Compiled by Robert E. Lewis and Joanne H. Lewis

Please find herewith:

--- Fleas in Literature: a Polish poem and a continuation of the quotations from early authors
--- Book reviews
--- Lists of additional literature for 1981 (list 14), 1982 (list 11), 1984 (list 9), 1985 (list 7), 1986 (list 5), 1987 (list 3) and 1988 (list 1)
--- Additions, changes and deletions from the mailing list

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RECENTLY PUBLISHED


Over the years students of the Siphonaptera have grown accustomed to the high quality of the volumes in the Catalogue series produced by the British Museum (Natural History). Volume VII is perhaps the masterpiece of the entire series for a number of reasons. Although it follows the same general format as the preceding volumes, it differs in a significant number of ways. While earlier volumes contained lengthy prose in the sections dealing with the various taxa, illustrations from a number of sources, and no maps, all of these irregularities have been eliminated from this volume.

Brief introduction and acknowledgment sections are followed by a "List of Genera and Subgenera of Siphonaptera" arranged alphabetically by genus, followed by the family and subfamily when appropriate, arranged according to the system of classification first presented by Smit in 1982 and discussed in Flea News 31: 183-186 (December 1985). The introductory section is concluded with a list of taxonomic changes and new taxa described in the volume, and abbreviations of type depositories and the names of collectors.

The bulk of the volume consists of taxonomic treatments of the taxa from superfAMILY to subspecies. Unlike preceding volumes, this tome contains an
extensive bibliography. As a result, the synonymic sections of the supraspecific taxa are very much abbreviated, containing only the names of authors, date of publication and an initial page number. The species treatments follow much the same form as in the earlier volumes in some instances, in abbreviated form in others. Discussion of the anatomical characters is usually limited to references to the figure numbers of these structures, followed by a distributional listing (including a map number) and a list of hosts. In some cases there may be a brief commentary about points of importance concerning the species, and each section is concluded with a list of material in the collection if it is represented in the British Museum (Natural History).

The volume concludes with a gazetteer of collection localities, including map coordinates where available, and the species collected there, a host-flea index, an extensive bibliography, a genus and species index and five photographic plates containing 38 figures.

This volume is a fitting tribute to its author and has more than 40 years of devotion to the study of the order Siphonaptera. Mr. Smit is to be congratulated for his pursuit of excellence as embodied in this publication. ——R.E.L.


This is the publication, in toto, of the doctoral dissertation of the author, albeit containing a few minor alterations and a slightly different arrangement. After a brief introductory section including materials and methods and acknowledgments, the text is divided into two parts. Part I, entitled "Development and anatomy of the male genitalia in Xenopsylla cheopis (Rothschil6, 1901)" deals with the basic genitalic anatomy and development from the early larval to the adult stage. Adult male genitalia are discussed in some detail and the section ends with a summary of abdominal segmentation and the origin of male genitalia in the order, including the origin of the claspsers and primary phallic lobes. The major segmental limits of segments eight through eleven are also discussed, thus setting the stage for the treatment in Part II.

Part II first deals with male genitalic anatomy for all of the pulicoid genera where this sex is known. The second section of Part II contains subsections dealing with: a) Relationships among pulicid fleas, including character analysis, a discussion of pleiomorphic characters and the erection of major subdivisions to include the seven subfamilies. This is followed by b) a discussion of cladistic relationships in the Pulicoida and a cladogram of the taxa, c) a consideration of phylogeny and zoogeography within the group, and d) a discussion of the homologies of some male structures.

The book is terminated by a general summary and bibliography and two appendices. Appendix I is a species list for the Pulicidae, including host association and distribution. Appendix II is a species list for the genus Xenopsylla arranged according to the traditional species groups set down in
Hopkins & Rothschild (1953). The remainder of the book is comprised of 86 plates consisting of line drawings and light and scanning microscope photomicrographs of the pulicid genera showing the relevant details of the male genitalia.

This is a remarkable piece of work, and the first of its kind for any group of taxa in the order Siphonaptera. Through the cooperation of many colleagues throughout the world it was possible to obtain material of every genus where males are known, the exception being Nesolagobius, known only from females. The success of the study is itself a tribute to their cooperation, and the author is to be commended for his skill and tenacity in performing this analysis.

I am informed that a limited number of copies are available for distribution. Interested parties should contact the author at the following address after 1 September 1988.

Dr. Thomas B. Cheetham
Department of Physical & Life Sciences
Wilson College
Chambersburg, Pennsylvania 17201 USA

---R.E.L.

INFLATION — In Flea News number 16 (IX-1979) F. G. A. M. Smit lamented the recent price increase of the Hopkins & Rothschild volumes. Following are quotes from the latest publications catalogue from the British Museum (Natural History) for the 7 volumes, accompanied by the 1979 prices in parentheses.

Prices are in Sterling pounds. Volume I, 60.00 (13.00); II, 60.00 (16.50); III, 60.00 (19.50); IV, 60.00 (28.50); V, 60.00 (34.00); VI, 60.00; VII, 75.00. Totals: 1979, 111.50 for 5 volumes; 1988, 435.00 for 7 volumes. That is an average increase of 390% in less than 10 years (269% on the first 5 volumes). Lamentations are indeed in order.

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CONGRATULATIONS!

DR. EVERETT WILLIAMS JAMESON, JR. is retiring from the Zoology faculty of the University of California, Davis, after 40 years of service in that department. A native of Buffalo, New York, "Bill" received B.S. and Ph.D. degrees from Cornell University, Ithaca, New York, and an M.A. degree from the University of Kansas, Lawrence, before assuming the position at Davis. Although trained as a vertebrate zoologist, many of his publications have dealt with the fleas and ectoparasitic mites of small mammals. In 1962 he coauthored "The Siphonaptera of Japan" with the late Kôhei Sakaguti, as Pacific Insects Monograph #3.

Bill's Siphonaptera collection consists of approximately 5000 microscope mounts and is particularly rich in material from Taiwan, Japan, Korea and western United States. It has been incorporated into the Lewis Collection here at Iowa State University and will ultimately become part of the Siphonaptera collection at the Field Museum of Natural History in Chicago, Illinois.
When asked about his retirement plans, he indicated that he had a number of projects dealing with western mammals and their biology which he intended to pursue.

The editors of Flea News join his colleagues in wishing him a long and productive retirement. His mailing address is now 13 Oakside, Davis, California 95616 USA. ---R.E.L.

DR. CLIFF E. HOPLA, George Lynn Cross Research Professor of Zoology at the University of Oklahoma, Norman, will formally retire on 1 July 1988 after being given emeritus status in January of this year. Cluff has been a member of the Department of Zoology at Oklahoma since 1951 and served as department chairman from 1962 to 1970. To pulicologists he is best known for his work with the Arctic Aeromedical Laboratory in Fairbanks, Alaska, which culminated in a monograph on the Siphonaptera of Alaska in 1965. In a recent telephone conversation, Cluff indicated that he would continue to maintain his office and laboratory and extend his studies on the parasites of cliff swallows.

The editors of Flea News would like to take this opportunity to congratulate Cluff Hopla for his years of service to the community and wish him a long and fruitful retirement.

FRANK CLARK, Department of Zoology, The University, Leicester, U.K., has successfully defended his Ph.D. dissertation entitled "Studies on three congenic species of flea from the nests of Delichon urbica urbica in England". ---J.H.L.

MICHAEL DRYDEN, DVM, School of Veterinary Medicine, Purdue University, West Lafayette, Indiana, has completed work on his Masters degree. His thesis, which is on file at the Purdue University Library, is entitled "Evaluation of certain parameters in the bionomics of Ctenocephalides felis felis (Bouché, 1835)". He will continue his cat flea bionomics studies while working for his Ph.D. at Purdue. ---J.H.L.

* * *

CONFERENCES

At the 40th annual Midwestern Conference of Parasitologists held June 2-4, 1988, at Purdue University, West Lafayette, Indiana, a paper on fleas was presented:

"Winter acclimation, survival and supercooling point depression in the bird flea, Ceratophyllum idiis (Siphonaptera)."

Douglas Schelhaas, Biology Department, U.S. Air Force Academy, Colorado Springs, Colorado, and Omer Larson, Biology Department, University of North Dakota, Grand Forks.

A symposium on the topic "Results and Prospects of Research on the Siphonaptera in the Palaearctic from the aspect of their Significance in Practice" was held June 6-11, 1988, in Bratislava, Czechoslovakia. The symposium, sponsored by the Slovak Entomological Society of the Slovak Academy of Sciences and the Department of Zoology, Comenius University, Bratislava, was headed by Academician Bohumír Rosický with the assistance of Doc.RNDr. Z. Matis and RNDr. M. Kiefer. ---J.H.L.
PLAQUE IN THE UNITED STATES. During a recent conversation with Dr. Allan Barnes, Chief of the Plague Branch of the Public Health Service, Centers for Disease Control, Fort Collins, Colorado, he reported that only three cases of plague have been diagnosed so far in 1988. The first occurred in February in Pecos County, western Texas, and the remaining two were diagnosed in June from Costilla County, Colorado, and McKinley County, New Mexico. All of the victims made satisfactory recoveries. Dr. Bernard Nelson of the California Department of Health Services, reporting in the latest Vector Ecology Newsletter, states that plague has been detected in wild rodents, wild carnivores and domestic pets in five counties in California, but no human cases have been diagnosed during 1988. ——R.E.L.

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NOTES

TO DATE there have only been three responses to our offer of the species lists mentioned on pages 256-258 of Flea News 35. This is insufficient to justify the duplication process and we must await a larger response before we proceed. ——R.E.L.

SOME RECIPIENTS OF FLEA NEWS 36 will note that we have included reprints of Smitt, 1981, "The song of the flea....". Copies have been sent only to those whose names are on our regular reprint mailing list. If you are interested in this paper but did not receive it, a limited number of copies are still available. ——R.E.L.

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FLEAS IN LITERATURE

Following is a continuation of quotations from some early authors prepared by F. G. A. M. Smitt. Readers are referred to Flea News 35, p. 259-261, for the first installment which includes all the references to the quotations.

HEAD
They have a little head. (Mouet 1634: 275; 1658: 1101. Jonston 1653)
He [the flea] has also two pointers before which grow out of the forehead, by which he tries and feels all objects, whether they be edible or no. (Power 1664: 2)

EYE
It is very probable that they have eyes, both because they choose their places of retreat, and because they withdraw themselves when the day breaks. (Mouet 1634: 276; 1658: 1102)
... with a small head, but in it two fair eyes globular and prominent of the circumference of a spangle; in the midst of which you might (through the diaphanous Cornea) see a round blackish spot, which is the pupil or apple of they eye, beset round with a greenish glistening circle, which is the Iris, (as vibrissant and glorious as a Cats eye) most admirable to behold. How critical is Nature in all her Works! that to so small and contemptible an Animal hath given such an exquisite fabric of the eye, even to the distinction of parts. Had our famous Muffet [Mouet] but seen them, he could not have spoke so doubtfully as he did: Oculos (saith he, speaking of Flea's) habere, verissimile est, tum quod suos eligunt recessus, tum quod appetente luce se subjunct.
...that he might not be hurt by the great leaps he takes; to which purpose also he hath so excellent an eye, the better to look before he leap; ...

(Power 1664: 1-2)

MOUTHPARTS
The point of his nub is something hard, that he may make it enter the better. It must necessarily be hollow, that he may suck out the blood, and carry it in. (Moufet 1634: 276; 1658: 1101-1102)

At his snout is fixed a Proboscis, or hollow trunk or probe, by which he both punches the skin, and sucks the blood through it, leaving that central spot in the middle of the Flea-biting, where the probe entred. (Power 1664: 2)

THORAX
... with a very short neck. (Moufet 1634: 275; 1658: 1101)

He [the flea] has also a very long neck. Jammar'd like the tail of a Lobster, which he could nimbly move any way; ...

(Power 1664: 2)

LEGS
Their hinder little legs are bent backwards toward their bellies, and their forelegs toward their breasts, as four-footed beasts are, as it is usual almost in all Insects to whom Nature hath given but four feet. It may be for that end the joynts of Fleas are so disposed, that they may with the more ease hide themselves in the long foldings and plights of the blankets from those that hunt after them. The ends of their feet are divided into two parts, and are hooked and sharp, and seem as if it were to be horny, not only that they may more surely creep up upon high places, but also, that they may sit and stick faster to the smooth skin. (Moufet 1634: 275; 1658: 1101)

... advantageous contrivance of the joynts of his hinder legs which bend backwards towards his belly, and the knees or flexure of his fore-legs forwards (as in most quadrupeds) that he thereby take a better rise when he leaps. His feet are slit into claws or talons, that he might the better stick to what he lights upon; ...

(Power 1664: 2)

FEEDING
Fleas suck so much blood that they pass it out continually blackish and dry. (Magnus 1255-1270)

Fleas feed on dust; they are first white, then black and desire blood. With their sharp biting mouthparts they even attack kings. Especially painful is their bite before rain. (B. Anglicus 1483)

They seek for the most tender places, and will not attempt the harder places with their nibble; with two very small forywards that spring out of their foreheads, they both prove their way, and judge of the nature of the object, and whether it be hard or soft; ... The lesser, the leaner, and the younger they are, the sharper they bite, the fat ones play and tickle men more willingly. In the morning, after they have fed, they creep into the rough blankets, and stick to the walls, or else they hide themselves in the rushes or dust; ...

(Moufet 1634: 276; 1658: 1102)

EFFECT OF BITES
Where they bite they leave a red spot as a Trophy of their force, which they set up. (Moufet 1634: 276; 1658: 1102)

If one is not able to keep watch or sleep, it [the flea] will produce a numbness in the limbs. (Cantimpré 1233-1248; Anonymous 1491)

ALIMENTARY CANAL
They have but one small intestine with folds inward, which is either relaxed or contracted as they eat more or less. (Moufet: 1634: 276; 1658: 1102)
Modlitwa Pchły

Skaczę i kluję, skaczę i kluję!
Boże, jak mnie to bawi!
To był genialny pomysł
stworzyć mnie tak małą
i uzbierać mnie w susy i skoki.
Skaczę i kluję, skaczę i kluję.
Co za królewsk a zabawa!
Przyznaję, że robię to
ze szczęśliwą złośliwością...
W mej szacie o pchlim kolorze
— barwę tę wymyślono dla mnie —
mam większą władzę
od słonia.
Jakość o tym myślisz,
można peknąć ze śmiechu!
Skaczę i kluję, skaczę i kluję!
Panie,
czy przyjmiesz mnie do swego Raju
nie bojąc się,
że mogę tam wszystkim zależeć za skórę?
Aż nie śmieć powiedzieć...

I jump and bite,
I jump and bite!
O Lord, do I enjoy this!
It was a brilliant idea
to create me so small
and to arm me with jumps and leaps.
I jump and bite,
I jump and bite.
What royal fun!
I admit that I do this
with a bit of malice ...
In my flea-colored robe
— this color was invented for me —
I have more power
than an elephant.
If one thinks about it,
one can burst with laughter!
I jump and bite,
I jump and bite!
O Lord,
will you admit me to your Paradise
without being afraid
that I might creep under everybody's skin?
I almost don't dare to say ...

Amen.

* * *

REPRINTS RECEIVED - We wish to thank the following for supplying reprints and citations since the publication of Flea News 35:

A. F. Azad  T. Galloway  K. Poole  R. Summerfelt
D. Cyprich  M. Greenwood  J. Segerman  R. Timm
J. Dinamore  H. Katz  W. Skuratowicz  D. Q. Wang
A. Dudich  J. Keirans  F. Smit  Z. Wegner

* * *

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ADDITIONS

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ADDITIONS - contd.

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CHANGES

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DELETIONS

Dr. N. Haarlev (deceased)

* * *

ADDENDA ET CORRIGA

Please note that the Beaucournu citation on page 267 of Flea News 35 should read Beaucournu, J.-C. & H. Launay - 10 Arthropod (IX) ....

Also, in the provisional list of taxa on page 263, Ctenophilus (C.) bifidatus micus was described by Beaucournu & Orhan, not Orhan & Beaucournu, and Tetrapylus satyrus Beaucournu & Torres-Mura should be added to 1986.

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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 1986. Readers are urged to call any omissions in these lists to our attention.

98601 allisoni Mardon Coorilla
98602 ussuriensis Medvedev iChnopsyllus (Hexactenopsylla)
98603 superjecta Zhang, Liu & Zhang Frontopsyilla (Frontopsyilla) wagneri
98604 concavus Liu, Liu & Zhang Paradoxopsyllus jishajiangensis
98605 affinis Li Lentistiivalius
98606 diana Beaucournu, Gallardo & Launay Piocopsylla
98607 deqinensis Xie & Li Neopsylla affinis
98608 mancus Beaucournu & Orhan Ctenophilus (Ctenophilus) bifidatus
98609 tvrtgovici Brelih Ctenophilus (Medioctenophthalmus) nifetodes
98610 petrovii Brelih Ctenophilus (Medioctenophthalmus) nifetodes
98611 kryspufki Brelih Ctenophilus (Medioctenophthalmus) nifetodes
98612 dukici Brelih Ctenophilus (Medioctenophthalmus) nifetodes
98613 beihanensis Wu, Ni & Wu Callopsyilla (Geminopsylla)
98614 yunnanensis Li & Yas Pariodontis riggenbachii
98615 xiijensis Wu, Chen & Li Neartopsylla (Neochinopsylla)
98616 probosci Wu, Xie & Wu Ctenophilus (Sinoctenophthalmus)
98617 terrestres Chen, Ji & Wu Ctenophilus (Sinoctenophthalmus) tajwanus
98618 sachusonimandana Xie, Chen & Liu Perocucopsylla kimalaica
98619 tinghaiensis Liu, Cai & Wu Ornithophae anomala
98620 sachuanensis Liu, Zhai & Liu Ususibia spromina
98621 borealosichuanliu & Zhai Frontopsyilla (Frontopsyilla) spadix
98622 shennongqiaensis Ji, Chen & Liu Frontopsyilla (Frontopsyilla) spadix
98623 qinghaisensis Liu, Cai & Pan Frontopsylla (Frontopsylla) nakagawai
98624 borealosinica Liu, Wu & Chang Frontopsylla (Frontopsylla) nakagawai
98625 tiebuenisi Chen, Wei & Liu Frontopsylla (Frontopsylla) exilidigita
98626 stenotus Liu, Cai & Wu Paradoxopsyllus
98627 diversus Liu, Chen & Liu Paradoxopsyllus
98628 hainanensis Liu & Pan Macrostylophora hastata
98629 leizhouensis Li, Huang & Liu Nosopsyllus (Nosopsyllus) wuslis
98630 fengi Liu, Xie & Wang Ceratophyllus (Monopsyllus)
98631 satyurus Beaucaormu & Torres-Mura Tetrapsysyllus

PROVISIONAL LIST OF TAXA DESCRIBED IN 1987 (None so far in 1988)

Caenopsylla jaininea Beaucaormu & Gouat
Caenopsylla laptevi lbera Beaucaormu & Marquez
Amphipsylla longispina gongheensis Zhang & Ma
Stenischia xief Li
Plocopsylla viracocha Schramm & Lewis
Plocopsylla mugul Schramm & Lewis
Plocopsylla athens Schramm & Lewis
Plocopsylla kilya Schramm & Lewis
Frontopsylla (Frontopsylla) elatoides intermedia Cai, Wu & Zhang
Cusibia falsotocosa Wu, Ni & Li
Ceratophyllus (Monopsyllus) hamatus Cai & Wu
Ceratophyllus (Monopsyllus) fornicus Cai & Wu
Macrostylphora mandanensis Li, Zeng & Zeng
Ectinorus (Ectinorus) nomis Smi
Ectinorus (Ichenus) onychius deplexus Smi
Parapsyllos ambrosius Smi
Tiamamus deflatus Smi
Polygenis (Gephyropsylla) klagesi rangeli Smi
Polygenis (Polygenis) trapidoi mendesi Smi

* * *

LITERATURE ON SIPHONAPTERA PUBLISHED IN 1981 (list 14)

Whitehead, P. & C. Keats - The British Museum (Natural History). British
Museum (Natural History). 128 pp. [Siph. & plaque: 91-94]

LITERATURE ON SIPHONAPTERA PUBLISHED IN 1982 (list 11)

Derbot, S. & C. Mermod - Quelques siphonapteres de muséolidés, dont Rhadino-
psylla pentacantha (Rothschild, 1897) nouvelle espèce pour la Suisse.
Rev. suisse Zool. 89(1): 27-32

LITERATURE ON SIPHONAPTERA PUBLISHED IN 1984 (list 9)

Takahashi, S. - Survey on accidental introductions of insects entering Japan
via aircraft. In: Laird, M., ed. Commerce and the spread of pests and
disease vectors. Fræger Publ., New York, p. 65-79


Egrí, B. & G. Tersztáynsky - Mass occurrence of Ixodes ricinus and of Monopsyllus sciuorum [Ceratophyllum sciuorum] on a red squirrel (Sciurus vulgaris) [in Hungary]. Magyar Allatorvosok Lapja 40(9): 350 (In Hungarian, no English summary)

Haitlinger, R. - Arthropods occurring on Sciurus vulgaris in Poland. Polskie Pismo Ent. 55(2): 429-432


LITERATURE ON SIPHONAPTERA PUBLISHED IN 1986 (list 5)


Anonymous - Diseases subject to the IHR - plague. Wkly Epidem. Rec. 61(50): 389


-281-

(1986)

*Cariotti, D. N. & D. Heripret - La dermatite par allergie aux piqûres de puce chez le chien. Pratique Méd. Chirurg. Animal Compagnie 21 (Suppl. 6), 64 pp.


Haitlinger, R. - Arthropods occurring on Sorex alpinus Schinz (Mammalia, Insectivora) in Poland. Wiadom. Parazyt. 32(4-6): 419-462

Kaczmarek, S. - Ectoparasites from the nests of the swallows (Hirundo rustica L.) and the house martin (Delichon urbica (L.)) collected in the vicinity of Szczecin. Wiadom. Parazyt. 32(4-6): 469-472

Kohn, M. - Effect of large city conditions on the species composition of fleas parasitizing small mammals. Wiad. Parazyt. 32(4-6): 381-384

Krumins-Lozowska, W. - Fleas (Siphonaptera) on Rattus norvegicus (Berk.) from the cities of Gdynia and Gdańska. Wiad. Parazyt. 32(4-6): 385-387

MacDonald, J. & T. A. Millar - Dynamics of natural flea infestations and evaluation of a control program. Pyrethrum Post 16(3): 84-88

Maciejewska, J. - The effect of Cyklopreon on the metamorphosis of Xenopsylla cheopis (Rothschild, 1903). Wiad. Parazyt. 32(4-6): 531-534


Miller, T. A. - Maximizing the potency of nature’s own flea and tick insecticide - pyrethrin. Pyrethrum Post 16(3): 89-90


Nikulina, N. A. - Peculiarities of the biotopic distribution of small mammal ectoparasites in the Chara River valley. Wiad. Parazyt. 32(4-6): 473-476


Sobotka, W. & B. Stycynska - A review of methods of controlling arthropod pests of sanitary and veterinary importance. Wiad. Parazyt. 32(4-6): 517-525


Vlček, M. & M. Kohn - Communities of small mammals and arthropods associated with them in urban and suburban areas of České Budějovice, Sborn. Jihočeského Muzejního Ústavu, Český Budějovický, Právní fakulta 26(2): 37-50 [In Czech, English summary]


LITERATURE ON SIPHONAPTERA PUBLISHED IN 1987 (list 3)


[Frontopsylla (Frontopsylla) elatoides Intermedia]


Cyprich, D., M. Krumpál & J. Díba - Fleas (Siphonaptera) on mammals (Mammalia) in the Štěr State Nature Reserve. Ochrana Prírody A: 243-253 [In Czech, English, German, Russian summaries]

Demaris, S., H. A. Jacobson & D. C. Gwynn - Effects of season and area on ectoparasites of white-tailed deer (Odocoileus virginianus) in Mississippi. J. wildl. Dis. 23(2): 261-266


Dudich, A. - A study of Siphonaptera, Insecta of the small terrestrial mammals in Kremnica hills (Western Carpathians). Kozetianum 8: 333-350 [In Czech, Russian & English summaries]


DuFeu, C. R. - Some observations on fleas emerging from tit nestboxes. Ringing & Migration 8: 123-128


Haitlinger, R. - Arthropods (Siphonaptera, Anoplura, Acarid) occurring in Poland on Crocidura leucodon (Hermann, 1780) (Mammalia, Insectivora). Wiad. Parazyt. 33(2): 221-228


Funitsky, V. N. & D. M. Gauzhtein - Evaluation of flea population density. Parasitol. sborn. 34: 70-82


McDade, J. E. - Flying squirrels and their ectoparasites: disseminators of epidemic typhus. Parasitology Today 3(3): 85-87


Neltina, E. N. & M. G. Protopopov - Nest-hole microbionecoses: their place and significance in natural plague foci. Parasitol. sborn. 34: 6-47

Peach, W. J., J. A. Fowler & M. T. Greenwood - Seasonal variation in the infestation of starlings Sturnus vulgaris by fleas (Siphonaptera). Bird Study 34(3): 251-252


Pugh, R. E. - Effects on the development of Dipylidium caninum and on the host reaction to this parasite in the adult flea (Ctenocephalides felis felis). Parasitology Research [founded as Zeitschrift für Parasitenkunde] 73(2): 171-177


Stanko, M. - Siphonaptera of small mammals in the northern part of the Krupina Plate (Middle Slovakia). Stredné Slov., Prír. Vedy 6: 108-117


Cheetham, T. B. - Male genitalia and the phylogeny of the Pulicoidae (Siphonaptera). Zoologists' Society, vol. 8, 226 pp., 1 text-fig., 86 pls. Ronald Fricke, ed., Koeltz Scientific Books, Koenigstein, W. Germany


Cyprich, D., M. Krumpáli & D. Horeychová - Annual cycle of Ceratophyllum viridiflorum (Curtis, 1826) (Siphonaptera, Insecta) in the nests of Delichon urbica Linnaeus, 1758 in south-west Slovakia. Biolopgia (Bratislava) 43(2): 141-157 [In English, Czech & Russian summaries]


Fisher, A. - Of cats and dogs and fleas. Popular Science, January: 8


Gartner, M. - Do you take your dog to a flea market? The Daily Tribune (Ames, Iowa), May 18: A8

George, R. S. - Ctenocephalides felis felis (Bouché, 1835) (Siphonaptera: Ceratophylidae[sic]): new to Lincolnshire. Ent. Gaz. 39: 48

George, R. S. - From Spitfires to fleas. Antenna 12(2): 42-43

Hancock, M. - The nidicolous fauna of hauger sets. Ent. mon. Mag. 124: 93-95

Hink, W. F., T. A. Liberati & M. G. Collart - Toxicity of linool to life stages of the cat flea, Ctenocephalides felis (Siphonaptera: Pulicidae), and its efficacy in carpet and on animals. J. med. Entomol. 25(1): 1-4

Lewis, R. E. - The status of the names of some fleas from China. J. Kansas ent. Soc. 61(1): 140-141


Ma, L.-m. - Abundance of fleas in relation to population fluctuations of their hosts. Acta ent. Sinica 31(1): 50-54


McEvedy, C. - The Bubonic Plague. Scientific American 258: 118-123


Poole, K. C. & R. G. Bromley - Natural history of the Gyrfalcon in the Central Canadian Arctic. Arctic 41(1): 31-38 [Siph.: 27]

Rust, M. K. & R. W. Parker - Lack of behavioral response of the cat flea, Ctenocephalides felis (Siphonaptera: Pulicidae) to a broad spectrum of ultrasound. J. med. Entomol. 25(2): 144-146


Saepgina, V. F. - Fleas of small mammals and birds in the forest-park zone of the city of Novosibirsk. Parazitologiya 22(2): 132-136

Schief, R., E. F. Gothe & S. Hauschild - Ultrasound units against fleas and ticks in dog and cat - only genial to the world around us. Kleintierpraxis 33 (4): 147


Thomson, R. - A review of flea collection records from Onychomys leucogaster with observations on the role of grasshopper mice in the epizootiology of wild rodent plague. Great Basin Nat. 48(1): 83-95


It will be understood that - although their titles are given in English in these lists - papers in Russian or Chinese periodicals, or books published in the USSR or China, are in Russian or Chinese (but often with summaries in English).

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AS AN AFTERTHOUGHT ----

Our book on the fleas of the Pacific Northwest is at the printers and should be available in late September. It is being published by the Oregon State University Press.

Other projects in various stages of completion include the following:

Dr. Beth Schramm’s Ph.D. dissertation has been accepted for publication as a volume of Theses Ecologicae and is currently being entered in our word processor for printing on a laser printer.

We are assembling a catalogue of invalid names in the Siphonaptera, as well as a catalogue of valid names in the order. Additionally we are working toward a monograph of the Siphonaptera of the Nearctic Region.

In responding to our request for an update of our mailing list, take a few minutes off and let us know about your projects. This is your newsletter and it is available for the dissemination of this type of information!

ANOTHER AFTERTHOUGHT ----

The annual conference of the Society for Vector Ecology will be held at the International Resort Hotel, Palm Springs, California, November 16-18, 1988. For further information, please contact B. Fred Beans, Society for Vector Ecology, P.O. Box 87, Santa Ana, California 92702 USA.
IMPORTANT NOTICE

It has been 5 years since we surveyed the Flea News mailing list to ascertain whether you are still interested in receiving Flea News. Costs of production and mailing have increased further, but we wish to continue supplying Flea News at no cost to those who are genuinely interested in receiving the newsletter. If you wish to remain on the mailing list, please fill out this form and return it to us NO LATER THAN 1-DECEMBER-1988.

Thank you!

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