ENTOMOLOGY NEWSLETTER

Department of Entomology University of Illinois at Urbana-Champaign

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ACKNOWLEDGEMENTS

Most of the readers of this Newsletter do not know our secretarial staff, but I must take this opportunity to thank them for keeping all of us alive these last few years. <u>Donna Mohr</u>, until her recent leave to brood and deliver a male child; <u>Peggy Vaughan</u>, who has been of inestimable help in Donna's absence; and <u>Susan Matson</u>, who came this fall and has been plunged into more (different) things than she had bargained for, have made enormous contributions to whatever successes the department has had in teaching and research.

A last but not least word of thanks goes to <u>Eloise Duvall</u>, who remains a major foundation stone of our entire enterprise. I am sure that a large number of you remember her as a source of much of the teaching and research supply of insects, and she continues to perform her duties with the same attention to our needs that she has always shown.

DEPARTMENTAL ROSTER 1979-1980

BENNETTOVA, Blanka - Visiting Assistant Professor of Entomology

BERLOCHER, Stewart H. - Assistant Professor of Entomology

DELCOMYN, Fred - Associate Professor of Entomology & Physiology and Biophysics

FRAENKEL, Gottfried S. - Professor of Entomology, Emeritus

FRIEDMAN, Stanley - Professor and Head of Entomology

GHENT, Arthur W. - Professor of Entomology & Ecology, Ethology and Evolution

GUBLER, Duane J. - Associate Professor of Entomology

"HORSFALL, William R. - Professor of Entomology, Emeritus

HUMMEL, Hans E. - Assistant Professor of Entomology

JAYCOX, Elbert R. - Professor of Horticulture and Entomology

KOGAN, Marcos - Professor of Entomology & Agricultural Entomology & Entomologist

LABERGE, Wallace - Head, Faunistics Section, Illinois Natural History Survey and Professor of Entomology

LARSEN, Joseph R. - Professor of Entomology & Physiology and Biophysics & Director of SOLS

LUCKMANN, William H. - Professor of Entomology & Entomologist & Head of Economic Entomology Section

MACLEOD, Ellis G. - Associate Professor of Entomology & of Genetics and Development

MADDOX, Joseph V. - Associate Professor of Entomology & Agricultural Entomology & Associate Entomologist

METCALF, Robert L. - Professor of Entomology

RUESINK, William G. - Associate Professor of Entomology & Agricultural Entomology & Associate Entomologist

SELANDER, Richard B. - Professor of Entomology & Genetics and

SHARP, Maria R. - Visiting Associate Professor of Entomology

STERNBURG, James G. - Professor of Entomology

TOLIVER, Michael - Visiting Assistant Professor of Entomology

WALDBAUER, Gilbert P. - Professor of Entomology

WILLIS, Judith H. - Professor of Entomology & Genetics and Development

STAFF 1979-1980

Academic

Debrunner, Be#fina - Research Assistant Francis, Bettina M. - Post-Doc Jacobsen, Ned R. - Res. Asst. Nardi, James B. - Post-Doc Swanson, Julia A. - Res. Asst.

<u>Nonacademic</u>

Collins, Marty - Storekeeper I
Duvall, Eloise - NSLA III
Fisher, Mary - NSLA III
Fitzsimmons, James P. - Storekeeper III
Matson, Susan - Clerk Typist III

Millholin, E. Ruth - Principal Lab. Tech. Mohr, Donna - Staff Secretary Vaughan, Margaret A. - Clerk Stenographer III Wrisk, Lavella M. - Clerk Stenographer III

Students

Lee, Young-In Marlin, John C. Siegel, Joel P. Webb, Donald W.

Research Assistants

Bouton, Carl Foster, Michael A. Hart, Suzanne Hsueh, Tai-Fang Kampmeier, Gail E. Kawooya, John K. Miliczky, Eugene Sherrod, Daniel S. Stanley, Bruce H.

Teaching Assistants

Andersen, John Anderson, Pamela K. Anelli, Carol M. Belluck, David A. D'Amato, Lisa Lisowski, Edward A. Shanower, Thomas G. Sheppard, Walter S. Smith, David C. Tatro, Gary E.

Trainees and Fellows

Cox, Diana L. - NSF Fellow and U of I Fellow Fischer, Daniel - U of I Fellow Lisowski, Edward - U of I Fellow Miliczky, Eugene - U of I Fellow Stanley, Bruce - U of I Fellow Wesley, Susan - USPH Trainee Weis, Arthur - U of I Fellow

Students in Other Programs with Entomology Advisors

Gress, Paul - Ecology (Dr. Price) McPheron, Bruce - Ecology (Dr. Price) Thiery, Richard - Ecology (Dr. Price)

VISITORS TO THE DEPARTMENT OF ENTOMOLOGY

Dr. Blanka Bennettova Czechoslovakian Academy of Sciences Prague, Czechoslovakia

Working for three months with Dr. G.S. Fraenkel.

May Berenbaum
Department of Entomology
Cornell University

Dr. Shen Chi-yi and Delegation People's Republic of China

An official delegation of Chinese entomologist visited the School of Life Sciences, the Department of Entomology, and the Economic Entomology Section, Natural History Survey, August 19-22, 1979. The visiting entomologists were: Dr. Chu Hung-fu, Deputy Director, Institute of Zoology, Peking, a former graduate of this department (Ph.D. 1943); Dr. Chiu Shin-foon, Vice-President, South China Agricultural College, Kwangchou; Dr. Tsi Chao-sheng, Plant Protection Institute, Peking; Mr. Hsiao Kang-Sou, Forest Research Institute, Peking; and Mr. Yao Kang, Central China College of Agriculture, Wuhan. Two seiminars were presented, "A General View of Plant Protection in the People's Republic of China" by Dr. Shen Chi-yi, leader of the delegation, that also included four plant pathologists; and "Some Chinese Aphids of Major Importance" by Dr. Chu.

The visitors toured laboratories and visited field experiments in the School of Life Sciences, the College of Agriculture, and the Natural History Survey.

The visiting scientists were hosted at a formal dinner by Director J.R. Larsen, School of Life Sciences, and informally in the homes of Prof. W.H. Luckmann and R.L. Metcalf.

Dr. Blaine Cole Department of Biology Princeton University

Dr. Jan de Wilde Department of Entomology Agricultural University Wageningen, The Netherlands

Dr. Hugh Dingle Department of Zoology University of lowa Dr. William Hamilton Imperial College Field Station Silwood Park, Ascot, England

Dr. Robert Hilgesen Cornell University

Dr. F.K. Hsieh Plant Protection Center Taiwan

Dr. Chu Hung-fu People's Republic of China

Dr. Louis Jackai International Institute of Tropical Agriculture Ibadan, Nigeria

Dr. Anthony Joern School of Life Sciences University of Nebraska - Lincoln

Dr. Carl Johansen Department of Entomology Washington State University

Dr. Clive Jones Department of Entomology The University of Georgia

Dr. Lloyd Knutson U.S.D.A. Beltsville, Maryland

Dr. R.E. Lewis lowa State University Ames, lowa

Dr. Andrei Lobanov Laboratory for Plant Quarantine Moscow, USSR

Dr. Ryuichi Matsuda Biosystemation Research Institute Canada Department of Agriculture Ottawa

Dr. Robert A. Metcalf University of California Davis, California Dr. Carl Mitchell Vector-Borne Disease Lab. Center for Disease Control Fort Collins, Colorado

Dr. Dale Norris University of Wisconsin Madison, Wisconsin

Dr. N.C. Pant Commonwealth Institute of Entomology London, England

Dr. Marie Raabe Universite Pierre-et-Marie Curie Paris, France

Dr. Gary Reed U.S.D.A. Vincennes, Indiana

Dr. Jan Rose Department of Agriculature, Narrabri New South Wales, Australia

Dr. Frantisek Sehnal Entomological Institute Czechoslovakian Academy of Sciences Prague, CSSR

Dr. Richard Seifert
Department of Biological Sciencies
The George Washington University

Dr. S.R. Singh International Institute of Tropical Agriculture Ibadan, Nigeria

Dr. John Smiley Department of Zoology University of Texas

Dr. Keith Solomon
Department of Environmental Biology
University of Guelph

Dr. S. Sumarmo University of Indonesia Jakarta, Indonesia Dr. Jerzy Szyrmer Plant Breeding and Acclim. Institute Warsaw, Poland

Dr. Jerry Vandeberg Ultra Structure Research V.A. Medical Center San Diego, CA

Dr. S. Vassiliev Institute of Plant Protection Lenningrad, USSR

Dr. Michael Zimmerman
Department of Entomology
College of William and Mary

MESSAGE FROM THE HEAD

Once again it is my pleasure to be given the opportunity to write a few paragraphs concerning the department and its doings over the past two years. It doesn't seem that long since I have been in communication with you, perhaps because it is so easy to pick up the threads of relationships with old friends. If the get-togethers at the national meetings of the Entomological Society, both this year and last, are any indication, I have the feeling that we all take pleasure in seeing one another. The mixers have been enormously successful; they have given me the opportunity to see many of you (certainly over 100 were in attendance both this year and last), and, more important, have given many of our older graduates a chance to meet, speak with, and in view of the positive comments I got, be impressed with our new students. If any of you were at the meetings and could not get to the mixer, I hope that you will make up for it this year in Atlanta. We will be looking for you.

Which leads me to some moments of mixed proselytization and pride. The ESA is the entomological society, for better or worse, its activities reflecting the membership, and vice versa. It is beset with many problems these days, with CAST and ARPE just a sample of the excellent opportunity for polemic. I do not, at this time, intend to take advantage of you by writing about these subjects without having to face rebuttal, but I do wish to make the plea that, if you are not presently a member, you join immediately. Voting membership in the ESA is a prerequisite for giving vent to any viewpoint. And viewpoints we must all have, since our futures and that of this organization are tied together.

In looking at the program of last year's national meeting, I was both amazed and proud of the fact that so many present and past department members were prominent in the scientific sessions. (Without taking an accurate count, I know that at least I4 papers were presented by present students and faculty, others were session chairpersons, two symposia were dedicated to Gottfried Fraenkel, etc.). But, with references to having a political impact on the organization, where do we stand? How can we help to shape the society if we do not participate at other levels? I hope that those of you who are asked to serve on the various committees will do so with a will and the knowledge that what you accomplish is meaningful for all of us. I also recommend that you do not hesitate to write letters to the committees involved in dealing with some of the basic sources of discontent, i.e., special interest groups claiming the protection of the organization, publications, etc.

Well, enough of that. There are a number of changes within the department that you should be aware of, some sad, others happy. Peter Price has left us, but to make us feel somewhat better, we have obtained the services of another Cornell graduate, May Berenbaum. Ms. Berenbaum is one of Paul Feeny's students, working on secondary plant compounds and their importance

in establishing insect-host relationships. We are, without exception, very excited that May decided to join us, and I am certain that those of you who will not be able to meet and speak with her in Atlanta will become aware of her work through the journals within the near future. She will be on the campus by the middle of August, so if you have any students who are interested in working in the area of ecology, send them around to talk.

We are also losing Duane Gubler who has decided that his interests in hemorrhagic dengue fever are better served by working for the federal government. We hate to see him go, but we hope that within the near future we will be permitted to re-institute a search. With luck, we will be on our way toward filling the medical entomology vacancy by the time of the national meetings.

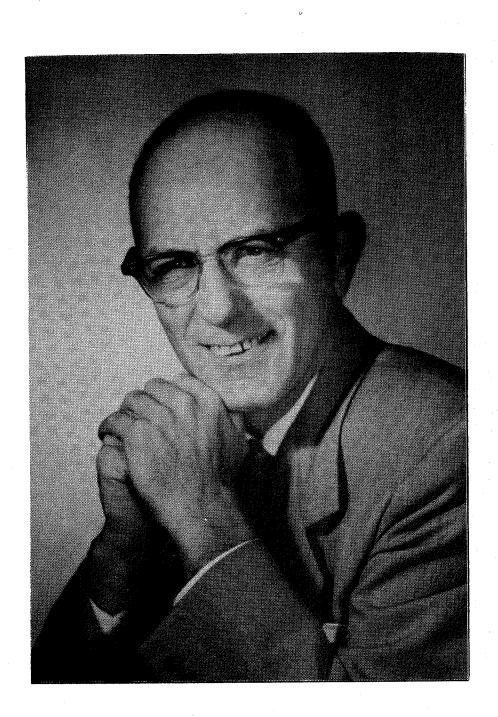
If these vacancies and hirings sound traumatic, you must realize that it is partly through this mechanism that new ideas and approaches are made available to the students. The times may be difficult, but for those of us here they are exciting as well.

We have rounded out our joint appointments from the Natural History Survey, by asking Dr. J.V. Maddox, the leading insect pathologist at the Survey, to join the department. The Survey has been and continues to be a source of strength to us, and now more than ever we depend upon our joint appointees, Kogan, LaBerge, Luckmann, Maddox, and Ruesink to help us in dealing with the critical areas of systematics and pest management.

As far as other new blood is concerned, we graduated a number of students last year, and, as a result, brought in a fairly large crop of new ones. They are doing well, and, I hope, enjoying themselves. Many were at the Denver meetings, but if you were absent, you can meet them through their advertisements for themselves a littler further on in these pages.

As you will note, the department has dedicated this year's issue to Herb Ross, who died a year ago last November. I had the privilege of knowing Herb as a friend for awhile and would like to add my voice to those who have told me how much they treasure their memories of him. He was a good person as well as being a leader in systematic entomology.

To close this somewhat rambling and uncoordinated series of remarks, I would simply like to tell you once again how much I enjoy hearing from you and seeing you on those occasions that the opportunity arises. We, here, are doing well and working hard to maintain the standards you have come to expect from your "old department."



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IN MEMORIUM -- HERBERT H. ROSS

Dr. Herbert H. Ross was associated with the Department of Entomology for almost 30 years. He first came to the University of Illinois from Canada in 1927 as a graduate student in entomology. Dr. Ross received his M.S. in 1929 and Ph.D. degree in 1933. Dr. C.L. Metcalf was his advisor. While he was a graduate student he accepted an appointment as Assistant Taxonomist at the Illinois Natural History Survey, and in 1931 he was appointed Systematic Entomologist.

In February 1932, he married Jean Alexander, a graduate student in zoology at the university, and in 1935 he was appointed Head of the Section of Faunistic Surveys and Insect Identification at the Survey. Later he was to become Principal Scientist (1956), Acting Chief (1962) and Assistant Chief (1963) of the Survey.

Dr. Ross held the position of Professor of Entomology from 1947 until his retirement in 1969. Professor Ross was active in the department, and in addition to directing the research of his own graduate students and serving on the committees of other graduate students, he taught a graduate course in systematic entomology. During the 22 years he held an appointment in the department he had approximately 22 M.S. and Ph.D. students in systematic entomology.

Professor Ross was one of the most productive entomologists in North America and during the course of his career he published approximately 220 scientific publications, including 6 books and chapters in 7 other books. His books included: A textbook of Entomology (1st ed. 1948, 2nd ed. 1956 and 3rd ed. 1965), Evolution of the mountain caddisflies (1956), A synthesis of evolutionary theory (1962), Understanding evolution (1966), The classification, evolution and dispersal of the winter stonefly genus Allocapnia (1971), and Biological systematics (1974).

His research was recognized in many diverse fields including evolutionary theory, community ecology, biogeography and systematic entomology. Within the Insecta, Professor Ross' work was wide ranging in many orders including the Orthoptera, Piecoptera, Hemiptera, Homoptera, Megaloptera, Neuroptera, Trichoptera, Diptera and Hymenoptera. He was recognized as a world authority in the Trichoptera.

Dr. Ross served as president of a number of scientific societies including the Entomological Society of America (1954-1955), Society for the Study of Evolution (1966-1967), and the Society of Systematic Zoology (1973-1974).

Professor Ross' broad knowledge of the Insecta was unsurpassed. He willingly shared his knowledge with students and colleagues. He was a gentleman and a humorist who could illustrate a point with a well chosen story, and he was widely respected throughout the scientific community.

In 1969, after retiring from the Illinois Natural History Survey and University of Illinois, Dr. Ross accepted a position as Professor of Entomology at the University of Georgia at Athens. He retired in 1977 from the University of Georgia. He taught systematic entomology in the department and directed the research of 7 M.S. and Ph.D. students. His last book, <u>Biological Systematics</u> was published while he was at the University of Georgia.

Professor Ross died on November 2, 1978 in Athens. He was 70 years old. He is survived by his wife Jean; a sister Mary Ross of Vancouver, British Columbia; a son, Dr. Charles Alexander Ross and his wife Dr. June Ross of Bellingham, Washington. A memorial fund has been established jointly by the Illinois Natural History Survey and Department of Entomology at the University of Illinois to honor Professor Ross. Contributions may be made to the Herbert H. Ross Memorial Fund, University of Illinois Foundation, 224 Illini Union, Urbana, Illinois 61801.

John D. Unzicker Illinois Natural History Survey

THE BALDUF AWARD

The Balduf Award Committee, consisting of H.E. Hummel and R.L. Metcalf, met repeatedly during March and April 1979 to discuss and evaluate 13 entries received from 9 of our alumni and students. The committee noted the high quality of most of the papers.

Based on the criteria of originality, skill and observation, experimental difficulty of the test system, skill of interpretation of results, and style of writing (with originality ranking on top), the following awards were made:

First Prize

"Dr. Chris T. Maier - Dual Mate-Seeking Strategies in Male Syrphid Flies (Diptera: Syrphidae). Annals of the Entomological Society of America 72:54-61.

<u>Second Prize</u>

Dr. William F. Walker - Mating Behaviour in <u>Oncopeltus fasciatus</u> (Dallas): Effects of Diet, Photoperiod, Juvenoids and Precocene II. Physiological Entomology <u>3</u>:147-144.

Third Prize

Dr. Mark A. Mayse - Effect of Spacing Between Rows on Soybean Arthropod Populations. Journal of Applied Ecology 15:439-450.

I thank all alumni and students for their time and effort and for the high quality of their contributions. They have been an honor to Dr. Balduf's name and to the Department of Entomology.

EGSA REPORT

This year the EGSA has seen many changes. With the large number of new students a new spirit of comradeship and purpose can be seen in our new and old members alike.

We have revived several of our past institutions, including the EGSA newsletter (now called "The Hexapod Herald"), the display committee, and the activities committee.

The Hexapod Herald is the finest newsletter the EGSA has ever had. Under Sue Wesley's direction and with her able committee, the Herald is both entertaining and informative. We are now receiving articles from contributors from other universities. Alumni should feel free to contact Sue about contributing articles. We would like to hear what you've been up to.

The display committee has undertaken the task of maintaining entomology-oriented displays in two areas of Morrill Hall. Besides the traditional cabinet in the east end of the third floor, we have acquired the display cabinet on the first floor by the main stairwell. This will give us a fine opportunity to point out entomology's impact on the scientific community and society as a whole. Pam Anerson is chairman of this newly reorganized committee, and included in her ambitious plans is the setting up of a permanent EGSA display in the Union. This will depend upon whether the Union will give us a space.

The activities committee has really lived up to its name! Gail Kampmeier is the chairman of the committee, and under her direction the committee has organized several fine events alrady. The fall picnic was one of the best in recent years. Everyone enjoyed various homecooked delicacies at the Christmas party and a good time was had by all watching movies and listening to carols.

Steve Heydon has been organizing an entomology volleyball team, and says the team will issue a challenge to the faculty this spring. The activities committee is also trying to revive the traditional softball rivalry with Purdue.

The seminar committee under Mike Foster's direction has given us a good program so far this year. Many of the students and faculty enjoyed discussions with this fall's guest speaker, Dale Norris. Dr. Norris discussed his work on quinone receptors in the cockroach.

A newly formed committee which will provide a service to prospective students is the new Student Orientation Committee. This committee under Ed Lisowski's direction will arrange for visiting applicants to stay at various EGSA members' homes free of charge, during their visit to the U of I. The committee will also provide a tour of the finer spots both on campus and in town. This committee will surely be an asset to both the EGSA and the department.

The EGSA has gathered alot of momentum in recent months, and we are planning ways to keep this momentum in the future. The reason for the recent success of the EGSA is in the willingness of its members to contribute and help each other out. All of us can be proud of the heritage of the organization and our part in further building its strength.

Respectfully submitted, The president of the EGSA

RECENT GRADUATES

Ph.D. 1978

Nancy Jean (Edmunds) Agafitei was born in Blue Island, Illinois, February 2, 1948. She graduated from Dwight D. Eisenhower Community High School in Blue Island in 1966 and was awarded a B.A. in Biology from Wartburg College, Waverly, Iowa in 1970. In 1972 she received her M.S. in Entomology from the University of Illinois at Urbana-Champaign.

Mrs. Agafitei was the recipient of the Wartburg College Regents scholarship (1966-1970), a University of Illinois Fellowship (1970-1972), and a University of Illinois Summer Fellowship for Teaching Assistants (1973-1976). She also served as a teaching assistant in several biology, entomology, and zoology courses. During 1976-1977 she was employed as a lecturer in genetics at the University of Wisconsin/Parkside in Kenosha.

Mrs. Agafitei received her Ph.D. degree in January 1978 with Dr. Selander. Her thesis was entitled "A taxonomic study of first instar larvae of the Vittata, Corvina and Maculata groups of the genus <u>Epicauta</u> (Coleoptera, Meloidae)."

Societies to which Mrs. Agafitei belongs are the American Society of Zoologists, the American Institute of Biological Sciences, the Entomological Society of America, and the American Association of University Professors.

David Liewellyn Evans was born on April 20, 1945 in Tucson, Arizona and graduated from Kofa High School, Yuma, Arizona. He attended Arizona Western College, Yuma for one year and received his B.S. from the University of Arizona, Tucson. He received his M.S. from Utah State University, Logan.

He was a National 4-H Congress Delegate and received a Santa Fe 4-H Achievement Scholarship. Evans has been elected to B8B, Biological Sciences Honorary and Sigma XI, the North American Sciences Honorary.

His experiences include teaching assistantships at Utah State University and at the University of Illinois. He has been a Cotton Field Checker for Krop Care of Arizona. In Sierra Leone, West Africa, he taught high school biology and Entomology at Njala University College.

Mr. Evans received his Ph.D. degree in October 1978 with Dr. Waldbauer. His thesis was entitled "Strategies for survival: Avian Insectivores and a Batesian mimic with its bumblebee model."

Marion Eugene Farris was born December 17, 1933 in rural Wayne County, Illinois. He attended Fairfield Community High School of Fairfield, Illinois, but did not complete requirements for a diploma. He was later awarded a Certificate of Equivalency by the Department of Education, State of Alaska, while serving on military duty in that state.

While in the military he attended San Antonio College, San Antonio, Texas, the Anchorage Community College of the University of Alaska, Anchorage, Alaska, and the United States Armed Forces Institute. In 1971, he enrolled in the University of Illinois at Urbana-Champaign. He was awarded a B.S. in Forestry in 1974 and a M.S. in Forestry in 1975.

Mr. Farris received his Ph.D. degree in April 1978 with Dr. Luckmann. His thesis was entitled, "Bionomics of the walnut caterpillar, <u>Datana</u> intergerrima G & R."

Louis Ernest Ndiva Jackai was born on January 4, 1947, in Victoria, United Republic of Cameroon, West Africa. His secondary and post-secondary school education were received in both mission and government-owned schools in Cameroon.

In 1968, he began his university career at the University of Cape Coast in Ghana (West Africa) where he graduated with a B.S. degree in Zoology-Botany-Education in July 1972. Between college and graduate school Jackai worked as a science and French teacher at the Presbyterian Secondary School in Mamfe, Cameroon. In August, 1973, Jackai started graduate study at the University of Wisconsin (Superior) and graduated a year later with a Master of Science degree in Biology. Following this he entered the Ph.D. program at the University of Illinois studying under Dr. Kogan. Mr. Jackai received his Ph.D. degree in October 1978. His thesis was entitled "Induction and host-selection behavior in the soybean looper, Pseudoplusia includens, Walker (Lepidoptera: Plusinae)."

During the course of his studies Jackai served as a teaching assistant in the Entomology Department, and as a research assistant in the Section of Economic Entomology at the Illinois Natural History Survey. In June 1978, Louis Jackai was offered a post-doctoral appointment at the International Institute of Tropical Agriculture (IITA) in Ibadan, Nigeria, West Africa, where he later continued his work on host-selection and other related areas of entomology. Jackai spent the summer of 1978 working in the City of Urbana, Illinois, as a St. Louis Encephalitis (SLE) Prevention Scout. He is a member of the Entomological Society of America, the Entomological Society of Canada, and the Illinois State Academy of Science.

Michael Robert Jeffords was born August II, 1949 in Brookport, Illinois. He received his primary and secondary education in Brookport, and then entered Paducah Junior College and, subsequently, Murray State University. He majored in biology and graduated with high distinction, receiving his Bachelor of Arts degree in January, 1972.

In September, 1973 he entered graduate school in the Department of Entomology at the University of Illinois and began graduate study under Dr. James Sternburg. He was supported by teaching assistantships in a variety of entomology courses and research assistantships during his tenure in the department. He is a member of the Entomological Society of America and the Lepidopterists' Society.

He received his M.S. degree in January 1976, and his Ph.D. degree in October 1978. His thesis was entitled "Batesian mimicry: the selective advantage of color patterns."

José Antonio Mari Mutt was born on December 14, 1952 at Mayagüez, Puerto Rico. He completed his elementary and high school education in the Academy of the Immaculate Conception at Mayagüez. In August 1970 he entered the Mayagüez campus of the University of Puerto Rico where he received a Bachelor of Science degree in Zoology in May 1974.

In August 1974 Mr. Mari Mutt entered the Department of Entomology at the University of Illinois, and in January 1976, was awarded a Master of Science degree in Entomology. He received his Ph.D. in May 1978 studying under Dr. Stannard. The title of his thesis was "A revision of the scaled Orchesellinae (Insecta: Collembola: Entomobryidae)."

José Mari Mutt is a member of the following honor and scientific societies: Beta Beta Beta, Sigma Xi, Illinois State Academy of Science, Entomological Society of Washington, Kansas Entomological Society and the Pacific Coast Entomological Society.

Brian Edward Melin was born in Berwyn, Illinois, on December 10, 1943. He attended public schools in Grayslake, Illinois, and graduated from Grayslake Community High School in June 1962. He received the degree of Bachelor of Arts in Biology from Carthage College, Kenosha, Wisconsin, in June 1968. He received the degree of Master of Arts in Biology from Bowling Green State University, Bowling Green, Ohio, in March 1969.

In July 1969, he began active duty in the U.S. Army. He completed basic preventive medicine training and spent two subsequent years working in the Entomology Laboratory, U.S. Army Medical Center, Okinawa. After receiving an honorable discharge, he worked for two years in an industrial laboratory testing microbial insecticides.

In September 1974, he began graduate studies in the Department of Entomology with Dr. Maddox at the University of Illinois. He was a teaching assistant for the first year, and held a research assistantship for the remainder of his studies at the University of Illinois. He graduated in May 1978 with a Ph.D. in Entomology. His thesis was entitled "The developmental biology of Euplectrus platyhypenae Howard (Hymenoptera: Eulophidae), a parasitoid of Pseudaletia unipuncta (Haw.) (Lepidoptera: Noctuidae), and the effects of a microsporidian disease of the host on the parasitoid."

Daniel Allen Strickman was born on February 9, 1953, in San Diego, California. Following receipt of his high school diploma from Mission Bay High School in 1971, he entered Dartmouth College, Hanover, New Hamphsire, in September, 1971. He left Dartmouth College in June, 1973, for a leave of absence at the University of California, Riverside. He completed his Bachelor of Arts degree in biology at Riverside in June, 1974, and officially resigned from Dartmouth College in August of the same year.

Mr. Strickman entered the Department of Entomology at the University of Illinois, Urbana-Champaign, in August, 1974. There, he received his Master of Science degree in May, 1976, and his Ph.D. degree in May, 1978, both in Medical Entomology, under the direction of Dr. Horsfall. His thesis was entitled "Selection of oviposition sites by Aedes vexans (Meigen and Aedes trivittatus (Coquillett) (Diptera: Culicidae)."

William Francis Walker was born December 23, 1942 in Takoma Park, Maryland. He attended primary and secondary schools in Prince Georges County, Maryland, and attended Montgomery Junior College for 2 years. During a subsequent 5 years at the University of Maryland, he was awarded the B.S. degree in Agronomy (1965) and a M.S. degree in Entomology (1967). Four years were then spent as a research assistant at the Insects of Ornamentals and Vegetable Crops Laboratory, USDA, ARS, Beltsville, Maryland. He entered the Ph.D. program in Entomology at the University of Illinois in 1972 with Dr. Willis. While there he served as a teaching assistant in several introductory biology courses and in introductory entomology. During the summers of 1976 and 1977, he attended the Friday Harbor Biological Laboratories, University of Washington. Mr. Walker received his Ph.D. degree in May of 1978. The title of his thesis was "Interrelations of hormones, diet, photoperiod and mating on reproductive maturation and behavior and feeding behavior of adult Oncopeltus fasciatus (Dallas)."

He is a member of Alpha Zeta, Phi Sigma, Phi Kappa Phi, the Entomological Society of America, and the American Society of Zoologists.

Barbara Trempe Walton, nee Lowman, was born July 31, 1948, in Greensburg, Pennsylvania. She was graduated from Latrobe High School in 1966 and received an Associate of Arts degree in Liberal Arts from Cuyahoga Community College, Cleveland, Ohio in 1968. In 1971 she was graduated from the Ohio State University at Columbus, Ohio with a Bachelor of Arts in Zoology. After a year in the Entomology graduate program at the Ohio State University, she transferred to the Department of Entomology at the University of Illinois, Champaign-Urbana.

As a graduate student, Ms. Walton served as a teaching assistant at the Ohio State University and at the University of Illinois during her first year there. She was also a research assistant to Dr. Robert L. Metcalf (1973-1975) on a Rockefeller Foundation grant for the development of novel, selective, and non-persistent insecticides. Her doctoral studies were completed as a National Institute of Environmental Health Sciences' pre-doctoral trainee in environmental toxicology (1975-1977) through the Institute for Environmental Studies at the University of Illinois. She received her Ph.D. degree under Dr. Metcalf in January of 1978. The title of her thesis was "Comparative metabolishm, structure-activity, and mode of action studies of diflubenzuron and DTBB in Culex quinquefasciatus Say."

She is a member of the Entomological Society of America, the American Chemical Society, and the American Association for the Advancement of Science.

Phillip Lowell Watson was born in Fort Worth, Texas on August 25, 1946. He received his B.S. and M.S. degrees from Eastern Michigan University and was an Instructor at Schoolcraft Community College and Wayne County Community College before coming to the University of Illinois in 1974.

While studying at the University of Illinois under Drs. Luckmann & Ruesink, he held several offices in the Graduate Student Association including the presidency. Mr. Watson received his Ph.D. in November 1978. His thesis was entitled "The biology and a computer simulation of the population dynamics of Tribolium confusum (Order Coleoptera, Family Tenebrionidae) with an introduced pathogen, Nosema whitei (Order Microsporidia, Family Nosematidae)."

Mr. Watson served in the United States Air Force from January 3, 1966 to May 15, 1969 and received an honorable discharge. He is married and has one child.

Linda Marie Zaitlin nee Haase was born December 31, 1950 in Queens, New York, where she attended St. Pancras Parochial School and Christ the King High School, and became a member of the National Honor Society. She received a Bachelor of Arts degree in Biology and a Biology Honors Award from Queens College of the City University of New York in 1972. Mrs. Zaitlin was awarded her Ph.D. degree in entomology in October 1978 from the University of Illinois where she studied with Dr. Larsen. Her thesis was entitled "Morphology of the head and mouth parts of Mydas clavatus Drury (Diptera: Mydaidae)."

During her tenure at the U of I, she served as a teaching assistant for three years. Her memberships in professional organizations include the Entomological Society of America, the American Association for the Advancement of Science, and the American Society of Zoologists. She married Mark Paul Zaitlin on August II, 1973.

M.S. 1978

Jeanne Penman Harvey received her Master of Science degree in October 1978 from the University of Illinois where she studied with Dr. Metcalf. Her thesis was entitled "Biosystematics and hybridization in five species of Diabroticites."

Lynn Patricia Pautler received her Master of Science degree from the University of Illinois in January 1978 under the direction of Drs. Luckmann and Hummel. Her thesis was entitled "Monitoring the seasonal appearance and density of black cutworms with virgin female traps in Illinois."

Ph.D. 1979

Lam Alexander Au was born on May 31, 1952 in Hong Kong. He received his high school education in St. Paul's College in Hong Kong. In 1970, he departed for Taiwan and was enrolled in the Department of Plant Pathology and Entomology, National Taiwan University in Taipei for his undergraduate study. During his four years of study at National Taiwan University, he received several honorable scholarships and awards including the Outstanding Students' Award and the Distinguished Oversea Chinese Students' Scholarship. He was also a student representative of the latter. Under the direction of Professor Peter M. Tang, he finished his B.S. degree and completed a thesis entitled "The activities of several synthetic insect juvenile hormones against the larvae of the lesser mealworm, Alphitobius diaperinus" in 1974.

Mr. Au came to the United States and enrolled in the Department of Entomology, University of Illinois in 1974. He completed his Ph.D. degree in April 1979 under the direction of Dr. Metcalf. His thesis was entitled "Pesticide interactions in the laboratory rice paddy model ecosystem."

As a graduate student, he served as a research assistant to Dr. Robert L. Metcalf with fellowship support from the Gulf Research Foundation and the Rockefeller Foundation. He was also a member of the badminton team of the Illini Chinese Athletic Club and the Illini Chinese Christian Fellowship. He is a member of the Entomological Society of America and the American Association for the Advancement of Science.

Mr. Au married Yu-chu Lee on January 8, 1977.

Mohammed Yousuf Husain Farooqui was born on August 12, 1947 in Hyderabad, India. He graduated from Anwarul Uloom High School in Hyderabad in 1963. In 1964 he entered Andhra Pradesh Agricultural University (Hyderabad, India) from which he received his B.S. in 1968 and his M.S. in Entomology in 1970. During this time he served as both a teaching assistant and a research assistant in Entomology.

Mr. Farooqui came to the United States in 1973 and enrolled as a student at the University of Illinois. Studying under Dr. Metcalf, he was awarded an M.S. in Entomology in 1975 and a Ph.D. in entomology in April 1979. His thesis was entitled "Penetration, detoxication and excretion of six ethoxychlor analogues with altered aliphatic moieties in susceptible and DDT-resistant houseflies."

He worked as a research assistant and later as a teaching assistant in Fundamentals of Insect Control and Toxicology of Insecticides. Societies to which he belongs include the Entomological Society of America and the American Association for the Advancement of Science.

<u>Charles Frederick Gerdes</u> was born June 25, 1945, in Keokuk, Iowa. He attended elementary and secondary schools in Hancock County, Illinois. He graduated from Western Illinois University in 1967 with a Bachelor of Science degree in Biology. During the 1967-1968 school year, he taught biology and general science at Byron High School, Byron, Illinois. This was followed by three years in the Army working in Electronics.

In 1972 he began a graduate program at Western Illinois University and received a Master of Science degree in zoology in 1974. In September 1974 he began studying for the Ph.D. degree in entomology under Dr. Stannard at . the University of Illinois.

Mr. Gerdes received his Ph.D. degree in May 1979. His thesis was entitled "An analysis of a generic complex of New World plant-litter thrips (Thysanoptera: Phlaeothripidae: Glyptothripini)."

He is a member of the American Entomological Society, Cambridge Entomological Club, Entomological Society of America, Entomological Society of Washington, Illinois State Academy of Science, and Sigma Xi.

She attended Duluth East High School, and then DePauw University from which she received a Bachelor of Arts degree. She attended Monash University in Victoria, Australia for one academic year and University of Montana Biological Station and University of Minnesota, Duluth, each for one summer. In addition she studied with Dr. Marcos. Kogan at the University of Illinois completing her Ph.D. degree in June 1979. Her thesis was entitled "Aphid transmission of soybean mosaic virus: some potential means of culture control."

Kurt Eric Redborg was born October 31, 1949 in Aurora, Illinois. He attended Danville High School in Danville, Illinois and graduated in 1967. In 1971 he graduated from the University of Illinois with honors in Biology and was awarded an M.S. in Entomology from that same institution in 1973.

He became interested in the family Mantispidae while serving as a teaching assistant in an Insect Taxonomy course and continued his studies on the Mantispidae while working as an Assistant Specialist in Agricultural Entomology at Dixon Springs Agricultural Center from 1974 to 1976. After this he completed requirements for the Ph.D. in Entomology under the direction of Dr. MacLeod, and graduated from the University of Illinois in May 1979. His thesis was entitled "The developmental ecology of the Mantispidae (Neuroptera: Mantispidae)."

During his tenure as a graduate student Mr. Redborg served as a teaching assistant and held an NDEA graduate fellowship. Professional societies to which he belongs are The American Association for the Advancement of Science, The Entomological Society of America, and The American Arachnological Society.

Mr. Redborg married Annemarie Heger in September 1971. They have two daughters, Kirsten Erica and Kaitlin Electa. His hobbies include running.

Michael Edward Toliver was born on October I, 1949, in Albuquerque, New Mexico. He attended Del Norte High School from which he graduated in 1967. In 1968, he joined the U.S. Marine Corps and served in the ex-Republic of Vietnam with the 3rd Battalion, 1st Marines in 1968 and 1969. Upon his discharge in December 1969, he began studies in biology at the University of New Mexico and graduated with his B.S. in May 1973.

He began his graduate education in August 1973 under the direction of James G. Sternburg, supported by teaching assistantships. In 1975, he returned to New Mexico to work in insect research for the U.S. Forest Service. Returning to Illinois in 1976, he managed an encephalitis control program for the city of Urbana and resumed his graduate studies in the fall of that year. He was supported by teaching assistantships in a variety of courses and a research assistantship. He received his M.S. and Ph.D. degrees in Entomology from the University of Illinois in 1977 and 1979 respectively. His thesis was entitled "The efficacy of Batesian mimicry in an urban environment."

Mr. Toliver is a member of the American Entomological Society, American Association for the Advancement of Science, Cambridge Entomological Club, Kansas Entomological Society, Lepidopterists' Society, New York Entomological Society, Society for the Study of Evolution and the Xerces Society.

Lee Anne Turner was born on September 5, 1951, in Chicago, Illinois. She graduated from Niles Township High School in Skokie, Illinois, in August 1968. She attended Grinnell College in Grinnell, lowa from 1968-1972. Through Grinnell College, she participated in two Associated Colleges of the Midwest programs: Introductory Geology in the Rocky Mountains in the summer of 1970 and the Costa Rican Developmental Studies program (June - December, 1971). She graduated with an A.B. in biology in May 1972.

Ms. Turner began her graduate work in September 1972 at the University of Illinois at Urbana-Champaign and received her M.S. in Entomology with a specialization in Pest Management in October 1974. She served as a teaching assistant in the following courses: Agricultural Entomology, Fundamentals of Insect Control, and Chemistry and Toxicology of Insecticides. In addition, she worked as a research assistant in the Economic Entomology Section at the Illinois Natural History Survey.

Ms. Turner received her Ph.D. in entomology under the direction of Dr. Kogan in May 1979. Her thesis was entitled "Bionomics of the bean leaf beetle <u>Cerotoma trifurcata</u> (Forster) (Coleoptera: Chrysomelidae) in Illinois."

She is a member of the Entomological Society of America, the American Registry of Professional Entomologists, and the American Association of University Professors.

M.S. 1979

Glenn Allen Levinson received his Master of Science degree from the University of Illinois in May 1979 under the direction of Dr. Waldbauer. His thesis was entitled "Distribution of bean leaf beetle eggs, larvae and pupae in relation to soybean plants: determination by emergence cages and soil sampling techniques."

Edward A. Lisowski received his Master of Science degree from the University of Illinois in May 1979 under the direction of Dr. Berlocher. His thesis was entitled "Biochemical systematics of the genus Strauzia (Diptera: Tephritidae).

<u>Walter Steven Sheppard</u> received his Master of Science degree from the University of Illinois in October 1979 under the direction of Dr. Jaycox. His thesis was entitled "Relationships between honey bees and soybeans."

Steven W. Wagner received his Master of Science degree from the University of Illinois in August 1979 under the direction of Dr. Ruesink. His thesis was entitled "Natural enemies of Rhopalosiphum maidis (Fitch) on corn: with special reference to Orius insidiosus (Say)."

Ph.D. 1980

John Carl Marlin was born in Murphysboro, Illinois on July 26, 1949 and for the most part grew up in Washington, Illinois. He attended Loras College in Dubuque, lowa between 1967 and 1969 before coming to the U of I as a junior. He received a B.S. in Biology in 1971 and an M.S. in Entomology in 1973. Work experience includes several years as a research assistant at the Illinois Natural History Survey and U of I, as well as teaching Public Policy and Environmental Change In the Department of Landscape Architecture.

Mr. Marlin has been employed as Executive Director of the Central States Resource Center since 1973. He has published numerous articles on natural resource utilization, especially in the transportation and water resources areas. He is a registered lobbyist and has lectured nationally on resource development and utilization. He is a member of the National Science Foundation's External Work Group on Flood Damage Mitigation.

Mr. Marlin has conducted research on the behavior of ants, bee faunal relationships, Mecoptera, and pesticide accumulation. He has five entomological publications and two more in preparation.

John Marlin will graduate in May, 1980. His thesis is entitled, "Ecological magnification of persistent Organochlorine pesticides in an Illinois watershed."

STUDENT AND STAFF NEWS

ANDERSEN, John. I am finishing up my first year in the Department which was spent taking courses, as a teaching assistant, and working with Dr. Hummel on the chemical communication of the Southern Corn Rootworm.

I spent last summer attempting a field disruption of mating and feeding behavior using artificial disruptor chemicals and assisting for Dr. Sternburg in his summer entomology course.

Advisor: H.E. Hummel

ANDERSON, Pamela. This is my first year with the entomology department. I graduated from Northwestern University in 1977 with a B.A. in Biology. Since then I've spent six months as a research assistant studying vertebrate ecology in Central America, a year as a research associate with an environmental group in Chicago where I worked on pest management policy, and this past spring and summer doing field work in Northern California for the U.S. Division of Wildlife. Going from work with vertebrates to the microscopic histology we've been doing in morphology lab this fall has been the challenge of the semester.

If I succeed, the remainder of the year will be devoted to continuing core course work and delineating a specific research project. I plan to pursue my interests in pest management.

Advisor: S. Friedman

ANELLI, Carol. My car, my dog, and I have (astonishingly) survived the Joad-like U-haul-it trek from the Nutmeg state to the U of I. The menage now fully established, we are fast becoming acclimated to the student's life and times. To quote Piet Hein,

All we know
we learn to doubt
in life's successive schools.
Which goes to show
we started out
unutterable fools.

I claim no exception, and thus my struggle towards increased intellectual fitness is endless.

Advisor: S. Friedman

BELLUCK, David. In the past two years I have completed course work, passed prelims, T.A.'d Zoology, General Entomology, and Insect Control, consulted for the City of Champaign by organizing their Viral Encephalitis Control Program, and been given a research assistantship at the Illinois Natural History Survey under Dr. Alan Felsot to examine Illinois farm soils for pesticide residues. My Ph.D. research concerns the effects of pesticides on non-target aquatic organisms. Part I of my study is a classical GLC analysis of organochlorine pesticide residues in a pond and stream in Illinois. Part II discusses the effects of pesticides on the development and survivability of trichopteran eggs exposed to selected toxicants. While I write my thesis, the great job hunt begins.

Advisor: R.L. Metcalf

BOUTON, Carl. The past two summers I have continued work in conjunction with Dr. Kogan's lab at the Natural History Survey. This has entailed the as model systems for examining the evolution of plant defenses against insects. The results have revealed that we can't adequately understand the relevant evolutionary processes without expanding our focus beyond the plant-herbivore interface. In particular, competing plants and herbivore enemies can and/or reverse the relative fitness of plants that have differential effects on herbivores. A fuller understanding of the evolutionary mechanisms that have prevailed in natural systems should, in turn, prove quite useful in outlining appropriate directions in breeding for crop resistance.

With four years of experience as a soybean grower behind me I have entered into negotiations with local farmers for a position as a sharecropper.

Advisor: P.W. Price

COX, Diana. I am finding the terrain of Illinois quite different and interesting after living in Colorado and receiving my Bachelor of Science degree in Zoology—Entomology at Colorado State University. The intellectual environment here has proved to be very stimulating and interesting also. Besides course work, I have begun research under the direction of Dr. Judith Willis. I plan to use antibodies and other immunological techniques to compare the cuticular proteins of the different developmental stages of Cecropia and other insect species. I am currently being supported by a NSF Graduate Fellowship and a University of Illinois Fellowship.

Advisor: J.H. Willis

FISCHER, Dan. This is my second year at the U of I. I am finishing up course requirements this semester and looking forward to another summer of research with Dr. Metcalf\on the interactions of the Diabrotica and their hosts, corn and cucurbits. My family and I have found Urbana-Champaign a great place to live. Matthew (8 years) especially likes attending grade school with children of 40 other nationalities.

Advisor: R.L. Metcalf

FOSTER, Michael. I am in my second semester as a graduate student in the Entomology Department. My undergraduate education was at the University of Michigan, Ann Arbor, where I received a B.S. in Zoology in 1976. I also received an M.S. there in Biology in 1977. In Fall 1977, I began my graduate work in the Department of Ecology, Ethology, and Evolution at the University of Illinois. While there, I worked on a study of optimal foraging strategies in small mammals, and was a teaching assistant for a course in introductory ecology. I joined the Entomology Department in Spring 1979. My thesis research is investigating the role of weeds and other non-crop plants in the nutrition of an adult parasitoid of the black cutworm. I intend to pursue a career in agricultural entomology after my stay here, with joint appointments in an agricultural experiment station and a university. I have a strong commitment to research and integrated pest management and in making sure that this approach is utilized to its fullest possible extent at all levels of U.S. agriculture.

Advisor: W.G. Ruesink

GROSS, Paul. I've spent the past year pursuing the secrets of parasitoid ecology. Collaborating on two literature reviews has consumed much effort but most of my time has been spent driving to (and from) Sand Ridge State Forest, and once there, investigating an anomalous apportionment of parasitoid species that exists between two sympatric leafminer hosts. The explanation still eludes me but I've got some new guesses to test next summer, assuming they don't ration gasoline.

Advisor: P.W. Price

HART, Suzanne. After having studied biology with an emphasis in botany at Lawrence University, Wisconsin, I came to Illinois with the intent of learning entomology and researching crop plant-insect interactions. With Krannert Center and the Music Building just across the street from Morrill Hall, I also proposed to frequently attend concerts and recitals.

During the intervening two and a half years I have nearly accomplished my academic objectives. Spring semester 1980 I expect to submit my M.S. thesis on effects of soybean phytoalexins on growth and on feeding preference of the soybean looper and Mexican bean beetle.

Although I have not found time for frequent concert attendance, I have enjoyed at least a few memorable performances at Krannert (and at the Assembly Hall) and the opportunity to take summer music lessons.

Advisor: M. Kogan

HEYDON, Steve. Hello! I'm Steve Heydon, one of the herd of new graduate students at this school. I feel very close to all those here from strange foreign lands because I am from California myself. Ah, for one more glimpse of the sand and the sea. The Midwest has its joys too. I had never seen a soybean in anything but a hamburger until I arrived here. I am still a little lost as this is the fourth college that I have attended in five years.

Figuring that I needed a running start at this graduate school business, I was an Entomology undergraduate at the University of California at Davis. In addition to all the classwork, I raised dung beetles for a year, worked as an assistant to the curator of the insect museum at Davis, and chased bark beetles all over California last summer.

I am really enjoying life at the University of Illinois. The department and school is really super and the students, professors, and secretaries are really friendly, and quickly made up for friends and family left behind. I think I am settled down here for a long stretch at Chalcid taxonomy under Dr. LaBerge.

Advisor: W.E. LaBerge

KAMPMEIER, Gail. With the rather unlikely background of a bachelor's degree in French from Allegheny College, I became interested in Entomology after taking the introductory course here at the U of I. I sorted and pinned Brazilian soybean insects at the Illinois Natural History Survey for a semester and that summer started as an hourly working with Orius and the INSTOY aphid and soybean mosaic virus project. I became a full-time Research Technician with INSTOY in July 1979 and began part-time graduate work for a Master's degree in the fall. Presently I represent the Survey in the EGSA steering committee and was appointed activities chairman. I will be doing research with Drs. M. Kogan and M.E. Irwin on predator-prey relationships in soybeans with the soybean looper as #1 victim.

Advisor: M. Kogan

KAWOOYA, John. Do some insect cuticular proteins posess enzymatic activities? If so, what role could these proteins play in the biology of the cuticle? These are the two challenging questions I addressed to myself at the beginning of the study on "Cuticular Proteins With Enzymatic Activity." Several interesting answers have been obtained in the course of the study, and we hope that they will further our understanding of the problems of cuticle synthesis.

Advisor: J.H. Willis

LAMPMAN, Richard. I was born and bred in Hopewell, Virginia; a city known for its misuse of the insecticide chlordecone. I received a B.S. with Honors in Biology (1975) and will receive an M.A. In Biology May, 1980, from the College of William and Mary in Williamsburg, Virginia. As an undergraudate I studied the ocellar responses of the large milkweed bug and for my Master's I studied the reproductive biology of a parasitoid, Gryor parkeri, on the eggs of the large and small milkweed bugs. It intend to work with Dr. R.L. Metcalf for my Ph.D. studying the effect of insecticides on target and non-target (predators, parasites, etc.) crop pest complexes. My major interests center around integrated pest management

Advisor: R.L. Metcalf

LEE, Young-In. This is the third year of my study on the possible mechanism(s) of hopperburn on soybean plants followed by the potato leaf hopper feeding. However, I have to be around for some more time and I am expecting to graduate next year.

Advisor: M. Kogan

LISOWSKI, Edward. With the helpful guidance of Dr. Stewart Berlocher, I complete my Master's dissertation, "Biochemical Systematics of Strauzia (Diptera: Tephritidae)," presented a seminar on my research, and received an M.S. degree from the department in May 1979. For my Ph.D. dissertation research, I will continue investigating the systematics of Strauzia, with emphasis on the cytological and external morphological aspects of its taxonomy.

Once again I spent the summer travelling around the state of Illinois for the Illinois Natural History Survey, collecting horse flies and deer flies before they collected my blood. The two most exciting moments of the past year involved an insect and a crustacean. The first occurred when I captured several living female Merope tuber in Allerton Park. Unfortunately, they did not oviposit, so the immature stages of the suborder Protomecoptera are still unknown. The second occurred when I rediscovered a species of shrimp, the Mammoth Cave blind shrimp, which has not been seen since 1967 and was thought to be extinct. Since I have shown that the shrimp is still extant, the U.S. Office of Endangered Species has begun the process of listing it as an endangered species.

Advisor: S.H. Berlocher

MILICZKY, Eugene. I arrived in Urbana-Champaign in the fall of 1978 after having completed work on a Master's in Entomology at the University of Maine at Orono. Since then I have been taking courses, spent last summer collecting insects and making maps for Dr. LaBerge, and preparing (hopefully) to begin a Ph.D. project on the pollination of Salix this spring.

Advisor: W.E. LaBerge

SEIGEL, Joel. I have spent this past semester getting established in the Champaign-Urbana rat race (ha ha). Five years in a much smaller university in the mountains of New York State did not quite prepare me for this school. However, I have now adusted to the concept of flat, as well as the much greater size of this institution. I am uncertain as to who or what I will be working with, but have been assured by experts that this is not terminal. My undergraduate degree was an A.B. in Biology at SUNY Binghamton, so I feel I have a good general background. I originally came from Brooklyn, and contrary to local rumor, New York City people are aware that the rest of the country exists. (We just aren't sure where.)

Advisor: J.V. Maddox

SHANOWER, Tom. Hello. I am beginning my first year of graduate study here at the University of Illinois. Although a native of Illinois, I went to school in Ohio. I received my B.S. from Marietta College in Marietta, Ohio in May 1979.

I'm working with Dr. Luckmann on a project dealing with seedling protection in pumpkins. If things go well I hope to collect the necessary data this summer.

Advisor: W.H. Luckmann

SHEPPARD, W. Steven. This year marked the completion of a M.S. with Dr. Jaycox as my advisor. The research was focused on relationships between honey bees and soybeans, including differences in soybean visitation by three races of bees. This past summer I worked on the City of Champaign's Encephalitis Control Program and afterwards spent two months in Oregon and Washington where I collected bees, beetles and lots of apples.

I am looking forward to starting work with Dr. Berlocher and will be studying genetic relationships in <u>Apis mellifera</u> using electrophoretic techniques.

SHERROD, Dan. I have spent most of 1979 taking courses and preparing for prelims. Also my research on vegetable insects has necessitated many trips to the East St. Louis area. Despite the long drives and many hot hours in the field, my research has gone very well and I am looking forward to another season of gathering data. In addition, my wife and &large expecting a baby in the spring.

Advisor: W.G. Ruésink

SMITH, David C. I received my M.S. from the University of Massachusetts, Amherst where I studied the field biology of tephritid fruit files. I shall study the population biology of the selfsame family in Illinois with Dr. Stewart H. Berlocher.

Advisor: S.H. Berlocher

STANLEY, Bruce H. The last two years as a graduate student in entomology has widened my perception of both the scientific world and myself. I have made many new friends in Illinois, and have enjoyed their academic stimulation.

I have found my studies in the methodology of quantitatively predicting biological phenomena and optimization very satisfying. My thesis work on the prediction of field densities of black cutworm adults based on sex pheromone trap catches has enlightened me to the importance and efficiency of chemical communication in insects.

I am looking forward to finishing my Master's degree, and starting Ph.D. research here at the U of I. Because at times my research has been very challenging and demanding, I am very appreciative of the faculty and students here at the U of I, many of whom have given me advise or equipment to solve or circumvent my problems.

Advisory: W.G. Ruesink

TATRO, Gary. I am originally from upstate New York, and lived in Mechanicville, New York until I entered college. I attended Quinnipiac College in Hamden, Connecticut and graduated in the spring of 1978 with a Bachelor's in Biology. I entered the entomology department here at the University of Illinois in September 1979. I am currently doing research on the major mortality factors of the European Corn Borer in Illinois under the direction of Dr. Robert L. Metcalf.

Advisor: R.L. Metcalf

WEIS, Arthur. Life has been interesting since the last installment of this distinguished periodical (or rather periodic periodical). I let out a colossal sigh of relief last spring when I passed my prelims. As soon as they were over, it was right back to work on my field research. I'm working on the ecology of several gall-midges, hoping to generate and test some ideas on how various ecological factors act as selective agents in the evolution of behavioral patterns of egg dispersion. Last March I won the Graduate Student Award for Entomological Research from the North Central Branch of the E.S.A. for my work on the gall-midge Asteromyia carbonifera. With some luck, and some cooperation from the Hessian fly in my lab experiments, I will finish my Ph.D. by August.

I have found some time to travel. Over spring break my wife and I visited my sister in Charleston, S.C., and spent Thanksgiving with another sister at her home at the base of Mt. Whitney in California. Of course, I attended the last two E.S.A. meetings, where I gave papers, and met some interesting researchers.

Advisor: P.W. Price

WESLEY, Susan. Although often frantic, and always demanding, 1979 has been a hallmark year. The most notable events were the completion of my master's work in biology, admission to the Department of Entomology and surviving my first professional seminar presentation.

My research on the neurotoxic properties of carbamates, involving synthesis of homologous series of carbamates, toxicity testing in various organisms, and searching for the elusive neurotoxic esterase, is progressing. I am also completing some more entomological oriented work, concerning the specific status of two color morphs of western Mantispids, which will be presented at the ESA meetings in Denver.

The rest of my less than copious free time has been equitably divided between promoting departmental esprit de corps at Treno's and aspiring to new heights of creative verbosity through assembling the Hexapod Herald.

Advisor: R.L. Metcalf

WIMMER, Karen. I began my stint as a graduate student in January 1979, after completing my B.S. at U of I Chicago Circle. Last summer I worked diligently as a member of the horseradish team at the Natural History Survey. I have almost completed my course work and plan to begin my research this summer on horseradish and some of its defoliators.

Advisor: W.H. Luckmann

NONACADEMIC STAFF

MATSON, Susan. The few months that I've been here have proved to be quite......interesting (to say the least)! I've worked at the U of I for three years now and the Department of Entomology rates right up there with the other "crazy" offices I have been in. Really though, the students and professors (not to mention my two "officemates") are all very nice, and I am sure that I will enjoy my stay here.

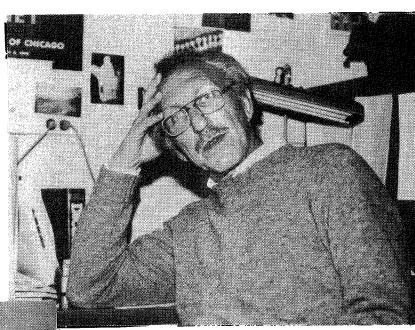
MOHR, Donna. My news for this year is a new baby boy born on December 21, 1979. We named him Timothy Michael Mohr. He weighed 9 pounds, 3 ounces and was 21 inches long. My next news is that because of that new baby boy, I have decided to stay home and be a full-time mother. Deanna Landess has taken over in the office and hopefully she will be as happy as I have been working in the Entomology office. Thanks for all the great times.

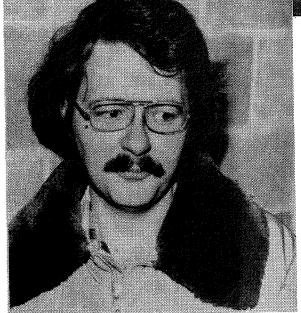
VAUGHAN, Peggy. After a two-year jaunt as a student at the U of I, one year of employment in Champaign-Urbana and Chicago as a cook, busperson, cashier, and sales clerk, and a stint in a Chicago business school, I decided to return to the University to seek employment. Having no science background, I had to ask what "entomology" was before interviewing for this job; and, upon finding out, I was a bit hesitant about what the job would require. In hindsight, I am very happy that I did choose to work in the Ent. Department. My almost three years here have certainly been a learning experience--from typing my first letter to be read by a real person out there (instead of a business teacher) to my attempt at supervising things in the office in Donna Mohr's absence (with Donna's frequent consultation). Aside from the clerical side of things, I have been exposed to a very interesting group of people: ones who have helped me to increase my interest in, and appreciation of, things natural; ones who have encouraged me to learn things I wouldn't have on my own; ones who have helped me to become a more organized, responsible person.

At the University people have a way of passing through quickly. I've certainly enjoyed working (and playing) with past and present office staff, as well as the interactions with faculty, staff and students. I am about to join the ranks of the "transient university people" and will probably be leaving the department this summer. I'll miss all the friendly faces. However, since I will be marrying an entomologist in June (Mike Toliver), I will look forward to attending at least some of the ESA meetings in the future and seeing some familiar faces at the UI Alumni Get-together:

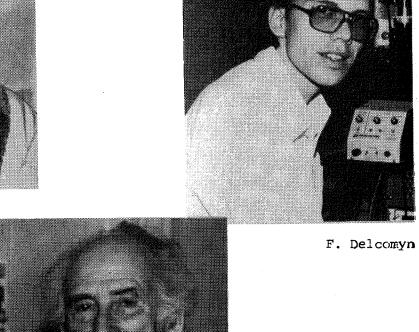
THE FACULTY

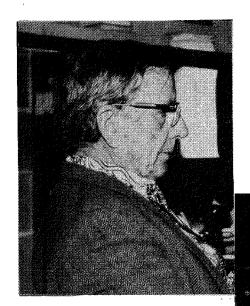
S. Friedman Department Head





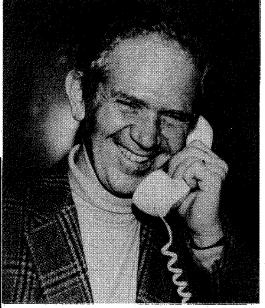
S. H. Berlocher





W. R. Horsfall

H. E. Hummel



M. Kogan

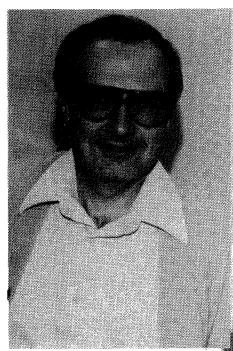


W. D. LaBerge

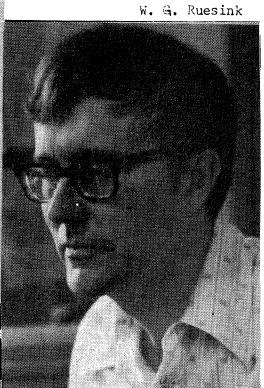


J. R. Larsen

J. V. Maddox



R. L. Metcalf



M. Toliver

J. G. Sternberg



G. P. Waldbauer

J. H. Willis

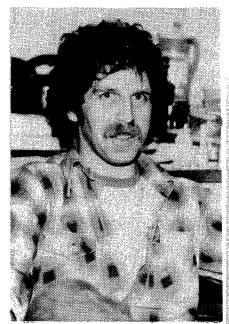
THE ACADEMIC AND NONACADEMIC STAFF



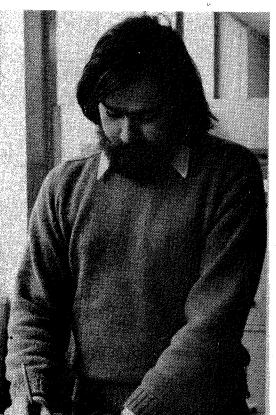
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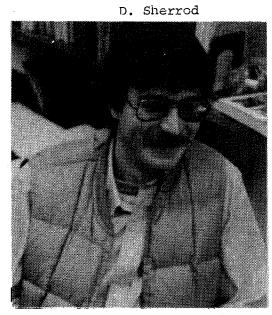
THE STUDENTS



C. Bouton

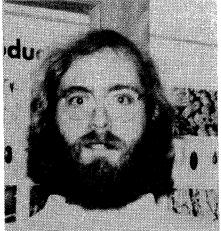


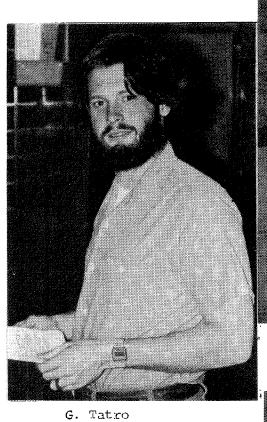
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D. Webb

S. Sheppard





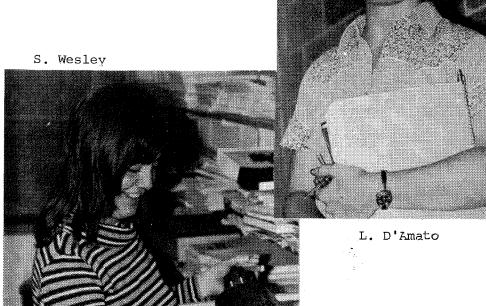


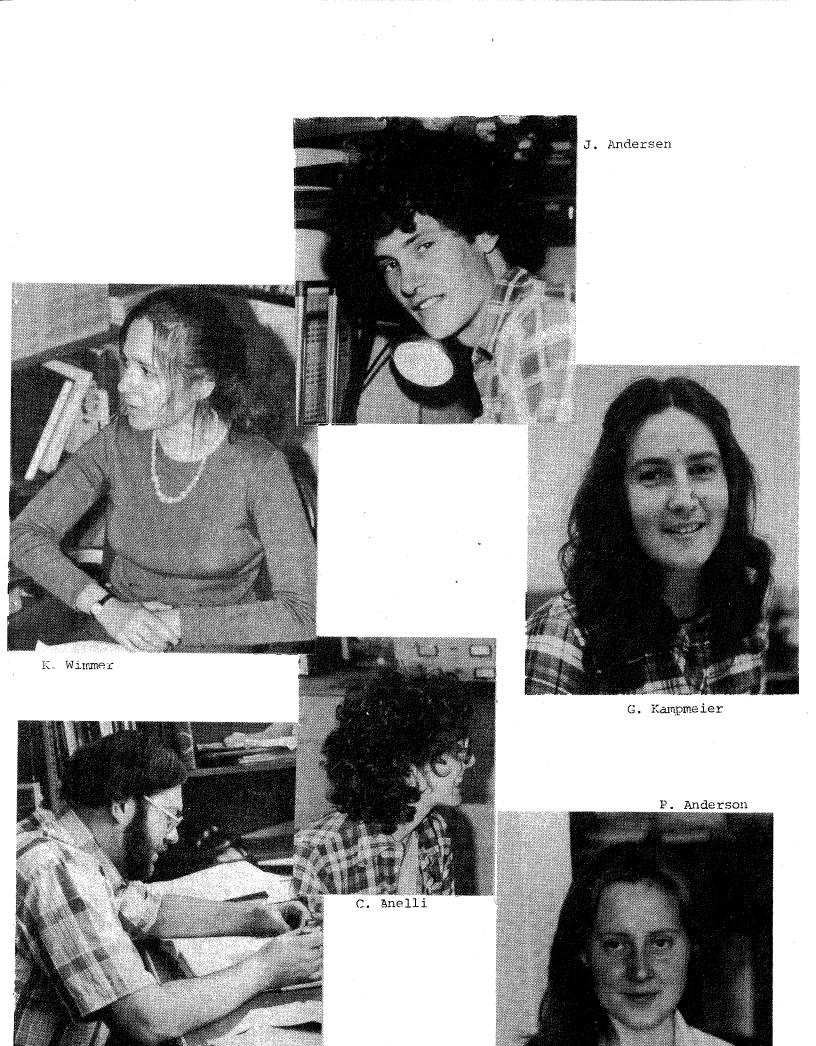
D. Cox



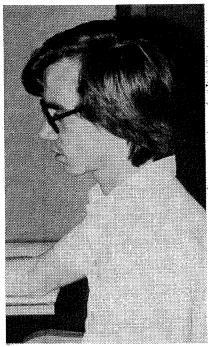
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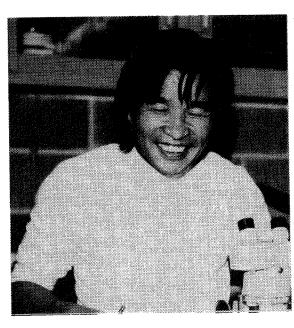






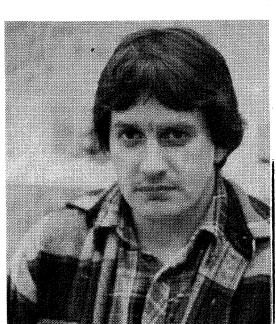
B. Stanley





Y. Lee

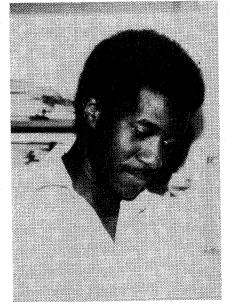
J. Kawooya



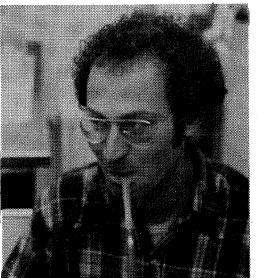
D. Fischer



E. Miliczky



M. Foster



FACULTY NEWS

STEWART H. BERLOCHER

During the three years since the last newsletter, I have noticed that life in Urbana has slowed considerably over the frenetic snail's pace that obtained when I arrived here. On the enchilada scene, home-grown is definitely the way to do.

Seriously, I have had a lot of fun here. I now have at least three graduate students, anintermittantly smoothly running laboratory, and an office with no windows.

FRED DELCOMYN

Rereading what I wrote for the last Entomology Newsletter makes me realize just how much has happened in the last few years. Professionally, work is progressing. Darryl Daley graduated with his Ph.D. last year, and is now working with Jeff Camhi at Cornell. Most of his contributions to our work on cockroach giant interneurons is nearly ready for print now. Publication should help reach those people who still think the giants are there only to trigger escape running. I have gone back to studying the physiology of leg coordination, and will be taking a sabbatical next year with Keir Pearson, a well-known insect neurophysiologist.

On a more personal note, my family is both growing and thriving. Julia, who was three in August, now has a brother, Michael, who was two in January. They get on remarkably well with one another, but do get some respite when Julia goes to nursery school five mornings a week. It also makes Nancy realize how much easier one is to care for than two! Children seem to grow incredibly fast. It is hard to believe that by the time we return from our sabbatical in about two years, Julia will be starting school.

GOTTFRIED S. FRAENKEL

One of the highlights of the past year was an FAO consultantship at the Central Agricultural Research Institute in Peradeniya, Sri Lanka (formerly Ceylon) during January to March, 1979. Head of the Institute and Entomology is Henry Fernando, and Acting Head of Entomology Nailini Widkramasinghe, both former students well known to many of you. A third former Illinois student I met again was Nailini Ratnasiri, now entomologist in the Forestry Department of the Government in Colombo. The project was to develop a "synthetic" diet for the Rice Leaf Folder, Cnaphalocrocis medinalis. "On the side" I collected information on the spinning and feeding behavior of this insect, now almost ready for publication. Ceylon is one of the most beautiful and attractive countries in the world, and I did not miss the terrible winter back home. Immediately after my return I attended a symposium on Carnitine at Dallas. Some of you remember this as a substance with vitamin function

for <u>Tenebrio</u> we discovered here, and on which I worked extensively between 1950 and 1956, together with Stanley Friedman. Its importance in general physiology, biochemistry, and even possibly medicine has since grown enormously.

A third highlight was at the Denver meeting of the E.S.A., a symposium arranged in my honor, dealing with endocrinology and nutrition, which brought me together with many old students and friends. "In between" I am still very much involved in my favorite topic, pupariation in flies (not to be mixed up with pupation!), and with oogenesis in flies. I had the pleasure during the summer (1979) of the return to the laboratory for several months of an old co-worker, Jim Blechl, and during the fall, of a three month stint of very successful research on oogenesis in flies by Blanka Bennetova from Prague.

STANLEY FRIEDMAN

Most of my activity these days centers around those same things we have all found to be fun over the years: teaching, research, administration (?) I am still trying to give reluctant graduate students some grounding in Insect Physiology, and in my more effective moments, show students in Agriculture that Applied Entomology can be fun as well as business. With regard to research, work with Nen Sharp has convinced me that we can aseptically rear and infect with <u>Plasmodium berghei</u> large numbers of <u>Anopheles stephensi</u>, and from the mosquitoes isolate massive numbers of sporozoites. Hopefully, we can use these to establish a source of uncontaminated material for large scale vaccine production. This work is being supported by WHO. Our studies on trehalose metabolism are also progressing, with the development of a fly midgut preparation which should permit us to gain some understanding of the kinetics of sugar movement across the gut wall. Administrative activity you all know about, and I am certain that the less said the better.

WILLIAM R. HORSFALL

Professor of Entomology Emeritus 1976. Activities: Compiling literature on arthropods that cause disorders in man and domestic animals and that on arthropods as hosts and vectors of microbes pathogenic to man and other animals. This literature is collected in a leaflet series put out as photocopy typescript available on request from departmental office. The most recent deals with ticks as causes for disorders.

A trip east in the fall took Mrs. Horsfall and me to the Washington area where we visited Fowler, Moussa, and Trpis. Best wishes to all.

HANS E. HUMMEL

I continued my research (with John Anderson) on corn rootworm beetle pheromone communication behavior and how it can be influenced by various nonpheromone chemicals. I also proceeded, with Dr. J.G. Sternburg, on <u>Hyalophora cecropia</u> and other Saturniid pheromones. This work culminated this summer in the isolation of several fractions with biological activity. Although still below the identification threshold of the best available spectrometers, these microgram fractions show promising biological activity and can compete with virgin females in the field.

Results of these studies were presented at three international meetings: the International Congress of Biochemistry at Toronto (July 1979), the International Congress of Plant Protection at Washington, D.C. (August 1979) and the IUPAC sponsored EUCHEM conference (for invited participants) at Borgholm in Sweden (August 1979). At the latter conference I also served as a discussion leader in the section on plant/insect and parasite/host relationships.

In another line of research (with Bruce H. Stanley and Dr. Bill Ruesink), biological parameters of the pheromone communication in black cutworms were investigated. Data will be incorporated into a mathematical model for the prediction of black cutworm population densities. The model ultimately will serve as a component in much needed pest management programs directed against cutworms throughout the cornbelt states.

Somehow the insect pheromones defied their proverbial species specificity and attracted another member to the group: Gerlind.

MARCOS KOGAN

The IPM program for soybeans in Illinois received a big boost in 1979 with the award of an EPA grant. This grant is part of a national program known as the Consortium for Integrated Pest Management that is coordinated by Texas A & M University. The program in Illinois involves entomology, plant pathology, nematology, weed science and rodent ecology. Coordinating the efforts here at Illinois and preparing proposals and budgets kept me busy for a good portion of the year. The program is now well established. Mike Jeffords was hired on this grant and he will be devoting full time to the project. The SIRIC (Soybean Insect Research and Information Center) and IRCSA (International Reference Collection of Soybean-Associated Arthropods) units are an integral part of this project. One of the major achievements early in 1979 was the publication of a comprehensive bibliography of Heliothis zea and H. virescens by SIRIC.

As part also of a national cooperative program I completed the editorial work on the book "Sampling Methods in Soybean Entomology." This book will appear later in April (1980) as a volume from the Springer-Verlag series on experimental entomology. The book is co-edited by Don Herzog, from the University of Florida and it contains 28 chapters, on the principles of sampling and actual sampling programs for all principal soybean insect pests of the world. Editing over 1,000 manuscript pages and writing 6 chapters for this book was a rather challenging experience.

In between editing, and chapter writing and grant proposals, I attended several conferences and presented papers on: an analysis of insect pest problems on soybean in the U.S. (World Soybean Research Conference II, at Raleigh, N.C.), a study on the dynamics of arthropod colonization of soybean (International Crop Protection Conference, Washington, D.C.), sampling procedures in plant resistance research (First Annual Research Conference, IITA, Ibadan, Nigeria), and finally at the symposium in honor of Professor Fraenkel at the ESA - Denver meeting on a comparative study of methods for measuring food intake and utilization.

In Nigeria I saw Louis Jackai and enjoyed some pleasant moments with him reminiscing on his times at the U of I. He is still an avid fan of the Fighting Illini.

WALLACE E. LABERGE

Research continues to center on a revision of the bee genus Andrena. The tenth section of this will be in press in 1980. In addition the pollinators of blueberries, sunflowers and soybeans are being studied. September brought with it a change of status as I took over the responsibilities of Section Head of Faunistics at the Illinois Natural History Survey from Phil Smith who retired.

The LaBerge family remains in good health and all members in school, including my wife Betty who is finishing a nursing degree. A trip to North Dakota and to meetings in Denver were the only out-of-state journeys the past year.

JOSEPH R. LARSEN

l am pleased to see the newsletter being issued once again by the Department. I feel it gives us a chance here to communicate with our many friends and alumni about the world. As Director of the School of Life Sciences, most of my time is consumed by administrative responsibilities, however, I still participate with Dr. Sternburg in teaching insect morphology and appreciate that association with our graduate students. I have been able to maintain my research program at a reasonable level in the area of sensory receptors. We have just recently been able to acquire some cave beetles from southern Idaho and are working on a map of the central nervous system showing loss of fiber tracks, association centers, etc. in this sightless cave beetle.

The family is well and doing nicely. Two daughters out of three married isn't bad and we have hopes for Jennifer who is now in college at Brigham Young University. Our travel this summer was limited to two or three workshops in conjunction with the National Science Foundation and Ball State University at Muncie, Indiana to work on some programs for developing an interest in handicapped people who have a desire to enter the area of science. We extend to the alumni and our many friends who have gone through these portals the very best for the coming year.

WILLIAM H. LUCKMANN

The past year was a very rewarding one. I enjoyed serving as President of the North Central Branch of the Entomological Society of America, and Chairman, Subcommittee on Pesticides, Illinois 208 Task Force on Non-Point Sources of Pollution from Agriculture. The latter assignment covered two years and some of our recommendations are already being implemented. In addition, I served on special assignment to USEPA and to USDA, February-May, 1979, to develop a policy statement on 208 and IPM. These add-on duties plus administrative responsibilities leave little time for research, but I admit doing things that assist the staff in their programs or assist entomology at the state and national levels gives me much satisfaction. The next 10-20 years will be exciting ones for biologists, entomologists, agronomists, economists, engineers, etc., working together in IPM.

Mrs. Luckmann and I became grandparents again this year and we now have two grandchildren. We have reached a new plateau in life.

ELLIS G. MACLEOD

. This year has been spent on sabbatical leave pursuing questions concerned with the evolution of the orders of insects. The techniques are nonclassical and I have gone to the laboratory of Guy Bush and Barry Kitto in Texas to attempt to sort out the methods as well as my ideas on the subject. It is a wonderful learning experience, and I hope to have most of the answers by the time I get back to Urbana.

JOSEPH V. MADDOX

My research deals with pathogens of insects, especially the microsporidia. In September of 1978 I attended the International Colloquium on Invertebrate Pathology in Prague, Czechoslovakia after which I proceeded to Lahore, Pakistan. This was my third trip, each lasting about six weeks, to Pakistan where we are studying microsporidia as biological control agents of mosquitoes. In November 1979 I attended a World Health Organization meeting on the Biological Control of Insect Vectors held in Geneva, Switzerland. Except for a few other trips in the U.S. I spent the remainder of the year trying to catch up on my research and writing. I am also serving a two-year term as treasurer of the Society for Invertebrate Pathology which takes more time than I anticipated. My first year as a staff member of the Entomology Department has been enjoyable. I look forward to many more.

ROBERT L. METCALF

Recent research emphasis is concentrated on the role of secondary plant chemicals as kairomones influencing insect behavior, ecology, and evolution. Two major areas of investigation are the effects of methyl eugenol and related compounds on the Dacinae fruit flies (Tephritidae) and the

somelidae). Both types of substances are arrestants and compulsive feeding stimulants, detectable in sub-nanogram quantities. Work on the "Coevolutionary behavior of corn rootworms attacking corn and cucurbits" is supported by the USDA Competitive Grants Program, with Professors A.M. Rhodes (Vegetable Crops) and R.A. Metcalf (Zoology, U.C. Davis) as coinvestigators. We have succeeded in producing hybrid bitter squash cultivars with high cucurbitacin contents that appear useful in poisoned baits for population control of \underline{D} , \underline{U} ,

Students completing Ph.D. work under my supervision during the past year are Syed Ali, Mohammed Farooqui and John Marlin.

WILLIAM RUESINK

My 2 1/2 years as leader of the corn insect team at the Illinois Natural History Survey has produced little in the way of research publications, but we have enough studies in progress (some nearing completion) that I could probably spend the next 2 1/2 years analyzing data and writing manuscripts. The research will go on, of course, so who knows when the present results will be published. Our efforts are concentrated on the black cutworm, with Bruce Stanley and Mike Foster researching its pheromone communication and natural enemies, respectively. In addition, we are continuing to refine our sampling program for corn rootworm eggs, hoping to develop that into a useful pest management tool.

This past summer Cindy and I took our three young children to England for a month long vacation. After three days in London, we spent three weeks in a village in Dorset on the English Channel. The last week was spent in another village in Gloucestershire. It was purely a vacation and one of the best we've ever had. One entomological observation: I now understand why so many British entomologists work with butterflies or aphids. Both were extremely abundant while other groups were seldom seen.

JAMES G. STERNBURG

My work on mimicry has continued, with completion of one phase of these studies involving the local swallowtail and monarch color patterns. This work was carried out by Michael Jeffords and Michael Toliver, with the aid of a grant to will waidbauer and me. We found the study most interesting and enjoyable, and attriour of us are quite happy with the results. I Intend to continue work with mimicry, but will not limit it to any particular group of insects. My other research efforts continue with diapause termination.

Last summer, my wife and I took a long awaited trip to Oregon to visit our eldest daughter and family. We enjoyed the Blackhills and Yellowstone on the way there very much. Because I was teaching the summer session, we only had two weeks, which was not enough, but maybe some other year we can take longer. On the way back, we passed through the Snowy Range, unfor-

Our son is a graduate student in accounting, and has passed the CPA examination. Now he is thinking of law school! Our youngest daughter is a biology major and a sophomore at the University of Illinois. She is intersted in conservation.

MICHAEL TOLIVER

Many things have happened since I last scripted gems of wit in this newsletter. The most important (impending) event is my upcoming marriage to Peg Vaughan, also of the department. The two of us took an extended trip to Wyoming and Montana last summer with Charlie and Ann Helm and three other friends. It was Peg's first venture west and a welcome return to my stomping grounds for me. There were brook trout, moose, elk, deer, bison, pronghorn antelope, prairie dogs, golden eagles, peregrine falcons, ospreys, sandhill cranes, white pelicans, butterflies and flowers to keep us entertained. We are planning a return engagement for next summer to the Bob Marshall wilderness just south of Glacier International Peace Park.

On the entomological side, I finished my degree and am preparing to teach insect ecology next spring, as well as writing up my thesis results for publication and also preparing my list of New Mexico butterflies for the world. Stewart Berlocher and I are hoping to get a grant to research the interesting butterfly genus Limenitus next summer.

GILBERT P. WALDBAUER

From June of 1978 to July of 1979 I was on sabbatical leave at the International Rice Research Institute at Los Banos in the Republic of the Philippines. Part of my time was devoted to devising a method for mass rearing the rice leaf folder (Cnaphalocrosis medinalis) which has recently become an important pest of rice all over Asia. I also devised a method for screening for resistance to this insect the 44,000 rice varieties which are held in the world germ plasm collect at IRRI. The rest of my time was devoted to a basic study of the adult requirement for a sugar source in order to produce eggs.

Stephanie and Susan were with me and Gwen managed to come over for a two month visit. We did some traveling in the Philippines and visited Hong Kong, which we enjoyed very much. Susan went home via France, England and Canada to visit relatives. Stephie and I went the other way, visiting Taiwan, Tokyo and Alaska on the way home.

Now that the winter weather is here I sometimes wish that I were back in our lovely house in the IRRI compound, sitting on the verandah and enjoying the hibiscus and bouganvillea while eating papaya from our own trees.

JUDITH H. WILLIS

In the summer of 1978 I attended two conferences on insect development on Crete. Not only were the meetings intellectually stimulating, with presentations of many exciting developments in both molecular biology and endocrinology, but both were organized with superb care which permitted sampling of Cretan hospitality and glimpses of the Minoan culture including a fascinating visit to Knossos.

I presented a paper in the Symposium honoring Gottfried Fraenkel at the Entomology Meetings in Denver. I used this opportunity to present our work on cuticular proteins and concluded that it is improper to refer to them by the single, Fraenkel-coined term, arthropodin. Although Gottfried has resisted the demise of his term, I think the data will ultimately prevail.

Now I am collaborating with Lynn Riddiford in organizing a two day symposium to honor Carroll Williams at the annual meeting of the American Society of Zoologists in Seattle, December 27-30, 1980. We are encouraging all insect experimental biologists to attend the symposium and present papers in the Society's contributed paper sessions.

Teaching and the Aging Review Committee of NIH seem to be taking a major portion of my time during the academic year, but my students and associates are making exciting progress. Jack Rabin, now working in Israel, found last spring that the cuticular proteins from different species of Hyalophora show considerable homology. John Kawooya has demonstrated activity of four interesting enzymes in cuticular protein extracts, and Diana Cox is getting mice to make antibodies against cuticular proteins. Jim Nardi continues to probe the interaction of juvenile hormone and ecdysterone on imaginal disc development in moths, and a Japanese visitor, Maroko Myohara, is doing comparable work with <u>Sarcophaga</u> imaginal discs and pupal wings. I have succeeded in establishing the site of synthesis of almost all of Cecropia's larval and pupal cuticular proteins. Order is maintained in my now too small laboratory with the assistance of David Eisenman who in his "spare" time serves on the Illinois State Scholarship Commission, helps coordinate blood donor programs throughout Illinois, and does odd projects for the higher administration of this university. Indeed, there are times when I, and some of the people trying to reach him by phone, think I must be his secretary.

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DELCOMYN, FRED

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Coordination of invertebrate locomotion. In <u>Mechanics & Energetics of Animal Locomotion</u>, ed. by R. M. Alexander & G. Goldspink. London: Chapman & Hall, pp 82-114.

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Corollary discharge to cockroach giant interneurons. <u>Nature (London)</u> (269) 160-162.

With M. D. Burns

Semiautomatic processing of neurophysiological data. II. A computer program for data reduction. <u>International Journal of Bio-Medical Computing</u> (8) 61-71.

With D. C. Belosky

Information processing in a cricket ganglion: the response of giant fibres to sound pulses. Journal of Insect Physiology (23) 359-365.

Book Reviews

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With M. Seligman, A. Blechl, J. Blechl and P. Herman

Role of ecdysone, puparium factors, and cyclic AMP in formation and tanning of the puparium of the fleshfly <u>Sarcophaga bullata</u>. <u>Proceedings of the National Academy of Sciences USA</u> (74) 4697-4701.

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With A. C. Chen

Hormonal regulation of trehalose metabolism in the blowfly, <u>Phormia regina</u>: Interaction between hypertrehalosemic and hypotrehalosemic hormones. <u>Journal of Insect Physiology</u> (23:10) 1223-1232.

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The role of chemical factors in insect/plant interactions. XVth Intern. Congr. Entomol., Washington, D.C. pp. 211-227.

<u>Epilachna varivestis</u> Muls. pp. 391-394. <u>In</u> Kranz, J., H. Schmutterer, and W. Koch, eds., Diseases, Pests and Weeds in Tropical Crops. Verlag Paul Parey, Berlin. 666 pp.

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A pilot pest management program for soybean in Southern Brazil. \underline{J} . Econ. Entomol. (70) 659-663.

LABERGE, WALLACE

Articles

A revision of the bees of the genus <u>Andrena</u> of the Western Hemisphere. Part VIII. Subgenera <u>Thysandrena</u>, <u>Dasyandrena</u>, <u>Psammandrena</u>, <u>Rhacandrena</u>, <u>Euandrena</u>, <u>Oxyandrena</u>. Transactions of the American Entomological Society, (103) 1-143.

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With R.E. Harbach

Fine structure of antennal sensilla of the adult mealworm beetle, Tenebrio molitor L. (Coleoptera: Tenebrionidae). International Journal of Insect Morphology and Embryology (6:1) 41-60.

With R.E. Harbach

Humidity behavior and the identification of hygroreceptors in the adult mealworm, <u>Tenebrio molitor</u>. <u>Journal of Insect Physiology</u> (23) 1121-1134.

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Atlas of an Insect Brain, by N.J. Strausfeld. <u>International Journal of Insect Morphology and Embryology</u> (6:3/4) 229-230.

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Effective DDT analogues with altered Aliphatic moieties, Isobutanes and Chloropropanes. <u>Journal of Agricultural Food Chemistry</u> (25) 859-868.

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With J.N. Thompson

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With R.A. Casagrande and D.L. Haynes

The behavior and survival of adult cereal leaf beetles. <u>Ann. Entomol.</u> Soc. Amer. (70) 19-30.

With J.L. Wedberg, E.J. Armbrust and D.P. Bartell

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