Liu Chi-ying

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Professor Liu Chi-ying was born in Wuxian, Jianxi Province, China. He graduated from Nanking University in 1929 and became a member of Phi Tau Phi Honorary Society of the United States. In 1933 he entered the graduate program of the Department of Entomology and Economic Zoology at the University of Minnesota where he earned an MS degree under the tutorship of Dr. William A. Riley. He was elected a member of both the Sigma Xi and Gamma Sigma Delta Honorary Societies in 1934.

After returning to China he taught entomology and zoology first at the National Chekiang University, and later at the National Kwansi University. In 1936 he published the paper "Checklist of Chinese Fleas" and in 1939 the treatise "The Fleas of China." The latter was the first monograph of the Siphonaptera of China and treated 74 species and subspecies. In the autumn of 1952 he joined the Institute of Microbiology and Epidemiology, Academy of Military Medical Sciences, Beijing, where he resumed his researches in medical entomology, particularly fleas.

Since 1973 he had edited the monograph "Order Siphonaptera, Fauna Sinoica" under the auspices of the Editorial Committee, Academia Sinica. During this period, even at seventy-plus years of age, he travelled the length and breadth of 14 provinces, visiting cities and autonomous regions, examining over ten thousand specimens, and consulting more than 500 references and...
books. Finally, the book was issued at the end of 1986 and dealt with 8 families, 72 genera and 452 species and subspecies, in addition to containing nearly 2000 figures.

Prof. Liu Chi-ying served on the editorial committees of *Acta Entomologica Sinica* and *Acta Zootaxonomica Sinica* and he was the vice director-general of the Entomological Society of China. He was an excellent teacher and tutor, modest and prudent, amiable and easily approachable, strict with himself and honest in performing his official duties. He gave no thought to personal gains or losses and was worthy of the name of teacher. He took an active interest in nurturing and educating young scientists and won praise from the masses.

Professor Liu Chi-ying contributed more than one hundred and fifty papers. Following is a bibliography of some of these studies dealing with flea taxonomy.


with Zhung Zeng-hu & Wang Shi-xin 1979b. Description of a new genus


CONGRATULATIONS - DR. VLADIMIR CERNY writes that he has retired as of January 1, 1989. Dr. Cerny was formerly a parasitologist associated with the Czechoslovakian Academy of Science and also actively involved with publication of the journal Folia Parasitologica. Readers will find his home address in the Mailing List section of this issue. The editors of Flea News wish him well in his retirement years.

TODD RAYMOND REICHARDT has completed work for the Master of Science degree at the University of Manitoba. His thesis is entitled “The seasonal dynamics and host-parasite relationship of Opisocratis bruneri (Baker), a flea on Franklin’s ground squirrel, Spermophilus franklinii (Sabine) near Birds Hill Park, Manitoba.” Professor Terry D. Galloway supervised his studies.

THE SOCIETY FOR VECTOR ECOLOGY will hold its annual conference November 13, 14 and 15, 1989, at the University of Oklahoma, in Norman, Oklahoma. Further information may be obtained from B. Fred Beams, Chairman, Public Information Committee, Society for Vector Ecology, P.O. Box 87, Santa Ana, California, USA, 92702, telephone number (714) 971-2421, FAX number (714) 971-3940.

FLEA CELLS IN CULTURE. Persons knowing of researchers who have flea cells in culture are urged to contact Ms Beverly Dale of PARAVAX, 3181 Porter Drive, Palo Alto, California 94022, (415) 493-1693.

WARNING!

In the United States, one of the most popular floor coverings is DuPont’s Stainmaster® carpet. A note in the November issue of Pest Control magazine indicates that the application of a pesticide to this type of carpet will void the warranty. Although not publicized, DuPont takes the position that pesticides interfere with the chemical used to treat the carpet yarn for stain resistance. This would include any chemical which might be used to control fleas in the home. Whether methoprene and other insect growth regulators (IGR) are also included is not indicated, but they probably are.

PLAGUE UPDATE. In early January, the Brazilian Ministry of Health notified WHO of 8 non-fatal cases of plague from central Bahia State east of the San Francisco River. The report covered the period 19 January through 11 July 1988.

According to unofficial reports, plague is reemerging in Yunnan, Gansu and Heilongjiang Provinces, and Xinjiang Uygur and Inner Mongolia Autonomous Regions of the People’s Republic of China. Delayed reports to WHO list 7 cases, 2 of which were fatal, during 1987. No provinces were specified but Xinjiang and Qinghai Provinces are known to contain endemic foci.

Recent serosurveys conducted in Rafah and El Arish, Egypt, revealed that 23% of the human sera were positive for antibodies of Rickettsia typhi, the causative agent of murine (fleaborne) typhus. This disease may be a significant cause of febrile illness in the northeastern Sinai Peninsula.

Closer to home, the first case of plague in the United States for 1989 was reported to the Communicable Disease Center, Fort Collins, Colorado on 12 June, involving a 47 year old Hispanic male from Rio Arriba county, New Mexico. Since then an additional case has been confirmed in a 14 year old male from southern Colorado.
Dr. R.L.C. PILGRIM has contributed the following account of his experiences while attending the Bratislava Symposium in the summer of 1988. A list of the papers can be found in the PAPERS PRESENTED section of this issue.

The Symposium entitled "The Results and Perspectives of Further Research of Siphonaptera in Palaearct from the Aspect of their Significance for Practice" was held in Bratislava, Czechoslovakia, from 6 - 11 June, 1988. It was sponsored by the Slovak Entomological Society of the Slovak Academy of Sciences and the Department of Zoology, Comenius University, under the immediate chairmanship of Prof. Dr. M. Kiefer. Meetings took place in the University's Congress Hall.

About 40 participants were present, the majority coming from the Soviet Union, and from the host country, with small numbers from Poland, Bulgaria, Romania, and East Germany. I was not only the sole representative from New Zealand, but the only member from "the west!" As such, I was feted and given V.I.P. treatment, including being allocated two charming young Slovak students to act as my interpreters for the week. In fact, these young women, though gracious and very helpful, were less essential than I expected, as most of the participants spoke English -- some of them very well indeed -- and all appeared to be able to understand it readily. Many of the conference contributions were given in Russian, and my interpreters were very valuable then, in giving me a running commentary on the talks. My own contributions were, however, made in English without simultaneous translation and most of the audience seemed to understand well.

Most of the contributions were devoted to aspects of adult flea research: they ranged from the origin of fleas as deduced from the fossil record, the origin and composition of Palaearctic flea fauna, to stochastic modelling of flea-host populations, and some purely taxonomic studies.

A large proportion of the papers presented related to the flea fauna of the Asian far east, and especially to Mongolia; the Slovak Academy of Sciences has co-operated for a number of years with the Soviet Academy of Sciences in expeditions to that part of Asia, and the two institutions have made a number of joint publications as a result. The collaboration is on-going and many interesting results were forthcoming at the conference.

For me, the highlight of the conference was an afternoon session, followed by much of the next morning, devoted to larval studies. Papers were presented on keys to identify larvae of several families (Pulicidae, Ctenocephalidae, Hystriomyiidae, Leptopsyllidae, Ceratophyllidae) of the Palaearctic region. My paper was a more general one, devoted to external morphology of flea larvae and the use of scanning electron microscopy in re-evaluating interpretations made with the optical microscope. The ensuing discussions at this session were the most protracted and stimulating of the conference and provided a very useful meeting ground in this discipline of workers from centres remote from each other. Good contacts were made, and some very rewarding friendships established. The overall impressions are of a most successful and entertaining international gathering.

Proceedings of this Symposium are expected to be published in the near future, under the general editorship of Dr. Matej Kiefer.
PAPERS PRESENTED

The following presentations dealing with fleas were delivered at the annual conference of the ENTOMOLOGICAL SOCIETY OF AMERICA held in Louisville, Kentucky, December 4 - 8, 1988.


The European Region of the Society for Vector Ecology held its annual conference August 30 to September 2, 1988, at Pembroke College, University of Cambridge, Cambridge, England. One paper dealing with fleas was presented:

"Use of Indicators of Sexual Maturation and Regression in Fleas in Host-Specificity Studies" by B. Williams, University of Cambridge, Dept. of Applied Biology (now with Dept. of Zoology, see Mailing List section).

The Department of Zoology, Faculty of Natural Sciences, Comenius University, Bratislava, Czechoslovakia, sponsored a symposium entitled "The results and perspectives of further research of Siphonaptera in [the] Palaeartic[ic] from the aspect of their significance for practice," June 6-11, 1988. A volume of English abstracts has since been prepared and following is a list of the presentations.

Ponomarenko, A. G. The Origin of fleas: the evidence from fossil record.

Zhovtyi, I. F. Review of the perspectives in studies of Siberia and the Far East.


Klimaszewski, S. M. & T. V. Krylova. Consortial and correlational relations within flea/Siphonaptera/communities on small mammals.


Ryba, J., D. Cyprich & J. Minar. Fleas on domestic and straying dogs.

Goncharov, A. I., M. Kiefer & V. S. Lobachev. The formation of the fleas fauna of the Palearctic.

Serzhanov, O. S., M. Kiefer & V. S. Lobachev. Faunistical relations with Palearctic and Nearctic on mammalian fleas as an example/except Chiroptera/

Poslavskei, A. N. On the history of fauna formation in the northern deserts of the USSR.

Romasheva, T. P. Contemporary studies of flea fauna and geography in the Far East.

Nazarova, I. Formation of Aphaniptera of eastern Europe.

Dudich, A., L. Cristov & P. Slavova. Sup-
plements to the fauna of Bulgaria and preliminary check-list.

Buschueva, L. & O. Gorbunov. New data on fleas/Siphonaptera/of central Changaj in Mongolia.

Medvedev, S. G. Revision of the family Ischnopsyllidae/Siphonaptera/.


Vashchonok, V. S. Physiological and morphological peculiarities of fleas/ Siphonaptera/as vectors of disease agents.


Rödl, P. The effect of host hibernation on the behavior of fleas Ceratophyllus gallinae.


Goncharov, A. I., M. Kiefer & V. S. Lobachev. Recommendation on identification of some subspecies of fleas in Mongolia.

Dmitriev, P. P., M. Kiefer & A. A. Tarakanovski. The set of flea species as indicator of different populations of the Brandt’s vole in Mongolia.

Suntzova, N. & V. Suntzov. Distribution of fleas/Siphonaptera/in populations of the longtailed suslik.


Cerny, V. Fleas and phoretic hypopi of mites.

Pilgrim, Robert L. C. Flea larvae-their morphology in relation to taxonomy, biology and phylogeny.

Goncharov, A. I., M. Kiefer & P. C. Karandina. Table for identification of larvae of investigated genera of Ctenophthalmidae, Hystrichopsyllidae and Leptopsyllidae.

Máca, J. Notes on the determination of the flea larvae.

Goncharov, A. I. Table for identification of larvae of investigated genera of Pulicidae.

Goncharov, A. I., M. Kiefer & P. C. Karandina. Table for identification of the second and third age of some genera of Ceratophyllidae according to their larvae.

Suciu, M. & F. Aioanei. Some taxonomical and zoogeographical aspects of the Rhadinopsylla Jordan and Rothschild/Insecta, Siphonaptera/occurring in Romania in the general background of the European Palearctic.

RECENTLY RECEIVED

The jerboa fauna of the SSSR edited by A. N. Severtsova and published by the All-Union Theriological Society of the SSSR, Institute of Epidemiology & Microbiology, N. F. Gamalei Academy of Medical Sciences of the SSSR. 246 pp. (1985), Moskva. The work deals with the phylogeny, systematics, faunistics, morphology,
ecology and behavior of jerboas, and in a section entitled “Biological Communications,” the following papers dealing with fleas appear.


REPRINTS

Since Flea News 37, we have received reprints and photocopies from:


We are grateful for these additions to the Flea News library.

MAILING LIST

ADDITIONS

Mr. Faerlie Bartholomaeus, Animal & Plant Control Commission, 25 Grenfell
Street, P.O. Box 1671, Adelaide 5001, South Australia

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Dr. Bernice Williams, Department of Zoology, Downing Street, Cambridge CB2 3EJ, England

DELETIONS

Dr. J. Abul-hab, Prof. Dr. S. S. Ahmed, Dr. A. N. Alekseyev, Eric Anderson, David L. Bishop, Mrs. G. Brinck-Lindroth, David Broadbent, Ms Page Burt, Dr. L. Christov, Pan Peifang, Dr. A. I. Goncharov, Penelope Hatfield, Kevin S. Jordan, Enrique R. Justo, Dr. J. M. Klein, N. L. H. Krausa, Dr. N. T., Kunitskaya, John D. Lattin, L. A. Lemke, Dr. Sheelagh Lloyd, Henry L. Martin, C. Maser, Dr. John Matteson, Brendan C. McKiernan, Dr. Bruce S. Ott, Peter-Paul, Dr. Rita H.
ADDENDA

Your attention is called to the descriptions of two additional taxa previously omitted from our lists. To the list for 1982 (Flea News 29, p. 144) please add:

98230  sichuanxizangensis Wu & Chen Neopsylla specialis

The citation for this paper is:


To the species list for 1986 (Flea News 36, p. 279) please add:

98632  hongyangensis Li, Bai & Chen Neopsylla

The citation is:


A PREFATORY NOTE TO THE SPECIES LIST -- In keeping with Mr. Smit's practice of numbering the taxa chronologically, the following list includes numbers for those taxa described in 1987. Readers are urged to call any omissions in these lists to our attention.

98701  janineae Beaucomnu & Gouat Caenopsylla

98702  ibera Beaucomnu & Marquez Caenopsylla laptevi

98703  gongheensis Zhang & Ma Amphipsylla longispina

98704  xiei Li Stenischia

98705  viracocha Schramm & Lewis Plocopsylla

98706  nungui Schramm & Lewis Plocopsylla

98707  athena Schramm & Lewis Plocopsylla

98708  kilya Schramm & Lewis Plocopsylla

98709  intermedia Cai, Wu & Zhang Frontopsylla (Frontopsylla) elatoides

98710  falsotorosa Wu, Ni & Li Geusibia

** 98711  hamutus Cai & Wu Certophyllus (Monopsyllus)

98712  forficus Cai & Wu Ceratophyllus (Monopsyllus)

98713  nandanensis Li, Zeng & Zeng Macrostylophora

98714  tianshanensis Yu, Ye & Xie Amphalius clarus

98715  nomisis Smit Ectinorus (Ectinorus)

98716  deplexus Smit Ectinorus (Ichyonus) onychius

98717  ambrosius Smit Parapsyllus

98718  deflatus Smit Tiamastus

98719  rangeli Smit Polygenis (Gephyropsylla) klagesi
98720 mendezi Smit Polygenis (Polygenis) trapidoi
98721 rhombomysus Li, Huang & Sun Paradoxopsyllus
98722 inferioprocerus Yu, Cao & Huang Paradoxopsyllus
98723 liui Yu Wagnerina

** The specific name hamutus was mis-spelled previously in Flea News as hama-
tus: FN 36, p. 282, last line from the bot-
tom; FN 37, p. 297, line 12. Mea
culpa. - J.H.L.

PROVISIONAL LIST OF TAXA DE-
SCRIBED IN 1988

Amphipsylla apiciflata Liu, Xu & Li
Paradoxopsyllus aculeolatus Ge & Ma
Amphipsylla yadongensis Wang & Wang
Plocopsylla lewisi Beaucournu & Gallardo
Ctenoparia propinqua Beaucournu & Gal-
lardo
Nycteridopsylla liui Wu, Chen & Liu
Callopsylla arcuata Ge, Wang & Ma
Metastivalius novaehiberniae Beaucournu & Mahnert
Mesopsylla sagitta Yu, Ye & Liu
Ischnopsyllus (Hexactenopsylla) infraten-
tus Wu, Wang & Liu
Pulicella aenigma Lewis & Cheetham
Plocopsylla kasogonaga Schramm & Lewis
Macrostylphora angustihamula Li,
Zhang & Zeng
Ctenophthalmus longiprojiciens Chen, Li & Wei

PROVISIONAL LIST OF TAXA DE-
SCRIBED IN 1989

Palaeopsylla laxigita Xie & Gong
Palaeopsylla polyspina Xie & Gong
Palaeopsylla medimina Xie & Gong
Ctenophthalmus (Palaeoctenophthalmus) harputus Aktas

LITERATURE ON SIPHONAPTERA

1984 (List 10)
Kiefer, M., M. Krumpal, N. Censuren, V. S. Lobachev & N. Chotolchu - Checklist, distribution and bibliography of Mongol-
Halle-Wittenberg 1984/59: 91-123

1985 (List 8)
Cyprich, D. & Krumpal, M. - A review of the flea fauna (Siphonaptera: Insecta) found in the protected territory of the Sivnické Mountains. XXXI Camp for the Protection of Nature. p. 57 - 61.


Ribeiro, H. & R. A. Capela - Contribuição para o estudo dos Sifonápteros de Portu-


1986 (List 6)

Cyprich, D. - Extension and revision to the fleas (Siphonaptera) specific to the squirrel (Citellus citellus) with emphasis on Slovak territory. (Ctenophthalmus orientalis) (Wagner, 1898). Acta F. R. N. Univ. Comen. - Formatio et Protecte Nat. urae XII: 3-21.


1987 (list 4)


Li, K. -c., Zhang R. - g. & Zeng, Y. -c. - On a new species of Macro stylophora Ewing from Gansu (Siphonaptera: Certaophylli-

dae). Entomotaxonomia 9(4): 265-268, fig. 1 a-j. [Macro stylophora angustihamul- la]


1988 (List 3)


Chen N. -y., Li K. -c. & Wei X. -r. - A new species of Ctenophthalmus from Sichuan (Siphonaptera: Huylrichopsyllidae). Sichuan J. Zool. 7(4): 3-5, figs. 1-5. [Cte- nophthalmus (Sino.) longiprociens]


Skuratowicz, W. - Pchly (Siphonaptera: Ischnopsyllidae, Ceratophyllidae) zebrane na nietoperzach (Chiroptera) w Polce. Fragn. faun. 31(15): 429-444.


1989 (List 1)


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The editors wish to acknowledge assistance from the following persons in the production of *Flea News* 38: Mr. Dan Burden provided assistance in designing the masthead, as did Ms Beth Collins, who also typed and formatted this issue. Additional support was provided by our colleague, Dr. Wayne A. Rowley. Finally, the Department of Entomology has supported the production of this issue. To all of these we are most grateful.