bees as pollinators of Salix, comparative foraging behavior of oligolectic and polylectic bees on different willow species." AREA: Primarily North America. EXCHANGE: yes. [behavior; pollination; nesting biology; collecting; Andrenidae; Anthophoridae]

Russell B. Miller, Curatorial Affiliate in Entomology, Peabody Museum of Natural History, Yale University, New Haven, Connecticut 06511, U.S.A. [203-436-8847/413-467-9071]. AREA: Worldwide, but especially North America. IDENTIFICATIONS: North American Bombus and Psithyrus; willing to exchange. [systematics; pollination; collecting; Bombus]

Terry D. Miller, Research Technologist, Department of Entomology, Washington State University, Pullman, Washington 99165, U.S.A. [208-885-7079]. INTERESTS: "I am interested in the native bee fauna of the Pacific Northwest and their relationship to native and introduced plants." AREA: Pacific Northwest and Desert Southwest. EXCHANGE: yes. [systematics; behavior; pollination; collecting; Colletidae; Megachilidae; Anthophoridae]

Atle Mjelde, System Programmer, N-2866 Enger, NORWAY [(02) 632593]. INTERESTS: "Optimal foraging strategies in Bombus; domestication of bumblebees." AREA: Scandinavia and eastern parts of Norway. IDENTIFICATIONS: Norwegian Bombus. [behavior; ecology; domestication; pollination; genetics; nesting biology; Bombus]

Nina A. Mohr, Graduate student, Department of Environmental Biology, University of Guelph, Guelph, Ontario, CANADA, N1G 2W1 [519-837-0574]. INTERESTS: "At this time I am primarily interested in the development of possible management practices for native pollinators and in the foraging behaviour of native bees." AREA: Canada and northern USA. [behavior; pollination; nesting biology; Colletidae; Andrenidae; Halictidae; Megachilidae; Bombus; Apis]

Adolfo Molina-Pardo, Associate Professor, Departamento de Biología, Facultad de Ciencias, Universidad Nacional de Colombia, Apartado Aéreo 3840, Medellín, COLOMBIA [(94) 300280 y 301975]. INTERESTS: "Presently I am the leader of a research team working on an African Honey Bee research program which has four lines of interest: 1) Bee Plants: Survey of the main bee plants in the coffee growing areas of Colombia; keeping of a botanical garden of bee plants planted in lots for detailed studies; characterization of the pollen grains of these plants from a reference collection in order to make keys for identification of pollen grains in samples of honey, combs, etc. 2) Behavior: Comparative studies of African and European derived honey bees at different elevations regarding defensiveness, honey productivity, swarming and absconding, and thermoregulation. 3) Breeding: Developing of honey bee strains of African bees with high productivity, low tendency to abscond and to swarm, and manageable defensive behavior. 4) Technology: Intermediate technology for honey bee management under resource limited conditions in peasant communities. This program is supported by the International Development Research Centre (Canada) and the Colombian Government. Besides these research efforts, an important bee collection has been built over more than 10 years." AREA: Neotropics. EXCHANGE: yes, neotropical bees. [systematics; pollination; collecting; Meliponinae; Apis]

Mary Jo Moor, Graduate Student, EPO Biology, University of Colorado, Boulder, Colorado 80309, U.S.A. [303-492-7687]. INTERESTS: "Reproduction in worker bees; individual variation in worker honey bees in aggressive behavior; drone behavior; interspecific competition." AREA: worldwide. EXCHANGE: yes. [behavior; genetics; behavioral ecology; Apis]

Douglass H. Morse, Hermon Carey Bumpus Professor of Biology, Division of Biology & Medicine, Brown University, Providence, Rhode Island 02912, U.S.A. [401-863-3152]. INTERESTS: "Foraging of Bombus; role of Bombus in pollination biology, especially role in pollinating common milkweed Asclepias syriaca." AREA: Primarily northeastern USA and Canada. EXCHANGE: yes. [behavior; pollination; Bombus]

Roger A. Morse, Professor of Apiculture, Department of Entomology, Comstock Hall, Cornell University, Ithaca, New York 14853, U.S.A. [607-256-5443]. INTERESTS: "Primary interest is with honey bees - pheromones, social control, etc." AREA: Worldwide. [behavior; pollination; chemical ecology; Apis]

Pe. Jesús Santiago Moure, Dr.H.C., Professor Emeritus of Zoology, Departamento de Zoologia, Universidade Federal do Paraná, Caixa Postal 3034, 80.000 Curitiba, Paraná, BRASIL [041-266.3633/Ramal 142]. INTERESTS: "Developing an automatic identification program for insect identification; programming in numerical taxonomy and morphometrics (still teaching these subjects)." AREA: Bees of the Neotropical region and Meliponinae of the World. IDENTIFICATIONS: "yes (normally we keep some specimens; holotypes are sent back to responsible Museums or to the National Museum of the Country, otherwise types are deposited in our collection; willing to exchange." [systematics; morphology; Halictidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Bombus]

Mohamed Abdelkalek Moustafa, Head, Classification Research Division, Plant Protection Research Institute, Ministry of Agriculture, Dokki, Cairo, EGYPT [702 209; 578 655]. AREA: Egypt. EXCHANGE: yes. [systematics; morphology; immatures; nesting biology; collecting; Andrenidae; Halictidae; Megachilidae]

Zoran Mučalica, Professor in Pension, 11 000 Beograd, Subotička 1, YUGOSLAVIA [413-230]. AREA: Yugoslavia. EXCHANGE: yes. [systematics; behavior; Halictidae; Megachilidae; Anthophoridae]

Eric C. Mussen, Extension Apiculturist, Entomology Extension, University of California, Davis, California 95616, U.S.A. [916-752-0470]. AREA: California. EXCHANGE: yes. [pollination; management; pathology; Megachilidae; Apis]

Hirohiko Nagase, Import-Export Businessman, 81 Nikaido, Kamakura 248, JAPAN [Kamakura, 0467-22-3494]. INTERESTS: "Primarily more of a hunter than a collector." AREA: Japan, western U.S.A., S.E. Asia. EXCHANGE: yes. [systematics; behavior; nesting biology; collecting; all bee families]

John L. Neff, Director & Curator, Central Texas Melittological Institute, 7307 Running Rope, Austin, Texas 78731, U.S.A. [512-345-7219]. AREA: Warm arid and semi arid regions of North and South America (northern Argentina and Chile, western Peru, southwest USA and northern Mexico). IDENTIFICATIONS: Exomalopsini; bees of Texas (preferably central Texas) excluding Nomadini and Lasioglossum s.lat.; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; collecting; Colletidae; Andrenidae; Megachilidae; Anthophoridae]

L. Anders Nilsson, Project Leader of Pollination Research at the Swedish Natural Science Research Council, Institute of Systematic Botany, Uppsala University, P.O. Box 541, S-751 21 Uppsala, SWEDEN [018/182777]. INTERESTS: Pollination biology. AREA: Europe, Madagascar. EXCHANGE: yes, for identifications. [behavior; pollination]

Beth B. Norden, Museum Specialist, Department of Entomology, Smithsonian Institution, NHB-105, Washington, D.C. 20560, U.S.A. [202-357-2604]. AREA: eastern U.S.A at present. EXCHANGE: yes. [systematics; behavior; pollination; immatures; nesting biology; Anthophoridae; Apis]

Lars Norén, Gransvägen 22, S-13700 Västerhaninge, SWEDEN. INTERESTS: Parasitic bees. AREA: Worldwide. IDENTIFICATIONS: Bees from northern Europe (postage to be paid; retention of some duplicates); willing to exchange. [systematics; collecting; all bee groups except Bombus, Apis]

Josué A. Núñez, Professor of Biology, University of Buenos Aires, Calchano 642, 1609 Boulogne, Buenos Aires, ARGENTINA [766-2442]. INTERESTS: "Regulation of feeding behaviour; foraging strategies of nectar foraging bees." [behavior; physiology; collecting; Meliponinae; Apis]

Ellen Ordway, Associate Professor of Biology, Division of Science and Mathematics, University of Minnesota, Morris, Minnesota 56267, U.S.A. [612-589-2211]. IDENTIFICATION: Augochlorella (Halictidae); willing to exchange. [systematics; behavior; pollination; nesting biology; collecting; Andrenidae; Halictidae; Anthophoridae]

Eben A. Osgood, Professor of Entomology, Department of Entomology, 302 Derrington Hall, University of Maine, Orono, Maine 04469, U.S.A. [207-581-2955]. AREA: Maine. EXCHANGE: yes. [behavior; pollination; nesting biology; Colletidae; Andrenidae; Halictidae]

Till Osten, Konservator of Hymenoptera, Staatliches Museum für Naturkunde, Rosenstein 1, D-7000 Stuttgart 1, WEST GERMANY [0711-89 36 219]. INTERESTS: "Systematics and functional morphology in the head and mouthparts of

"Soliioidea" and behavior and functional morphology of Xylocopini (Ceylon) and Megachilidae." AREA: Worldwide. EXCHANGE: yes. [systematics; behavior; pollination; morphology; nesting biology; collecting; Megachilidae; Anthophoridae (Xylocopini); Meliponinae]

Gard W. Otis, Assistant Professor, Department of Environmental Biology, University of Guelph, Guelph, Ontario N1G 2W1, CANADA [519-824-4120 ext. 2478]. INTERESTS: "Factors affecting life history of Apis; sociobiology of bees; age polyethism in Apis." AREA: North America, Central and South America, Africa, Asia. EXCHANGE: "yes, willing to make limited collections on field trips." [behavior; pollination; chemical ecology; physiology; nesting biology; Euglossini; Apis]

Christopher O'Toole, Entomologist, Hope Entomological Collections, University Museum, Oxford OX1 3PW, UNITED KINGDOM [(0865) 57527 ext. 580]. INTERESTS: "Systematics of Palaearctic Colletes; chemical ecology of bees (partly in collaboration with Dr. Abraham Hefetz of Tel-Aviv); systematics of Palaearctic Eucerini." AREA: Mediterranean Palaearctic (especially Israel), Oriental Region, Ethiopian Region. IDENTIFICATIONS: "Colletes (Palaearctic); will attempt eucerines from Eastern Mediterranean; willing to exchange." [systematics; behavior; pollination; chemical ecology; nesting biology; collecting; Colletidae; Anthophoridae; Euglossini; Bombus]

William L. Overall, Pesquisador Associado, Museu Paraense Emílio Goeldi, Caixa Postal, 399, 66.000 Belém, Pará, BRASIL [091 224-9233 ext. 214]. INTERESTS: "I seem to always get roped into looking at the floral biology or pollination of commercially important plants of the Amazon Basin. I have worked on pollination in babassu palms, acai palms, buruti plams, Brazilnut trees, cassava, passion fruit vines, pau d'arco trees, and several others." AREA: Amazon Basin and Central Highlands of Brasil. EXCHANGE: yes, subject to Museu Goeldi regulations. [behavior; pollination; Meliponinae]

Robin E. Owen, Assistant Professor, Department of Biology, University of Calgary, Calgary, Alberta, CANADA T2N 1N4 [403-220-6910]. INTERESTS: "Population and ecological genetics of bumble bees; theoretical population genetics of social Hymenoptera; insect mimicry." AREA: North America, especially Canada, Alberta. IDENTIFICATIONS: Bombus of North America; willing to exchange. [systematics; behavior; genetics; nesting biology; collecting; Bombus]

Hikmet Özbek, Plant Protection Department, Chairman, Atatürk Üniversitesi Ziraat Fakültesi, Bitki Koruma Bölümü, Erzurum, TURKEY [14120/2607]. AREA: Eastern Anatolia. EXCHANGE: yes. [systematics; pollination; collecting; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus]

Laurence Packer, Graduate Student, Ramsay Wright Zoological Laboratories, University of Toronto, 25 Harbord Street, Toronto, Ontario M5S 1A1, CANADA [416-978-8522; 978-8769]. INTERESTS: "Evolution of social behavior in Halictidae using behavioral, phylogenetic, physiological evidence; taxonomy and morphometrics of Halictidae; collecting of all groups." AREA: Worldwide. IDENTIFICATIONS: "Old World halictines (Evylaeus in particular) on condition that I am given lots of time, particularly if more than a few specimens are involved; willing to exchange." [systematics; behavior; social behavior; pollination; morphology; physiology; genetics; immatures; nesting biology; collecting; Halictidae]

Guido Pagliano, Università Agraria-Torino, Corso Corsica 6, I 10134 Torino, ITALY [011 36 36 30]. AREA: Palaearctic. IDENTIFICATIONS: yes;

willing to exchange. [systematics; behavior; Melittidae; Megachilidae; Anthophoridae]

Pekka Pamilo, Research Fellow, Department of Genetics, University of Helsinki, Arkadiankatu 7, SF-00100 Helsinki, FINLAND [Helsinki 40271]. INTERESTS: Evolutionary systematics of bumblebees. EXCHANGE: "yes; I have no collections but I can try to collect samples for specific purposes if somebody requests." [systematics; genetics; Bombus]

Frank D. Parker, Research Entomologist, Bee Biology & Systematics Laboratory, USDA-ARS, 261 NRB, Utah State University, Logan, Utah 84322-5310, U.S.A. [801-750-2525]. INTERESTS: "Utilizing non-Apis bees as manageable pollinators for crop production. Nesting biology of bees - mostly trap-nesting forms (parasites, predators, diseases). Systematics - have been keeping everyone's Stelis (Megachilidae) for too many years; other megachilids also. Introductions of exotic crop pollinators." AREA: Worldwide. IDENTIFICATIONS: "some megachilids; laboratory has T. Griswold employed to do this." [systematics; behavior; pollination; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae]

Hannes F. Paulus, Institut fur Biologie I (Zoologie), Albertstrasse 21a, D-7800 Frerburg im Breisgau, WEST GERMANY [0761/2032506]. INTERESTS: "Comparative morphology and nesting biology; bees as pollinators (especially orchids); Hennigian phylogenetic systematics." AREA: Mainly Europe. EXCHANGE: yes. [systematics; behavior; pollination; morphology; chemical ecology; nesting biology; Bombus]

Antti Pekkarinen, Lecturer, Department of Zoology, University of Helsinki, P. Rautatiekatu 13, SF-00100 Helsinki, FINLAND [90-4027241]. INTERESTS: Systematics and biology of Bombini. AREA: Holarctic. [systematics; pollination; morphology; genetics; nesting biology; Bombus]

Christine Y.S. Peng, Associate Professor of Entomology and Apiculture, Department of Entomology, University of California, Davis, California 95616, U.S.A. [916-752-0490/752-0475]. INTERESTS: Apis biology. EXCHANGE: yes. [behavior; pollination; morphology; chemical ecology; physiology; genetics; bee pathology; Apis]

Yuriy A. Pesenko, Zoological Institute, Academy of Sciences of the U.S.S.R., University Embankment 1, Leningrad, 199164, U.S.S.R. [218-12-12]. INTERESTS: "Systematics of and taxonomy of the Halictidae; pollination ecology; quantitative methods in ecology and biogeography." AREA: Worldwide. IDENTIFICATIONS: Halictidae; willing to exchange. [systematics; pollination; morphology; collecting; Halictidae]

D. Stefan Peters, Kustos, Forschungsinstitut Senckenberg, Senckenberg Anlage 25, D-6000 Frankfurt/M., WEST GERMANY [069/7542348]. INTERESTS: "I am still interested in bees although the main field of my research is now ornithology." AREA: Worldwide. IDENTIFICATIONS: "Osmia (s.l), it depends on the circumstances; willing to exchange." [systematics; behavior; morphology; nesting biology; Megachilidae]

Jacques Petit, Pharmacien, Grand'route 5, B-4493 Wonck, BELGIUM [041/861195 (Belgique)]. AREA: "Europe (plus specialement le Benelux)." EXCHANGE: yes. [systematics; behavior; pollination; nesting biology; collecting; all bee families except Apidae]

Ing Pettinga, Director, Experimental Bee Farm, Tilburgseweg 32, 5081 NG Hilvarenbeek, THE NETHERLANDS [013-425888]. INTERESTS: Pollination; bee diseases; bee genetics; side effects of insecticides on bees. AREA: Europe. [pollination; genetics; nesting biology; Halictidae; Megachilidae; Bombus]

John D. Plant, Ph.D. Candidate, Institut für Biologie I (Zoologie), Albertstrasse 21a, D-7800 Frerburg im Breisgau, WEST GERMANY. INTERESTS: "Comparative and functional morphology; higher phylogenetic systematics; male territorial behavior." EXCHANGE: yes. [systematics; behavior; morphology]

Cécile Plateaux-Quénu, Maître de Recherche, C.N.R.S., Laboratoire d'Evolution, University of Paris, 105, Boulevard Raspail, 75006 Paris, FRANCE [222 65-50]. INTERESTS: "Evolution of social life; caste determination in primitively social bees." AREA: Worldwide, primary work in France. [systematics; behavior; morphology; physiology; genetics; nesting biology; collecting; Colletidae; Andrenidae; Halictidae]

John D. Pleasants, Assistant Professor, Department of Botany, Bessey Hall, Iowa State University, Ames, Iowa 50011, U.S.A. [515-294-2352]. AREA: Rocky Mountains, Midwest U.S.A. [behavior; pollination; Bombus]

R.C. Plowright, Associate Professor of Zoology, Department of Zoology University of Toronto, Toronto, Ontario, CANADA M5S 1A1 [416-978-4582]. INTERESTS: "Dynamics of pollination systems; Bombus social behaviour, systematics, geographical and life-history variation, etc. AREA: Worldwide. IDENTIFICATIONS: Bombus and Psithyrus; willing to exchange. [systematics; behavior; sociobiology; pollination; morphology; physiology; genetics; immatures; nesting biology; collecting; Bombus]

Nelson Pomeroy, Lecturer in Zoology, Department of Botany & Zoology, Massey University, Palmerston North, NEW ZEALAND [063-69089]. INTERESTS: Bombus management; Bombus colony development." AREA: New Zealand. EXCHANGE: yes. [behavior; pollination; nesting biology; Bombus]

Darrell A. Posey, Coordinator, Laboratório de Etnobiologia, Dept. de Biologia, Universidade Federal do Maranhão, 65.000 Sao Luis, Maranhão, BRASIL [098-221-1354]. INTERESTS: "Knowledge of indigenous peoples about apoids." AREA: Brazilian Amazon. [ethnobiology; ethnoapiculture]

A. Pouvreau, Station de Recherches de Physiologie Sensorielle et Comportementale des Invertébrés, I.N.R.A. - C.N.R.S., 91440, Bures-sur-Yvette, FRANCE [69 07 54 75]. INTERESTS: "Chemosensory bases involved in social relationships and plant-insect relations of bumblebees; relationship between bumblebees and Aphomia sociella (a nest predator); distribution of Apoidea in France (cartography)." AREA: France. IDENTIFICATIONS: Bombinae of West-Europe (on limited basis); willing to exchange. [behavior; pollination; morphology; chemical ecology; physiology; nesting biology; collecting; Bombus]

Alexander A. Prusakov, Assistant, Department of Ecology, Simferopol State University, 333036 Simferopol, Yaltinsdaja st., U.S.S.R.. INTERESTS: "Morphology, systematics, nesting biology and collecting of Halictidae." AREA: European part of the USSR, but primary geographic area of interest is Crimea." [systematics; morphology; nesting biology; collecting; Halictidae]

Oliver E. Pryŷ-Jones, Bodhaulog, St. Asaph, Clwyd, NORTH WALES, LL17 OLY [0745-583686]. INTERESTS: "Factors influencing foraging behaviour; nectar and pollen characteristics and their relation to forager behaviour; bumblebee physiology, distribution and autecology; pollination biology; host-inequiline

relationships in Bombus/Psithyrus." AREA: "General, but especially Iceland, Great Britain and Eire and the rest of Western Europe." IDENTIFICATIONS: "Psithyrus and Bombus from Iceland, Great Britain and Eire only; exchange on a limited basis." [behavior; pollination; morphology; chemical ecology; physiology; nesting biology; collecting; Megachilidae; Anthophoridae; Bombus; Psithyrus; Apis]

Wasantha Punchihewa, Research Officer, Department of Agriculture, 31/5 C.W.E. Road, Homagama, SRI LANKA [057-2537]. INTERESTS: "Parasitic mites of Apis; pollination of crop plants and pollinator management; collection catalogue of Sri Lankas' apoid fauna." AREA: Sri Lanka, southeast Asia. [systematics; behavior; pollination; morphology; chemical ecology; nesting biology; collecting]

Graham H. Pyke, Scientific Officer, The Australian Museum, 6-8 College Street, Sydney, N.S.W. 2000, AUSTRALIA [Sydney 339 8111]. INTERESTS: "Coevolution between plants and their pollinators; foraging behaviour and ecology of bumble bees; effects of introduced honeybees on Australian native bees." AREA: U.S.A. and Australia. EXCHANGE: yes. [behavior; pollination; Bombus]

Ivica Radović, Assistant Professor of Entomology and Principles of Systematic Zoology, Institute of Zoology, University of Belgrade, 16, Studentski trg., 11000 Belgrade, YUGOSLAVIA [11-637-024/187-266]. INTERESTS: "Comparative and functional morphology; evolutionary relationships between sphecid wasps and bees." AREA: Worldwide, especially Yugoslavia, Palearctic. EXCHANGE: yes. [systematics; morphology; all bee families]

Victoria Raica-Iuga, Muzeul de Istorie Naturala, "Grigore Antipa", Sectia de Entomologie, Soseaua Kisselef nr. 1, Bucarest 79744, R.S. ROMANIA [504710]. INTERESTS: Morphology of the Hymenoptera. [morphology]

Edwin G. Rajotte, Extension Fruit Entomologist, 106 Patterson Building, University Park, Pennsylvania 16802, U.S.A. [814-863-4641]. INTERESTS: "Energetic relationships of bees on flowers." AREA: Northeastern U.S. [behavior; pollination; chemical ecology]

Mauro Ramalho, Post-Graduate Student, Instituto de Biociências da Universidade de São Paulo, Rua do Matão - Travessa 14 no 321, Caixa Postal 11.461, CEP 05508, BRASIL [(011) 210.21.22 / ramal 244]. AREA: Neotropics. [behavior; competition; pollination; morphology; chemical ecology; physiology; nesting biology; Meliponinae; Apis]

Pierre Rasmont, Assistant/Ph.D. Student, Zoologie Générale et Faunistique, Faculté des Sciences Agronomiques de l'Etat, B-5800 Gembloux, BELGIUM [32-81 61 29 58]. INTERESTS: "Zoogeography, systematics and pollination ecology of Bombinae of the world and Xylocopinae of west Palearctic; data bank on Apoidea from West-Palearctic region." AREA: "Palearctic region with particular interest (and experience) in "latine" Europa, Anatolian region and Siberian region." IDENTIFICATIONS: "I'm very interested in determining bumblebees and Carpenter bees from my Ph.D. Thesis's area [Belgium, France] and would retain only a few specimens. I would also like to see material from the Anatolian region and Afghanistan and Siberia; willing to exchange." [systematics; pollination; zoogeography; Euglossini; Bombus]

Beverly J. Rathcke, Associate Professor, Division of Biological Sciences, University of Michigan, Ann Arbor, Michigan 48109, U.S.A. [313-763-4679]. INTERESTS: "Community ecology and species interactions; plant-animal

interactions." AREA: northeastern U.S.A. EXCHANGE: yes. [behavior; pollination]

Peter H. Raven, Director, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, U.S.A. [314-577-5111]. AREA: Worldwide [systematics; pollination]

Anthony Raw, Associate Professor, Instituto de Biologia, Universidade Federal da Bahia, Ondina, Salvador, BA, BRASIL [071-247-3744]. AREA: Tropics, especially Neotropics. IDENTIFICATIONS: Neotropical Megachile; many Brazilian and Jamaican species; willing to exchange. [systematics; behavior; pollination; nesting biology; population ecology; conservation of keystone species; collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Bombus]

Susanne S. Renner, Postdoctoral Fellow, Department of Botany, NHB-W512, Smithsonian Institution, Washington, D.C. 20560, U.S.A. [202-357-1701]. INTERESTS: Pollination ecology. AREA: Neotropics. EXCHANGE: yes [behavior; pollination; Amazonian bee fauna; Colletidae; Andrenidae; Halictidae; Melittidae; Anthophoridae; Euglossini; Meliponinae; Bombus; Apis]

Francisco J. Reyes Ordaz, Research and Technical Adviser, National Beekeepers Union, Apartado Postal 95, Calle 3 Num. 10, Cordoba, Veracruz 94500, MEXICO [91 (271) 2-25-39]. INTERESTS: "Mating biology; diseases and pests; Africanized honey bee in the American tropics (Mexico and Gulf of Mexico area)." AREA: Southern states (Mexico); American tropics (Euglossini and Meliponini). EXCHANGE: yes. [behavior; chemical ecology; genetics; Euglossini; Meliponinae; Apis]

John W. Rhodes, Senior Apiculturist, Department of Primary Industries, Meiers Road, Indooroopilly, Queensland, AUSTRALIA 4068 [Brisbane (07) 3779360]. AREA: Queensland, Australia. EXCHANGE: yes. [behavior; pollination; genetics; Apis]

Márcia de F. Ribeiro, Post-Graduate Student, Depto. Ecologia Geral, Instituto de Biociências, Universidade de São Paulo, CEP. 05508, C.P. 11.461, BRASIL [(011) 210-2122 ramal 238]. INTERESTS: "My interests are mainly concerned with the behavior, nesting biology and ecology of Meliponinae." AREA: Tropics (mainly Brasil). [behavior; nesting biology; collecting; Meliponinae]

K. W. Richards, Research Scientist (Entomology), Agriculture Canada, Research Station, Lethbridge, Alberta, CANADA T1J 4B1 [403-327-4561]. INTERESTS: "Management of wild bees for the pollination of crops." AREA: western Canada. IDENTIFICATIONS: Bombus, some Megachile (only limited amounts); willing to exchange on limited basis. [systematics; behavior; pollination; morphology; chemical ecology; physiology; genetics; immatures; nesting biology; Megachilidae; Bombus]

Thomas E. Rinderer, Research Geneticist, Laboratory Director, Bee Breeding & Stock Center Lab., 1157 Ben Hur Road, Baton Rouge, Louisiana 70820, U.S.A. [504-776-6064/766-6129]. [behavior; chemical ecology; physiology; genetics; nesting biology; Apis]

Edward Roberts, Apicultural Advisory Officer, Batchelar Agriculture Centre, PO Box 1654, Palmerston North, NEW ZEALAND [Palmerston North 61 911]. INTERESTS: Apis management and pollination studies. AREA: New Zealand, the tropics. [behavior; pollination; chemical ecology; management; Apis]

Radclyffe B. Roberts, Associate Professor, Department of Entomology and Economic Zoology, Cook College, Rutgers University, New Brunswick, New Jersey 08903, U.S.A. [201-932-9459/609-921-1029]. INTERESTS: "Systematics of American Halictini (especially genera allied to Agapostemon); competition of foraging Apis and Bombus on Vaccinium corymbosum (high bush blueberry) and V. macrocarpon (cranberry)." AREA: Latin America (i.e., Meso- and South America). IDENTIFICATIONS: Agapostemon, Paragapostemon, Dinagapostemon, Rhinotula, Agapostemonoides, Pseudagapostemon (write and ask first); willing to exchange. [systematics; behavior; pollination; immatures; nesting biology; collecting; Halictidae]

Norman W. Rodd, "Joalah" Skyline Road, Mt. Tomah via Bilpin, N.S.W. 2758, AUSTRALIA [045-672162]. AREA: "Australia generally with particular interest in eastern portion of the continent." [systematics; behavior; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Euglossini]

Jeroen de Rond, Illustrator & Art Teacher, Kamp 20-05, 8225 DT LELYSTAD, THE NETHERLANDS [03200-48649]. INTERESTS: "In relation to my profession I'm particularly interested in the perceptive psychology of keys; many keys can be simplified by adequate use of illustrations and elimination of text." AREA: "Flevoland: the youngest Polders in the Netherlands." [systematics; morphology; Andrenidae; Anthophoridae (Nomada)]

Peter-Frank Röseler, Professor of Physiology, Zoologisches Institut (II), Röntgenring 10, D-8700 Würzburg, WEST GERMANY [0931/31697]. INTERESTS: Physiology; behaviour. [behavior; pollination; chemical ecology; physiology; immatures; nesting biology; collecting; all bee families]

David W. Roubik, Staff Scientist, Smithsonian Tropical Research Institute, APO Miami 34002, U.S.A. [252-2490/252-5539]. INTERESTS: "Evolutionary and ecological topics; tropical bees; palynology; emphasis on field studies." AREA: Tropics. IDENTIFICATIONS: Meliponines, euglossines, general to genus of tropical material; willing to exchange. [systematics; behavior; pollination; morphology; chemical ecology; physiology; genetics; immatures; nesting biology; collecting; Anthophoridae; Euglossini; Meliponinae; Apis]

Jerome G. Rozen, Jr., Curator and Deputy Director for Research, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024, U.S.A. [212-799-9565]. AREA: Worldwide. EXCHANGE: yes. [systematics; behavior; pollination; morphology; immatures; nesting biology; collecting; all bee families except Apis]

Richard W. Rust, Associate Professor, Department of Biology, University of Nevada, Reno, Nevada 89557, U.S.A. [702-784-6188/784-6770]. INTERESTS: "I am interested in bee pollen foraging behavior and my research is directed towards the question of pollen availability and pollen use by both polylectic and oligolectic species. I am also interested in trap nesting species of bees and have attempted manipulative experiments with populations of Osmia lignaria and O. ribifloris. I also continue to study bee biologies whenever new nesting sites and populations are found. I have recently begun a new project in collaboration with Dr. Gary Blomquist, lipid biochemist at the University of Nevada, Reno, on the similarities and differences in the cuticular wax and nest cell wax of Nomia species." AREA: North America and Old World Osmia. IDENTIFICATIONS: "Osmia from anywhere and Megachilidae from the New World (will exchange)." [systematics; behavior; pollination; nesting biology; collecting; Colletidae; Andrenidae; Halictidae; Megachilidae; Anthophoridae; Bombus]

Luisa Ruz, Professor, Laboratorio de Zoología, Universidad Católica de Valparaíso, Av. Brasil 2950, Valparaíso, CHILE [001-56-31-251024]. INTERESTS: "I am primarily interested in systematics, but also in such topics as comparative external and internal morphology, relationships between bees and plants (pollination) and oil-collecting bees. In the future I would like to do some research on nesting biology and immatures to complement my systematic studies." AREA: Neotropics, especially Chile. IDENTIFICATIONS: Panurginae (Andrenidae); will retain 20-25%; willing to exchange. [systematics; behavior; pollination; morphology; immatures; nesting biology; collecting; Andrenidae (Panurginae)]

Shoichi F. Sakagami, Zoological Section, Chief, Institute of Low Temperature Science, Hokkaido University, Sapporo, 060 JAPAN [011-716-2111 ext. 5496]. INTERESTS: "Combination of sociality and phylogeny." AREA: Worldwide, especially eastern Asia, Indopacific, South America. IDENTIFICATIONS: "Indopacific stingless bees, particularly those inhabiting islands in Wallacea (Celebes, Moluccas, Lesser Sunda Is.); willing to exchange." [systematics; behavior; morphology; nesting biology; collecting; Halictidae; Anthophoridae (Xylocopinae); Apidae]

Siti Salmah, Lecturer, Department of Biology, Faculty of Science, Andalas University, Air Tawar, Padang, Sumbar, INDONESIA [22756]. INTERESTS: "Socio-ecology and behavior of bees and stingless bees." AREA: Tropical areas. EXCHANGE: yes. [systematics; behavior; pollination; morphology; immatures; nesting biology; collecting; Meliponinae; Apis]

Marlies Sazima, Assistant Professor, Departamento de Botânica, Instituto de Biologia, Caixa Postal 6109, Universidade Estadual de Campinas, 13.100 Campinas, São Paulo, BRASIL. AREA: Southeastern Brasil. [pollination; Megachilidae; Anthophoridae; Euglossini; Meliponinae; Bombus]

Douglas W. Schemske, Associate Professor, Department of Biology, The University of Chicago, Chicago, Illinois 60637, U.S.A. [312-962-3417]. AREA: southwest U.S.A., neotropics. EXCHANGE: yes. [pollination; genetics; Andrenidae; Euglossini; Bombus]

Justin O. Schmidt, Research Associate, Department of Entomology, University of Arizona, Tucson, Arizona 85721, U.S.A. [602-629-6138]. INTERESTS: "Comparative aculeate toxinology; chemical and behavioral evolution of aculeates; defensive behavior." AREA: Worldwide. EXCHANGE: yes. [behavior; chemical ecology; physiology; collecting]

Konrad Schmidt, Professor, D-7500 Karlsruhe, Zoologisches Institut der Universität, Kornblumenstr. 13 Postfach 6380, WEST GERMANY [721-608-2218]. AREA: Central Europe. [pollination; collecting; all bee families except Apidae]

Adolf Scholl, Professor of Zoology, Institute of Zoology, University of Berne/Switzerland, Baltzerstr. 3, CH - 3012 Berne, SWITZERLAND [Berne 65 45 11]. AREA: Mainly Europe. IDENTIFICATIONS: European Bombus s.l., (small collections); willing to exchange. [systematics; Bombus]

Klaus Schönitzer, Akademischer Rat a.Z., Zoologisches Institut der Universität München, Luisenstr. 14, D-8000 München 2, WEST GERMANY [089/59021]. INTERESTS: "Systematics: mainly concerning Apoidea as a whole; nesting biology of Andrena spp." AREA: Predominantly Europe. [systematics; behavior; morphology; histology; ultrastructure; nesting biology; Andrenidae]

Karl-Heinz Schwamberger, Angestellter, Ruhr-Universität Bochum, Lehrstuhl für Spezielle Zoologie und Parasitologie, Postfach 102148, D-4630 Bochum 1, WEST GERMANY [0234/7004501]. AREA: Palaearctic. IDENTIFICATIONS: Palaearctic Panurginae; willing to exchange. [systematics; behavior; pollination; nesting biology; collecting; Andrenidae (Panurginae); Halictidae (Dufoureae)]

Maximilian Schwarz, Eibenweg 6, A-4052 Ansfelden, Freindorf, AUSTRIA [0732/427164]. INTERESTS: "Taxonomy of Apoidea, especially parasitic bees." AREA: Palaarktis. IDENTIFICATIONS: "Western Palaearctic bees (only parasitic bees); willing to exchange." [systematics; morphology; collecting; all bee families]

Michael Schwarz, Graduate Student, Department of Zoology, Monash University, Clayton, Victoria 3168, AUSTRALIA [541 2662]. INTERESTS: "Social organization in allodapines; population genetic theories of social evolution; male macrocephaly in halictines." AREA: Australia. EXCHANGE: "yes; I do little collecting; all recipients of Australian insect specimens must by Custom's Law sign statements that any type material is deposited in Australian museums)." [systematics; behavior; social evolution; genetics; nesting biology; Halictidae; Anthophoridae]

Xenia Scobiola-Palade, Scientific Consultant of Museum, Muzeul de Istorie Naturală "Grigore Antipa", 71.268 Bucuresti, ROMANIA [90.66.51.95]. INTERESTS: "Systematics of the Halictidae of Rumania." [systematics; nesting biology; Halictidae]

Cynthia D. Scott, Assistant Professor, Department of Environmental Biology, University of Guelph, Guelph, Ontario, CANADA, N1G 2W1 [519-824-4120]. AREA: Okanagan Valley, B.C., fruit and vegetable growing areas of Ontario. EXCHANGE: yes. [behavior; pollination; nesting biology; collecting; Andrenidae; Halictidae; Megachilidae; Bombus; Apis]

Virginia L. Scott, Graduate Student, Department of Entomology, 243 Natural Science Building, Michigan State University, East Lansing, Michigan 48824, U.S.A. [517-353-7294]. INTERESTS: "I am becoming more and more interested in systematics, though I am also quite interested in nesting biologies and plant/bee relationships." AREA: primarily eastern North America. EXCHANGE: yes. [systematics; pollination; morphology; nesting biology; collecting; Colletidae; secondary interest in most other bee families]

Thomas D. Seeley, Associate Professor, Department of Biology, Yale University, New Haven, Connecticut 06511, U.S.A. [203-436-7607]. AREA: Asia, North America, Africa. [behavior; physiology; genetics; nesting biology; Apis]

Sandra S. Shanks, Department of Biology, University of San Francisco, San Francisco, California 94117, U.S.A. INTERESTS: "Systematics of parasitic Anthophoridae." AREA: Nearctic, Neotropical. IDENTIFICATIONS: Osiris; nearctic Nomadini excluding Nomada (no particular conditions). [systematics; pollination; nesting biology; collecting; Anthophoridae]

Walter S. Sheppard, Research Associate, Department of Entomology, University of Illinois, 505 S. Goodwin Ave., Urbana, Illinois 61801, U.S.A. [217-333-2929]. INTERESTS: "Evolution of Apis; racial variation in A. mellifera; genetics of colonization." AREA: Predominantly Old World. EXCHANGE: yes. [systematics; genetics; Apis]

Hachiro Shimanuki, USDA-ARS, Beneficial Insects Laboratory, Bldg. 476, BARC-East, Beltsville, Maryland 20750, U.S.A. [301-344-2205]. AREA:

Worldwide. [behavior; population dynamics; pollination; chemical ecology; physiology; diseases; genetics; Apis]

Alvin F. Shinn, Professor of Biology, Department of Biology, William Paterson College, 300 Pompton Road, Wayne, New Jersey 07470, U.S.A. [201-595-2487/595-2245]. AREA: The Americas. IDENTIFICATIONS: Calliopsis; willing to exchange." [systematics; behavior; pollination; morphology; nesting biology; collecting; Andrenidae]

R.C. Sihag, Assistant Scientist, Laboratory of Animal Behavior and Simulated Ecology, Department of Zoology, Haryana Agricultural University, Hissar - 125004, INDIA [230 Ext. 3720-3729]. INTERESTS: "Study of nesting and foraging behavior of solitary bees, the standardization of their nesting structures and study of their life cycles for their efficient management, study of their parasites, predators, nest destroyers and pathogens, study of the reproductive ecology of these bees to augment their populations; study of the nesting behaviour and migratory pattern of Apis dorsata, characterization of environmental factors affecting migration of this species, domestication of Apis dorsata and its utilization for honey production and pollination; colony growth pattern of Apis mellifera in subtropical Hissar; pests and predators of honey bees." AREA: Subtropical/tropical climates of semi-arid/arid environments." EXCHANGE: yes. [behavior; pollination; chemical ecology; physiology; nesting biology; Andrenidae; Megachilidae; Anthophoridae (Xylocopinae); Apis]

Ilse Silberbauer-Gottsberger, Scientific Collaborator, Botanisches Institut I der Justus-Liebig-Universität, Senckenbergstrasse 17-21, D-6300 Giessen, WEST GERMANY [0641/7028465]. AREA: Neotropics, especially Brasil. [behavior; pollination]

Brian H. Smith, Research Assistant, Entomological Museum, Snow Hall (c/o Dr. Charles D. Michener, University of Kansas, Lawrence, Kansas 66045, U.S.A.). AREA: Europe, North, Central and South America. EXCHANGE: yes. [behavior; pollination; chemical ecology; genetics; nesting biology; Colletidae; Halictidae; Anthophoridae; Euglossini; Meliponinae; Apis]

Deborah R. Smith, Post-Doc, Michigan Society of Fellows, Museum of Zoology, Insect Division, University of Michigan, Ann Arbor, Michigan 48109, U.S.A. [313-763-0310]. INTERESTS: "Variation in mitochondrial DNA restriction site patterns among races and species of Apis; use of same in systematics and population biology." EXCHANGE: yes, of frozen material. [behavior; genetics; mitochondrial DNA; Apis]

Roy R. Snelling, Curatorial Assistant, Los Angeles County Museum of Natural History, 900 Exposition Boulevard, Los Angeles, California 90007, U.S.A. [213-744-3365]. AREA: Primarily New World, but am interested in hylaeine Colletidae, Melittidae, and nomadine Anthophoridae of all regions." IDENTIFICATIONS: "Colletidae: Hylaeinae (New World & Ethiopian regions; Colletinae (North & Central America only). Melittidae: New World only. Anthophoridae: Nomadini (New World only); Centridini. Only by prior arrangement; interested in permanently housing voucher material for pollination ecology studies; willing to exchange." [systematics; behavior; pollination; nesting biology; collecting; Colletidae; Melittidae; Megachilidae; Anthophoridae]

Edward E. Southwick, Professor, SUNY - Biology, Brockport, New York 14420, U.S.A. [716-395-2193]. INTERESTS: "Exploitation of the colonial honey bee system in studies of cold temperature physiology, heat transfer, energy

balance and metabolism. AREA: North Temperate. [behavior; pollination; physiology; cold temperature; Apis]

Lionel A. Stange, Biological Scientist IV, Florida Department of Agriculture, Division of Plant Industry, Doyle Conner Building, P.O. Box 1269, Gainesville, Florida 32601, U.S.A. [904-372-3505 ext. 126]. INTERESTS: "Taxonomy of Anthidiini (Megachilidae); Africanized Honey Bee Task Force (State of Florida)." AREA: World. IDENTIFICATIONS: "New World Anthidiini (will keep part of series); willing to exchange." [systematics; Megachilidae; Apis]

Christopher K. Starr, Associate Professor, Biology Department, De la Salle University, P.O. Box 3819, Manila, PHILIPPINES. INTERESTS: "Social insects and their sociality; solitary aculeates; central interest is evolution of insect social organization." AREA: mainly tropical. [behavior; nesting biology; social bees; Halictidae; Meliponinae; Bombus; Apis]

Josefina Steiner, Graduate Student, Stauffenbergstr 11, D-7400 Tübingen, WEST GERMANY [27674]. AREA: Brasil and West Germany. [Apis; mites; Varroa jacobsoni]

Kim E. Steiner, Professional Research Officer, National Botanic Gardens, Kirstenbosch, Private Bag X7, Claremont 7735, SOUTH AFRICA [021-771166 ext. 59]. INTERESTS: "Pollination by oil-collecting bees." AREA: South Africa, Central and South America. [pollination; Melittidae; Anthophoridae; Euglossini]

Erwin Steinmann, Biology Teacher, Schonbergstrasse 11, CH-7000 CHUR, SWITZERLAND [Switzerland 081 27 29 63]. INTERESTS: "Short-range orientation; color vision of solitary bees." AREA: Switzerland (Graubunden, Wallia), Nord Italien (Vinschgau, Aostatal). EXCHANGE: yes. [behavior; nesting biology; Megachilidae; Anthophoridae]

Aleksandar M. Stevanović, Research Scientist, Lecturer, Faculty of Natural Sciences and Mathematics, Institute of Zoology, Studentski Trg 16, POB 550, 11001 Beograd, YUGOSLAVIA [(011) 637-024]. INTERESTS: "Taxonomic-biogeographic research; application of ethological parameters in systematics." AREA: Yugoslavia, Balkan Peninsula, Europe. IDENTIFICATIONS: Bumblebees from the Balkan Peninsula; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; collecting; Anthophoridae; Bombus; Psithyrus; Apis]

Evan A. Sugden, Visting Research Associate [through June 1986], Department of Vertebrate Ecology, The Australian Museum, 6-8 College Street, Sydney 2000 NSW, AUSTRALIA [(02) 339-8395]. INTERESTS: "Competitive interactions between bee species, especially honey bees vs. others; alternative pollinator species for commercial development; bee diversity and biology in rare, endangered, or disturbed habitats and the urban environment." AREA: Western North America; the Middle East (especially the Eastern Arabian Peninsula); Australia. [behavior; pollination; immatures; nesting biology; collecting; Colletidae; Megachilidae; Anthophoridae; Apis]

Janet R. Sullivan, Adjunct Assistant Professor, Department of Botany and Plant Pathology, University of New Hampshire, Durham, New Hampshire 03824, U.S.A. [603-862-2060]. INTERESTS: "I am a plant systematist interested in pollination biology in general, and its relation to speciation and evolution (particularly of the genus Physalis and related genera in the Solanaceae)." AREA: U.S. and Mexico. EXCHANGE: "willing to exchange specimens for id when available." [pollination; Colletidae; Andrenidae; Halictidae]

Bo G. Svensson, Department of Entomology, Box 561, Uppsala University, S-751 22 Uppsala, SWEDEN. AREA: northern Europe, east Africa. IDENTIFICATIONS: bumble bees; willing to exchange. [systematics; behavior; reproductive behavior; pollination; morphology; chemical ecology; nesting biology; collecting; trap-nesting; Colletidae; Halictidae; Megachilidae; Anthophoridae; Bombus]

Osamu Tadauchi, Assistant Professor, Entomological Laboratory, Faculty of Agriculture, Kyushu University, 46-01, Fukuoka 812, JAPAN [092-641-1101 ext. 6170]. INTERESTS: "Numerical taxonomy; multivariate morphometrics." AREA: Japan and East Asia. EXCHANGE: yes. [systematics; pollination; morphology; Andrenidae; Halictidae]

L. Tanács, Szeged Tarjánszele 4/b, 6723 HUNGARY III.11 [Szeged, 11-944]. INTERESTS: Apoid ecology. AREA: Palearctic and Karpát-basin. [systematics; pollination; Andrenidae]

J.N. Tasei, Laboratoire de Zoologie INRA, 86600 Lusignan, FRANCE [49-43-95-11]. INTERESTS: "Affect of pyrethroids on solitary bees (Megachile rotundata)." AREA: France. [behavior; pollination; genetics; Megachilidae; affects of pesticides]

Jan Tengö, Associate Professor, Ecological Research Station of Uppsala University, S-386 00 Farjestaden, SWEDEN [+46-48538158]. AREA: Sweden, northern Europe. EXCHANGE: yes. [systematics; behavior; pollination; chemical ecology; nesting biology; kleptoparasitism; all bee families except Apidae]

Vincent J. Tepedino, Research Entomologist, USDA-ARS, Bee Biology & Systematics Lab., Utah State University, UMC 53, Logan, Utah 84322, U.S.A. [801-750-2559]. INTERESTS: "Interested in using Apoidea to test current ecological and evolutionary theory." AREA: North America. [behavior; pollination; nesting biology; Megachilidae; Anthophoridae; Euglossini; Meliponinae]

Ilkka Teräs, Assistant, Department of Zoology, Division of Morphology and Ecology, University of Helsinki, P. Rautatiekatu 13, SF-00100 Helsinki, FINLAND [90-4027246]. AREA: Fennoscandia. EXCHANGE: yes. [behavior; pollination; Bombus]

H.G.M. Teunissen, cooperater from Rijksmuseum Nat. Hist., Leiden, Kruisstraat 53, 5341 HB Kruisstraat 53 OSS, THE NETHERLANDS [04120 34277]. AREA: Europe, Asia (Japan), N. Africa, Canaries. IDENTIFICATIONS: Andrena from Palaearctic region only after somebody has seriously attempted their own identification; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; collecting; all bee families except Euglossini, Meliponinae]

Hans-Ulrich Thomas, Zeppelinstr 31, CH-8057 Zurich, SWITZERLAND [01-3625761]. INTERESTS: "Distribution, pollination ecology of Bombus and Apis species; bee keeping." AREA: Europe, especially Switzerland. EXCHANGE: yes. [systematics; behavior; pollination; morphology; physiology; nesting biology; collecting; Bombus; Apis]

James D. Thomson, Associate Professor, Department of Ecology and Evolution, State University of New York, Stony Brook, New York 11794, U.S.A. [516-246-7690]. INTERESTS: "Consequences of bee foraging for plant evolution, including pollen pickup, carryover, and deposition; traplining." AREA: Boreal and montane North America. EXCHANGE: yes. [behavior; pollination; Bombus]

Robbin W. Thorp, Professor, Department of Entomology, University of California, Davis, California 95616, U.S.A. [916-752-0482]. INTERESTS: "Pollination biology; systematics, ecology and behavior of bees (Apoidea)." AREA: California; USA; North America; Australia. IDENTIFICATIONS: "American Bombini (Apidae); Trachusa (Megachilidae); Andrena subgenera: Diandrena, Hesperandrena, Onagrandrena; Diadasia (Anthophoridae); any North American bees to genus for pollination studies (retention of some specimens - flexible); willing to exchange, especially Bombini." [systematics; behavior; pollination; nesting biology; collecting; Colletidae; Stenotritidae; Andrenidae; Megachilidae; Anthophoridae; Bombus; Apis]

Philip F. Torchio, Research Entomologist, USDA Bee Biology and Systematics Lab., Utah State University, UMC 53, Logan, Utah 84322, U.S.A. [801-750-2520]. AREA: International. EXCHANGE: yes. [systematics; behavior; pollination; morphology; immatures; nesting biology]

Haroldo G. Toro, Departamento de Zoologia, Universidad Catolica de Valparaiso, Casilla 4059, Valparaiso, CHILE [251024 ext. 3343]. AREA: Chile. [systematics; behavior; pollination; morphology; all bee families except Apidae]

Gordon Townsend, Professor Emeritus (University of Guelph), Arkell P.O., Ontario, CANADA NOB 1C0 [519-822-3519]. INTERESTS: "Integrated rural development using honeybees and honeytrees as a base in dry zone areas." AREA: Asia, Africa, Central and South America. EXCHANGE: yes. [behavior; pollination; chemical ecology; collecting; Apidae]

Robert D. Tuckerman, Graduate Student, Ramsay Wright Zoology Labs, University of Toronto, 25 Harbord Street, Toronto, Ontario, CANADA, M5S 1A1 [416-884-7703]. INTERESTS: "Origins of eusociality, especially primitively social bees and wasps; biological illustration." AREA: "Currently local, but am keenly interested in studying Halictus (Seladonia) confusus in other more southerly portions of its range and also other New World members of the genus." [systematics; behavior; pollination; nesting biology; collecting; Halictidae]

Bernard E. Vaissiere, Research Assistant, Department of Entomology, Texas A & M University, College Station, Texas 77843, U.S.A. [409-845-9765]. INTERESTS: "Pollination of cotton for hybrid seed production; pollen collection; mating behavior." AREA: "Americas, mainly North so far, and Europe." EXCHANGE: yes. [behavior; pollination; nesting biology; collecting; Anthophoridae; Bombus; Apis]

John D. Vandenberg, Research Entomologist, USDA-ARS, Bioenvironmental Bee Laboratory, BARC-East, Bldg 476, Beltsville, Maryland 20705, U.S.A. [301-344-3975]. INTERESTS: "Diseases of bees, especially larvae; control of pests and diseases of beneficial insects; safety of microbial pesticides for bees; behavior of honey bees." AREA: North America and diseases of bees worldwide. [behavior; physiology; pathology; rearing; immatures]

G. van der Zanden, Honorary Staff Member, Leiden Museum, Jongkindstraat 2, 5645 JV Eindhoven, THE NETHERLANDS [040-111359]. AREA: Palearctis. IDENTIFICATIONS: Osmia (s.l.), Megachile, Chalicodoma, Lithurgus, Chelostoma/Heriades (s.l.), Anthidium. Conditions: Choice of description and of eventual samples; willing to exchange." [systematics; Megachilidae]

A. van Doorn, Scientific Assistant, Zoologisches Institut (II), Röntgenring 10, D-8700 Würzburg, WEST GERMANY. INTERESTS: bumblebee biology

and behavior. [behavior; chemical ecology; physiology; nesting biology; Bombus]

O. Van Laere, Director, State Research Station for Nematology and Entomology, Van Gansberghelaan 96, B-9220 Merelbeke, BELGIUM [91-52.20.85]. AREA: Belgium, Europe, Central Africa. [behavior; pollination; morphology; chemical ecology; physiology; pathology; genetics; collecting; Megachilidae; Bombus; Apis]

Hayo H.W. Velthuis, Associate Professor, Laboratorium voor Vergelijkende Fysiologie, University of Utrecht, Jan van Galenstraat 40, 3572 LA Utrecht, THE NETHERLANDS [0-30-733408]. [behavior; pollination; chemical ecology; physiology; nesting biology; Anthophoridae; Apidae]

Jose D. Villa, Bee Breeding, Genetics & Physiology Research Laboratory, 1157 Ben Hur Rd., Baton Rouge, Louisiana 70820, U.S.A. [504-766-6064]. INTERESTS: Biology of Apis. AREA: South and Central America, especially higher elevations. EXCHANGE: yes. [behavior; physiology; nesting biology; Meliponinae; Apis]

S. Bradleigh Vinson, Professor of Entomology, Department of Entomology, Texas A & M University, College Station, Texas 77843, U.S.A. [409-845-9754]. INTERESTS: "Chemical ecology of xylocopids, Centris (Anthophoridae) and Megachilidae; nesting; male territoriality; pollination." AREA: Costa Rica, southeastern U.S. EXCHANGE: yes. [behavior; pollination; morphology; chemical ecology; physiology; nesting biology; Megachilidae; Anthophoridae]

Paul Stefan Vogel, Professor of Botany, Institut für Spezielle Botanik und Botanischer Garten, Johannes Gutenberg-Universität, D-65 Mainz, Postfach 3980, WEST GERMANY [06131/39 2533 and 57 3778]. INTERESTS: "Pollination; bee flowers." AREA: Worldwide. [systematics; behavior; pollination; morphology; chemical ecology; nesting biology; collecting; Andrenidae; Melittidae; Megachilidae; Anthophoridae; Euglossini; Bombus]

Gunther Vorwohl, Head, Universität Hohenheim, Landesanstalt für Bienenkunde (730), August-von-Hartmann-Strasse 13, Postfach 700562, D-7000 Stuttgart 70, WEST GERMANY [Stuttgart 4501-2661]. INTERESTS: "Microscopic examination of honey." AREA: Worldwide. IDENTIFICATIONS: Pollen grains if requested. [pollination; collecting; bee products; Apis]

Keith D. Waddington, Associate Professor, Department of Biology, University of Miami, Coral Gables, Florida 33124, U.S.A. [305-284-6301]. INTERESTS: "foraging; communication; learning; perception; information processing, orientation." AREA: "The lab!, tropics, alpine." [behavior; pollination; physiology; Meliponinae; Bombus; Apis]

Ken Walker, Assistant Curator, Museum of Victoria, 71 Victoria Crescent, Abbotsford, Victoria 3067, AUSTRALIA [(03) 4195200]. INTERESTS: "Systematics of the Australian Halictidae fauna; taxonomy of Australian Euryglossinae (Colletidae). AREA: Australia, New Guinea. IDENTIFICATIONS: Halictinae from Australia with condition that a small representative collection will be retained; willing to exchange." [systematics; morphology; Collectidae; Halictidae]

Nickolas M. Waser, Associate Professor, Department of Biology, University of California, Riverside, California 92521, U.S.A. [714-787-3495]. INTERESTS: "Population and community ecology, especially of pollination systems; ecological genetics." AREA: North American deserts (Sonoran, Mojave) and Colorado Rockies. [behavior; pollination; Bombus]

William T. Wcislo, Graduate Student, Entomological Museum, Snow Hall, University of Kansas, Lawrence, Kansas 66045, U.S.A. [913-864-4160]. AREA: temperate and tropical comparisons. [systematics; behavior; pollination; morphology; chemical ecology; physiology; genetics; immatures; nesting biology; all bee families]

Nevin Weaver, Professor of Biology, Department of Biology, University of Massachusetts/Boston, Boston, Massachusetts 02125, U.S.A. [617-929-8400]. INTERESTS: "Interactions between queen and worker honeybees. Interactions of stingless bees with other colonies and other species of social insects. Pheromones; allomones." AREA: Latin North America; USA. EXCHANGE: "willing to collect specimens." [behavior; chemical ecology; physiology; immatures; nesting biology; Meliponinae; Apis]

Mary Jane West-Eberhard, Escuela de Biología, Universidad de Costa Rica, Ciudad Universitaria, COSTA RICA [28-0001]. INTERESTS: "Evolution of sociality." AREA: Worldwide. [behavior; nesting biology; Halictidae; Apidae]

Christian Westerkamp, Inst. Spezielle Botanik, Johannes Gutenberg-Universität, Saarstr. 21 (FB 2120), D-6500 Mainz, WEST GERMANY [(06131) 39-3111]. AREA: mainly temperate. [behavior; pollination; foraging behavior; morphology]

Paul Westrich, Eduard-Spranger-Strasse 41, D-7400 Tübingen 1, WEST GERMANY [07071-65579]. AREA: Europe, particularly Palearctic area. IDENTIFICATIONS: "Apoidea (in general) from Middle Europe; Anthophora (sensu lato) from Europe; willing to exchange." [systematics; pollination; nesting biology; collecting; all bee families except Apidae]

Vincent B. Whitehead, Head, Entomology Department, South African Museum, P.O. Box 61, Cape Town 8000, SOUTH AFRICA (021 243330). INTERESTS: "Taxonomy, biology, flower relationships and distribution of selected groups (Fideliidae, Melittidae); taxonomy and flower relationships of the oil-collecting Melittidae being undertaken at present." AREA: southern Africa. IDENTIFICATIONS: "Fideliidae, Melittidae of southern Africa on condition where sufficient material is available, a donation of some of the material be made to the SA Museum collection; willing to exchange on a limited basis." [systematics; pollination; nesting biology; Melittidae; Fideliidae]

Wm. Mark Whitten, Postdoctoral Research Associate, 208 Florida State Museum, Gainesville, Florida 32611, U.S.A. [904-392-1721]. INTERESTS: "Chemical ecology of Euglossini; orchid pollination." AREA: Neotropics. EXCHANGE: yes. [systematics; behavior; pollination; chemical ecology; Euglossini]

H. Wiering, Director, Botanical Garden of the University of Amsterdam, Doorntjes 29, 1861 VH Bergen (NH), THE NETHERLANDS [02208-13422]. INTERESTS: "Systematics of West Palaearctic bees." AREA: West Palaearctic. EXCHANGE: in limited numbers. [systematics; morphology; all bee families]

Zdzisław Wilkaniec, Akademia Rolnicza w Poznaniu, Department of Useful Insects Breeding, Academy of Agriculture in Poznań ul. Wojska Polskiego 71 c, 60-625 Poznań, POLAND [224-901]. INTERESTS: Pollination ecology (especially orchards, papilionaceous plants) and pesticide toxicity. AREA: Europa, Asia, United States, Canada. [behavior; pollination; chemical ecology; nesting biology; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Bombus; Apis]

Alvaro Wille, Professor, Director of Entomological Museum, Museo de Entomología, Facultad de Agronomía, Universidad de Costa Rica, Ciudad Universitaria Rodrigo Facio, COSTA RICA. INTERESTS: "I am now working on the ecology of the rain forests of Costa Rica." AREA: Neotropics. IDENTIFICATIONS: Mainly Neotropical Meliponinae; willing to exchange. [systematics; behavior; pollination; morphology; nesting biology; Halictidae; Anthophoridae; Meliponinae; Bombus]

Kristina R. Williams, Graduate Student, EPO Biology, University of Colorado, Boulder, Colorado 80309-0334, U.S.A. [303-492-7687]. AREA: Rocky Mountains, possibly Costa Rica. EXCHANGE: yes. [behavior; genetics; kin selection and recognition cues; Bombus; Apis]

Norris H. Williams, Curator and Chairman, Department of Natural Sciences, Florida State Museum, University of Florida, Gainesville, Florida 32611, U.S.A. [904-392-1721]. INTERESTS: "Collection and utilization of orchid floral fragrances by male euglossine bees; pollination mechanisms in the Orchidaceae related to male euglossine bees; taxonomy and phylogeny of the Euglossini; role of euglossine bees in the pollination of various families of angiosperms." AREA: Neotropics. IDENTIFICATIONS: Euglossini (I would like to keep some specimens for vouchers and reference); willing to exchange." [systematics; behavior; pollination; morphology; chemical ecology; fragrance collecting; Orchids; physiology; nesting biology; collecting; Euglossini; Bombus]

Paul H. Williams, NERC Postdoctoral Research Fellow, Department of Entomology, British Museum (Natural History), Cromwell Road, London SW7 5BD, UNITED KINGDOM [01 589 6323 ext. 326]. INTERESTS: "Evolution and taxonomy with particular regard to bumble bees; patterns in distributions." AREA: currently the himalayan region. IDENTIFICATIONS: "I am willing to identify small samples of bumble bees or larger samples if from Asia, but would prefer to retain a few duplicates if possible." EXCHANGE: "I would like to exchange specimens to obtain material from Asia or South America (not Fervidobombus)."

[systematics; evolution; distribution; Euglossini; Bombus]

Mark L. Winston, Associate Professor, Department of Biological Sciences, Simon Fraser University, Burnaby British Columbia, CANADA V5A 1S6 [604-291-4459/291-44750]. INTERESTS: Biology of highly social bees; crop pollination and pollinator abundance and behaviour. AREA: "Anywhere the bees fly and the honey flows - mostly North, Central and South America." EXCHANGE: yes. [behavior; pollination; chemical ecology; physiology; nesting biology; Apis]

Jerzy Woyke, Head, Bee Culture Division of Agricultural University, Akademia Rolnicza - SGGW, Zaklad Pszczelnictwa, 02-766 Warszawa, Nowoursynowska 166, POLAND [Warsaw 43-90-41 ext. 1661]. INTERESTS: "Reproduction, genetics and sex determination in Apis; parasitic bee mite Tropilaelaps clareae." AREA: Temperate and tropical areas. EXCHANGE: yes. [behavior; morphology; physiology; genetics; immatures; Apis]

Douglas A. Yanega, Graduate Student, Department of Entomology, Snow Hall, University of Kansas, Lawrence, Kansas 66045, U.S.A. [913-749-2032]. INTERESTS: "Primary interest in the natural history and behavior of Halictidae, secondary interests in pollination biology and bee parasites (esp. Mutillidae)." AREA: Palaearctic, Neotropical. EXCHANGE: yes. [behavior; pollination; morphology; chemical ecology; genetics; immatures; nesting biology; bee parasites; collecting; Halictidae; Euglossini; Meliponinae]

Wu Yan-ru, Associate Professor, Institute of Zoology, Academia Sinica, 7 Zhongguancun Lu, Haidian, Beijing, CHINA [28-2284]. INTERESTS: "The relationship between pollinators and flowering plants." AREA: Northern Hemisphere: Europe, Asia and North America. IDENTIFICATIONS: yes. EXCHANGE: yes. [systematics; behavior; pollination; morphology; nesting biology; collecting; Andrenidae; Halictidae; Melittidae; Megachilidae; Anthophoridae; Apis]

Seiki Yamane, Research Associate, Department of Biology, Faculty of Science, Kagoshima University, Kagoshima, 890 JAPAN [0992-54-7141 ext. 4372]. INTERESTS: "Biogeography and geographical variation." AREA: eastern Asia. [systematics; behavior; nesting biology; Anthophoridae (especially Xylocopa)]

Hoi-Sen Yong, Associate Professor, Department of Genetics and Cellular Biology, University of Malaya, 59100 Kuala Lumpur, MALAYSIA. INTERESTS: Systematics and biology of stingless bees. AREA: Malaysia and Southeast Asia. EXCHANGE: yes. [systematics; ecology; genetics; Meliponinae]

Thomas J. Zavortink, Associate Professor, Department of Biology, University of San Francisco, San Francisco, California 94117, U.S.A. [415-66-6268]. AREA: New World, Southwestern USA. EXCHANGE: yes. [systematics; pollination; collecting; Andrenidae; Anthophoridae]

Michael Zimmerman, Associate Professor, Department of Biology, Oberlin College, Oberlin, Ohio 44074, U.S.A. [216-775-8517]. INTERESTS: Foraging behavior of bees (especially Bombus); nectar production. AREA: Colorado Rocky Mountain region. [behavior; pollination; Bombus]

Ronaldo Zucchi, Director of the Faculty, Departamento de Biologia, Faculdade de Filosofia, Ciências e Letras (USP), Campus da USP, 14100 Ribeirão Preto (SP), BRASIL [016-634-14-23]. INTERESTS: "Behavioral evolution in stingless bees." [behavior; immatures; nesting biology; Colletidae; Halictidae; Anthophoridae; Euglossini; Meliponinae; Bombus]