

# METALEPTEA

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A News Forum for Acridologists  
and Orthopterists  
THE ORTHOPTERISTS' SOCIETY



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## MESSAGE FROM THE EDITOR

This summer's meeting promises to be a very interesting and rewarding one, judging from the abstracts and articles that have already been submitted for publication in the 5th Proceedings. For those of you still planning on attending and participating in the meetings, please be sure to follow the instructions enclosed in this issue for proper submission of manuscripts.

Immediately following the Meetings this summer we will be releasing the first number of volume 11 of Metalepatea. The second number will be released in December. We continue to solicit articles, news notes, cartoons, items of interest to an orthopterological audience, and notices.

David A. Nickle  
Editor, Orthopterists' Society

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All corresponding Society business should be mailed to the Executive Secretary, Prof. S. K. Gangwere, Department of Biological Sciences, Wayne State University, Detroit, MI 48202, U.S.A

MEETINGS. - Meetings of the Orthopterists' Society are held on a triennial basis, in the United States, Latin America, Canada, or Europe. Symposia, research papers, and business conducted at the meetings are published in the Proceedings of the Orthopterists' Society.

MEMBERSHIP. - Membership is open to anyone expressing an interest in Orthoptera. Annual dues for members are \$15 (U. S. currency) and for students \$7 (U. S. currency). Members are entitled to all publications available for the duration of their membership.

PUBLICATIONS. - The Society's publications include a newsletter, Metaleptea, which is published biannually, the Proceedings of the Orthopterists' Society, which is published triennially in conjunction with the Meetings, and Occasional Papers, an irregularly published journal for medium to large sized papers dealing with research on any aspect of Orthoptera. For information regarding any of these publications, contact DR. David A. Nickle, Editor, SEL, USDA, c/o National Museum of Natural History, Smithsonian Institution NHB-168, Washington, D. C. 20560 U. S. A.

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## REPORT FROM THE EXECUTIVE SECRETARY

As you know, Local Arrangements Committee Chairman Eugenio Morales, his associates, and I have been working on arrangements for the Society's forthcoming 5th International Meeting to be held at Valsain, Spain, July 17-21\*, 1989. I have developed a computer spreadsheet that includes prospective participants' data, and I have sent each individual a letter of acknowledgment. I plan to send a second mailing this week. It will update the spreadsheet, enclose proof, and provide publication instructions.

To date, a gratifying number of members from 22 countries are either fully registered or in preliminary stages of registration for the 5th Meeting. I estimate that this early total includes only about half of those who will eventually participate. It follows that I need better information for adequate planning. Hence this plea that, if not already done, you submit immediately 1) your completed registration form (enclosed) so that I may guarantee space for you on the program and have accommodations set aside for your lodging and subsistence in the Valsain area. I also need 2) the title/s of any paper/s that you wish to read, along with 3) abstracts or resumes of these works, and 4) the registration fee of \$100 (Active Members) or \$25 (Student Members)\*\*. Remember, registration and hotel costs will climb, and arrangements may be difficult to make on a last-minute basis. The program is filling rapidly, so you may have to read your presentation in title or by poster.

Hotel arrangements are currently under negotiation. Double rooms in Segovia or Madrid are expected to run from ptas 4,000 (good) to ptas 8,000 (excellent) per day and singles from ptas 3,000 to 5,000. Meals are expected to run from ptas 1,000 to 3,000 per day. (Ptas 115 = \$1 US currency, approximate). These projected costs, moderate as they are for an international meeting, may be subject to reduction in the case of individuals on a limited budget. The Morales committee is looking into less expensive alternatives.

In late April, I am going to Spain to complete meeting arrangements personally with Eugenio and his committee. Arrangements should have firmed up by that date allowing for announcement of the scientific program and the details of lodging and subsistence shortly thereafter. Eugenio and I will need firm hotel reservations in hand by the end of May, which means that, once notified, you will have to complete your hotel reservations promptly.

The ballots mailed with Metaleptea 10(1) have been tallied but not yet certified by the Elections Committee, whose responsibility it is to monitor the election and inform the membership of the tally. The Committee's report will be released at the Valsain Meeting. For now, it is sufficient to note that R. F. Chapman, of Berkeley, CA, USA, has been elected President Elect for the 1989-1992 term and Baccio Baccetti, of



Siena, ITALY, Aola M. Richards, of Kensington, NSW, AUSTRALIA, and A. B. Ewen, of Saskatchewan, CANADA, Board Members for that term. Baccio Baccetti, of Siena, and Felice Capra, of Genoa, ITALY, Kurt Harz, of Steinsfeld, WEST GERMANY, and Eugenio Morales, of Madrid, SPAIN, were named Honorary Members, effective at the Valsain Meeting. I congratulate all of them on this well-deserved recognition.

In response to the query of some members about the significance of the one or more asterisks following their name on the mailing list, let me provide the following code to membership class: \*Active, \*\*Student, \*\*\*Honorary, \*\*\*\*Emeritus, and \*\*\*\*\*Sponsored.

The total membership of the Orthopterists' Society has burgeoned since the organization became global in scope. However, our objective is to represent the entire fraternity of orthopterists, a goal that can be met only if each current member considers himself/herself a membership committee member at-large and, as such, personally responsible for membership solicitation. This is the intent of enclosing, as we do routinely, a society brochure and membership application. I urge you to give these materials to students, colleagues, and others who, by virtue of their orthopterological interests, should be encouraged to join.

The total balance in the Society's two bank accounts equals only \$8,600.25 (US currency) as of March 21, 1989. This total is patently inadequate to meet operational costs, to say nothing of the 5th Meeting projected expenses. I urge prompt payment of any unpaid dues and meeting fees or deposits.

I look forward to seeing you at Valsain! Until then,

S. K. Gangwere  
Executive Secretary  
Orthopterists' Society

\* Please note that the meeting has been tentatively extended to include a Friday, July 21 morning session. This additional session is needed for a Workshop on Locust Pest Management (Organizer: M. P. Pener). All those who can stay on for this extra morning will find the deliberations productive.

\*\* Registration after May 1, 1989, increases to \$150 (Active) and \$40 (Student).

<b>THE ORTHOPTERISTS' SOCIETY</b>
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**1988 FINANCIAL STATEMENT**  
(In Dollars, US Currency)

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Checking account balance Jan 1 . . . . . \$2,451.80

**Receipts**

Dues . . . . .	2,300.00
Publication receipts . . . . .	23.00
Gifts & contributions . . . . .	1,228.76
Interest on account (checking) . . . . .	25.43
Miscellaneous . . . . .	5.00
<b>Total receipts . . . . .</b>	<b>\$3,582.19</b>

**Disbursements**

Stationery & clerical supplies . . . . .	0.00
Stamps, mailing, & telephone . . . . .	868.76
Publication & printing . . . . .	398.95
Bank transfers to savings account . . . . .	3,221.30
Miscellaneous . . . . .	121.30
<b>Total disbursements . . . . .</b>	<b>\$4,610.31</b>

Receipts less disbursements ( = deficit) . . . . . -1,028.12

Jan 1 balance less deficit . . . . . 1,423.68

Checking account balance Dec 31 . . . . . \$1,423.68

\*\*\*\*\*

Savings account balance Jan 1 . . . . . \$1,342.87

**Deposits**

Cash transfer . . . . .	3,221.30
Interest on account (savings) . . . . .	141.60
Deposits . . . . .	1,544.03
<b>Total deposits . . . . .</b>	<b>\$4,906.93</b>

**Withdrawals**

<b>Total withdrawals . . . . .</b>	<b>1,445.36</b>
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Deposits less withdrawals ( = surplus) . . . . . 3,461.57

Jan 1 balance plus surplus . . . . . 4,804.44

Savings account balance Dec 31 . . . . . \$4,804.44

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**Society financial status ( = checking + savings totals)**

as of Dec 31 . . . . .	\$6,228.12
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## THE ORTHOPTEROID COLLECTION OF ERNEST R. TINKHAM

by

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The sudden death of Ernest R. Tinkham in February, 1987, ended a long and colorful entomological career. Tinkham published 89 scientific papers, articles, and book chapters, and described 106 species and subspecies of orthopteroid insects. While his papers stated where types and paratypes were deposited or to be deposited, that action was not always effected. Additionally, many of his types (46 total) were deposited in the "Tinkham Entomological Museum". This repository was no more than an attached room to his residence in Indio, California. Tinkham's collection represented the largest private orthopterological collection in the United States. I had several discussions with him over the five years preceding his death regarding the deposition of his collection. Unfortunately, 49 of his 106 holotypes (46%), including many from the Far East, have not been located. These missing types were mostly allocated between IU and TEM (see Table 1). Professor Hua (pers. comm. 1988) noted that the entomological collections at IU [and HM] were left undisturbed in spite of the fervor of the Cultural Revolution of the 1960's and 1970's. It therefore appears that these types were simply never deposited at IU, a contention supported by my finding five holotypes, reportedly deposited there, in good condition despite more than 40 years of storage in Tucson, Arizona. These types have been returned to ZU. Holotypes supposedly at TEM, but missing, are more problematic. Those types found were well labelled and in good condition except for several alcoholics that needed replenishment. I simply never

Table 1. Number of holotypes found at cited depository or elsewhere.

Cited holotype depository*	Number of holotypes cited	Number of holotypes found
ANSP	14	10
CAS	3	3
HM	10	10
IU	19	8
TEM	46	14
UCLA	1	1
UMMZ	2	1
USNM	11	10
TOTAL:	106	57

\* See text for key to abbreviations.



found the holotypes and hundreds of alcoholic paratypes, labeled or not, that should have been there. If pinned types were destroyed, their labels would have survived. Again, these were not found. Additionally, the general collection in Indio had been devastated by dermestids, the result of years of neglect. What was salvageable was generally poorly or incompletely labeled. These specimens are deposited at CAS, where using Tinkham's sketchy field notes, I will attempt to identify collection localities. Far East material (mostly China) will be divided between CAS and ANSP. Needless to say, this above tragic state of affairs argues strongly against deposition of types in private collections.

Through the generosity of Tinkham's widow, Marion, and at the suggestion of Dr. P. H. Arnaud, Chairman, Department of Entomology, CAS, a Tinkham archive will be established at CAS. Placed therein will be various representative works that reflect Tinkham's diverse interests: drafts of book chapters, manuscripts, poetry, field notebooks, photographs, conservation efforts, and autobiographical materials.

The following list includes all of Tinkham's types, publication reference number (refer to accompanying bibliography for complete citation), where the holotype was supposedly deposited, and where the holotype, if located, presently is placed. Lastly, if the holotype is lost, and paratypes are known to exist, these will be listed to facilitate future possible lectotype designations. Starting in the 1960's if the holotype was a female, it was incorrectly designated as the allotype - this error is corrected in the list.

The following abbreviations are used:

- A Allotype
- ANSP Academy of Natural Sciences, Philadelphia, PA
- CAS California Academy of Sciences, San Francisco, CA
- H Holotype
- HM Heude Museum, Aurora University, Shanghai, People's Republic of China [Material now at SIE]
- IU Lingnan University, Canton, People's Republic of China [Renamed ZU]
- NL Holotype not located
- P Paratype
- SIE Shanghai Institute of Entomology, Academia Sinica, Shanghai, People's Republic of China [Repository of HM material]
- TEM Tinkham Entomological Museum
- UCLA University of California, Los Angeles, CA
- UMMZ University of Michigan Museum of Zoology, Ann Arbor, MI
- USNM United States National Museum, Washington, DC
- ZU Zhongshan University, Institute of Entomology, Guangzhou People's Republic of China [Formerly IU]

Taxa within each group are listed alphabetically by genus. Higher taxonomic categories are based on those in Rentz (1979) and Kevan (1982). Names used are those cited in original publication.

Taxon	Publication	Cited Type	Present Type	Comment
<b>ACRIDIDAE</b>				
<i>Chapacris tonkinensis</i>	24	TEM	CAS	A in CAS
<i>Cibolacris samalayuae</i>	66	TEM	NL	P in CAS
<i>Coptacra formosana</i>	24	none	NL	*
<i>Coptacra hainanensis</i>	24	LU	NL	
<i>Coptacra lofaoshana</i>	24	TEM	NL	
<i>Ecphantacris mirabilis</i>	24	TEM	NL	
<i>Eucoptacra kwangtungensis</i>	24	LU	NL	
<i>Incolacris hainanensis</i>	24	LU	ZU**	
<i>Miramella lofaoshana</i>	24	LU	ZU	
<i>Miramella shirakii</i>	12	TEM	CAS	A in CAS
<i>Miramella splendida</i>	12	TEM	CAS	A in CAS
<i>Niitakacris goganzanensis</i>	12	TEM	CAS	A in CAS
<i>Oxyrrhepes cantonensis</i>	24	LU	ZU**	A in ZU
<i>Podisma lofaoshana</i>	9	LU	ZU	
<i>Rhopaloceracris chapaensis</i>	24	TEM	NL	
<i>Schistocerca chinatiensis</i>	41	TEM	NL	
<i>Sinacris oreophilus</i>	24	LU	NL	
<i>Tauchira gressitti</i>	24	LU	ZU**	A in ZU
<i>Toacris shaloshanensis</i>	24	TEM	CAS	A in CAS
<i>Toacris yaoshanensis</i>	24	LU	ZU**	A in ZU
<i>Traulia lofaoshana</i>	24	TEM	NL	
<i>Trimerotropis agretis barnumi</i>	65	TEM	NL	P in CAS
<i>Trimerotropis a. gracewileyae</i>	65	TEM	CAS	
<i>Trimerotropis a. hewitti</i>	73	CAS	CAS	
<i>Trimerotropis arizonensis</i>	39	TEM	CAS	
<i>Trimerotropis citrina neomexicana</i>	67	TEM	CAS	
<i>Tzacris haii</i>	24	TEM	CAS	
<i>Xenacanthippus hainanensis</i>	24	LU	ZU**	
<b>GRYLLACRIDIDAE</b>				
<i>Nippancistroger sinensis</i>	9	LU	ZU	
<b>MANTIDAE</b>				
<i>Amantis hainanensis</i>	15	TEM	NL	
<i>Amantis lofaoshanensis</i>	15	LU	NL	
<i>Amorphoscelis chinensis</i>	15	LU	NL	A in USNM
<i>Ceratohaania hainanensis</i>	18	TEM	NL	
<i>Deiphobe yunnanensis</i>	18	LU	NL	
<i>Hestiasula hoffmanni</i>	18	TEM	NL	
<i>Leptomantis tonkinae hainanae</i>	18	TEM	NL	
<i>Odontomantis javana hainana</i>	18	TEM	NL	
<i>Palaeothespis oreophilus</i>	15	USNM	USNM	
<i>Pseudogousa sinensis</i>	15	LU	NL	
<i>Sinomiopteryx grahami</i>	15	ANSP	ANSP	
<i>Tropidomantis gressitti</i>	15	TEM	NL	



Taxon	Publication	Cited Type	Present Type	Comment
<b>RHAPHIDOPHORIDAE</b>				
<i>Ammobaenetes arizonensis</i>	39	TEM	NL	
<i>Daihinibaenetes giganteus</i>	68	TEM	NL	
<i>Daihinibaenetes tanneri</i>	68	TEM	NL	
<i>Macrobaenetes algononensis</i>	69	TEM	NL	
<i>Macrobaenetes kelsoensis</i>	69	TEM	NL	
<i>Macrobaenetes sierrapintae</i>	69	TEM	NL	
<i>Utabaenetes tanneri</i>	79	UMMZ	NL	
<b>STENOPELMATIDAE</b>				
<i>Ammopelmatus kelsoensis</i>	74	TEM	CAS	
<i>Stenopelmatus cahuilaensis</i>	76	TEM	CAS	
<i>Stenopelmatus mescaleroensis</i>	89	TEM	NL	
<i>Stenopelmatus nigrocapitatus</i>	77	CAS	CAS	
<i>Viscainopelmatus davewerneri</i>	78	TEM	CAS	
<b>TETRIGIDAE</b>				
<i>Eugavialidium formosanum</i>	7	TEM	NL	P in ZU
<i>Formosatettix arisanensis</i>	17	TEM	NL	P in CAS
<i>Formosatettix karenkoensis</i>	17	TEM	NL	
<i>Hancockia kwangtungensis</i>	9	LU	NL	
<i>Hydrotetrix hivaoana</i>	19	UMMZ	UMMZ	
<i>Rhopalina javana</i>	23	ANSP	ANSP	
<i>Rhopalotettix chinensis</i>	23	LU	NL	
<i>Rhopalotettix clavipes borneensis</i>	23	ANSP	ANSP	
<i>Rhopalotettix hainanensis</i>	23	LU	NL	
<b>TETTIGONIIDAE: CONOCEPHALINAE</b>				
<i>Conocephalus pieli</i>	31	HM	SIE	
<b>TETTIGONIIDAE: LISTROSCELIDINAE</b>				
<i>Rehnia pulchellus</i>	34	TEM	UMMZ	A in CAS
<b>TETTIGONIIDAE: MECONEMATINAE</b>				
<i>Xiphidiopsis appendiculata</i>	35	USNM	USNM	A in ANSP
<i>Xiphidiopsis capricercus</i>	31	HM	SIE	
<i>Xiphidiopsis cervicercus</i>	31	HM	SIE	
<i>Xiphidiopsis emarginata</i>	35	USNM	USNM	
<i>Xiphidiopsis grahami</i>	35	USNM	USNM	
<i>Xiphidiopsis gurneyi</i>	35	ANSP	ANSP	
<i>Xiphidiopsis hastaticercus</i>	9	LU	NL	
<i>Xiphidiopsis hebardi</i>	58	ANSP	ANSP	
<i>Xiphidiopsis howardi</i>	58	ANSP	ANSP	
<i>Xiphidiopsis kulingensis</i>	31	HM	SIE	
<i>Xiphidiopsis kweichowensis</i>	35	USNM	USNM	
<i>Xiphidiopsis megafurcula</i>	35	ANSP	ANSP	
<i>Xiphidiopsis minutus</i>	31	HM	SIE	
<i>Xiphidiopsis omeiensis</i>	58	ANSP	ANSP	

Taxon	Publication	Cited Type	Present Type	Comment
<i>Xiphidiopsis phyllocerca</i>	35	ANSP	ANSP	A in USNM
<i>Xiphidiopsis pieli</i>	31	HM	SIE	
<i>Xiphidiopsis rehni</i>	58	ANSP	ANSP	
<i>Xiphidiopsis sinensis</i>	35	USNM	USNM	
<i>Xiphidiopsis spathulata</i>	35	USNM	USNM	
<i>Xiphidiopsis szechwanensis</i>	35	USNM	USNM	
<i>Xiphidiopsis transversa</i>	35	USNM	USNM	
<i>Xiphidiopsis yachowensis</i>	35	USNM	USNM	
<b>TETTIGONIIDAE: PHANEROPTERINAE</b>				
<i>Sinochlora hainanensis</i>	36	TEM	NL	
<i>Sinochlora kiangsuensis</i>	36	ANSP	NL	
<i>Sinochlora kwangtungensis</i>	36	ANSP	NL	
<i>Sinochlora sinensis</i>	36	TEM	NL	
<i>Sinochlora szechwanensis</i>	36	ANSP	NL	
<b>TETTIGONIIDAE: TETTIGONIINAE: DECTICINI</b>				
<i>Atlanticus changi</i>	25	HM	SIE	
<i>Atlanticus grahami</i>	25	USNM	NL	
<i>Atlanticus hoffmanni</i>	25	ANSP	NL	
<i>Atlanticus kulingensis</i>	25	HM	SIE	
<i>Atlanticus kwangtungensis</i>	25	TEM	NL	
<i>Atlanticus magnificus</i>	25	HM	SIE	
<i>Atlanticus pieli</i>	25	HM	SIE	
<i>Eremopedes balli pallidus</i>	34	TEM	NL	
<i>Eremopedes ephippiatus sonorensis</i>	34	TEM	NL	
<i>Eremopedes kelsoensis</i>	83	TEM	NL	
<i>Eremopedes shrevei</i>	34	TEM	NL	
<i>Petropedes santarosae</i>	82	TEM	CAS	
<i>Plagiostira gillettei utahensis</i>	71	CAS	CAS	
<i>Plagiostira mescaleroensis</i>	64	TEM	NL	
<i>Platyoplus gilaensis</i>	84	TEM	NL	P in CAS
<b>TIMEMATIDAE</b>				
<i>Timema boharti</i>	28	UCLA	CAS	

\* This name was first used by Tinkham in reference #24, not having been cited by Karny (1915). As Tinkham's paper contains no description, no type data, or depository, and because no specimens have been located, this taxon was not included in calculations in Table 1.

\*\* These specimens were located in storage in Tucson, Arizona, and returned to ZU.



## SCIENTIFIC PUBLICATIONS by ERNEST R. TINKHAM

## \*Pertaining to Desert Studies

- 1934 1 \*The dragonfly fauna of Presidio and Jeff Davis Counties of the Big Bend Region of Trans-Pecos Texas. *Can. Entomol.* 66: 213-221.
- 2 An addition to the dragonfly fauna of Alberta. *Can. Entomol.* 66: 241.
- 1935 3 Preliminary notes on injurious rice grasshoppers of the genus Quilta Stal from South China and Cochin China (Orth.: Acrididae). *Ling. Sci. J.* 14(2): 321-325.
- 4 Distributional and ecological notes on Acrididae from southeastern Kwangsi with a key to the genus Hieroglyphus. *Ling. Sci. J.* 14(3): 477-498.
- 5 \*The Mutillidae of Presidio and Jeff Davis Counties of the Big Bend Region of Trans-Pecos Texas. *Can. Entomol.* 67(10): 207-211.
- 1936 6 Spathosternum sinense Uvarov considered to be a race of S. prasiniferum (Walker) (Orth.: Acrididae). *Ling. Sci. J.* 15(1): 47-54, Pl. 6.
- 7 A new species of Eugavilidium from Formosa. *Trans. Nat. Hist. Soc. Formosa* 26(152): 207-210.
- 8 Notes on a small collection of Orthoptera from Rupeh and Kiangsi with a key to the genus Mongolotettix Rehn. *Ling. Sci. J.* 15(2): 201-218, Pl. 12.
- 9 Four new species of Orthoptera from Loh Fau Shan, Kwangtung, S. China. *Ling. Sci. J.* 15(3): 401-413. Pls. 17-18.
- 10 A new species of Macromia from Canton (Odonata: Anisoptera: Libellulidae). *Ling. Sci. J.* 15(3): 457-459.
- 11 A note on the distribution of the Coprinid beetle Synopsis tridens Sharp. *Ling. Sci. J.* 15(3): 487-488. Fig. 1.
- 12 A new genus and three new species of the group Podismae from Formosa with key and faunistic notes (Orth.: Acrididae). *Trans. Nat. Hist. Soc. Formosa* 26(158): 389-406, Pls. 3-4.
- 13 Diurnal Lepidoptera from Loh Fau Shan, Lung Tau Shan and Yau Shan, Kwangtung, with a description of a new species. *Ling. Sci. J.* 15(4): 557-568, Pl. 25.
- 1937 14 Diurnal Lepidoptera from Loh Fau Shan, Lung Tau Shan and Yau Shan, Kwangtung, with a description of a new species. *Ling. Sci. J.* 16(1): 39-52.
- 15 Studies in Chinese Mantidae. *Ling. Sci. J.* 16(3): 481-499. Pl. 16.
- 16 Notes on a small collection of Acrydiinae from North China and Eastern Mongolia (Orth.: Acrididae). *Peking Nat. Hist. Soc. Bull.* 12(1): 47-51.
- 17 Notes on the identity of Formosan Acrydiinae with descriptions of a new genus and two new species (Orth.: Acrididae). *Trans. Nat. Hist. Soc. Formosa* 27(169): 229-242, 1 Pl.

- 18 Studies in Chinese Mantidae. Ling. Sci. J. 16(4): 551-572, Pl. 17.
- 1938 19 A new species of Hydrotetrix from the Marquesas Islands with a key to the genus (Orthoptera, Acrididae, Acrydiinae). Ann. Mag. Nat. Hist. 11(1): 28-30.
- 20 A new Ceylonosticta from South China (Odon.: Zygoptera: Coenagriidae). Ling. Sci. J. 17(1): 17-19, 2 Figs.
- 21 \*Western Orthoptera attracted to light. J. N. Y. Entomol. Soc. 46: 339-353.
- 1939 22 Five new records and notes on Canadian Acrididae from the Higdon Ranch, Southeastern Alberta. Can. Entomol. 71(6): 121-126.
- 23 Revision of the genera Rhopalotettix Hancock, Rostella Hancock and allied and similar genera (Orth.: Acrididae: Acrydiinae). Ling. Sci. J. 18(3): 329-339: 18(4): 463-474.
- 1940 24 Taxonomic and biological studies on the Cyrtacanthacridinae of South China. Ling. Sci. J. 19(3): 271-382, Pls. 10-16, with many figures. (Doctoral Thesis).
- 1941 25 Zoogeographical notes on the genus Atlanticus with keys and description of seven new Chinese species. Notes d'Ent. Chinoise, Shanghai 8(5): 189-243, 1 double-page map, Pls. 1-3, with 53 Figs.
- 26 \*Biological and faunistic notes on the Cicadidae of the Big Bend Region of Trans-Pecos Texas. J. N. Y. Entomol. Soc. 49: 165-185. Pl. 6, Figs. 1-2.
- 1942 27 \*The grasshoppers and other Orthoptera of Arizona, (with E. D. Ball, R. A. Flock and C. T. Vorhies). Tech. Bull. No. 93, Univ. of Arizona, pp. 257-373, 4 Pls. with many Figs.
- 28 \*A new Californian species of Timema (Phasmodea: Timemidae) with zoogeographical notes. Bull. S. Calif. Acad. Sci. 41(2): 72-79, Pl. 14.
- 29 Notes on the Cicadidae of Alberta. Can. Entomol. 74(2): 155-156.
- 30 \*The rediscovery of Anoplodusa arizonensis (Orthoptera). Bull. Chicago Acad. Sci. 6(12): 221-227, 2 Figs.
- 1943 31 New species and records of Chinese Tettigoniidae from the Heude Museum, Shanghai. Notes d'Ent. Chinoise 10(2): 33-68, 12 figs.
- 32 \*Description and biological notes on a new Saturniid of the genus Pseudohazis from the Big Bend Region of Texas. Can. Entomol. 75(4): 159-162, 5 figs.
- 1944 33 \*Faunistic notes on the diurnal Lepidoptera of the Big Bend Region of Trans-Pecos Texas with the description of a new Melitaea. Can. Entomol. 76(2): 11-18, 2 figs.
- 34 \*Biological, taxonomic and faunistic studies on the shield-back katydids of the North American deserts. Am. Midl. Nat. 31(2): 257-328, 1 map, 27 figs.



- 35 Twelve new species of Chinese leaf-katydid of the genus Xiphidiopsis. Proc. U.S. Nat. Mus. 94(3176): 505-527, fig. 157 with 20 illus.
- 1945 36 Sinochlora, a new Tettigoniid genus from China with description of five new species (Orthoptera). Trans. Am. Entomol. Soc. 70: 235-246, Pls. 6-7.
- 1946 37 A poison-squirting spider. Bull. U.S. Med. Dept. 5(3): 361-2.
- 1947 38 Insects of the Pacific world. Book Review. Am. Midl. Nat. 37(2): 517.
- 39 \*New species, records and faunistic notes concerning Orthoptera in Arizona. Am. Midl. Nat. 38(1): 127-149, 4 pls. with 32 figs.
- 1948 40 \*Notes on the actions of the Audubon Caracara. Condor 50(6): 274
- 41 \*Faunistic and ecological studies on the Orthoptera of the Big Bend Region of Trans-Pecos Texas with especial reference to the Orthopteran zones and faunae of Midwestern North America. Am. Midl. Nat. 40(3): 521-667, 37 text figs.
- 1949 42 \*Haunts and habits of the dragonfly Oplonaeschna armata. Entomol. News 60 (1): 15-16.
- 43 \*A record of the Scissor-tailed Flycatcher from the Colorado desert. Condor 51(2): 99.
- 44 \*Notes on the nest-building of the Vermilion Flycatcher. Condor 51(5):
- 1950 45 First annual report on eye gnat research and control for 1948-49. Coachella Valley Mosquito Abatement District, 28 typed pages, 8 figs., 9 charts.
- 1951 46 \*On the recognition of two Lower Californian Horned Lizards. Herpetologica 7: 168-172, 3 text figs.
- 47 \*Gnat control in Coachella Valley. Proc. & Papers of the 19th Ann. Conf. Calif. Mosquito Control Assn., pp. 97-99.
- 1952 48 \*The eye gnats of Coachella Valley with notes on the 1951 larviciding program. Proc. & Papers of the 20th Ann. Conf. Calif. Mosquito Control Assn., pp. 83-84.
- 1953 49 Two additions to the herpetofauna of North Dakota. Herpetologica 8: 179-180.
- 50 \*Control of eye gnats by soil larvacides. Proc. & Papers 21st Ann. Conf. Calif. Mosquito Control Assn., pp. 47-48.
- 51 \*The Sonoran-Sinaloa vegetation province. Abstract. Eighth Pacific Science Congress, Pacific Science Assn., Organizing Committee, Quezon City, Philippines. pp. 164-166.
- 1954 52 \*Methods of mosquito source reduction and vindications of their costs. Proc. & Papers 22nd Ann. Conf. Calif. Mosquito Control Assn., 4 printed pages, 7 text figs.

- 53 \*The longevity of soil larvacides with special reference to Dried Fruit Beetle control. Proc. 8th Ann. Research Conf. Fig Institute, Fresno. pp. 28-31, 2 charts.
- 54 \*The biology and description of a new Giant Skipper from Arizona. Bull. S. Calif. Acad. Sci. 53(2): 75-87, figs. 15-20.
- 55 \*The control of Date Beetles by eye gnat larvacides. Proc. 31st Annual Date Growers' Institute, pp. 12-13, 1 chart.
- 1955 56 \*Description of the female Mohavacris timberlakei in a new family and subfamily of the Acridoidea. Bull. S. Calif. Acad. Sci. 54(3): 156-160, pl. 46 with 2 figs.
- 57 \*A note on the longevity of soil larvacides. Soil Zoology, Proc. Univ. Nottingham, 2nd Easter School in Agricultural Sciences, pp. 253-255.
- 1956 58 Four new Chinese species of Xiphidiopsis (Tettigoniidae: Meconematinae). Trans. Am. Entomol. Soc. 82: 1-16, pl. 1 with 8 figs.
- 59 \*The deadly nature of Gila Monster venom. "Venoms". Public. No. 44, AAAS, First International Conf. on Animal Venoms, pp. 59-63.
- 60 Bite symptoms in the Red-legged Widow Spider (Latrodectus bishopi Kaston). "Venoms". Publ. No. 44, AAAS, First International Conf. on Animal Venoms, pp. 99-100.

\*Sand Dune Biotae Series

- 1957 61 The California-Sonoran-Sinaloan vegetation province. Summary. Proc. 8th Pacific Science Congress, 4: 139-147. Published by the Natl. Research Council of the Philippines, University of the Philippines, Diliman Quezon City.
- 1958 62 \*Notes on Coniana snowi, an acridid new to the Utah list. Great Basin Nat. 16(2): 66-67.
- 1959 63 \*Notes on the self-burial habits of two Nearctic desert sand dune Acridids (Orthoptera). The Entomologist (London), 92(1156): 185-188, 1 photo.
- 1960 64 \*Studies in Nearctic desert sand dune Orthoptera. Part I. A new species of Plagiostira from eastern New Mexico with key and notes. Great Basin Nat. 20(1 & 2): 39-48, 10 text figs.
- 65 \*Studies in Nearctic desert sand dune Orthoptera. Part II. Two new grasshoppers of the genus Trimerotropis from the Utah deserts. Great Basin Nat. 20(3 & 4): 49-58. 1 plate with 6 figs.
- 1961 66 \*Studies in Nearctic desert sand dune Orthoptera. Part III. A new species of Cibolacris from northern Chihuahua, Mexico. Great Basin Nat. 31(1 & 2): 29-33, 6 text figs.
- 67 \*Studies in Nearctic desert sand dune Orthoptera. Part IV. A new Trimerotropis from the dunes of eastern New Mexico. Great Basin Nat. 21(3): 51-54, 3 figs.



- 1962 68 \*Studies in Nearctic desert sand dune Orthoptera. Part V. A new genus and two new species of Giant Sand Treader Camel Crickets with keys and notes. Great Basin Nat. 22: (1-3): 12-29, 2 pls. with 16 figs.
- 69 \*Studies in Nearctic desert sand dune Orthoptera. Part VI. A new genus and three new species of large Sand Treader Camel Crickets from the Colorado desert with keys and notes. Bull. S. Calif. Acad. Sci. 61(2): 89-111, 4 figs.
- 70 Notes on the occurrence of Scaphiopus couchi in California. Herpetologica 18(3): 204, 1 photo.
- 71 \*Studies in Nearctic desert sand dune Orthoptera. Part VII. A new dwarf race of Plagiostira gillettei from a Utah dune with generic key. Great Basin Nat. 22(4): 105-107.
- 72 \*Studies in Nearctic desert sand dune Orthoptera. Part VIII. A grasshopper new to the Utah list. Great Basin Nat. 22(4): 108-109.
- 1964 73 \*Studies in Nearctic desert sand dune Orthoptera. Part IX. A new Trimerotropis from southern Idaho dunes. Great Basin Nat. 24(1): 31-35, 1 pl. with 4 figs.
- 1965 74 \*Studies in Nearctic sand dune Orthoptera. Part X. A new genus and species of Stenopelmatine Crickets from the Kelso Dunes with notes on its multi-annual life history and key. Great Basin Nat. 35(3 & 4): 63-72, 1 pl. with 11 figs.
- 1966 75 \*Critical notes on the genus Stenopelmatus Burmeister in California with redescription of S. intermedius Davis and Smith and a key to the species. Proc. Calif. Acad. Sci. Fourth Series, 33(18): 543-550, 6 figs.
- 1968 76 \*Studies in Nearctic desert sand dune Orthoptera. Part XI. A new arenicolous species of Stenopelmatus from Coachella Valley with key and biological notes. Great Basin Nat. 28(3): 124-131, 4 figs.
- 1969 77 Notes on the bionomics and distribution of the genus Stenopelmatus in central California with description of a new species (Orth.: Gryllacrididae). Pan-Pacific Entomol. 45(1): 4-14, 4 figs. with 10 illus. (co-authored with David Rentz).
- 1970 78 \*Studies in Nearctic desert sand dune Orthoptera. Part XII. A remarkable new genus and species of Stenopelmatine Crickets from the Viscaino Desert, Baja California, Mexico, with key. Great Basin Nat. 30(3): 173-179, 1 pl. with 6 figs.
- 79 \*Studies in Nearctic desert sand dune Orthoptera. Part XIII. A remarkable new genus and species of giant black Sand Treader Camel Crickets from the San Rafael Desert with key and notes. Great Basin Nat. 30(4): 242-249, 1-5 figs.
- 1971 80 Venomous animals and their venoms. Chapter 35: The biology of the Gila Monster. Academic Press, New York and London, pp. 387-413, 9 text figs.
- 81 Venomous animals and their venoms. Chapter 36: The venom of the Gila Monster. Academic Press, New York and London, pp. 415-422, 5 text figs.

- 1972 82 Nearctic desert Decticinae. Part I. A new genus from California. Great Basin Nat. 33(3): 176-179, 1 pl. with 5 figs.
- 83 \*Studies in Nearctic desert sand dune Orthoptera. Part XIV. A new Eremopodes from the Kelso Dunes. Great Basin Nat. 33(4): 223-228, figs. 3, 2 photos.
- 1973 84 Nearctic desert Decticinae. Part II. A new genus and species from Arizona. Great Basin Nat. 33(1): 43-50, 8 figs.
- 85 Nearctic desert Decticinae. Part III. The true tympanum in certain genera with key. Great Basin Nat. 33(3): 197-201, 10 figs.

\*Mostly Sand Dune Series

- 1974 86 \*Notes on Viscainopelmatus davewerneri (Orthoptera: Gryllacrididae: Stenopelmatinae) from the Viscaino Desert, Baja California Sur, Mexico. Great Basin Nat. 34(3): 203-206, 12 figs. 4 photos. (in triauthorship)
- 1975 87 \*Studies in Nearctic desert sand dune Orthoptera. Part XV. Eremogeography of Spaniacris with Bioecological Notes. Great Basin Nat. 35(1): 113-120, 1 pl. with 8 photos.
- 1977 88 Occurrence of the Jerusalem Cricket, Stenopelmatus fuscus (Orthoptera: Gryllacrididae), in nest of Owyhee Harvester Ant, Pogonomyrmex owyheeii (Hymenoptera: Formicidae), with taxonomic notes on Stenopelmatus. Jour. Acad. Sci. Idaho 13(1): 47-52, 2 photos. (in coauthorship with Wm. H. Clark).
- 1979 89 \*Studies in Nearctic desert sand dune Orthoptera. Part XVI. A new black Stenopelmatus from the Mescalero Sands. Great Basin Nat. 39(3): 226-230, 2 photos.



## ACKNOWLEDGMENTS

Marion Tinkham generously permitted me to visit the TEM in Indio three times to search for various specimens. P. H. Arnaud, Jr., N. D. Penny, and J. V. Vindum of CAS arranged for the bulk of Tinkham's material to be transported from Indio to CAS for decontamination. I was helped in Indio by D. C. Lightfoot, B. I. Weissman, and S. I. Weissman. Professor Lizhong Hua (ZU), Professor Shia Kailing (SIE), D. A. Nickle (USNM), T. H. Hubbell (UMMZ), V. F. Lee (CAS), and D. Azuma (ANSP) helped to locate types and type data. V. F. Lee helped with an earlier draft.

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## MEMBERS' NEWS

Paul D. Brock: ("Papillon". 40 Thorndike Road, Slough, United Kingdom).  
Research: studies of Phasmatodea, including species from Ecuador.

Yong-lin Chen: (Institute of Zoology, Academia Sinica, Beijing, Peoples' Republic of China). Research: studies on ecology, eco-geographical distribution of locusts and grasshoppers, IPM.

Andrew Cherrill: (Imperial College, Berkshire, United Kingdom).  
Research: conservation studies of Decticus verrucivorus (L.) (Tettigoniidae).

C. J. Durden: (Texas Memorial Museum, Austin, Texas, USA). Research: taxonomy of Pennsylvanian and Permian Blattodea and Orthoptera from Texas, New Mexico, Colorado, Kansas, etc.

Vicenta Llorente del Moral: (Entomologia, M. N. C. N., Madrid, Spain).  
Research: studies on the systematics, ecology, biology, and distribution of Pamphagidae from the Iberian Peninsula.

Barnabas Nagy: (Plant Protection Institute, Budapest, Hungary). Research: eco-faunistics of Hungarian Orthoptera, mainly in the Hungarian National Parks.

Julian Mateos: (Facultad de Biología, Universidad Complutense de Madrid, Spain). Research: studies on systematics, biogeography, and communication in Orthoptera of central Spain; designing instruments and computer tools related to entomological studies.

Maria Victoria Peinado: (Facultad de Biología, Universidad Complutense de Madrid, Spain). Research: systematics, biogeography, and communication in ensiferan Orthoptera of Spain.

Seiroku Sakai: (Institute of Biology and Life Sciences, Daito Bunka University, Tokyo, Japan). Research: compiling data for vols. XXI, Labiduridae, and XXII, Spongiphoridae, of Dermapterorum-Catalogus-Iconographia.

Gerhard H. Schmidt: (Brakenweg 5, D-3057 Neustadt 1, Federal Republic of Germany). Research: faunistics and systematics in Orthoptera; using Acrididae for ecotoxicological evaluation of chemicals in the soil; effect of male pheromones in egg production of females of Aiolopus thalassinus (F.).

Ganpati Parshad Sharma: (Prof. Emeritus, Dept. of Zoology, Punjab University, Chandigarh, India). Research: continuing studies on insect cytogenetics. Delivered the Platinum Jubilee Lecture in the Platinum Jubilee session of the Indian Science Congress held at Pune in January, 1988.

Walt Valovage: (Dept. of Entomology, North Dakota State University, Fargo, ND, USA). Research: studies on Entomophaga grylli, a fungal pathogen of grasshoppers.



Esther Viseras: (Dpto. Biología, Animal, Ecología, y Genética, Universidad de Granada, Spain). Research: cytogenetics of Orthoptera.

Robert B. Willey: (University of Chicago, IL, USA). Research: information concerning mixed red-winged/yellow-winged, Arphia pseudonietana, including localities, proportions, etc. Received jointly with Ruth L. Willey the Nature Conservancy President's Stewardship Award (1988), for activities in the acquisition and maintenance of the Mexican Cut-Galena Mountain Research Natural Area (Colorado).

## NEW MEMBERS

## New Members as of III/23/89:

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5TH INTERNATIONAL MEETING OF  
THE ORTHOPTERISTS' SOCIETY,  
VALSAIN (SEGOVIA), SPAIN  
JULY 17-21, 1989

Final Announcement

The 5th International Meeting of the Orthopterists' Society is scheduled for July 17-21, 1989, at the local headquarters of the Instituto Nacional para la Conservacion de Naturaleza (ICONA), Valsain (Segovia), near Madrid, Spain. This superb new governmental installation, with state-of-the-art facilities and accommodations, appears ideal for the Society's meeting. And, orthopterologically speaking, Spain itself is ideal both because of its large numbers of endemic species and interesting mixture of faunal elements and because it is a kind of "bridge" between Europe and Africa and the New World and the Old. What better location for the Society's first meeting outside of the Americas?

Lodging will be at the ICONA facility, Valsain, or in nearby Segovia or Madrid (10 km and 70 km, respectively, from Valsain). Meals will be served in the ICONA restaurant and may be taken also in the local area. Costs should be modest. Camping will not be possible in the immediate area, but arrangements are underway for minimal-cost facilities in adjacent La Granja.

**Weather.** The 5th International Meeting is scheduled for summer. Weather in Madrid will be hot (perhaps oppressively so), but it should be sunny, cool, and pleasant in Valsain, in the Central Range of the Guadarrama Mountains. There is little likelihood of rain.

**Organizing Committee.** The Organizing Committee for the 5th International Meeting of the Orthopterists' Society includes:

Arrangements Chairperson E. Morales Agacino, of Madrid, Spain;

Arrangements Staffpersons D. Cadahia, J. Gosalvez, and V. Llorente, all of Madrid, J. J. Presa, of Murcia, Spain, and others to be appointed;

Organizational Committee Chairperson and Society Executive Secretary S. K. Gangwere, of Detroit, USA; and

Society President V. R. Vickery, of Ste. Anne de Bellevue, Canada.

**International Transportation.** Madrid, the capital city of Spain, is served by many airlines and an extensive system of railways and highways. Conference delegates arriving at Barajas Airport or Atocha Train Station will receive instructions concerning their travel to Conference Headquarters at Valsain. Those arriving by car should proceed directly to Valsain. Details will be announced later.

**Registrational and Other Fees.** Conference registration will be by mail, in advance, through the Secretariat in Detroit, or personally upon arrival at Conference Headquarters at Valsain. A registration fee of \$100 (US currency) has been set for Regular Members and one of \$25 for Student Members if paid at



least three (3) months in advance of the meeting. (These monies are refundable in full upon official withdrawal within six (6) weeks of the meeting.) Registration later than the above or at the meeting itself is possible at a per-person charge of \$150 (Regular Members) or \$40 (Student Members), on a non-refundable basis. Scholarship (gratis) registration may be arranged for students and others unable to provide the registration fee. Family members of delegates may register gratis.

All additional charges (lodging, meals, Society banquet, local transportation) will be on an at-cost basis, the greater the number of registrants, the lesser the per-person cost. Total meeting costs (excluding page charges, discussed below) should be modest for an international meeting.

**Official Letter of Invitation.** An official, personal letter of invitation to attend the 5th International Meeting will be sent prospective participants on written request to the Secretariat. This invitation does not obligate the Society in any way to pay for travel, subsistence, or other expenses that participants may incur at the meeting.

**Tentative Program.** The tentative four-day program of the 5th International Meeting of the Orthopterists' Society will include the following activities:

- 1) Registration and opening-day reception and mixer;
- 2) Four sections of submitted papers (control, evolution & systematics, physiology & genetics, ecology & behavior) on locusts, grasshoppers, and their allies; workshop on locust management;
- 3) A full-day field trip within the environs of Valsain;
- 4) Business meeting; and
- 5) Banquet and closing ceremony.

In addition, planning is underway for an optional 4-day post-conference field trip for those who wish to avail themselves of an exceptional collecting opportunity.

**Official Languages.** English, Spanish, and French are the official languages of the 5th International Meeting of the Orthopterists' Society. Simultaneous translation services are expected to be available. Papers read in other standard languages must include an abstract/resume in one or more of the official languages and may not be submitted for full publication.

**Publication.** Publication will be in the 5th Proceedings of the Orthopterists' Society. All contributed papers will be considered for publication in their entirety at the author/authors' expense. All must include an abstract/resume in one or more of the official languages (English, Spanish, or French). Inasmuch as all abstracts are published (whether or not the full text is published), they must be received at the Secretariat at least six (6) weeks prior to the conference opening. All papers submitted for publication in their entirety must be turned over to the Meeting Organizer (Gangwere) or to the Society Editor (Nickle) on the day they are read. They must comply in format with the Society's editorial standards, as published elsewhere. All are expected



to be original contributions (i. e., not previously published elsewhere), and all will be reviewed/refereed by a panel of experts chosen by the Society's Publications Committee.

If abstracts cannot be provided within the prescribed time limits (i. e., 6 weeks prior to the meeting), the research may still be considered for inclusion in the program on a read-in-title basis. Read-in-title contributions may be considered for publication in full if the text is made available to the Organizer or Editor at the time of presentation.

There will be a \$10 (US currency) per-page charge for all papers published in their entirety and for each page of abstract. This charge covers the editorial process, administrative handling, printing, and mailing of 100 free reprints. Additional numbers of reprints may be ordered at authors' option and expense. Scholarship (gratis) publication may be possible if the Society receives a governmental subsidy.

**Post-Conference Field Trip.** J. J. Presa, of the Universidad de Murcia, is organizing a 4-day post-conference field trip through parts of the orthopterologically rich Sierras de Cazorla and Segura of southern Spain. Participants' food, lodging, and transportation will be on an at-cost, relatively inexpensive basis. Inasmuch as accommodations are limited, registration should be made at least six (6) weeks in advance of the conference. A non-refundable payment of \$25 (US currency) is required of each participant, to be applied to his/her total field trip cost.

**Accompanying Persons' Program.** Family members are encouraged to attend the 5th International Meeting of the Orthopterists' Society. An Accompanying Persons' Program is being arranged under the direction of V. Llorente, of the Museo de Ciencias Naturales, Madrid, and her committee. Sight-seeing visits to various historical and other interesting places are being explored. Costs of these half-day or full-day trips are payable at registration on an at-cost basis. Again, as with other costs, they are expected to be modest.

S. K. Gangwere  
Organizer

5TH INTERNATIONAL MEETING OF  
 THE ORTHOPTERISTS' SOCIETY  
 AT VALSAIN (SEGOVIA), SPAIN  
 IN JULY, 1989

Registration Form

Name: \_\_\_\_\_  
 Surname/name                                  Given name                                  Initial

Sex: \_\_\_\_\_ Telephone/s: \_\_\_\_\_  
 Male                  Female

Institution (if any): \_\_\_\_\_

Mailing address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Accompanying family: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Name    Relationship

Section/s of Interest: \_\_\_\_\_  
 Control    Evolution & Systematics  
 \_\_\_\_\_  
 Physiology & Genetics                  Ecology & Behavior

Do you wish to read a paper/s? \_\_\_\_\_ In which language? \_\_\_\_\_  
 Yes                  No

[If yes, list title/s and provide an abstract/resume in one of the official languages (English, Spanish, French)]

Do you wish this paper/these papers published in abstract form only or in its/their entirety? \_\_\_\_\_  
 Abstract only                                  Full text

Do you wish to participate in the following?  
 \_\_\_\_\_  
 Banquet                                  Sight-seeing visits                  Post-conference trip

[Kindly complete the above form and return it to S. K. Gangwere, Executive Secretary, Orthopterists' Society, c/o Department of Biological Sciences, Wayne State University, Detroit, MI 48202, USA, along with the proper registration fee (\$100 Active Members or \$25 Student Members)]



INFORMATION FOR PREPARATION OF MANUSCRIPTS  
FOR 5TH PROCEEDINGS OF THE ORTHOPTERISTS' SOCIETY

These guidelines should be followed in order to facilitate prompt publication of our next Proceedings. PLEASE READ CAREFULLY.

TYPING THE MANUSCRIPT

1. All manuscripts should be on 8 1/2 x 11" bond (xerox weight) paper. Tissue paper and light weight paper will not be accepted [The reason for this is that all manuscripts will be incorporated into our computer system via an optical scanner, which does not accept light weight papers].

2. All manuscripts must be typewritten, with letter fonts that are solid. Dot matrix letters (the kind available from some desktop PCs) are not acceptable. [The reason for this is that the optical scanner cannot read it. For example, the following phrase, if printed with dot matrix lettering, would be turned into the following manuscript: "...between typical grasshoppers..." might read "...prtwrn fybjc@1 grëssbebbrrs..." an editor's nightmare!].

3. Each page should have a free margin of space of 1 inch around each side.

4. Manuscripts must be double-spaced. Tables must be double spaced, unless they are being submitted as a Figure to be appropriately reduced.

5. Underscore only where italic type is intended in the body of the text. DO NOT USE an italic font in place of underscoring. [The reason for this again is that the optical scanner cannot read it].

6. Type ON SEPARATE PAGES the title page, abstract, manuscript itself, literature cited, footnotes, tables, and figure legends. See Figs. 1-4 for proper format of these pages.

NAMES OF ORGANISMS

The first mention of a plant or animal should include the full scientific name with the author, all unabbreviated. Do not abbreviate a generic name when it begins a sentence.

ILLUSTRATIONS

1. Authors should plan illustrations for reductions to the dimensions of the printed page and should allow room for figure legends at the top and bottom. Printed page size: 4 1/4 x 6 1/2".

Return Proof to:  
 John R. Doe  
 315 State St.  
 Meriden, CT 06420  
 (203) 555-1212

A new species of Xus (Order: Family)  
 injurious to hollies, Ilex spp. (Aquifoliaceae)

John R. Doe and John Smith

(JRD) Resident Biologist, 315 State St., Meriden, Connecticut 06420;

(JS) Entomologist, City Parks, Hartford, Connecticut 06540.

Abstract.- Xus albus, a new species of ... is described, illustrated,  
 and compared with ...

#### Figure Legends

Figs. 1-4. Xus albus. 1, Habitus. 2, Male genitalia (lateral view).  
 3, Larva. 4, Pupa.  
 Fig. 5. Damage to holly leaves.

#### Literature Cited

Doe, J. and J. Smith. 1970. Holly Insects. Jones and Case. New York,  
 NY. 15pp.  
 Smith, J. and J. R. Doe. 1967. A list of insects injurious to hollies  
 (Ilex spp.). Proc. Entomol. Soc. Va. 38: 54-68.  
 (The above citations are fictitious.)

Figs. 1-4. Sample pages for submitted manuscripts. 1, Title page. The mailing address and phone number of the person(s) to whom the page proofs will be sent should be typed in the upper left hand corner. A proof can be sent to each author of a two- or multi-authored paper if they desire. Affiliation and full address are typed as a paragraph below the author name(s). Spell out the state name. 2, Abstract page. Note that "Abstract" begins the paragraph. 3, Figure legend page. Note punctuation. Start a new paragraph for legends describing each plate. 4, Literature Cited page. Note punctuation and spacing. Authors with access to *Serial Sources for the Biosis Data Base* that is provided with *Biological Abstracts* are expected to use its journal title abbreviations.



2. Do not make plates larger than 14 x 18".
3. Photographs should be on glossy paper.
4. Individual figures must be mounted on suitable board, and photographs should be trimmed, grouped together, and abutted when mounted; the printer will insert the hairlines.
5. Arrange figures to use space efficiently.
6. Include title of paper, author's name and address, and illustration number ON BACK OF EACH PLATE.
7. Figures should be numbered consecutively.
8. A limited number of color photographs may be possible if the Editor is notified immediately of the need. Anyone interested in submitting colored plates MUST NOTIFY THE EDITOR BY MAY 1, 1989. The Editor reserves the right to deny such requests if monies are not available for such figures.

#### SUBMITTAL OF THE MANUSCRIPT

Submit the original manuscript and two copies (xerox preferred) to:

David A. Nickle, Editor,  
Systematic Entomology Laboratory, USDA,  
c/o US National Museum of Natural History  
Smithsonian Institution, NHB-168  
Washington, DC 20560 USA

Deadline for submission: it is requested that the Editor receive the final copy of the manuscript BEFORE the meeting, but submission at the Meeting is acceptable. The FINAL DEADLINE for submission is July 30, 1989. Papers received after this date will not be published in the Proceedings.

#### REVIEW PROCESS

Each paper will be submitted to two reviewers for accuracy, proper word usage, etc. The paper will be returned to the author for corrections. Reviewers will be on hand at the Meeting in order to shorten 'turn around time' for the manuscripts.

The Editor requests that all papers be reviewed PRIOR to submission by at least two knowledgeable colleagues for accuracy, etc. A list of all individuals who have reviewed the manuscript prior to submission should be submitted with the manuscript.

## GALLEY PROOFS

At this point in time, it is not clear if galley proof will be available to send to each author. Hopefully it will. If so, the Editor stresses the need for quick return of corrected galley to ensure rapid publication of the Proceedings. Everyone depends upon this.

## CHARGES

1. Page charges will be kept to an absolute minimum. Presently we anticipate no page charges at all, but this may change within the next five months.
2. There may be a flat charge for binding the Proceedings in hard cover.
3. Reprint charges. There may be a charge to authors requiring more than 50 reprints.
4. Authors will be charged for return of illustrations at a cost of the mailing itself.



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**5th. INTERNATIONAL MEETING OF THE  
ORTHOPTERISTS' SOCIETY  
VALSAIN (SEGOVIA), SPAIN  
JULY, 17 - 20, 1989**

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**Hotel Reservation Form**

Family name:.....

First name:.....  Male  
 Female

Arrival:..... Departure:.....

Please make my accomodation reservation as follow,  
(number your two accomodation choices in order of preference)

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Accomodation	Single Room	Double/Twin-room
Hotel Los Linajes	<input type="checkbox"/> 5,000 pts	<input type="checkbox"/> 8,000 pts
Hotel Los Arcos	<input type="checkbox"/> 5,000 pts	<input type="checkbox"/> 8,000 pts
Hotel El Acueducto	<input type="checkbox"/> 5,000 pts	<input type="checkbox"/> 8,000 pts
Hostal Roma	<input type="checkbox"/> 2,800 pts	<input type="checkbox"/> 4,400 pts
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Tariffs quoted are per room per night (breakfast not included);  
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I share my double/twin-room with .....

*All hotels, excepting Hostal Roma which is located in La Granja 10Km. from Segovia,  
are situated in the center of Segovia.*

**Return this form before  
May 15, 1989  
to:**

**Carmen López Fernández  
Dpto. de Biología (Unidad de Genética)  
Facultad de Ciencias, C-15.  
Universidad Autónoma de Madrid,  
28049 MADRID - SPAIN.**

## A NOTE FROM THE PRESIDENT

Our Executive Secretary, Dr. Stanley K. Gangwere, and I met in Detroit a short time ago to make up the tentative program for our meeting in Valsain, Spain in July. At that time we had received notice of registration from 58 active participants, together with 13 dependents. Very few of these had sent registration fees, and I therefore urge everyone participating to send the fees as soon as possible. We need to know how much money will be available to set up facilities and arrangements for the meeting.

To date twenty delegates accompanied by nine dependents have indicated that they wish to take advantage of the post-conference field trip. I have signed up for the trip and will be accompanied by my wife, Muriel.

Dr. Gangwere and I have set up a Tentative Program, and, in case this program will not accommodate all of the papers to be presented, an Alternate Program that we feel will allow time for everyone. In addition to the four main theme sessions, as outlined in the last issue of Metaleptea, we anticipate having a workshop session on current locust problems.

Dr. Gangwere will go to Spain in April to consult with our Spanish colleagues on final arrangements for the meeting.

You have probably read the details on the Orthopterists' Field Guide in Metaleptea. There is little additional information to report. I hope some of you will volunteer to write the papers that so far have no authors. I expect to have some of the published papers in the series at the Valsain meeting.

We intend to push on with our training program as soon as possible.

V. R. Vickery  
President, Orthopterists' Society



## NOTICE

Members needing additional copies of past Pan American Acridological Society or Orthopterists' Society publications (Metaleptea, Proceedings, Occasional Papers) and new members having current publications but not past ones are reminded that a small number of virtually all volumes and numbers is on hand at the Secretariat. Prices (in US currency) are as follows: Metaleptea \$1.50 per number or \$3.00 per volume consisting of 2 numbers; Proceedings \$10.00 per volume; and Occasional Papers \$4.40. Please advise of the volumes and numbers desired and send remittance to: Prof. S. K. Gangwere, Executive Secretary, Orthopterists' Society, c/o Department of Biological Sciences, Wayne State University, Detroit, MI 48202, USA. Orders may also be placed by invoice; simply asked to be billed.

## ERRATUM

The last issue of Metaleptea included a list of papers and authors in the Society's Field Guide Project. There was an error in paper 8 of Section C. The authors of this paper on Zonocerus variegatus (L.) should read: Joelle Chiffaud and Jacques Mestre.

V. R. Vickery  
Project Coordinator