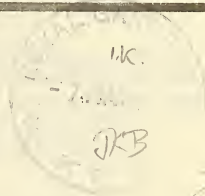


THE BEAN BAG

*A newsletter to promote communication among research scientists
concerned with the systematics of the Leguminosae/Fabaceae.*

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EDITORIAL

The Plant Taxonomy Laboratory and the U.S. National Seed Herbarium are moving. Please use our new address for all Bean Bag correspondence:

Lydia R. Poole, Building 265, BARC-EAST, Beltsville, MD 20705 USA.

Notes about the Bean Bag: The Recent Literature column will only report papers of general taxonomic interest that have been published. Incomplete citations will not be published. A complete citation includes author(s), date, title, where published. Please use the style in this issue of the Bean Bag. Please print clearly. Several items from readers could not be read and thus could not be put in this issue. We appreciate the personal comments from our Readers. They are pleasant to come across during the rush of publishing.

This issue of the Bean Bag was data banked in a PRIME computer and printed by a WANG word processor. The mailing labels also were issued in a similar manner.

FLORA NEOTROPICA-LEGUMINOSAE

Roger M. Polhill

The time has come to draw together the scattered knowledge and vast research potential of the Latin-American legume flora into the more formalized format of FLORA NEOTROPICA. The publication of Flora Neotropica Monographs began in 1968 with the treatment of Swartzia by COWAN, but no further legume accounts have been submitted.

The Organization for Flora Neotropica has appointed co-ordinators for each of the three subfamilies, and anyone interested in participating is encouraged to make contact with them:

Caesalpinioideae: Kai Larsen, Botanical Institute,
University of Aarhus, Nordlandsvej 68
DK-8240 Risskov, Denmark

Mimosoideae: Enrique Forero, Instituto de Ciencias Naturales
Universidad Nacional
Bogota, Colombia

Papilionoideae: Roger M. Polhill, Royal Botanic Gardens,
Kew, Richmond, Surrey, TW9 3AE England

The co-ordinators will try to devise a balance, so that individual interests in single genera can be fostered, and so that collaborative work can be devised to write whole tribes with a proper consideration of generic structure and delimitation. Clearly both considerations are effectively met by the active participation of more people, and the Organization looks to readers of The Bean Bag for practical help and suggestions. The progress of individual projects will be noted in these pages from time to time, and the co-ordinators propose to establish a panel of advisers from among those workers most actively involved with neotropical legumes.

CYTOLOGICAL GAPS

You are encouraged to help fill the cytological gaps in GOLDBLATT's survey of legume genera. Listed below are the genera from section III Gaps in the Record (pp. 429-430) from GOLDBLATT's chapter in Advances in Legume Systematics. Please review this list and either send GOLDBLATT seed samples with herbarium vouchers or provide GOLDBLATT with published chromosome counts or send him the citation if found in an obscure publication. All contributions will be acknowledged. (Editor's note: We have sent GOLDBLATT seeds of Pachecoa.) Send all material to Peter Goldblatt, Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166, USA. (Telephone: 314-577-6100)

Aenictophyton, Affonseia, Afgekia, Aganope, Aldina, Alepidocalyx, Alexa, Alistilus, Androcalymma, Antheroporum, Apaloxylon, Aphanocalyx, Apoplanesia, Arapatiella, Archidendron, Arcoa, Arthrocarpum, Arthroclianthus, Aubrevillea, Augouardia, Austrodelichos.

Balsamocarpon, Baphiopsis, Batesia, Bathiaea, Baudouinia, Baukea, Behaimia, Bembicidium, Benedictella, Bocoa, Bracteolanthus, Breniera, Browneopsis, Bryaspis, Buchenroedera, Burkilliodendron.

Callistachys, Campsiandra, Candolleodendron, Carrissoa, Cascaronia, Cedrelings, Cenostigma, Chadsia, Chaetocalyx, Chidlowia, Chrysoscias, Clathrotropis, Cleobulia, Clitoriopsis, Cochlianthus, Coelidium, Condylostylis, Conzattia, Coroya, Coursetia, Craibia, Cranocarpus, Craspedolobium, Cratylia, Cruddasia, Cryptosepalum, Cyclocarpa, Cyliocodiscus, Cymbosema, Cynometra, Cytisopsis.

Dahlstedtia, Dalbergiella, Dalhousiea, Decorsea, Dewevrea, Dicorynia, Dicroepetalum, Dicymbe, Didelotia, Didymopelta, Diphyllarium, Diplotropis, Diptychandra, Discolobium, Disynstemon, Dolichopsis, Droogmansia, Dunbaria, Duparquetia, Dysolobium.

Elephantorrhiza, Eligmocarpus, Elizabetha, Endertia, Englerodendron, Eperua, Eremosparton, Erichsenia, Etaballia, Eurypetalum, Exostyles.

Fiebrigiella, Fillaeopsis, Fissicalyx, Fordia.

Geissaspis, Gilletiodendron, Goniorrhachis, Gonocytisus, Gossweilerodendron.

Hallia, Hammatolobium, Haplormosia, Harpalyce, Herpyza, Hesperolaburnum, Hesperothamnus, Heterostemon, Humboldtia, Humularia, Hylodendron, Hymenolobium, Indopiptadenia, Isoberlinia, Isomacrobium.

Jacqueshuberia.

Kalappia, Kaoue, Kingiodendron, Kostyczewa, Koompassia.

Lebrunioidendron, Lecoointea, Lemuropisum, Lennea, Leonardoxa, Leptodesmia, Leucopthalos, Leucostegane, Leycephyllum, Librevillea, Loesenera, Lophocarpinia, Lovanafia, Luetzelburgia, Luzonia, Lyauteya.

Macroberlinia, Macrobium, Macropsychnanthus, Maniltoa, Margaritolobium, Martiodendron, Mastersia, Mecopus, Melanoxyton, Melliniella, Mendoravia, Michelsonia, Microberlinia, Mildbraedioidendron, Minkelsia, Moldenhauera, Monopetalanthus, Monopteryx, Monoschisma, Mora, Muellera, Myrocarpus.

Neochevalierodendron, Neocolletia, Neocracca, Neodielsia, Neodunnia, Neoharmsia, Neorudolphia, Nephrodesmus, Nesplostylis, Nissolia, Notodon.

Odoniodendron, Oreophya, Ormocarpopsis, Ostryocarpus, Otoptera, Oxystigma.

Pachecoa, Pachyelasma, Padbruggea, Paloue, Paloveopsis, Panurea, Paralbizzia, Paramachaerium, Paratephrosia, Parryella, Peekelia, Pellegrinioidendron, Peltogyne, Petaladenium, Phylacium, Phylloxylon, Piptadeniopsis, Plagiocarpus, Plagiosiphon, Platycelyphium, Platycyamus, Platypodium, Platysepalum, Podocytisus, Podopetalum, Poecilanthe, Poeppigia, Poissonia, Poitea, Polystemonanthus, Pioria, Prosopidastrum, Pseudeminia, Pseudoeriosema, Pseudoentada, Pseudomacrobium, Pseudoprosopis, Pseudosindora Psoralea (sens. str.).

Ramirezella, Ramorinoa, Recordoxylon, Rhodopis, Rhynchotropis, Riedeliella, Robynsiophyton,

Sakoanala, Salweenia, Sartoria, Sauvallella, Schefflerodendron, Schranckiastrum, Scorodophloeus, Sellocharis, Sindoropsis, Sinodolichos, Soemmeringia, Spartidium, Spathionema, Spatholobus, Spirotropis, Stachyothyrsus, Stahlia, Stenodrepanum, Stracheya, Streblorrhiza, Stuhlmannia, Sweetia, Sympetalandra.

Talbotiella, Tessmannia, Tetraberlinia, Tetrapterocarpon, Teyleria, Thylacanthus, Trifidacanthus.

Uleanthus, Umtiza, Urariopsis, Uribea.

Vatairea, Vataireopsis, Vatovaea, Vavilovia, Vermifruux, Vouacapoua.

Wagatea, Weberbauerella, Whitfordiodendron.

Xerocladia.

Yucaratonia.

Zenia, Zenkerella, Zollernia, Zuccagnia.

PIGEONPEA NEWSLETTER

The INTERNATIONAL PIGEONPEA NEWSLETTER has been issued. Number 1 (1981) may be obtained from Donald G. Faris, Pulse Improvement Program, ICRISAT, Patancheru P.O., Andhra Pradesh 502 324, India. Also available are separate publications on pigeonpea and chickpea.

NITROGEN FIXING TREE ASSOCIATION

The Nitrogen Fixing Tree Association (NFTA) was established in 1981 to promote international research and development, communication, and utilization of nitrogen-fixing trees for fuel, fertilizer, forage, feed, forests, and other products. Annual dues of U.S \$5.00 should be sent to NFTA, P.O. Box 680, Waimanalo, Hawaii 96795 USA.

GLEANINGS FROM THE DATA COLLECTION SHEETS

ALBUQUERQUE is studying *Cajanus cajan* and would welcome legume reprints.

ANDERSON has completed studies of *Acacia* (mainly Australian) and *Prosopis* (mainly American) exudates and is starting a similar study of African *Acacia* exudates. Recently returned from field study of *Acacia* plantations in the Sudan. Welcomes water-soluble gum exudates from any legume.

AQUINO is a new Reader.

ARAGAO DE OLIVEIRA is a new Reader who has completed a study of *Desmodium* for the state of Rio Grande do Sul, Brazil and is starting a study of *Aeschynomene* for same state. Needs literature on the *Hedysareae*.

ARORA is working on the Asiatic *Vigna* species with E. R. Nayoz, K. L. Mehra, and CHANDEL. Recommends study of *Cajanus*, *Atylosia*, *Dunbaria*, and *Dolichos*. Will be collecting wild *Vigna* species in India. Plans to study *Mucuna*, especially phytogeography of Asiatic species. His name and address were omitted from the BB-14 Directory.

ARROYO. See KEIGHERY.

BAUDOIN. See MARECHAL.

BERMUDEZ has completed a study of legumes of forest value in Colombia.

CARRILLO-FUENTES is a new reader and has finished a study of Peruvian species of *Phaseolus* and will be working on the *Faboideae* of the Valle del Rimac. Needs legume sheets and seeds. Will be collecting *Phaseolus* along the coast and mountains of Peru. Would like to obtain selected descriptions of species of *Phaseolus*.

CHANDEL. See ARORA.

CHEN has completed the *Bauhinia* for *Flora Republicae Popularis Sinicae* and has started study of *Dalbergia* for flora.

CLEMONS is a new Reader.

COMBES, who will be working with LABEYRIE, is a new Reader.

CORBY is now an Honorary Research Fellow and continues to write about legume root nodules.

CUBERO has contributed to two books and recommends the study of free amino-acids in *Vicia*. Needs seeds of *Vicia faba* (small seeded varieties) and *V. melanops* and has seeds for distribution of *Vicia*, *Lupinus* (Mediterranean), *Cicer*. Will be in North Africa during summer of 1982 collecting legumes.

CUSATO is a new Reader.

DELBOS is a new Reader.

ESTEVE GARCIA is a new Reader.

EVANS is conducting a chemotaxonomic survey of the *Tephrosieae*, especially nonprotein amino acids as part of his Ph. D. thesis on Toxins in the *Tephrosieae*. He would like to exchange material.

FERGUSON and R. Strachan have completed a manuscript on the pollen morphology of *Indigofera*.

GIANGUALANI continues her study of Argentine *Vicia* species even though she moved to Brazil.

GILL has had a cytomorphology study of selected *Cassia* species in Nigeria published in *Adansonia* and has a similar paper on arborescent legumes in press in *Silvae Genetica*. Has started studies of Nigerian legume pollen, tracheary elements, *Cassia* seed germination, and effect of temperature on seed germination of *Pentaclethra macrophylla*. Suggests study of tropical legume seed anatomy. Needs viable seeds of African legumes.

GRETHER-GONZALEZ is working with *Mimosa* for Flora de Nicaragua and will be collecting in northwest Mexico during August and September, 1982.

GUNN notes with a mixture of weariness and pleasure that the U.S. National Seed Herbarium is moving to larger quarters in order to accommodate an expansion in staff and herbarium cases. For the first time all cases will be in one room with ample adjacent work space.

HEISER has for distribution a limited number of copies of his 1981 Presidential address to the Botanical Society of America, titled Taxonomy and Ecology of North American *Gleditsia*. He does not plan to publish this in the near future.

JOHNSON has started separate revisions of *Acanthoscelides* (Coleoptera: Bruchidae) for southern Mexico and Central America, and northern South America.

KEIGHERY has studies of pollination of *Jansonia* in press in *Western Australia Naturalist*, pollination of *Cupulanthus* (completed), and phytogeography of western Australian Fabaceae (completed). Has started separate studies of pollination biology and chromosome numbers of western Australian legumes. Also started a study of legume breeding systems (a resume of this work was used by ARROYO in her chapter of the Proceedings of the International Legume Conference).

KINGSOLVER has completed a study of bruchids (*Rhipibruchis*) associated with South American *Prosopis* and started separate studies of bruchids (*Scutobruchus*) associated with South American *Prosopis* and bruchids associated with Brazilian *Parkia*. Would like bruchids reared from South American *Prosopis* and *Parkia*. Will identify and return insects.

KRUKOFF. See STIRTON.

LABEYRIE. See COMBES.

LACKEY spent most of April and part of May in Botswana.

LANGENHEIM has completed a study of photosynthetic responses of Hymenaea and *Copaifera* seedlings while at the Australian National University, Canberra. Has started comparative studies of secondary chemical and lepidopteran interactions in Hymenaea and *Copaifera* of southwestern Brazil.

LEELAVATHI with MALVEY has finished several studies: Trichomes in Caesalpinioideae and Faboideae, styloids in Fabaceae, and stomata in Fabaceae. Interested in working with medicinal and toxic legumes. Wants seeds of Stylosanthes, Canavalia, and Rhynchosia.

LERSTEN has completed a SEM survey of seed coat anatomy and surface topography among tribes of the Faboideae.

MALVEY. See LEELAVATHI.

MARECHAL and BAUDOIN have prepared a descriptor's list for evaluating the lima bean.

MOHLENBROCK with D. R. Bissing has started an anatomical study of New World Pithecellobium. Also started revision of Enterolobium and Apios priceana, and continuing with studies of Stylosanthes and Zornia. Needs wood samples of North American Pithecellobium.

MUINZ is a new reader working on endangered Cuban species with Attila Borhidi. Will be collecting in Cuba.

NEILL has completed field studies of Central American Erythrina (variability, pollination, seed predation, chromosome counts). As part of dissertation will start a hybridization program at the Pacific Tropical Botanical Garden, Hawaii. Needs seeds of certain Erythrina species, especially from southern Mexico and tropical Africa. Offers Erythrina seeds and cuttings, which will remain viable even if mailed. Will be collecting in Central America during the winter of 1983.

NOZZOLILLO has finished a biometric study of Medicago, based on the thesis of Debbie Classen with SMALL, to be published in the Canadian Journal of Botany. She is the 1981-82 President of the Phytochemical Society of North America. Meeting and symposium (Mobilization of Reserves in Germination) to be held at the University of Ottawa, August 2-6, 1982.

POLHILL. Sent Flora Neotropical data in separate column. See also STIRTON.

REID is a new Reader.

RODRIGUEZ PEREZ completed a planting study of Phaseolus acutifolius var. latifolius in Teneriffe.

SENESSE is studying caesalpinoid pollen.

SHARMA is studying the relationship of pollution to white clover and alfalfa. Will be collecting in Central Asia.

SMALL. See NOZZOLILLO.

SOLEDAD is a new Reader.

STANKEVICZ (mispelled in BB-14 Directory as Stankovicz) has completed a study of Vicia subvillosa. Will be studying Section Orobus of Lathyrus.

STIRTON has completed a study of the 7 species complex known as *Eriosema squarrosum*. Is starting a revision of the ca 125 species of African Psoraleae. He will annotate and needs seeds of African Psoralea. He was awarded a five year fellowship to study New World Leguminosae (excluding the Mimosoideae). This fellowship has been made possible by a Trust Fund set up by KRUKOFF and administered by the Missouri Botanic Garden. He will be based at Kew and will work under POLHILL. While details are not established, the generic circumscription of New World Sophoreae have a high priority.

WEDER with H.-D. Belitz and F. Lynen have completed comparative studies on the inhibitory action of some legume seeds against human and bovine proteinases. Has started research on proteinase inhibitors in *Lens culinaris*, and has started with D. R. Murray an application of proteinase inhibitor pattern studies on the taxonomy of the Pulchellae group of *Acacia*.

ZINDLER-FRANK with H. T. Horner has two papers in press: Calcium oxalate crystals and crystal cells in leaves of *Rhynchosia caribaea* in *Protoplasma*; and histochemical, spectroscopic, and diffractometric identification of the two hydration forms of calcium oxalate crystals in three legumes and *Begonia* in *Canadian Journal of Botany*.

INIA, Centro Regional de Canarias is a new Reader.

RECENT LEGUME LITERATURE

- Arco, M. del. 1982. Sobre la presencia de *Genista* L. en la isla de La Palma (I. Canarias): *Genista benehaoavensis* (Bolle ex Svent) M. del Arco, comb. nov. (Fabaceae-Genisteae). *Vieraea* 11 (1-2):267-282.
- Arco, M. del, and ACEBES. 1982. *Teline salsoloides* M. del Arco & J. R. Acebes, sp. nov. (Fabaceae-Genisteae), una nueva especie para la isla de Tenerife (I. Canarias). *Vieraea* 11(1-2):251-266.
- BAHADUR and RAO. 1981. Seedling hardedness in Fabaceae. *Proc. Ind. Acad. Sci. (Plant Sci.)* 90:231-236.
- BARNEBY. 1981. New species of *Dalea* section *Parosela* (Leguminosae: Amorpheae) from Peru and Mexico. *Brittonia* 33(4):508-511.
- BASSLER. 1981. Revision of *Lathyrus* section *Lathyrstylis* Fabaceae. *Feddes Rept* 92(3):179-254.
- Bazilevskaya, N. A. 1980. A key to the weed genera of the order Fabales based on their fruits. *Moscow Univ. Biol. Sci. Bull.* 35(2):48-51.
- CARRILLO-FUENTES. 1982. Las Leguminosae del Valle de Rimac (Mimosoideae and Caesalpinioideae). *Bol. Soc. Peruana Bot.* 7(1-2).
- CARTER and RUDD. 1981. A new species of *Acacia* (Leguminosae: Mimosoideae) from Baja California Sur, Mexico. *Madrono* 28:220-225.
- COWAN and STAFLEU. 1981. *Rose* and *Britton*: From *Brittonrosea* to *Cassia*. *Brittonia* 33(3):285-293.
- Crankshaw, D. R., and LANGENHEIM. 1981. Variation in terpenes and phenolics through leaf development in *Hymenaea* and its possible significance to herbivory. *Biochem. Syst. Ecol.* 9:115-160.

- DELGADO SALINAS. 1981. *Macroptilium gibbosifolium* (Ortega) A. Delgado, the correct name for *M. heterophyllum* (Willd.) Marechal & Baudet (Fabaceae: Phaseolinae). *Systematic Botany* 6(3):294-296.
- Dell, B. and A. H. Burbidge. 1981. Notes on the biology of *Pilostyles* (Rafflesiaceae) in Western Australia. *Western Australian Herbarium Research Notes* 5:71-79. (Notes on an obligate internal parasite only on *Daviesia*, *Jacksonia*, *Oxylobium*, and *Gastrolobium* (Fabaceae)).
- FANTZ. 1980. New species of *Clitoria* subgenus *Bractearia* section *Brachycalyx* (Leguminosae) from Colombia, Venezuela, and Brazil. *Sida* 8(3):304-311.
- FANTZ. 1980. A new species of *Clitoria* subgenus *Neurocarpum* section *Neurocarpum* (Leguminosae) from Brazil. *Brittonia* 32(3):376-379.
- FANTZ. 1981. Taxonomic notes on new taxa of *Clitoria javitensis* and the exclusion of var. *glabra* Sagot. *Sida* 9(2):159-171.
- FERGUSON. 1981. Quelques remarques sur l'ultrastructure du pollen de deux especes de la sous-famille des Papilionoideae (Leguminosae) en relation avec le microenvironnement (Hygrometrie et hydrodynamique). *Mem. Mus. Nat. ser. Bot.* 27:45-50. (*Smithia sensitiva* and *Pseudarthria hookeri*).
- FERGUSON. 1981. The pollen morphology of *Macrotyloma* (Leguminosae: Phaseoleae). *Kew Bull.* 36:455-461.
- Fikenschner, Lucie H. and HEGNAUER. 1981. Die Verbreitung der Blausaure bei den Cormophyten. 18. Mitteilung. Weitere Beobachtungen bei den Leguminosae-Papilionoideae (Galegeae, Genisteae, Loteae, Phaseoleae). *Planta Medica* 43:323-335.
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- ISELY. 1981. Leguminosae of the United States. III. Subfamily Papilionoideae: tribes Sophoreae, Podalyrieae, Loteae. *Mem. New York Bot. Gard.* 25(3):1-264.
- JANZEN. 1981. *Enterolobium cyclocarpum* seed passage rate and survival in horses, Costa Rican Pleistocene seed dispersal agents. *Ecology* 62(3):593-601.
- Jay, M., B. Voirin, A. Hasan, J. F. Gonnet, M. R. Viricel. 1980. Chemotaxonomic essay on the tribe of the Loteae. *Biochem. Syst. Ecol.* 8(2):127-132.
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- JOHNSON. 1981. Interactions between bruchid (Coleoptera) feeding guilds and behavioral patterns of pods of the Leguminosae. *Environ. Entomol.* 10:249-253.
- KEIGHERY. 1981. Distribution maps of the Fabaceae of Western Australia. *Kings Park Res. Notes* 6:1-123.
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- Lawrie, A. C. 1981. Nitrogen fixation by native Australian legumes. *Aust. Jour. Bot.* 29(2):143-158.
- LEELAVATHI, N. Ramayya, and PRABHAKAR. 1981. Foliar stomatal distribution patterns in Leguminosae and their taxonomic significance. *Phytomorphology* 31:195-204.
- LERSTEN. 1981. Testa topography in Leguminosae, subfamily Papilionoideae. *Proc. Iowa Acad. Sci.* 88:180-191.
- LERSTEN. 1982. Tracheid bar and vested pits in legume seeds (Leguminosae: Papilionoideae). *Amer. Jour. Bot.* 69:98-107.
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