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Edited by K. M. Urbanska

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INTERNATIONAL ORGANIZATION OF PLANT BIOSYSTEMATISTS

NEWSLETTER No. 2

CONTENTS

Dear IOPB Members,

Thanks to all persons who contributed to the second issue of our Newsletter. We have an interesting lead article by Dr. Philippe KÜPFER; some "floor space" is reserved for your comments and questions in the next issue of the Newsletter and your opinions are most welcome. Speaking of biosystematic indexes: please note the announcement on EDS, European Taxonomic, Floristic and Biosystematic Documentation System, (p. 20). Perhaps this system should be THE answer?

We have two "Profiles", numerous personal reports and quite a few requests for research material; may this useful flow of information continue. Colleagues from Africa and Mesoamerica, are you there? What research projects are being carried out e.g. in Austria and Scandinavia?

An appeal to all future contributors: please list your recent publications, not the papers in preparation. Also, be selective; perhaps you could put the most important publications at the top of the list?

You are invited to look carefully at the columns "Publishing News" and "Meetings": The proceedings of the IOPB Symposium in Montreal are published and a new IOPB Syposium is being organized for 1986. Prepare your mountain gear, it will be held in Switzerland.

Data for the next issue of the Newsletter should arrive in Zurich before November 31, 1984.

The Editor

2. LEAD ARTICLE

by Dr. Ph. KÜPFER, Professor at

INSTITUT DE BOTANIQUE DE L'UNIVERSITE, 22, rue Chantemerle,
CH-2000 Neuchâtel 7

Reflexions on cytotaxonomic indexes

The determination of chromosome numbers is no longer an aim in itself but has become an integral part of biosystematics, contributing along with other disciplines to a finer definition of taxa. Chromosome numbers are nowadays not only included in original diagnoses, but also in recent floras. What value have the current cytotaxonomic catalogues?

It should be said from the beginning that the precision of data varies considerably from one flora to another. The narrower the territory taken into consideration, the more controversial is the value of information taken from the bibliography. For instance, in "Flore d'Auvergne" (CHASSAGNE 1957), data on chromosome numbers are not related to the actual local conditions; it is highly probable that the chromosome numbers given e.g. for Pulmonaria affinis (2n=14) or Anthoxanthum alpinum (2n=10) will never be found in populations from the Massif Central.

A more critical point of view has been adopted in certain more recent publications which are not limited to regional considerations. Thus, e.g., in "Flora Europaea", only the chromosome numbers determined in European material, from a known natural source, have been taken into account. Unfortunately, the Index (MOORE 1982) appeared twenty years after the publication of the first volume of "Flora Europaea"; by this time, the Index was already largely insufficient for certain genera.

The authors of "Flora Iberica" (in preparation) use the model proposed by "Flora Europaea", but in a more precise way: complete caryological data are added to the description of each species, the chromosome numbers determined on Iberian material being marked with an asterisk. If each volume is completed by a bibliography section relating to Spanish flora, "Flora Iberica" will have both a concise edition and a wide range of information.

A particularly ample information is given in "Flora der Schweiz" (HESS, LANDOLT and HIRZEL 1967-1972). For each species complete caryological data and also the origin of the material studied are given. While the bibliography was only published in the last volume, it has been completed for all acquisitions subsequent to volume 1, by a well-documented supplement.

It goes without saying that such exhaustive information cannot be expected in all floras. However, cytological data should as far as possible correspond to the following criteria:

- only results obtained for material from a known natural source and concerning more than one individual should be presented;
- data on a given territory should be precised;
- only unambiguous results should be used;
- bibliography should be published at the end of each volume.

By respecting these requirements, a given flora would contribute to stimulating cytotaxonomic research and direct it towards the least prospected and most interesting complexes within a particular area.

Despite an increased interest in taxonomy, data on chromosome numbers remain rather incomplete when a particular territory is envisaged. This has been understood by many authors, and has led to complete the flora compilations by original results. Regional catalogues published with this aim reflect three different approaches:

1. In a given territory, the authors undertake the cytological study of all the species collected, the serial titles indicating a wide systematic range. Examples: "Chromosome numbers in some plant species from the North East of the USSR" (ZHUKOVA 1966), "Studies in Chromosome Numbers of Polish Angiosperms" (SKALINSKA et al. 1950), "Chromosome Numbers of Flowering Plants from Central Alaska" (KNABEN 1968), "Index of Chromosome Numbers of Slovakian Flora" (MAJOVSKY et al. 1970) etc. Numerous series illustrate the intensity of cytotaxonomic research in Spain: "Cytotaxonomy of Spanish Plants" (LÖVE and KJELLQVIST 1972), "Numeros cromosomicos de algunas plantas espagnolas" (VALDES 1973), "Contribucion al estudio citotaxonomico de la flora de Baleares" (CARDONA 1973). The Italian cytotaxonomists publish "Numeri cromosomici per la flora italiana" (CARBARI and TORNADORE 1970). Last but not least, combined efforts of the Greek, Swedish and Danish schools have considerably increased knowledge of the Balkan area; see e.g. "Zytotaxonomische Beiträge zur Flora von Kreta" (PHITOS and KAMARI 1974). Many of these publications correspond, however, to a different approach to caryological catalogues. The results are grouped by family or by genus and often present the form of monographical studies (see e.g. "Studies in the Aegean Flora" by RUNEMARK 1961).

2. The catalogue is oriented towards a specific research area, e.g. phytogeography (KNABEN 1950, FAVARGER 1949). In some other studies, the selection of a material is governed by an ecological criterium (see e.g. the current research of URBANSKA and LANDOLT "Zytologische Untersuchungen an benachbarten Rasen auf Kalk-, Silikat- und Serpentingestein").

3. Another approach, represented by serials published in Portugal by FERNANDES and QUEIROS, consists in treating the flora by family. In addition to the advantage of facilitating bibliographical research, the systematic sampling of a family avoids an arbitrary choice of the material studied. Another merit of the Portuguese authors is to study several populations of the same species. If their efforts continue, Portugal will soon be a leading country in the field of cytotaxonomical prospection.

Our "Index des nombres chromosomiques des Spermatophytes de la Suisse", inaugurated with FAVARGER in 1982, was greatly inspired by the Portuguese example. It is also meant as a follow-up to "Flora der Schweiz" (HESS, LANDOLT and HIRZEL 1967-1972), and "Verbreitungsatlas der Farn- und Blütenpflanzen der Schweiz" (WELTEN and SUTTER 1982). We hope to discover new cases of intraspecific variability which will add to the list of dysploid and polyploid complexes already known in Switzerland. For this purpose, it was necessary to extend our investigations to various phytogeographical regions of Switzerland viz. Jura, Plateau, Pre-alps, interalpine

valleys, Alps, Insubrie. The initial, rather fragmentary, sampling will be completed for each taxon presenting a cytological variability. Eventually we hope to produce distribution maps of various cytodemes and to establish some correlation between cytological differentiation and morphological and/or ecological variability.

Our first results are rather encouraging. For instance, Saxifraga androsacea proved to be represented in Switzerland by at least three cytodemes; Mercurialis perennis has shown a totally unexpected cytological variability. In the genus Poa, interesting conditions have been found in the apomictic complexes. It seems that some results will have phytogeographical or taxonomic repercussions extending beyond Swiss area.

In conclusion, we propose that chromosome numbers be presented by taxonomic unity, e.g. family or genus; also, they should be published in a possibly limited number of periodicals. The ideal solution would be to publish all the notes of a series in the same journal. The International Organization of Plant Biosystematists should perhaps promote an efficient management and establish a catalogue containing current additions and rectifying former errors. The project would imply, on the one hand, the participation of sufficiently experienced regional editors and, on the other hand, the formation of data bank available to all contributors. Is such a coordinated undertaking compatible with the supra-national character of our organization, and with the fundamentally independent nature of scientists? The question is open for discussion.

Selected references

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FAVARGER C., 1949: Notes de caryologie alpine. Bull.Soc.Neuchâtel.Sci.Nat. 72, 15-22.

FERNANDES A., 1969: Contribution à la connaissance cytotaxonomique des Spermatophytes du Portugal. Introduction, matériel et techniques. Bol.Soc.Brot. 43, 3-19.

GARBARI F. and TORNADORE N., 1970: Numeri cromosomici per la flora italiany. Inf.Bot.ital. 2, 74-82.

HESS H.E., LANDOLT E. and HIRZEL R., 1967-1972: Flora der Schweiz und angrenzender Gebiete. Birkhäuser, Basel. 3 volumes.

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- 1968: Chromosome numbers of flowering plants from Central Alaska. Nytt.Mag.Bot. 15, 239-254.

LÖVE A. and KJELLQVIST E., 1972: Cytotaxonomy of Spanish plants. I. Introduction. Pteridophyta and Gymnospermae. Lagascalia 2: 23-35.

MOORE D.M., 1982: Flora Europaea check-list and chromosome index. Cambridge Univ.Press.

PHITOS D. and KAMARI G., 1974: Zytotaxonomische Beiträge zur Flora von Kreta, I. Not.Not. 127, 302-308.

MAJOVSKY J. et al., 1970: Index of Chromosome Numbers of Slovakian Flora (Part 1). Acta Fac.Rerum Nat.Univ.Comenianae, Bot. 16, 1-26.

RUNEMARK H., 1961: Studies in the Aegean Flora. III. Cerastium coronense sp.nov. Bot.Not. 114, 453-456.

SKALINSKA M. et al., 1950: Studies in chromosome numbers of Polish Angiosperms. Acta Soc.Bot.Pol. 20, 45-68.

VALDES B., 1973: Numeros cromosomicos de algunas plantas espanolas. I. Lagascalia 3, 211-217.

ZHUKOVA P.G., 1966: Chromosome numbers in some plant species from the North-East of the U.S.S.R. Bot.Zurn. (Moscov and Leningrad) 51, 1511-1516.

3. PROFILE OF A LAB

by Dr. G.A. MULLIGAN*, Director of the Biosystematics Research Institute, Agriculture Canada, Ottawa, Ontario K1A OC6

The Biosystemtics Research Institute is one of the organizations in the Research Branch of Agriculture Canada and is located in Ottawa, Canada's capital city. Systematics in Agriculture Canada was initiated in 1886 with the appointment of James Fletcher as Dominion Entomologist and Botanist and by his donating his private collections of insects and plants to the Department. At the present time, B.R.I. carries out systematic studies on insects, arachnids, nematodes, vascular plants and fungi. Work is now being initiated on the systematics of non-medical bacteria and other organisms.

The following broad aims guide the Biosystematics Research Institute in its operations: to conduct research to discriminate and correctly name taxa that occur in Canada or are otherwise of importance to Canadians; to develop natural classifications and interpreting evolutionary relationships; to develop and maintain the National Collections of living or preserved organisms from Canada and elsewhere to provide a reference base for systematic research on diversity and distribution, and for identification service for clients, publish guides to help others make identifications, and supply relevant information; to provide inventories and floristic and faunistic studies for selected regions, habitats, or host groups; to provide leadership and cooperation in the development of biosystematics in Canada by making expertise available for training and other educational purposes.

There are ten professionals in the Vascular Plant Section in the Institute. Research generally falls within one of the three areas; on weeds, on cultivated plants and on native plants. However, many studies encompass organisms in two or all three areas. Scientists have active programs on Medicago, Lotus, Avena, Hordeum, Brassica, Sinapis, Artemesia, Euphorbia, Draba, Impatiens, Stachys, Carex, aquatic plants, and Gramineae, in the fields of cytotaxonomy, genecology, palynology, numerical taxonomy, chemotaxonomy, floristic and monographic studies. Growth rooms, greenhouses, plots, scanning electron microscopes, data processing equipment, herbarium collections and laboratory and library facilities are available. Field work is generally concentrated in Canada and adjacent areas with occasionally expeditions to Europe, Asia and South America.

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* Dr. Mulligan is plant cytotaxonomist specialized in weeds and Cruciferae. He is President of the Canadian Botanical Association for 1984-1985.

The Department of Botany, The University of Texas at Austin,
Austin, TX 78712-7640, U.S.A.

Profile compiled from data sent by Dr. Verne GRANT.
Temporary contact person: Mrs. Evelyn EDWARDS, Graduate Secretary, Department of Botany, University of Texas, Austin TX 78712.

Areas of specialization: Algal physiology, plant experimental and biochemistry, cell biology, cytology, ecology, experimental and biochemical plant systematics, evolution, marine microbiology, molecular biology, mycology, natural products chemistry, paleobotany, photobiology, phycology, plant anatomy, plant morphology, plant physiology, systematics, ultrastructure.

Faculty members and their research fields:
BLOCH D.P. Cell cycle kinetics, chromosome replication. Evolution and origin of the genetic coding mechanism. Flo-cytometry and cell sorting.
BRAND J.J. Function of carotenoids in plants and their possible role in affording membrane protection at temperature extremes. Mechanism of calcium function in the photosynthetic light reactions. Hydrogen gas production in blue-green algae and its relationship to photosynthesis.
BROWN Jr. R. Microfibril assembly and orientation, terminal cellulose synthesizing complexes and association with membranes, glucan chain polymerization and crystallization. Digital image processing and interfacing with light and electron microscopes, visualization of macromolecules, ultrahigh resolution light and electron microscope techniques. Plant cell growth and morphogenesis at the cellular levels or organization, the role of the Golgi apparatus and cell membranes in cell wall biogenesis.
COLE G.T. Aspects of fungal growth and development with emphasis on the Fungi Imperfecti. Structural and biochemical interactions between fungal pathogens and both plant and animal hosts. Ultrastructural studies involving analyses of surface morphology (SEM, freeze-etching) as well as thin sections of fungal cells.
DELEVORYAS T.D. Morphology and evolution of fossil plants, with emphasis on the seed plants of the mesozoic. Comparative morphology of vascular plants. Origins and extinctions of plant groups during geologic time.
FOWLER N.L. Dynamics and regulation of natural plant populations, with emphasis upon density-dependent factors. Structure and regulation of plant communities by means of both descriptive studies and experimentation, emphasizing the competitive relationship of the dominant species. Genetic variability in ecological important characters, particularly those related to life histories and to adaptations to specific environments, and of the selective pressures on such characters.
GRANT V.E. Evolutionary processes, particularly in higher organisms. Processes of speciation in higher plants; fertility relationships between plant species; cytogenetics of species hybrids and hybrid derivatives including polyploids; genetic systems in higher plants. Modes of pollination in flowering plants; effects of pollinating agents on evolution of flowers.
JOHNSTON M. Systematics and interrelationships growing in the southwestern U.S. and northern Mexico.

LA CLAIRE J.W.II. Giant green algal cells in sea weeds: various aspects of their cell biology including: wound healing, protoplast formation, mitosis/cytokinesis and growth/development. These cells appear to heal themselves rapidly when wounded, by a mechanism that appears to be an actomyosin-based one, similar to muscle contraction.

LEVIN D.A. Processes responsible for the origin of adpatations. Amount and organization of genetic variation within and among plant populations, and the factor regulating variation. Numerical dynamics of plant populations and the factors which regulate birth and death rates and dispersal.

MABRY T.J. Plant chemistry: structural analysis of terpenoids, phenolics, pigments and other natural products and the role these substances play in plant-insect co-evolution. Biosystematics. Utilization of plants for mankind: enhancing the level of useful chemicals, fuels, proteins, fibers,polymers and other materials produced by the plants.

MAUSETH J.D. Growth and morphogenesis of cells, organelles under controlled conditions in tissue culture. Controlled parameters include hormones, temperature, carbon-energy sources, complex additives. Analysis of morphogenesis and cellular physiology is by means of quantitative ultrastructure. Use of stereological techniques and statistics to quantify the volumes and surface areas of cells and subcellular organelles. Electron microscopy and tissue culture technique in studies on development of structure and function in shoot apical meristems and various juvenile tissues.

McMILLAN C. Ecological aspects of tropical mangrove ecosystems. Environmental tolerances of tropical marine plants, mangroves and seagrasses are studied under controlled conditions.

ROUX St.J. Chemical structure and membrance function of pigment, phytochrome, which regulates light-induced growth and morphogenesis in plants. The cellular basis of asymmetric growth response, called gravitropism, which plants undergo when their position relative to the vector force of gravity is altered.

SPEAR I. Plant Physiology.

SIMPSON B.B. Plant systematics: monographic studies of a variety of taxa. Adaptations of plants and their insect pollinations to each other, and of their interactions. Origin and evolution of patterns of distribution of tropical plant species.

STARR R.C. Freshwater algae and soil algae. Development and sexual reproduction in Volvox. Biochemical studies of sex attractants and sexual inducer compounds in Volvox.

THOMPSON G.A., Jr. Biosynthesis and assembly of membrane components, especially lipids, in eukaryotic cells. The mechanism whereby cells can maintain uniquely different lipid compositions in their functionally different membranes is currently under study. Lipid metabolism. Stress physiology - Membranes play an important but poorly defined role in responses od plants to extremes of temperature, salinity, and moisture availability. Simple plants are used as model systems.

TURNER B.L. Monographic treatments of the sunflower family. Mechanisms of evolution of populational level. Edaphic factors and plants speciation, migration and endemism generally.

4. RESEARCH NEWS

A. AFRICA

No reports.

B. ASIA

China

Dr. CHING-I PENG, Institute of Botany, Academia Sinica, Nankang, Taiwan 115, Republic of China, is currently carrying out studies on biosystematics of Ludwigia sect. Oligospermum (Onagraceae), cytology of the flora of Taiwan, as well as systematics of the Asteraceae of Taiwan.

Recent publications:

CHING-I PENG, 1983: Triploidy in Ludwigia in Taiwan, and the discovery of Ludwigia adscendens (Onagraceae). Bot.Bull.Acad. Sin. 24, 129-134.

- and GOLDBLATT P., 1983: Confirmation of the chromosome numbers in Cephalotaceae and Roridulaceae. Ann.Missouri Bot.Gard. 70, 197-198.

Japan

Dr. FUKUDA I., Professor of Botany at the Dept. of Biology, Tokyo Woman's Christian University, Zempukuji, Suginami, Tokyo 167, Japan, is currently working on biosystematics of the genus Trillium: Chromosome variation and evolution in Trillium erectum L. of the eastern North America. Mechanisms of hybrid formations in the Japanese Trillium. Dr. FUKUDA also started a projection on biosystematics of cultivated plants in Nepal: The study of spices in Nepal. The leguminous plants in Nepal.

Recent publications:

FUKUDA I., 1984: The study of spices in Nepal. Science Reports of Tokyo Woman's Christian University 62-64, 741-761.

- 1984: Chromosome banding and biosystematics. In: GRANT W.F. (ed.), Plant Biosystematics. Acad.Press Canada. 97-116.

C. AUSTRALASIA

No reports.

D. EUROPE

England

Dr. RUSSELL G., from Dept. of Botany, the University, Liverpool, L69 3BX, England, completed a study of host-epiphyte relations in marine brown algae and started a project on microevolutionary change in benthic algae of the Finnish Baltic coast.
Dr. RUSSEL is President of the British Phytological Society, 1983-85.

Finland

Dr. ROUSI A. is carrying out his research and teaching program as a Professor at the Dept. of Botany, University of Turku, SF-20500 Turku 50, Finland.

Germany

Dr. ALBERS F., Professor at Botanisches Institut und Botanischer Garten der Universität, Schlossgarten 3, D-4400 Münster, completed his caryological and morphological studies in grasses (Tribe Arvenseae) and is still working in succulent Asclepiadaceae. He started caryological studies in South African Geraniaceae. Dr. ALBERS moved from Kiel to Münster University.

Dr. BRECKLE S.W., Professor at the Abteilung Oekologie/Fak.Biol., Universität (W1-142), D-4800 Bielefeld, is working on vegetation and ecology in mediterranean and Near East regions as well as on high mountains ecology, C-Asia.

Dr. DUELL R., Professor at the Universität-Gesamthochschule-Duisburg, Fachbereich 6 Biologie/Botanik, Lotharstrasse 65, D-4100 Duisburg, reports that his main interest now is Bryology. Dr. DUELL published papers on "Sorbus-Arten in Bayern und Thüringen","Die Peperomia-Arten Afrikas" and prepared a manuscript on Peperomia in the Mascarenes. Projects started: Peperomia in the Palaeotropics.

Italy

Dr. ANZALONE B., Professor at the Istituto Botanico, Città Universitaria, I-00195 Roma, Italy, is carrying out research and teaching program on floristics and systematic botany. Dr. ANZALONE, author of 70 publications, completed his project as contributor to "Flora d'Italia", of PIGNATTI (1982). A flora list of the region of Lazio (about 3000 taxa) is in press.

Dr. PICHI SERMOLLI R.E.G., Professor of Botany at the University of Perugia (Italy), is author of 135 publications, particularly of Pteridophyta, flora and vegetation of tropical Africa, and Italy. Dr. PICHI SERMOLLI started a project on Pteridophyta for "Flora of Ethiopia".

Monaco

Mr. KROENLEIN M., is working as Director at the Jardin Exotique, B.P. 105, MC-98000 Monte-Carlo.

Switzerland

Dr. FARRON C., at the Botanischer Garten der Universität, Postfach 246, CH-4009 Basel, is currently building a worldwide seed and diaspore museum (see Miscellaneous Notes). Inventory of seed collections in the world will be up-dated probably next year.

Dr. FAVARGER C., Professeur honoraire de l'Université, Institut de Botanique, Chantemerle 22, CH-2000 Neuchâtel 7, reports that projects on cytotaxonomy of Minuartia, Arenaria, Cerastium, Polycarpon etc. (Caryophyllaceae) are partly completed. The study is in progress.

Recent publication

FAVARGER C. and STEARN W.T., 1983: Contribution à la cytotaxonomie de l'Amelanchier ovalis Medikus (Rosaceae). Bot.J.of Linnean Soc. London 87, 85-103.

- and KÜPFER Ph., 1983: Index des nombres chromosomiques des

Spermatophytes de la Suisse. Introduction, matériel et méthodes. Bot.Helv. 93, 3-7.

CONTANDRIOPOULOS J. and FAVARGER C., 1983: Sur quelques espèces de Turquie du genre Arenaria. (Etude cytotaxonomique). Candollea 38, 733-743.

Dr. FAVARGER is Foreign Member of the Linnean Soc. of London 1982.

Dr. REICHSTEIN T., Professor at the Institute of Organic Chemistry, University of Basel, 19, St. Johanns-Ring, CH-4056 Basel, completed projects on Sinopteridaceae in Europe and Macaronesia (to be published). Hybrids in European Asplenianaceae for partly inclusion in G. HEGI, Illustrierte Flora von Mitteleuropa I.1 (3rd ed. 1983). Projects started: the Asplenium varians complex examined with experimental methods. Some Caribbean members of the A. trichomanes group examined with experimental methods.

E. NORTH AMERICA

Canada

Dr. PHIPPS J.B., Professor at the Dept. of Plant Sciences, University of Western Ontario, London, Ontario, Canada NOM 1AO, completed projects on variation patterns and reproduction behaviour in the Crataegus crus-galli complex (Rosaceae) in Ontario and started a study on characteristics of hybrid situations in Crataegus.
Recent publications:

SINNOTT Q.P. and PHIPPS J.B., 1983: Variation patterns in Crataegus series Pruinoseae (Rosaceae) in southern Ontario. Syst.Bot. 8, 59-70.

PHIPPS J.B., 1983: Crataegus - A nomenclature for section and serial names. Taxon 32(4), 598-604.

U.S.A.

Names of the scientists who responded to a questionnaire concerning their biosystematic research are marked with an asterisk. Writes Dr. POWELL, IOPB Council Member who submitted the data: "No doubt many U.S. scientists who are conducting biosystematic research did not receive the questionnaire, because at this time there is no complete mailing list of biosystematists in the U.S.". Scientists who are not included in the present list are encouraged to submit research information to the Newsletter Editor.

* ACKERMANN J. Dept. of Biology, University of Puerto Rico, Rio Piedras, PR 00931. Current research: Fruit limitation phenomena in tropical orchids, Orchid flora of Puerto Rico; autogamy in island orchid populations; variation in root anatomy of epiphytic orchids. Planned research: Systematic of Chondrorhyncha and Cochleanthes (Orchidaceae).

* BARKLEY T.M., Curator of the Herbarium and Professor of Botany. Herbarium, Division of Biology, Kansas State University, Manhattan, KS 665065. Current Research: Floristics of the Great Plains; monographic studies in Senecio and Senecioneae, especially for the New World (Mexico, Central America and the Andes). Planned Research:

Generic delimitation for the Neotropical and Mesoamerican Senecioneae. Other Information: After some ten years of rather concentrated effort on the Flora of the Great Plains, he is now moving (back) into Senecio and relatives.

*BENSELER R.W., Dept. of Biological Sciences, California State University, Hayward, CA 94663. Current Research: Biosystematics and reproductive biology of Western species of Amelanchier, Sambucus, Quercus, Dirca, Osmaronia (Oemleria).

*BRETTING P. Botanist and Head of Natural History Division, Natural History Division, Institute of Jamaica, 12 East St., Kingston, Jamaica, WI. Current Research: Systematics, ethnobotany, and economic botany of New World arid land and Neotropical angiosperms.

*CAMPBELL Ch. Botany and Plant Pathology Dept., 202 Deering Hall, University of Maine, Orono, ME 04469. Current Research: Grass systematics and reproductive biology, especially of the genus Andropogon; reproductive biology of angiosperms. Planned Research: Hybridization of temperate forest tree species, namely Picea and Betula. Recent Publications: 1983: Systematics of the Andropogon virginicus complex (Gramineae). J.Arn.Arb. 64, 171-254.

*CANTINO Ph. Dept. of Botany, Ohio University, Athens, OH 45701. Current Research: Intergeneric relationships in the Labiatae, subfamily Lamioideae.

*CHAMBERS K. Professor of Botany and Curator of the Herbarium, Botany Dept., Oregon State University, Corvallis, OR 97331. Current Research: Biosystematics of Claytonia (Portulacaceae), section Limnia; biosystematics of Microseris (Asteraceae); Flora of Oregon.

*CLARK W.D. Dept. of Botany, Arizona State University, Tempe, AZ 85287. Current Research: Systematics of Haplopappus and its segregate genera (flavonoid chemistry; cladistics). Dr. CLARK was in 1983 Guest Professor at the Institut für Pharmazeutische Biologie, Universität Heidelberg, and received in 1983 the Alexander von Humboldt Research Fellowship from Federal Republic of Germany. Recent Publications: Together with KNOX M.J. and LINK S.O., 1983: Quantitative analysis of beta-phenethylamines in two Mammillaria species (Cactaceae). J. Chromatogr. 265, 357-362.

*DEWET J.M.J. Dept. of Agronomy, 1102 South Goodwin, AW-113, Turner Hall, University of Illinois, Urbana, IL 61801. Current Research: Systematics of Tripsacinae (Poaceae); - biosystematics, evolution, taxonomy. Planned Research: Systematics of the Andropogoneae (Poaceae).

*GIANNASI D. Dept. of Botany, University of Georgia, Athens, GA 30602. Current Research: Chemosystematics (especially flavonoids) of fossil and extant angiosperms; emphasis on taxa of the Hamamelidae.

*GOTTLIEB L.D. Dept. of Genetics, University of California, Davis, CA 95616. Current Research: Plant molecular evolution; gene duplication; electrophoretic studies of protein divergence; plant iso-

zymes; speciation. Planned Research: Oraganisms: Clarkia (Onagraceae); Stephanomeria (Compositae); Layia (Compositae); Tragopogon (Compositae).

*HANNAN G.L. Biology Dept., Eastern Michigan University, Ypsilanti MI 48197. Current Research: Revision of Eriodictyon (Hydrophyllaceae); systematics of Platystemonoideae (Papaverceae). Planned Research: Cytogenetics of Platystemon and related genera.

HAUFLER Ch., Assistant Professor at Dept. of Botany, University of Kansas, Lawrence, KS 66045, completed the research projects on: Obligate outcrossing in a homosporous fern: field confirmation of a laboratory prediction. Analysis of enzyme variability in the fern genus Bommeria. Natural gametophyte populations of Gleichenia bifida (Willd.) Spreng.: An ecological and developmental perspective. Triploidy and its evolutionary significance in Cystopteris protrusa. Projects started: Chromosomal and isozymic analysis of reticulate evolution in North American Crystopteris. Analysis of diploidization in Pteridium. Biosystematic analyses of xeromorphic ferns.
Recent publications:

SOLTIS D.E., HAUFLER C.H., DARROW D.C. and GASTONY G.J., 1983: Starch gel electrophoresis of ferns: a compilation of grinding buffers, gel and electrode buffers, and staining schedules. Amer.Fern Jour. 73, 9-27.

COOPER-DRIVER G.A. and HAUFLER C.H., 1983: The changing role of chemistry in fern classification. Fern Gaz. 12, 283-294.

Abstracts of talks:

HAUFLER C.H. and SOLTIS D.E., 1983: Diploidy in ferns: a general phenomenon? Amer.Jour.Bot. 70, No. 5, Pt. 2, 93.

HAUFLER C.H., 1983: Predicted mechanism and natural operation of outcrossing in a homosporous fern. Amer.Jour.Bot. 70, No. 5, Pt. 2, 92-93.

Dr. HAUFLER is now Secretary-Treasurer of the Pteridological Section of the Botanical Society of America. With Clive JERMY (British Museum), he is initiating a biennial compilation of world-wide Pteridological research activities.

*HECKARD L.R. Curator, Jepson Herbarium, Botany Dept., University of California, Berkeley, CA 94720. Current Research: Polyploidy in Castilleja (Scrophulariaceae).

*HILL S. Curator of the Norton-Brown Herbarium, Dept. of Botany, University of Maryland, College Park, MD 20742. Current Research: Systematics of Malvaceae; neotropical floristics; floristics of the Bahamas, Texas, Maryland, New Mexico. Planned Research: Systematics of Zamia. Recent publications 1983: Notes on infrequent and threatened plants of Maryland including new state records. Castanea 48, 117-137.

*JANSEN R. Dept. of Botany and Plant Pathology, Michigan State University, East Lansing, MI 48824-1312. Current Research: Systematic and evolutionary studies of Hieracium sect. Stenotheca in North America.

*JONES A.G. Curator of the Herbarium, Dept. of Plant Biology, 289 Morril Hall, University of Illinois, Urbana, IL 61801. Current Research: Systematics of Aster, at this time especially Aster subg. Symphytrichum, with emphasis on cytology and genetic compatibility. Planned Research: Systematics of Aster s.l. -- worldwide: Cytological, phenetic, and cladistic approaches. Recent publications 1983: Generic concepts of Aster (Asteraceae): a comparison of cladistic, phenetic, and cytological approaches. Syst.Bot.8, 71-84 (together with YOUNG D.A.). - Nomenclatural transfer from Aster to Machaeranthera (Asteraceae). Syst.Bot. 8, 85. - Nomenclatural changes in Aster (Asteraceae). Bull.Torrey Bot.Club 110, 39-42. - Aster section Ericoidei correct for the species group that includes the type of Aster ericoides L. Taxon 32, 462. - Chromosome counts of and notes on some Old World Asters (Asteraceae). Phytologia 53, 429-431 (together with SMOGOR R.A.). Abstract of symposium paper presented at AIBS/Bot.Soc. meetings of 1983: Chromosomal features as generic criteria in the Asteraceae. Amer.J.Bot. 70, 100.

*JONES S.B., Jr. Professor and Director Botanical Garden, Dept. of Botany, University of Georgia, Athens, GA 30602. Current Research: Systematics of the tribe Vernonieae (Compositae); floristics of the Southeastern United States.

*KYHOS D. Botany Dept., University of California, Davis, CA 95616. Current Research: Biosystematics and evolutionary cytogenetic studies in Compositae - especially the Hawaiian silversword alliance and the genera Encelia, Chaenactis, Hemizonia and Holocarpha.

*LA DUKE J. Dept. of Biology, University of North Dakota, Grand Forks, ND 58202. Current Research: Systematics of Sphaeralcea (Malvaceae).

*LANE M. Dept. of EPO Biology, University of Colorado, Boulder, CO 80309. Current Research: Ecology and systematics of Gutierrezia; homochromous Asteraceae of California, Arizona; character analysis in Asteraceae; pollination biology of Compositae. Side Project: Sensitive (irritable) stamens in Compositae, Cactaceae, Portulaceae, etc. Planned Research: Chromosomal evolution in Amphiachyris, Xanthocephalum, and other Asteraceae; analysis of correlation of chemical, morphological and chromosomal characters of homochromous Asteraceae.

Dr. MENZEL M.X., Dept. of Biological Science, Florida State University, Tallahassee, FL 32301, is currently continuing study of genome relationship in Hibiscus sect. Furcaria. Planned research: In depth study of the Australian hexaploid alliance of Hibiscus sect. Furcaria, including chromosome numbers, hybridization, cytogenetics of hybrids, biogeography, numerical taxonomy and isozyme profiles.

*MOORING J., Dept. of Biology, University of Santa Clara, Santa Clara, CA 95053. Current Research: Systematics of the Eriophyllum lanatum and Chaenactis douglasii complexes (Compositae, Helenieae).

*NESOM G., Dept. of Biology, Memphis State University, Memphis, TN 38152. Current Research: Systematics of American Erigeron; systematics of Chaptalia and Leibnitzia and generic relationships within the Gerbera group.

*POWELL A.M., Professor of Biology and Director of Herbarium, Sul Ross State University, Alpine, TX 79832. Current Research: Systematics of Brickellia and allies (Asteraceae); cytology of Asteraceae; hybridizations in Eupatorieae (Asteraceae) and Cactaceae; flora of northern Chihuahuan Desert region.

RODRIGUEZ E. Phytochemical Laboratory, Dept. of Ecology and Biology, University of California, Irvine, CA 92717. Current Research: Biochemical diversity, systematics and evolution of desert plants of the Sonoran and Chihuahuan deserts. Planned Research: Phytochemical and biosystematic investigations.

*SEIGLER D.S. Dept. of Plant Biology, University of Illinois, Urbana, IL 61801. Current Research: Chemosystematics of genus Acacia, Sapindaceae, and several xerophytic ferns.

*SMITH E.B. Professor of Botany and Director of the UARK Herbarium, Dept. of Botany and Microbiology, SE-401, University of Arkansas, Fayetteville, AR 72701. Current Research: Coreopsis of North and South America; Coreocarpus; flora of Arkansas. Planned Research: Coreopsis of South America; Coreocarpus; flora of Arkansas.

*SOHMER S.H. Bernia P. Bishop Museum, P.O. Box 1900-A, Honolulu, HI 96819. Current Research: Systematics of the genus Psychotria (Rubiaceae) in the Old World (excluding Africa).

*STEBBINS L.G., Professor Emeritus, Dept. of Genetics, University of California, Davis, CA 95616. Current Research: Biosystematics of the plant genus Antennaria; DNA content and speciation in the genus Linanthus. Recent publications 1983: Distribution of sexual and apomictic populations of Antennaria parlinii. Evolution 37, 555-561 (with BAYER R.J.). - Mosaic evolution: an integrating principle for the modern synthesis. Experimentia 39, 823-834.

*STROTHER J.L. Botany, University of California, Berkeley, CA 94720. Current Research: Compositae for Flora of Chiapas; Revision/monograph of Porophyllum. Planned Research: Revisionary, monographic, floristic on Compositae, especially Mexican and Central American.

*STUESSY T. Dept. of Botany, Ohio State University, 1735 Neil Avenue, Columbus, OH 43210. Current Research: Monographic Studies on the Compositae (especially Heliantheae of Latin America); evolutionary studies on the flora of the Juan Fernandez Islands, Chili; studies on the adaptive value of morphological features in flowering plants.

*TANOWITZ B. Visiting Lecturer, Dept. of Biological Sciences, University of California, Santa Barbara, CA 93106. Current Research: Biosystematics of the Compositae, subtribe Madiinae; biosystematics of the Labiatae (western North America).

Dr. THOMPSON S.A., Section of Botany, Carnegie Museum of Natural History, Pittsburgh, PA 15213, nearly completed revision of

Xanthosoma (Araceae). Projects started: Phylogeny of Araceae.

*TUCKER A.O. Dept. of Agriculture and Natural Resources, Delaware State College, Dover, DE 19901. Current Research: Systematics of Mentha; flora of Del Mar Va Peninsula; nomenclature, distribution, etc. of Eupatorium resinosum and Aeschynomene virginica; nomenclature of fragrance/flavor plants.

*URBATSCH L. Dept. of Botany, Louisiana State University, Baton Rouge, LA 70803. Current Research: Systematic and chemical studies of Calea (Asteraceae) and related genera.

*WARNOCK M. Sam Houston State University, Huntsville, TX 77341. Current Research: Systematics (particularly flavonoids, ecology and cytology) of Delphinium in North America. Planned Research: Monograph of Delphinium.

*WAGNER F.S. Associate Research Scientist, Professor and Curator, Dept. of Botany, University of Michigan, Ann Arbor, MI 48109. Current Research: Monographic studies of genus Botrychium (Ophioglossaceae);biosystematic studies New World ferns (incl. Trismeria, Jamesonia, Pteridium, Ophioglossum, Marginariopsis); origin and evolution of the sorus; cladistic relationships of pteridophytes.

WAGNER W.H., Jr., Professor of Botany and Curator in the University Herbarium, Ann Arbor, MI 48109, completed the following projects: Applications of groundplan-divergence. A new nothospecies of moonworts (Ophioglossaceae) from Alberta, Canada, Ophioglossum ellipticum and the taxonomy of O. nudicaule. A comparison of taxonomic methods in biosystematics. Interspecific hybridization in pteridophytes with subterranean mycoparasitic gematophytes (with WAGNER F.S. and BEITEL J.M.). Projects started: Renewed study of the biosystematics of pteridophytes of Hawaii. Relationships of Actinostachys germani and A. pennula. Generic status of Costaricia (with GOMEZ L.D.). U.S. National Science Foundation Grant: Monograph of Botrychium (with WAGNER F.S.).
Selected recent publications 1983:
Two moonworts of the Rocky Mountains; Botrychium hesperium and a new species formerly confused with it. Amer.Fern Jour. 73, 53-62 (with WAGNER F.S.). - Pteridophytes (Helechos, Ferns). In: D.H. JANZEN (ed.), Costa Rican Natural History, 311-318. Univ.of Chicago Press (with GOMEZ L.D.). - Ricciaceae in Michigan. Michigan Botanist 22, 145-150 (with MAYFIELD M.R. and COLE M.C.). - A cliff brake hybrid, Pellaea bridgesii x mucronata, and its systematic significance. Madrono 30, 69-83 6with SMITH A.R. and PRAY T.R.). - Chapt. 4. Reticulistics: The recognition of hybrids and their role in cladistics and classification. In: PLATNICK N.I. and FUNK V.A. (eds), Advances in cladistics. Vol. 2, 63-79. Columbia Univ. Press, NY.
Dr. WAGNER is Elected Vice-President of the International Association of Pteridologists. Elected Fellow of the Willi Hennig Society. Chairman U.S. Committee on Endangered Pteridophytes (Amer. Fern. Society).

*WAGNER W.L. Bernice P. Bishop Museum, P.O. Box 1900-A, Honolulu, HI 96819. Current Research: Preparation of "A guide to the Flowering Plants of the Hawaiian Islands" with SOHNER S.H. and HERBST D.;

also continued systematic research on the genus Oenothera (Onagraceae). Planned Research: Study of the biogeography, evolution, and systematics of the native Hawaiian plant genera; preparation of an adventive flora of Hawaii with HERBERT D.

*WALLACE R.S. Dept. of Biological Sciences (Botany Unit), Rutgers University, P.O. Box 1059, Piscataway, NJ 08854. Current Research: Chemosystematics of Cactaceae (isozymes of Opuntia; Echinocereus flavonoid analysis/systematics); (Dissertation) ... Biosystematics of the genus Lithops (Mesembryanthemaceae/Aizoaceae). Planned re-research: Chemosystematic investigation of the family Molluginaceae, (including isozymes, flavonoids, and betalains/anthocyanins); isozyme analysis of controversial members of the Caryophyllaceae; Aizoaceae vs. Molluginaceae.

*WALLACE J.F. Community College of Aurora, 791 Chambers Road, Aurora, CO 80011. Current Research: Cytogeography and cytotaxonomy of the Cactus Family in the Chihuahuan Desert. Planned Research: Taxonomy of Opuntia in the Trans-Pecos region of the Chihuahuan Desert; chromosome numbers in North American Cactaceae.

*WIENS D. Dept. of Biology, University of Utah, Salt Lake City, UT 84112. Current Research: Karyology, pollination systems, and epiparasitism of African Loranthaceae and Viscaceae. Planned Research: Ovule abortion, breeding systems, and life history.

*WILKES G. Biology, University of Massachusetts, Boston, MA 02125. Current Research: Maize and it's wild relatives. Planned Research: Genetic erosion in teosinte over the past 25 years.

F. MESOAMERICA

No reports.

G. SOUTH AMERICA

Argentina

Dr. MARTINEZ A., Research Botanical Unit in the Centro de Estudios Farmacologicos y de Principios Naturales, Serrano 665, 1414 Buenos Aires, Argentina. This Institute depends on the National Research Council of Argentina. Dr. MARTINEZ completed studies on cytology of Tradescantia from Mexico and of Orchids sub-tribe Spiranthinae. Projects started: Cytology of Oxalis from South Anerica, with D. DE AZKUE. Cytology of the South American Festuca, with CARRIQUE C. Cytology of bulbous South American Iridaceae.
Recent publications 1983: Chromosome behaviour in some diploid species of Mexican Tradescantia and their hybrids. In: JONES K. and BRANDHAM (eds.), Current chromosome research. N Holland Biomed.Press, Amsterdam. - The chromosome complements of shrubby Oxalis species from South America. Pl.Syst.Ecol. 141, 187-197.

Peru

Dr. OCHOA C., Professor at the International Potato Center (CIP), P.O. Box 5969, Lima, Peru, completed a project on Bolivian tuber-bearing Solanum and started projects on Ecuadorian tuber-bearing Solanum. At present his publications only deal with pure taxonomy of the genus Solanum sect. Petota.

5. PUBLISHING NEWS

Proceedings of the IOPB Symposium held in Montreal, July 17-21, 1983, are published by Academic Press Canada in the form of a book, "Plant Biosystematics", edited by W.F. Grant.

Lotus Newsletter No. 14, 1983, containing progress reports and other items on Lotus carried out throughout the world, is available for distribution. Copies can be ordered from the Editor, Dr. W.F. Grant, Genetics Laboratory, Box 282, Macdonald Campus of McGill University, Ste. Anne de Bellevue, Quebec, Canada H9X 1CO. Cost $5.00 postpaid.

Proceedings of the Symposium held in Montpellier, May 21-25, 1984, are now being prepared for press. The book "Genetic differentiation and dispersal in plants" will be published by Springer, Heidelberg, and should appear by the beginning of 1985.

6. MEETINGS

IV annual meeting of the Willi Hennig Society, together with the Systematics Association and the Linnean Society, "Contemporary issues in systematics", will take place on July 16-21, 1984, at the Institute of Geological Sciences, Exhibition Road, London SW7.
For further information contact organizing committee: P. Forey, C.R. Hill, C.J. Humphries, C. Patterson, R.I. Vane-Wright, British Museum (Natural History), Cromwell Road, LONDON SW7 5BD.

An International Symposium on "Intraspecific specific classification of wild and cultivated plants" will be held on September 26-28, 1984, at the Department of Zoology, University of Oxford, UK.
For information write to the conference secretary: Dr. T.B. Styles, Department of Forestry, Commonwealth Forestry Institute, South Parks Road, Oxford OX1 3RB, UK. (Telex 83147 attn. FOROX).

IIIrd International Congress of "Systematic and evolutionary biology" will be held on July 4-10, 1985, at the University of Sussex, near Brighton, UK.
For information write to: Barry Cox, c/o Conference Services, 130 Queen's Road, Brighton, Sussex BN1 3WE, UK.

IIIrd International Symposium on pollen biology "Basic and applied aspects of pollen biology", will be held at the University of Massachusetts, Amherst, MASS., USA, on Juli 8-11, 1985.
For information, contact either of the following: David Mulcahy, Botany Department, University of Massachusetts, Amherst, MA 01003, USA.
Ercole Ottaviano, Genetics Institute, University of Milan, Via Celoria 26, I-20133 Milan, Italy.

The IOPB Symposium "Differentiation patterns in higher plants" will be held on July 13-18, 1986, at the Swiss Federal Institute of Technology, Zürich. Those wishing to be placed on the mailing list should soon write to: Krystyna M. Urbanska, Geobotanisches Institut ETH, Zürichbergstrasse 38, CH-8044 Zürich, Switzerland.

7. REQUESTS FOR MATERIAL

Dr. CANTINO P., Dept. of Botany, University of Ohio, Athens, OH 45701, USA, would appreciate seeds or other living material of Melittis and Chelonopsis (Labiatae).

Dr. FARRON C., Botanischer Garten der Universität, Postfach 246, CH-4009 Basel, Switzerland, would appreciate living seeds of Scrophulariaceae.

Dr. FAVARGER C., Institut de Botanique, Chantemerle 22, CH-2000 Neuchâtel 7, Switzerland, would appreciate seeds of Minuartia imprimis grex hybrida, M. californica and Polycarpon as well as annual taxa of Cerastium.

Dr. GIANNASI D., Dept. of Botany, University of Georgia, Athens, GA 30602, USA, would appreciate dried leaf material and/or specimens of taxa of Hamamelidae especially non-US.

Dr. GRANT W.F., Genetics Laboratory, Box 282, MacDonald Campus, McGill University, Ste. Anne de Bellevue, Quebec, Canada H0X 1C0, would appreciate seeds of Lotus gebelia for cytogenetic studies.

Dr. HILL S., Dept. of Botany, University of Maryland, College Park, MD 20742, USA, would appreciate herbarium specimens of Malvaceae from all over the world.

Dr. JANSEN R., Dept. of Botany and Plant Pathology, Michigan State University, East Lansing, MI 58824-1312, USA, would appreciate seeds of native North American species of Hieracium.

Dr. JONES A.G., Dept. of Plant Biology, 289 Morril Hall, University of Illinois, Urbana, IL 61801, USA, would appreciate viable achenes of Aster ssp. especially from Europe, Africa, Asia, South and Central America incl. Mexico.

Dr. LANE M., Dept. of EPO Biology, University of Colorado, CO 80309, USA, would appreciate seeds of plants with a quick stem movement to a tactile stimulus e.g. Stylidium, Mesembrynthemum, Helianthemum, Sparmannia, Talinum, Portulaca etc. Berberis and Mahonia are not needed, nor are cacti.

Dr. MENZEL M.X. Dept. of Biological Science, Florida State University, Tallahassee, FL 32301, USA, would appreciate viable seeds of Hibiscus spechowii Garcke from south central Africa. Most pressing need for material!

Dr. OCHOA C., P.O. Box 5969, Peru, Lima, would appreciate exssicata of South American, Middle American, and Mexican tuber-bearing Solanum.

Dr. PHIPPS J., Dept. of Plant Sciences, University of Western Ontario, London, Ontario, Canada NOM IAO, would appreciate herbarium materials (gift, exchange) of Crataegus worldwide.

Dr. REICHSTEIN T., Institute of Organic Chemistry, University of Basel, 19 St. Johanns-Ring, CH-4056 Basel, Switzerland, would appreciate clean fronds with ripe spores of Asplenium nesioticum, A. fibrillosum, A. blopharodes, A. vespertinum, A. olivaceum, and A. soleirolioides.

Dr. SMITH E.B., Dept. of Botany and Microbiology, SE-401, University of Arkansas, Fayetteville, AR 72701, USA, would appreciate viable achenes of any South American species of Coreopsis; viable achenes of Coreocarpus from Mexico (including offshore islands) and/or Arizona.

Dr. SOHMER S.H., Bernia P. Bishop Museum, P.O. Box 19000-A, Honolulu, HI 96819, USA, would appreciate specimens of Psychotria from anywhere.

Dr. THOMPSON S.A., Section of Botany, Carnegie Museum of Natural History, Pittsburgh, PA 15213, USA, would appreciate living material of Araceae worldwide.

Dr. URBATSCH L., Dept. of Botany, Louisiana State University, Baton Rouge, LA 70803, USA, would appreciate viable seeds, dried herbarium specimens, and liquid preserved material for anatomical and cytological studies of Calea, Sabazia, Alloispermum, and Oteiza.

Dr. WAGNER F.S. and Dr. WAGNER W.H., Jr., Dept. of Botany, University of Michigan, Ann Arbor, MI 48109, USA, would appreciate new records and problematic collections of Botrychium from over the world, preferably total population samples of leaves.

Dr. WALLACE R.S., Dept. of Biological Sciences, Botany Unit, Rutgers University, P.O. Box 1059, Piscataway, NJ 08854, USA, would appreciate vouchered, viable seed material of *any* taxon in the Molluginaceae, from anywhere in the world, with collection localities; fruits or air-dried seeds of Opuntia, particularly from Mexico, Central and South America, for isozyme investigations. Seeds should not be heated to dry and supplied with identification of species and collection locality.

8. MISCELLANEOUS NOTES

The European Taxonomic, Floristic and Biosystematic Documentation System (EDS), is based in the Department of Botany, University of Reading, under the direction of Professor V.H. Heywood. It is sponsored by the European Science Foundation (ESF).
The basic core of the system and starting point from which the database is being built up is the taxonomic, geographical, ecological and cytotaxonomic information given in "Flora Europaea" (TUTIN et al., 1964-1980), as it stands.
When all the data from "Flora Europaea" are stored in the EDS computer, the System will be updated and expanded with information on conservation status, phytosociology, illustrations, biosystematics, phytochemistry and economic importance. It is intended to present information held in the database to the user in several ways, utilizing tabulated data, free text statements and keywords.
For further information on equipment and programs and on how to join the Potential Users Panel please write to:
ESF, European Documentation System, Department of Botany, Plants Science Laboratories, University of Reading, Whiteknights, Reading, RG6 2AS, Great Britain.

Herbarium of nongerminative seeds and other diaspores

A museum-type seed and fruit collection was established in Basle. At the present time it contains about 20'000 species represented by 60'000 items, i.e. the greater part of the species readily available by exchange between botanical gardens throughout the world. As a specialist in a particular family or geographical unit, would you be willing to help in reidentifying some of the seed material? If so, perhaps you would be so kind as to identify your particular field.

Also there is a great need to complete the seed and fruit collection: any material should be appreciated.

For further information, write to: Dr. C. Farron, Curator of Plant Collections, University Botanical Institute, P.O. Box 246, CH-4009 Basle, Switzerland.

China-US Scientific Exchange

was announced in the first issue of the Newsletter. Schedules for 1985 are now being worked out. In addition to China, exchange program with Thailand, Burma, Singapore and Indonesia will be developed.

For information, write to Dr. W.F. Grant, Genetics Laboratory, Box 282, MacDonald Campus, McGill University, Ste. Anne Bellevue, Quebec, Canada HOX 1CO.

The University of Georgia Botanical Garden at Athens has under construction a visitor center/conservatory located on a 300 A site adjacent to the campus.

Ohio State University at Columbus is undergoing extensive development; the staff is interested in expanding an exchange program to many institutions throughout other parts of the world. The geographic focus of the research programs will be in southern South America with special emphasis on Chili, Argentina, Bolivia, Uruguay and Paraguay.

Japan Society for the Promotion of Science invited to Japan President of IOPB, Prof. W.F. Grant in May 15 - June 14, 1984. Dr. Grant gave the lectures: Plant biosystematics - present and future, biosystematics of Lotus at Tsukuba, Kyoto, Hiroshima, Toyama, Hokkaido Universities and Tokyo Woman's Christian University in Japan.

9. OBITUARY

Dr. E.K. Janaki-Ammal died on February 7, 1984. Together with C.D. Darlington, she was author of the "Chromosome Atlas", published for the first time in 1945.

PERSONAL DATA COLLECTION

for the International Organization of Plant Biosystematists Newsletter
(IOPB Newsletters)

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Last name (Ms., Mr.) First name Title

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Personal News

Recent publications

Projects completed

Projects started

Requests for research material

Articles and longer reports, reports of meetings, etc., to be attached

Return to: Dr. Krystyna M. Urbanska, Editor, IOPB Newsletter,
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CH-8044 Zürich
Switzerland