FEBRUARY 1993

SPHECOS 24

A FORUM FOR ACULEATE WASP RESEARCHERS

NOTES FROM THE MUD D'AUB

This issue includes an obituary and several reminiscences of Jack van der Vecht, one of the last of his generation of wasp workers. He was truly one of the greats in hymenopterology, and Jack will be missed. He was a real gentleman, and I feel fortunate to have met and worked with him on several occasions.

In **Sphecos** 23 I wrote a tongue-in-cheek piece on left-handed labellers. I expected more flack from the readership but so far only two people have responded (see p. 23).

The International Society of Hymenopterists held their annual meeting in Baltimore in early December in conjunction with the annual meeting of the Entomological Society of America. Outgoing President Paul Marsh turned the office over to our new president, George Eickwort. Paul has assumed the duties of editor of the *Journal of Hymenoptera Research*. We all owe a big debt of thanks to Dave Smith for serving as editor for the first issue. It looks great and those of you who have not joined the Society and paid your dues are missing a truly fine journal! Membership is only $25 dollars (see **Sphecos** 22:20-21 for application form). After the meeting, the Menkes[1] had a social gathering at their house for some of the waspers (Jim "YoYo" Carpenter, Karl Krombein, Dave Wahl, Byron Alexander, Woj Pulawski, Mike Prentice, Enrico Negrisolo, Eric Grissell, Terry Nuhn, John Wenzel), and a good time was had by all.

[1] Nancy Clarke and Arnold Menke got married December 1 in Las Vegas! They spent their honeymoon in Death Valley.

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CLOUDY FUTURE FOR SPHECOS??

USDA budgets have been shrinking steadily, and the costs of producing the newsletter come out of Menke's yearly allotment. For FY 1993 I have about $1500 for all my expenses (travel, SEM costs, computer needs, **Sphecos**, equipment, publication costs, etc.). Reproduction is the main expense for **Sphecos**. The USDA generates the copy for me by xerography, and one issue of **Sphecos** (around 650 copies) costs about $500. Two issues will thus take two thirds of my budget! Next fiscal year (and the year after that) things will surely be worse, and I may not be able to cover the cost of reproduction. When that happens, I don't know what I will do. If I charged the readers a "fee" to cover reproduction costs that would mean I would have to have the newsletter reproduced commercially because of government regulations. I am sure that having **Sphecos** done that way would be much more costly (one firm has already given me a $1200 figure for one issue). Are any of the readers in a position to have the newsletter reproduced at little or no cost at their institution from camera ready copy supplied by me? I would like to hear from anyone with viable solutions.

RESEARCH NEWS

Byron Alexander (Dept. of Entomology, University of Kansas, Lawrence, KS 66045) has developed an interest in the phylogeny of bembicine wasps. He is now waiting to learn the fate of a pending grant proposal. In the meantime, he has begun to borrow specimens, some of which he is dissecting and examining as time permits (which it rarely does). He is also rumored to be collaborating with **Kevin O'Neill** on a book about solitary wasps. His major excuse for not writing anything so far is that he is waiting for Brothers and Carpenter to complete their phylogenetic analysis of the Aculeata, but it is his understanding that he will soon lose this excuse.

Richard Bohart (Dept. of Entomology, University of California, Davis, CA 95616-8584) writes: "I have worked up a paper on *Belomicrus* of North America. There seems to be 40 species in four main groups. Most of Pate's species seem valid, although many of his conclusions about geographical distribution are fanciful! I am describing some 14 new species. I am now tackling *Microbembex*. There are some 5 new species that need descriptions, so I am planning to get these out. One of them is from New Mexico, the others from Mexico and El Salvador. When that is handled, I have some unfinished business in the Pemphredoninae (*Spilomena*). What with assembling 200 Cal. Acad. drawers from kits at 40 minutes per drawer, my time is pretty well occupied. A recent trip to Oraibi in the Navajo country of Arizona was largely a washout (it rained over two inches)."

István Karsai (P.O. Box: 1009, H-671, Szeged, Hungary) reports: "I have worked here at the CNRS Ethology Lab. (Marseille, France) since March of 1992, and I will return to Hungary this month [August]. I got a grant to work with this lovely team from the Ministry of Foreign Affairs of France. I am working here on the ethology of *Podalonia hirsuta* with **Catherine Truc** and on the building behaviour of *Polistes dominulus* with **Jacques Gervet** and **Guy Theraulaz**. This cooperation seems to be very fruitful and we will continue it in the future. This autumn Jacques Gervet and Guy Theraulaz will come to Hungary to give lectures for our students and discuss the results obtained in Marseille. **John Wenzel** will be our guest, as well, probably in October. This visit will be supported by the Tiszaprogressz Foundation, which aims to promote cooperation between Hungary and other countries. I hope these visits will promote research about Hymenoptera in Hungary, because there are few researchers and amateurs working on this group."

Gabriel Augusto R. do Melo (Dept. Biologia Geral, Universidade Federal de Viçosa 36570-000, Viçosa (MG) Brazil) says: "I have been studying the biology and systematics of Brazilian *Spilomena* and *Microstigmus* wasps. Last year I found in Viçosa a *Xysma* species nesting in abandoned beetle burrows in wood beams. I think this *Xysma* certainly constitutes a new species, and I would like to include in its description the differences in relation to the other two described species. I carried out an extensive study of the biology of *M. nigrophthalmus* from 1988 to 1989. I observed trophallaxis between adults in this species and my manuscript describing this behavior is already in print in *Ins. Sociaux.* I am preparing another manuscript describing its nesting biology, including aspects of nest foundation, nest and adult longevity, factors affecting nest survivorship, developmental time for the immature stages, overlap of generations, etc."

Gabriel hopes to begin his Ph.D. at the University of Kansas under **Byron Alexander** in August of 1993. He plans to study the intergeneric relationships within the Pemphredoninae.

Enrico Negrisolo (Via Conselvana 192 - 35020 Maserà di Padova (PD) Italy) is working on a revision of the Neotropical *Liris* (Sphecidae). Currently he is studying the material of the USNM and will be in Washington, D.C. until the end of March, 1993.

Shizuo Noguchi (Entomological Laboratory, College of Agriculture, University of Ryukyus, Nishihara, Okinawa, 903-01, Japan) writes: "I am a fourth year student at the Entomological Laboratory. My subject is potter wasps, and my field of study is behavioral ecology. Right now, I am studying parental behavior of *Delta esuriens* (Vespidae) in Okinawa."

William Overal (Dept. Zoologia, Museu Goeldi, Caixa Postal 399, Belém, Pará, Brazil) has completed his revision of *Bothynostethus*, except for an enigmatic Spinola type. He reports that **Bram Willink** visited him and helped him sort out the species.

Guido Pagliano (Istituto di Entomologia Agraria e Apicoltura, via Giuria 15 - 10126 Torino, Italy) is working on a comprehensive book on the Italian Sphecidae with **Enrico Nigrisolo** (Via Conselvana 192 - 35020 Maserà di Padova (PD) Italy). The book will be in two parts: The first part will contain general information on morphology, biology, history, relationships of the Sphecidae to the Hymenoptera, and the conservation of habitats. The second part will have keys to subfamilies, tribes and species, and descriptions and biological notes for each species. The text will be in Italian but the keys will be in both Italian and English. Due out in 1996 or 1997, it will be part of the *Fauna d' Italia* series.

Wojciech J. Pulawski (Dept. of Entomology, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118) completed his revision of *Gastrosericus* (Sphecidae, Larrinae). The manuscript has been accepted for publication in *Memoirs of the California Academy of Sciences.*

Diomedes Quintero Arias (Smithsonian Tropical Research Institute) reports: "The trip to Brazil was great. I spent three weeks visiting and collecting in Manaus (Amazonas) and Sao Luis (Maranhao). The latter is within the arid NE corner of Brazil, a poorly collected region, so that everything is new information. I paid the trip for **Roberto Cambra**, who stayed two weeks, mostly in Maranhao. My vision is not good enough to see the small creature I wanted to find: the female of *Nanotropsis isolatrix* (4 mm long or less). We found two male specimens but were unable to find the female. We received on loan the INPA mutillid collection, all unidentified. The male and the female were not among that collection, nor among the specimens I sorted out from the unidentified dried and liquid material. The curator of Hymenoptera and Diptera is Alberto Rafael, who wrote a chapter for Insects of Panama and Mesoamerica."

Raymond Wahis (rue des 7 Collines, B. 4052 CHAUDFONTAINE, Belgium) writes: "Depuis 2 ans, je travaille à la réalisation d' un Catalogue critique (synonymies, distributions, bibliographie) des Pompilides afrotropicaux (environ 950 taxons) qui nécessite la revision de nombreux types et matériaux divers. Une année me semble encore nécessaire pour achever le tout. C'est la raison pour laquelle je suis surtout concerné, actuellement, par les espèces africaines."

John Wenzel has arrived in New York (Dept. of Entomology, American Museum of Natural History, Central Park West at 79th St., New York, NY 10024), and has begun molecular sequence analysis in Ward Wheeler's lab at the American Museum. He's sequencing polistine specimens collected into ethanol by him and **Jim "Yo-Yo" Carpenter**. They have all but three of the genera of Polistinae, so any one with material of *Chartergus*, *Marimbonda* and *Synoecoides* in alcohol please send some to Jim Carpenter.

Help Needed

Book Wanted

Damiano Luchetti (viale Oceano Atlantico, 31 00144 Roma, Italy) says: "I am desperately looking for a copy of Bequaert, J. 1918, A revision of the Vespidae of the Belgian Congo, based on the collection of the American Museum Congo expidition, *Bull. American Mus. Nat. Hist.* XXXIX: 1-384."

Parasites from Aculeates

I have long been as interested in New World parasites of aculeate wasps and bees as in the aculeates themselves. Do any of you have reared series of *Monodontomerus* and *Microdontomerus* (Hymenoptera: Torymidae) that you are willing to loan to me for use in an ongoing study of the former group and a fledgling study of the latter? I now have records (at a world level, but mostly New World) for both genera from over 52 bee and 21 wasp species. These records will be published along with a world catalog of Toryminae sometime in the next few years. I am nearly finished with the manuscript and am about half way finished (or started) with a New World revision of *Monodontomerus*. I have contacted some of you personally (and you know who you are), but it is possible that many informative rearings remain hidden in alcohol vials and darkened drawers. I am especially interested in confirming a reported rearing of *Monodontomerus* from *Mischocyttarus*, the specimens of which cannot be found.

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"Who was Jadwiga, Anyway?"

It was during a recess at the 1980 international congress in Kyoto. **Seiki Yamane, Stefano Turillazzi, Bob Jeanne,** and I were standing outside the meeting hall discussing all manner of things. Seiki pointed out a colony of *Polistes jadwigae* – the first I had ever seen – in a lamp fixture. Wishing to observe their defensive reactions, I provoked the wasps to fly out. Stefano scampered, protesting that I knew perfectly well he was allergic to wasp stings (he had once suffered anaphyllactic shock from a sting). As things quieted down I proffered apologies and insisted (sincerely, I believe) that I had simply forgotten. And it was then that Bob posed the title question.

In 1904, H. von Dalla-Torre gave *P. jadwigae* as a replacement name for the preoccupied *P. japonicus* Cameron. He did so without further comment, giving no hint who Jadwiga might be. None of us in the Kyoto group knew, and in the intervening years I have not encountered a definite answer to Bob's question. Even Woj Pulawski doesn't know. Lubomir Masner tells me that Jadwiga is a common first name in Poland and that she was most likely one of Dalla-Torre's many friends among the Polish aristocracy.

Can anyone improve on this conjecture?

Christopher K. Starr
Dept. of Zoology
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St. Augustine, Trinidad

Wasp Sting Allergies

Margaret Collins remarks on treating stings (**Sphecos** 22:17) touch on a subject of interest to most of us, I expect.

A few months ago a visiting ichthyologist told me of having suffered anaphylactic shock after being stung by social wasps (most likely *Agelaia testacea*) in Venezuela and asked how a highly sensitive individual could treat himself if stung again. I referred him to **Roger Akre** and **Stefano Turillazzi**, knowing that both are allergic and yet continue to work with wasps. Since then I have learned that **Diomedes Quintero** and several other colleagues are likewise allergic. The number of biologists at deadly risk from any sting is evidently far greater than I thought. It would be valuable if those of you who have had to deal with this problem and have devised apparently effective safeguards could let us know the makeup and use of your emergency kits.

Chris Starr

What about Honey Wasps?

At a recent conference on tropical apiculture, I was approached by Eva Crane (commonly characterized as "The Grand Old Lady of Beekeeping") with an inquiry about keeping wasps for honey. Many social wasps store droplets of honey in cells, and some polybiines are known to store substantial enough amounts to make honey hunting worthwhile. In the secondary literature one finds reference to people in Central America even keeping *Brachygastra lecheguana* and *B. mellifica* for their honey. Dr Crane was interested to find first-hand reports of such vespiculture.

That grabbed my curiosity, and I thought to see what I could find in the primary literature. It proved to be a very short search. As best I can tell, the trail in every case leads to just one paper of any substance (Schwarz, 1929).

Can any of you cite any other primary reports on the subject? I would love to learn, for example, that several papers have escaped my attention in Mexican journals. Even better, if you have personal experience in vespiculture or know someone who has I would be glad to hear from you. Entomologists or wasp-keepers whose native language is not English should feel free to use any germanic or romance language of choice.

Chris Starr

Reference

Schwarz, H.F. 1929. Honey wasps. Natural History, New York 29:421-26.

HELP AVAILABLE

James DiGiulio (Dept. of Entomology, Cordley Hall 2046, Oregon State Univ., Corvallis OR 97331) says: "I routinely collect large numbers of *Dolichovespula arenaria*, *D. maculata*, *Vespula vulgaris*, and *V. pensylvanica* for pharmaceutical use (venom). *V. atropilosa* and *V. consobrina* are encountered in lesser numbers. I can usually get all the castes and the parasitoids; *Bareogonalos* and *Sphecophaga* are common. Anyone needing any of these should contact me.

MISSING PERSONS

Maria Bernadete Della Vecchia of Ribeiro Preto, Brazil
Dr. Eberhard Holtappels of Trier, Germany
Sal Nolfo of Garner, North Carolina
Manfred Smolls of Hannover, Germany
Jeanne Sullivan of Alexandria, Virginia
Dr. Paul Westrich of Tuebingen, Germany

NEW ADDRESSES

Frank Creutzburg: Otto-Schwarz-Str. 38, D-6908 Jena, Germany.

Mike Crosland: Dept. of Biology, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong.

Ulrich Heckes: ÖKOKART, Gesellschaft für ökologische Auftragsforschung, Wasserburger Landstraße 151, 8000 München 82, Germany.

István Karsai: P.O. Box: 1009, H-671, Szeged, Hungary.

Juan Manuel Labougle: Programa Nacional para el Control de la Abeja Africana, km 14.5 Carretera México-Toluco, CP 05110 Palo Alto, México D.F., México.

Rogerio Parentoni Martins: Ministério da Educação e Cultura, Universidade Federal de Minas Gerais, Instituto de Ciências Biológicas, Caixa Postal, 2486, Departamento de Biologia Geral, 30.161 – Belo Horizonte – MG, Brasil.

Paul A. Opler: Fish and Wildlife Service, 1201 Oak Ridge Drive, Suite 200, Fort Collins, Colorado 80525.

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Bill Welsio: Department of Entomology, Comstock Hall, Cornell University, Ithica NY 14853-0999.

NECROLOGY

H.G.M. Teunissen of Oss, The Netherlands

OBITUARY

Jacobus van der Vecht (1906-1992)
by
C. van Achterberg
(adapted from
Zool. Med. Leiden 66(1):1-8)

Prof. Dr Jacobus ("Jack") van der Vecht died 15 March, 1992 at his home in Putten (a village in central Netherlands) after a long and difficult period of illness. He was born on 5 July, 1906 in The Hague, where his father held a position as Master of the wine-cellars of Her Majesty ("keldermeester") at the court of the Queenmother Emma. His father was interested in natural history, and liked to rear butterflies and to walk with his boys to observe nature. This fatherly interest fostered a passion for biology in only one of his children, Jacobus.

After school young van der Vecht would meet his friend H.C. Blöte in the field. Blöte was already very interested in entomology and doubtless influenced young Jack. They would later to be colleagues at the Rijksmuseum van Natuurlijke Historie. Jack did well at his secondary school (HBS) at The Hague. He ended up with two grants that gave him the luxury of choosing between a municipal and a governmental grant. Jack decided to study biology at the Rijksuniversiteit (State University) at Leiden. As a student he started with the Aculeate Hymenoptera: general faunistics, and taxonomy of bees (especially the genus *Andrena*, a large and often difficult genus to classify in Europe), and Sphecidae.

After obtaining his Masters degree from Leiden University in 1928 Jack went to the then Dutch East Indies to work as a zoologist at the Instituut voor Plantenziekten at Buitenzorg (= Institute for Plant Diseases and Pests at Bogor). After he arrived in Java he tried to continue his work on Hymenoptera in his spare time, despite other interests. He told me some years ago (with the benefit of hindsight) that playing less tennis and collecting more Hymenoptera would have been better. Once a ball hit him badly, which cost him most of the function of one eye. His work on Indo-Australian Hymenoptera resulted in publications on Trigonalyidae (1934: *Zool. Med. Leiden* 17:290-296), on Vespidae (*Provespa* and *Labus* (1935)), later followed by papers on Sphecidae (1937), Apidae (1938: *Ent. Meded. Ned.-Indië* 4:35-36, 1941: *Ent. Meded. Ned.-Indië* 7:69-76), Sapygidae (1940), and Pompilidae (1949).

Professionally van der Vecht studied economically important species of animals, which in fact meant in most cases the study of pests and their parasites. The study of fluctuations in populations of pests was an important field of research. One of the first results of this work was his thesis on a bug noxious on pepper plants, *Dasynus piperis* China, for which he was awarded a Ph.D. from Leiden University in 1933. Jack also reared 40 successive generations of the coconut leafmoth, *Artona catoxantha* (Hamps.), to study its population dynamics, its habits and the effect of parasites and hyperparasites. A publication on the subject was intended to be published in 1941, but the proofs and illustrations were lost during the war. Fortunately, one copy turned up later, and after new illustrations had been made, it was finally published in 1950 (*Contr. gen. agric. Res. Stn. Bogor* 110:1-77). In the mean time he became interested in the influence of climate on pests (1936: *Verslag 15de Verg. Ver. Proefstation Personeel*: 142-164), and published an important paper with F.H. Schmidt on the east monsoon fluctuations in Java and Madura (1952: *Verh. Metereol. Magn. Inst. Djakarta* 43:1-36). After the war he studied the notorious mentek disease of rice in Java.

A main area of van der Vecht's later research was the biogeography of the Indo-Malaysian area. He started with a paper on *Xylocopa* species of Celebes (1953: *Idea* 9:57-69), which is still important for an understanding of the variation of the carpenter-bees of Sulawesi. Also important is his treatise on the evolution of some Indo-Australian *Eumenes* species (Vespidae; 1959e, 1961c). He found that between populations of large islands color variation was minimal, while the same species on small, fringing islands of the archipelago displayed markedly different color patterns.

Jack became interested in the nest structure of Vespidae and its evolutionary consequences. He discovered what is now known as "van der Vecht's organ". It produces an anti-ant secretion used by some groups of Vespidae to protect their nests against ants.

During the Japanese occupation of Indonesia Jack was kept in prison camps separated from his wife; both endured harsh treatment. He was transported to Burma to work on the notorious Burma railway. Even 40 years later he told me that sometimes he still imagined feeling the blows of sticks on his back by the Japanese military. After the liberation he stayed for a while in Singapore (Raffles Museum) until he could return to Java to be reunited with his wife, who survived the 3 1/2 years in Japanese prison camps. Dr M.A. Lieftinck, who was still allowed to work at the Museum Bogoriense during the first year of the occupation, had stored van der Vecht's

collection and library in the museum. Fortunately, owing to Lieftinck's action, both survived in good condition; otherwise they would have been lost, because van der Vecht's house was looted in 1945.

In January 1946 Jack arrived in The Netherlands to recover and in the same year he spent three months in the U.S.A, in particular to study the latest developments in agricultural entomology (called, peculiarly enough, "economic entomology"!). He met Schwarz, Timberlake, Linsley, Michener and Pate but he missed Cockerell. From 1947-1951 he was head of the Institute for Plant Diseases and Pests at Bogor and cared for its important collection of insects. This collection served as a basis for Kalshoven's book on agricultural entomology of Indonesia. In 1951 he was again in The Netherlands but in 1952 he returned as Professor of Entomology and Nematology in the Faculty of Agriculture of the University of Indonesia at Bogor. After Dr. P.A. van der Laan ceased teaching entomology in Bogor (and continued as lecturer at the University at Amsterdam in 1951), van der Vecht directed most of his attention to entomology. At the same time, with Lieftinck, he tried to keep the Entomological Society of Indonesia going; a difficult job because only a few full time entomologists remained there after independence.

In 1955 working in Indonesia became problematic, and Jack returned permanently to The Netherlands, where he was appointed curator of Hymenoptera at the Rijksmuseum van Natuurlijke Historie in Leiden. In 1962 he was appointed Professor "Extraordinaris" for zoological taxonomy at the State University at Groningen, followed in 1964 by a full professorship at the State University at Leiden, which caused him to resign from the museum. In 1963 he was chosen a member of the Koninklijke Nederlandse Akademie van Wetenschappen (= Royal Dutch Academy of Sciences). After five years he had to retire from his job as professor for health reasons.

After his final return to The Netherlands van der Vecht played an important role in the study of Hymenoptera (especially Vespidae and Sphecidae, preparing catalogues and revisions) and in teaching taxonomy. He revived (with Ch. Ferrière) the pre-war *Hymenopterorum Catalogus*, which is ongoing. Early on he recognized the importance of phylogenetics in taxonomy and he advocated integration of new insights in the evolutionary processes in the synthetic evolution theory.

Van der Vecht served the Netherlands Entomological Society as president between 1961-1968. He made (often with his wife, Elizabeth M. ("Bep") Bourguignon, who actively helped him with collecting) several trips (e.g., to Surinam, Papua New Guinea and Argentina) to collect Hymenoptera and to meet friends and colleagues in the field of aculeate Hymenoptera.

Jack was a gifted scientist, who planned to do a lot more than he accomplished in his life time. This was due in part to the harsh years of World War II. He was an ardent collector of aculeate Hymenoptera (and during his retirement also of parasitic Hymenoptera in Putten and surrounding areas) and spent a lot of time improving the Hymenoptera collection at the Rijksmuseum van Natuurlijke Historie at Leiden. Jack's retirement years were clouded by the mental illness of his wife Bep, and he often felt lonely when her deteriorating memory became severe. She died in 1986, Jack having recognized earlier that his own memory was beginning to fail, a disease that eventually robbed him of his faculties.

Jack and Bep regretted very much the absence of children; their only child died as a baby before the war, and after the period in the Japanese prison camps, no children were born. He was a real gentleman and always willing to help solve problems, notably concerning aculeate Hymenoptera. He will be remembered as one of the great ones in Hymenoptera.

Wasp papers of van der Vecht

1926. De Nederlandsche *Miscophus*-soorten (Hym. Sphecidae), *M. maritimus* faun. nov. spec. Ent. Ber., Amst. 8:114-119.

1928. Hymenoptera aculeata (Geangelde wespen en bijen) in het Meijendel. Levende Natuur 33:90-94, 155-159.

1930. Aantekeningen over Nederlandsche Hymenoptera (Mutillidae, Psammocharidae en Apidae). Zool. Med. Leiden 13:7-21.

1934a. Enkele aanteekelingen over Nederlandsche Hymenoptera (Apidae en Sphecidae). Ent. Ber., Amst. 9:5-10.

1934b. [Note on *Calligaster* and *Ropalidia* (Hymenoptera)]. Tijdschr. Ent. 77:vii-ix.

1935a. On a new species of *Provespa* Ashm. (Hym., Vespidae). Ent. Meded. Ned.-Indië 1:41-44.

1935b. Notes on oriental *Labus*, with descriptions of three new specics from Java (Hym., Vespidae) Treubia 15:157-167.

1936a. XIII. Some further notes on *Provespa*, Ashm. (Hym., Sphecidae). J. fed. Malay St. Mus. 18:159-166.

1937a. Over enkele graafwespen. Trop. Natuur 26:25-33

1937b. On a new *Piagetia*, with notes on other species (Hym, Sphecidae). Ent. Meded. Ned.-Indië 3:21 -26.

1937c. III. Bijen en wespen in het natuurmonument Tjibodas-Gedeh. Ent. Meded Ned.-Indië 3:39-40.

1937d. Descriptions and records of Oriental and Papuan solitary Vespidae (Hym). Treubia 16:261-293.

1937e. Iets over de levenswijze van de Javaansche behangersvesp, *Calligaster cyanopterus* Sauss. (Hym., Vespidae). Ent. Meded. Ned.-Indië 4:26-30.

1939a. Introduction to the study of the Sphecidae (Hym.) of Java, with a key to the genera. Ent. Meded. Ned.-Indië 5:72-86.

1940a. *Vespa analis* and its variety *tenebrosa* Buyss. Ent. Meded. Ned.-Indië 6:43-45.

1940b. On a Sapygid wasp from South Sumatra. Ent. Meded. Ned.-Indië 6: 45-46.

1940c. The nesting habits of *Ropalidia flavopicta*. Ent. Meded. Ned.-Indië 6: 47-50.

1941. The Indo-Australian species of the genus *Ropalidia* (= *Icaria*) (Hym., Vespidae) (First part). Treubia 18: 103-190.

1947. [The study of the insect fauna of the East Indian Archipelago]. Verslag 101ste Zomerverg. Ned. ent. Ver.:x-xiii. Reprinted in Tijdschr. Ent. 89 (1948):xlii-xlv.

1949a. Indo-Australian Pompilidae (Hym.) 1. *Leptodialepis bipartitus* (Lep.) and some similarly coloured species. Treubia 20:275-288.

1949b. On Indo-Australian *Bembecinus*, with special reference to the species occurring in Java (Hym., Sphec.). Treubia 20:289-307.

1950a. A note on the larrid wasps *Dalara schlegelii* (Rits.) and *Hyloliris mandibularis* Will. (Hym. Sphecoidea). Idea 8:14-16.

1950b. Bees and wasps of the Malay Archipelago and some notes on taxonomic entomology in general. Proc. 8th Intern. Congr. Ent.:180-184.

1950c. Over nestbouw en prooi van *Dasyproctus ceylonicus* (Sauss.). Idea 8:103-104.

1952. Parallelle ontwikkeling van het kleurpatroon bij spinnendoders (Hymenoptera Pompilidae) in Zuid Oost Azië. Tijdschr. Ent. 95:xcviii-ci.

1953a. (— and J. Wilcke). The *Hemipepsis* species of Java (Hymenoptera, Pompilidae). Treubia 21:685-724.

1953b. On some aspects of the numerical variation of insects in the tropics. Proc. 9th Int. ent. Congr. 2:272-276.

1953c. Indo-Australian Pompilidae II. An annotated list of the oriental species of the genus *Hemipepsis* Dahlb. (Hym.). Treubia 22:1-17.

1954.The probable types of *Sphex lanierii* Guèr. and *Sphex paulinierii* Guèr. Proc. ent. Soc. Wash. 56:147.

1955. (— and K.V. Krombein). The subspecies of *Sphex sericeus* (Fabr.) (= *S. aurulentus* auct., nec Fabr. 1787). Idea 10:33-43.

1956a. Vijgen en vijgenwespen. Ent. Ber., Amst. 16:99-103.

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Jack van der Vecht – A Cherished Friend and a Gifted Systematist

by

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Jack and I met in 1946 when he visited Washington and the National Museum for the first time. After his return to Java in 1947 as head of the Institute for Plant Diseases and Pests, we continued to correspond occasionally to exchange information and specimens. Because of my postwar interest in the wasp fauna of southwest Pacific, where I'd spent some months in WW II, Jack suggested that we collaborate. A contribution on the subspecies of *Sphex sericeus* (Fabr.) was published in 1955.

Because of our mutual interest in the Indo-Australian wasp fauna, we corresponded more frequently after Jack returned to Holland in 1952. We discussed his project on the Vespoidea and Sphecinae from this area early in the '60s, and agreed that it would be desirable for him to spend some months in Washington studying the USNM collection which had the tremendous Baker collection of Philippine Hymenoptera. I was successful in obtaining a grant from NSF that covered Jack's travel and other costs from The Netherlands and within this country. To supplement the USNM collection, I borrowed specimens from various American collections, most importantly the extensive materials from the Indo-Australian region assembled by Lin Gressitt at the Bishop Museum, and by Joe Bequaert at MCZ.

Jack and Bep arrived in Washington in July 1963 after spending several weeks collecting in Surinam, his first experience in the Neotropics. They rented a furnished apartment in a large building on Massachusetts Ave., a block or two southeast of Ward Circle and near American University. This was very

convenient because it was on a main bus line to downtown Washington, so they spent many weekends visiting museums and art galleries, and enjoying general sightseeing. It had the additional advantage that the Froeschner-Cartwright-Gurney-Krombein car pool passed there daily, enroute to or from the leased Entomology quarters on Lamont St. So Jack was chauffeured to work and home every weekday.

Jack worked diligently at identifying the large mass of material that I assembled, and was able to return a substantial amount by the time they returned to Holland in December. A large number of unidentified specimens were transshipped to Jack in Putten. He returned increments from time to time, but many specimens were still in Jack's hands when Kees van Achterberg moved Jack's personal collection and borrowed specimens from Putten to Leiden. During a visit several years ago Jim Carpenter kindly sorted out Jack's borrowed Vespoidea and returned them to the proper depositories.

My first visit abroad was in 1965 for three months in Egypt on the USDA project with the Ministry of Agriculture. Following that, I spent two months in Europe, visiting museums or private collections in Vienna, Lausanne, Paris and London. Between Paris and London I spent several days in Leiden with Jack. Subsequently I visited Jack and Bep in Putten a number of times enroute home from field work on the Smithsonian "Ceylon Insect Project." And the three of us also had happy reunions at the entomology congresses in Moscow, Canberra, Washington and Kyoto.

Jack was very interested in the Ceylon Project because the Dutch supplanted the Portuguese as the colonial power in that country, and were in turn supplanted by the English. He worked up our Vespoidea and Sphecinae, except for *Ammophila* which was Arnold's baby. I was pleased that Jack named for me a new subspecies of *Sphex subtruncatus* that I collected during the Project and on which I had made extensive life history studies (1984). Later, toward the end of Jack's long professional career, we collaborated on a revision of the Ceylonese *Bembix* (1987). I had collected and made life history notes on a new species in Sri Lanka, so we were delighted to name this taxon *antoni*, memorializing Handlirsch for his monumental monograph of the nyssonine and bembicine wasps (1887-1895).

The trip of which I have the fondest memories was during the spring of 1971 when Dottie and I took our youngest daughter, Karlissa, then aged 19, on a trip to Europe. The three of us had several weeks in Italy and Crete, thence to Athens where several days later in early May we had arranged to meet the van der Vechts at the small Plaka Hotel in the old quarter adjacent to the Acropolis. Jack and Bep had driven their sporty little Volvo along the Adriatic coast of what used to be Yugoslavia, and we had a rented fire-engine red super Beetle. Jack and I went in their car so we could talk wasps, and Lissa drove Dottie and Bep. We went to Peloponessos, spending several days visiting ancient Greek sites such as Epidauros, Tiryns, Mykinai and Olympia. Jack believed in being well informed about these archeological sites, reading to us sections from a detailed guidebook that he carried. Our dinners were delightful affairs at open air tavernas where we enjoyed the varied Greek cuisine, and the good native wines, always preceded by bountiful, milky colored aperitifs of ouzo and ice water.

Jack and I also collected wasps around these ancient sites when populations were evident. Our timing at Olympia was unfortunate. (Mick Day collected a large series of *Proscolia* there in July 1989!) We parted in Athens, Jack and Bep to journey home by car, and the three of us flew to Germany for more touring.

During another springtime trip to Europe, Dottie and I stopped for a few days in Putten where we had other enjoyable excursions with Jack and Bep to see the Van Gogh paintings, the impressive gardens at Keukenhof, and to visit mutual friends such as the Lieftincks and Diakonoffs.

Jack was a gifted specialist on wasps, and earlier on bees. His contributions were not limited to a masterful elucidation of many groups of the Indo-Australian vespine and sphecine wasps, but included scholarly studies of the type species of Fabricius, Linnaeus, and other early authors in those groups, and an exhaustive catalog of the Palaearctic Eumenidae with F.C.J. Fischer (1972). It was a privilege and pleasure for me to be associated with Jack as a co-author of several papers dealing with aculeate wasps of the Oriental Region.

Jack and Bep were dear friends of both Dottie's and mine, and I cherish fond memories of the times the four of us were together, and also of the times that I alone visited Jack and Bep.

Jack van der Vecht

by

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I became aware of the impact on sphecid systematics by Jack van der Vecht in the 1950s. His attempt to set the record straight on Fabrician species of Sphecidae and Chrysididae has been almost universally applauded by other workers. When I visited most of the important European museums in 1960, my ten days at Leiden was made much more pleasurable and efficient by Jack and "Bep", his wife. They invited us to dinner several times, and took us by car to see the countryside, including a visit to the *Oxybelus* specialist, P.M.F. Verhoeff. In a number of following years, Jack and his wife visited us in Davis. Then, we took them by car to the Southwest Research Station near Portal, Arizona. This gave us the opportunity to collect wasps together and to have long discussions on the philosophy of systematics. I tried to convince Jack that considering Vespidae, Stenogastridae, Eu-menidae, and Masaridae as vespoid families would not do any damage to taxonomic practice. I thought I had convinced him but his agreement was grudging. Another point of difference was his insistence on using 00, 0, 1, 2, and even 3 size pins depending on the size wasp he collected. I tried to convince him to use 2 only, and paper points for smaller stuff. He couldn't break the habit of many years! Bep was a pretty good collector along with my wife and I. Her greatest pleasure was in the 10 o'clock cookies and tea that Margaret arranged. Without prodding, we finally heard many of the sad details of their captivity in Indonesia during World War II.

Without question, Jack van der Vecht was one of the best European taxonomists of our day, ranking with Jean LeClercq and Jacques de Beaumont. We will miss him.

Remembering Jack van der Vecht

by

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I first met Jack (Jacobus) van der Vecht and his wife Bep in the early 1960's, when they visited Henry and

Marjorie Townes in Ann Arbor where I was then an undergraduate student of zoology. The van der Vechts were both impressive and kind people, friendly, charming and full of interesting stories – of their life in Java, the tragic events during the Second World War (when they were both, along with many other Dutch citizens, captured soon after the war began by the Japanese and kept in different but equally disagreeable prison camps for the duration of the war), and of wasps. Jack, like Henry Townes, was good at getting students interested in wasps, and liked to discuss not only his observations on systematics but also on natural history, biogeography, and behavior. He was probably good at working with local people during his long residence in Java: Bill (Eberhard) remembers him telling of collecting coconut-palm insects with the help of assistants, who not only were expert climbers but learned to throw specimen-bearing fronds so that they would glide gently to the ground without dislodging their collectible passengers.

Although entomologists knew Jack primarily as a hymenopterist-taxonomist, during his years in Java he wrote classic papers on tropical ecology, based on detailed long-term studies of life histories of hosts and parasites in hemipteran and lepidopterous pests of pepper and coconuts. His work revealed that periodic outbreaks could be explained in terms of life-history relationships between parasites and pests: outbreaks occurred when pest generations became separated. His work on the geographic distribution of color forms in bumblebees of the Celebes was prominently cited by Mayr in his 1963 book on animal species and evolution. In 1950 he wrote an eloquent essay on the importance of systematics for the study of disappearing biotas that makes increasingly timely reading today (*Proc. Eighth International Congress of Entomology, Stockholm*).

I don't know that either Jack or Bep van der Vecht were from aristocratic families, but, without being overly formal or at all pretentious, they were always elegant in their manners, appearance and bearing. When they visited us in Colombia in 1976 they were perfect, relaxed guests; and when I later (1977) visited them at their home in Holland they were more than perfect hosts, setting an example in that regard that would be difficult for most to emulate. They drove a long distance to save me from floundering from a meeting in Germany to their place in Holland, and went to considerable trouble to introduce me to their favorite museums, sights and foods (Bep was a wonderful cook). I know that they were similarly gracious with many other entomological friends.

During that stay in the van der Vecht's beautifully designed house ("Andrena"), set in a country garden near the small town of Putten, I learned that before the war they had had a son, who died when only two years old. Then, perhaps (Jack believed) due to the hardships and mistreatment in the prison camps, they were unable to have more children. This was always a source of grief to Jack. I had the impression from his unusual warmth and generosity with colleagues that in a way Jack's entomological friends were his family, and so when Jack visited us for two months in Costa Rica in 1987 following Bep's death (August 22, 1986) we felt that we were returning just a small part of the fine hospitality bestowed by an entomological grandfather throughout his professional life. Even then, at the age of 81, on his last of many trips through the New- and Old-World tropics, Jack was a considerate guest, careful about his appearance and with his fine manners perfectly intact. He entertained himself sorting insects at a small table overlooking our mountain view (which he seemed to enjoy), with the same perfectionism that had characterized his collections and his published work. He still had the tremendous athletic prowess with an insect net that he had demonstrated in Colombia: we had to restrain his strong and accurate netting reflex to keep him from overcollecting certain species in our yard, and to head off the unleashing of this apparently irresistable movement when he saw bumblebees in a Costa Rican national park (where collecting was not permitted). I could not help thinking that we had visiting us at that time the essence of Jack – a fine gentleman, and a fine and incurable entomologist.

FORUM

Notauli and Parapsidal Lines: just what are they?

by

Arnold Menke

The scutum of aculeate wasps often has one or two pairs of well-marked linear features (figures 1, 2)[1]. Members of the inner pair, the **notauli** (singular notaulus), which originate anteriorly, are usually sulciform (a "furrow") but sometimes the notaluli may be represented by a linear row of pits, or more simply by "marks", that is, line-like. The notauli extend posterad and are either more or less parallel or they converge and meet at the midline of the scutum. Members of the outer pair, the **parapsidal lines**, originate posterolaterally mesad of the tegulae, and extend a variable distance anterad. They are typically represented simply by "marks" in higher aculeates, ie, they are line-like; they are often sulciform in other Hymenoptera.

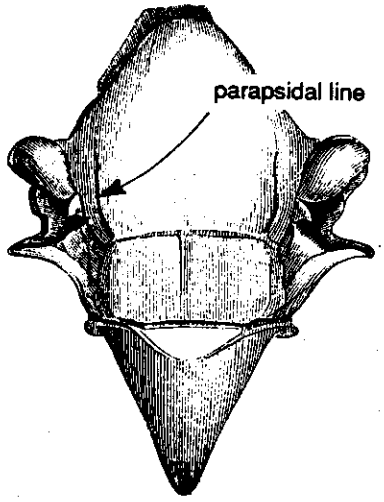

Fig. 1, Scutum of *Polistes* (Vespidae, from MacLeay, 1830. Plate 5, fig. 4)

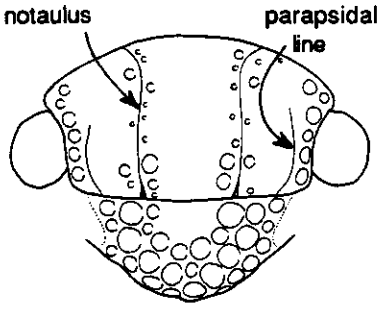

Fig. 2, Scutum of *Omalus variatus* (Aaron)(Chrysididae, from Bohart and Kimsey, 1982, fig. 67)

[1] This discussion excludes the admedian lines often present anteromedially on the scutum.

The **notauli** are usually represented internally by phragmata that are positioned between the areas of attachment of the dorsolongitudinal indirect flight muscles and the dorsoventral indirect flight muscles (Gibson, 1985). According to Gibson "the spatial relationship between the notauli and the two sets of indirect flight muscles indicates homology of the notauli throughout Hymenoptera".

The **parapsidal lines** are feebly represented internally. Daly (1964) demonstrated that they indicate the location of initial attachment of the dorsoventral indirect flight muscles in the pharate pupa. In adults these muscles enlarge, surrounding the original site.

There has been considerable agreement in usage of these terms among modern authors, including a number of significant papers and books. The following examples illustrate this point *(ie.* notaulus and/or parapsidal line are used in the sense described in my opening paragraph): Snodgrass (1935) *Principles of Insect Morphogy*, Duncan (1939) *A Contribution to the Biology of North American Vespine Wasps*, Michener (1944) *Comparative External Morphology, Phylogeny, and a Classification of the Bees*, Townes (1969) *The Genera of Ichneumonidae*, Betrem (1972) *The African Campsomerinae*, Bohart and Menke (1976) *Sphecid Wasps of the World*, Richards (1977) *Hymenoptera, Introduction and Key to Families*, Evans (1978) *The Bethylidae of America North of Mexico*, Olmi (1984) *A Revision of the Dryinidae*, Gibson (1985), Boucek (1988) *Australian Chalcidoidea*, Gauld and Bolton (1988) *The Hymenoptera*, Masner and Huggert (1989) *World Review and Keys to Genera of the Subfamily Inostemmatinae*, etc., Ronquist and Nordlander (1989) *Skeletal morphology of an archaic cynipoid, Ibalia rufipes*, and Kimsey and Bohart (1990) *The Chrysidid Wasps of the World.* Richards (1977) was inconsistant in his treatment of notaulus. In sawflies, he used the term prescutal sulcus for the notaulus. Ronquist and Nordlander modified parapsidal lines to parapsidal signa.

Until the postwar years notauli and parapsidal lines were often used interchangeably for the inner pair of scutal grooves, and there is occasional confusion even today. For example Snodgrass (1910) used "parapsidal suture" for what is really the notaulus. However he corrected this in his 1935 book, *Principles of Insect Morphogy*. Schmiedeknecht (1930) in the second edition of his *Die Hymenopteren Nord- und Mitteleuropas* (first published in 1907) used "Parapsidenfurchen" but recognized that his usage was synonymous with notauli. His book evidently influenced a number of subsequent European workers. For example, Nikol'skaya (1963), Oehlke (1971) and Tobias (1978) used the equivalent of parapsidal lines for the notauli. Other examples of misapplication of parapsidal line are Weld (1952) who, in his Cynipoidea, used the term for the true notaulus; Matsuda (1970), who, in his study of the thorax, used "parapsidal suture" for the notaulus; and Riek (1970) who, in *Insects of Australia*, also partly mixed up these terms. Riek's fig. 37.6B on p. 872 shows the scutum of a *Sphecius* and he misapplied parapsidal line to a sulcus associated with the oblique scutal carina. The true parapsidal line of *Sphecius* was labeled the "notaulix" by Riek, and the true notaulus was labeled "admedial line". Riek correctly applied notaulus and parapsidal line on fig. 37.6A, a tenthredinid. In the second edition of this book, Naumann (1991) used Riek's figures and perpetuated the mislabeling of *Sphecius* (fig. 42.6B on p. 919), and in an apparent lapsus on fig. 42.6D (a trigonalid), labeled the true notaulus both as notaulus and parapsidal line.

I decided to see if I could find out just who originated the terms notaulus and parapsidal line in order to determine if contemporary authors were interpreting them correctly. Gary Gibson (1985), in his masterful and basic study of the thorax in Hymenoptera, gave a good historical account of these two terms. He, as well as most other modern workers, relied heavily on the paper by Tulloch (1929) for the historical origin of notaulus and parapsidal line. I discovered that Tulloch has mislead his readers to some extent.

Tulloch attributes origin of the term notaulus to Kokujev (or Kokouyew) (1899a, b) [1898 is incorrect] in *Horae Soc. Ent. Rossicae*, vol. 32. My examination of vol. 32 revealed that Kokujev did use the word "notauli" in descriptions of braconid species in two papers (pages 307, 316, 376, 379, 383, 388, 393, 397, 399, 405, 408), but he did not define the term. In earlier papers in the *Horae*, Kokujev did not use the term notauli. For example, in vol. 29 (1895 p.366), Kokujev used the word "parapsidis" instead.

Tulloch also cited Morley (1903) *Ichneumonologia Britannica*, vol. 1, for notaulus, and the term is clearly defined in Morley's glossary (p. xiv). Forbes (1940) credited Morley with originating the term notaulus, not Kokujev, probably because Morley defined it. Apparently the word notaulus is based on the Greek words noton (= back) and aulon (= channel). Forbes (1940) gave a more thorough attempt at derivation of the word. Notaulus is singular, notauli is plural. Richards (1977) and some others have used incorrect spellings for this term (notaulix, notaulices).

Origin of the term parapsidal line is more muddled. Tulloch (1929) traced the origin of the word "parapsides"[2] back to MacLeay (1830), who, Tulloch said, proposed the term for the area of the scutum lateral to a posterolateral line in a species of *Polistes*. Tulloch, in his discussion of MacLeay, coins the term parapsidal line, stating that "naturally the furrows delimiting these regions [ie, the parapsides] are the parapsidal furrows although MacLeay does not specifically designate these furrows as such."

When you examine MacLeay's paper it obvious that Tulloch does not tell the complete story. MacLeay uses the genus "*Chalcis*" as an example of a hymenopteran with completely formed parapsides. He mentions *Polistes* (he also figured and labeled the scutum of this genus) and *Scolia* as examples of wasps with incompletely formed parapsides, and says that in *Leucospis* they are absent. When you examine the scutum of these wasp genera it becomes obvious that MacLeay used both pairs of scutal grooves to delimit the lateral scutal area he called "parapsides". The grooves in *Chalcis* are the modern day notauli. The lines present in *Polistes* and *Scolia* are modern day parapsidal lines (they are sulciform in *Scolia*), and notauli appear to be absent in both genera.

This confusion by MacLeay explains why Mayr (1887) used the apparently new term "Parapsidenfurchen" (= parapsidal furrows in English) for the inner most pair of grooves in male ants (ie, notauli of Kokujev and Morley). It also explains why the inner most pair of grooves have been called notauli by some workers, and parapsidal furrows (or grooves) by others. MacLeay based his extensive description of the thorax on *Polistes* however, and one could justifiably argue that this vespid genus

[2] Parapsides is pleural, parapsis is singular. The word is formed from para (= beside or near) and apsis (= rim).

should serve as the basis for determining the correct application of the term parapsidal line. In fact MacLeay (1830, plate 5) illustrated the thoracic dorsum and side of *Polistes billardieri* (Fabricius)[3] and his explanation of these figures states ". . . shews vestiges of the sutures which separate the Parapsides from the Scutum." In *Polistes* there are no visible notauli (see fig.1). The only lines present are those that Tulloch (1929) named the parapsidal lines.

It appears, however, that Mayr (1887) may have been the first worker to actually coin a name for a scutal groove derived from MacLeay's area term parapsides[4]. Unfortunately Mayr's term, Parapsidenfurchen, applied to what most modern workers now call the notaulus. Emery (1900) in his morphological study of the ant thorax, pointed out Mayr's mistake, and proposed the term "solchi di Mayr" (= Mayrian furrows in English) to replace Parapsidenfurchen.[5] Emery pointed out that the term parapsidal lines (he called them "solchi parassidiali" in Italian) is more properly applied to the lines in *Polistes* that MacLeay used to delimit his parapsides. Emery (1900) appears to have been the first person to define parapsidal line sensu MacLeay's *Polistes*.

Although parapsidal furrows (or lines) sensu Mayr (1887) has priority over notauli sensu Kokujev (1899a, b) and Morley (1903), most contemporary workers use parapsidal lines sensu Emery (1900) and Tulloch (1929). I agree with Gibson (1985) that this usage should be maintained. Nothing would be gained by attempting to make parapsidal line the proper term for what now is generally called the notaulus. Such action would also necessitate a new term for the contemporary parapsidal line. Furthermore, notaulus has only one meaning while parapsidal line has been used for two different grooves.

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[3] MacLeay's material came from Cuba and *billardieri* does not occur there. He probably had the species *cubensis* Lepeletier.

[4] If anyone knows of an earlier use parapsidal line please let me know.

[5] Emery's term has generally been discarded by modern ant workers, most of whom use notauli.

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SCIENTIFIC NOTES

Polistes dominulus in Connecticut

by

A.S. Menke

I received specimens of this wasp for identification from Theodore Andreadis that were taken at New Haven, Connecticut in 1992. According to the submittor, "Numerous nests were found in metal fence post openings at the Connecticut Tennis Center at Yale University. The wasps are suspected of causing widespread stinging of patrons at the Volvo International Tennis Tournament held in mid August."

Polistes dominulus was first detected around Cambridge, Mass., over 12 years ago, but has now spread west to Ohio, New Jersey and Pennsylvania (Jacobson, 1991a, b).

Literature cited

Jacobson, Robert S. 1991a. *Polistes dominulus* spreading in USA. Sphecos 21:14.
Jacobson, Robert S. 1991b. *Polistes dominulus* spreads. Sphecos 22:9.

Further news on *Dolichovespula* and Lee's nine 'new' species of *Vespula* and *Dolichovespula* (Vespinae)

by

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Professor Lee Tieshang has kindly made available to me specimens of the nine new species of *Dolichovespula* and *Vespula* that he described (Lee, 1968a, b). I first discussed Lee's wasps in **Sphecos** 20:6. My current opinions on these specimens are as follows:

Dolichovespula stigma - the holotype worker supplied is *D. sinensis* Archer, 1987

D. nyalamensis - the two workers are *D. lama* (du Buysson, 1903).

D. borealis - the paratype worker is *D. media* (Retzius, 1783).

D. xinjiangensis - the allotype male is *D. asiatica* Archer, 1981 and the paratype worker *D. sylvestris* (Scopoli, 1763).

Vespula hainanensis - the holotype worker is *Paravespula koreensis* (Radoszkowski 1887).

V. gacilia - the paratype worker is *P. flaviceps* (Smith, 1870).

V. yichunensis - the paratype male is *Dolichovespula asiatica* Archer, 1981.

V. hirsuta - the paratype queen is *V. kingdonwardi* Archer, 1981.

V. obscura - the paratype queen is *V. rufa* (Linnaeus, 1758).

As stated in **Sphecos** 20:6 I do not regard Lee's published descriptions as valid as it is not possible from the descriptions or figures to place the 'new' species in a genus, subgenus or species group [Michael – they are valid since they meet the criteria of availability of the Code of Zoological Nomenclature – edit.]. Professor Tong Xu Peng, a classmate of Professor Lee Tieshang, very kindly wrote to Lee in Chinese giving the above opinions. Later Lee wrote to me (15 June 1991) acknowledging my opinions. During the summer of 1992 I attended the International Congress of Entomology at Beijing but Lee did not seem to be available so further loans and discussions could not be made.

Although no new species were present among the specimens supplied to me by Lee some of the specimens were of great interest in that they represented species which are known only by a few specimens. In particular it would be interesting to know if Lee holds males of *D. lama*. Males of *D. lama* are unknown and *D. lama* with *D. panda* might represent a species group within *Dolichovespula*. Males of these two species would probably resolve this species group problem.

On another matter and further to my note (**Sphecos** 23:2) Dr. Huber has made a large loan to me of *Dolichovespula norweqica albida* to search for specimens of *D. norvegicoides* with ivory white colouration rather the usual yellow colouration. Fortunately no ivory coloured specimens of *D. norvegicoides* were found so the usual key couplet separating these two species should be satisfactory in virtually all cases.

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Polistes Distribution: Part 2

by

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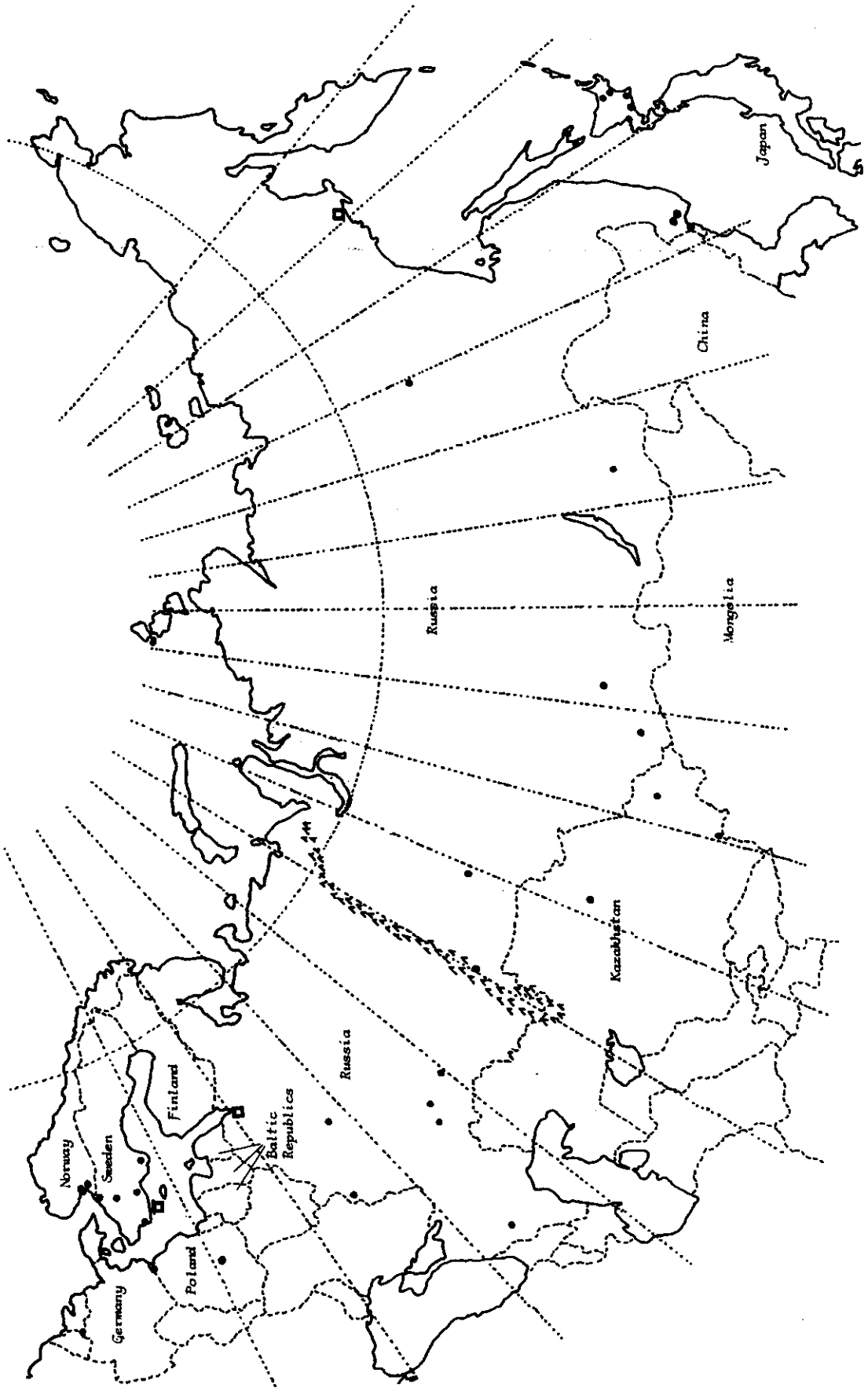
Efforts to map the polar limits of *Polistes* have proceeded quite well. Thanks to several colleagues, the map for North America (see **Sphecos** 21:5) is filling out, although additional data will be gratefully received, especially from the Lake Superior area and the prairies. The austral limits within South America are now well mapped, and the question is moot for Africa and Australia, in which the genus reaches the continental extremes.

My big problem at present is Asia. As seen in the figure, I have few data from the vast area between the Ural Mountains and Sakhalin (thanks to Alexander Antropov for what I have). Positive records are indicated here by solid dots and negative records (localities at which there is good evidence for absence of *Polistes*) by hollow squares. The northernmost positive records are all near 60° N latitude, and note that two of my three negative records (Leningrad and Magadan) are also very close to this line.

Any new positive or negative localities that will add to resolution of this map will be much appreciated. Records need not be accompanied by positive species identifications, although these are of course preferred. Only *P. biglumis* and *P. nimpha* are expected near the northern palearctic limits of the genus.



Polistes in Asia

Key to *Polistes* Species of Europe

by
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and
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The following is a synthesis of keys that the two of us formulated semi-independently. Our key almost certainly still has shortcomings, especially in some populations of the species around *P. gallicus*, but we believe it is now sufficiently reliable to make it generally available. We are grateful to Aleksandar Cetkovic and Josef Gusenleitner – neither of which takes responsibility for this key – for discussion of some points. The three social-parasitic species were previously treated as a separate genus, *Sulcopolistes*. Permission to reprint, adapt or translate the key is given in advance.

1. Mandibles very robust, with a prominent depression on outer surface. Antennae 12-segmented. Gaster with 6 apparent segments (females, social-parasitic) 2
— Mandibles not especially robust, outer surface convex. Antennae 12-segmented. Gaster with 6 apparent segments (females, social) 4
— Mandibles very robust, with a very prominent depression on outer surface. Antennae 13-segmented. Gaster with 7 apparent segments (males, social-parasitic) 9
— Mandibles not especially robust, outer surface convex. Antennae 13-segmented. Gaster with 7 apparent segments (males, social) 11

Females, social-parasitic

2. Mandibular depression approximately flat-bottomed, bounded proximally and distally by distinct ridges. Clypeus below curving evenly in side view ..... *sulcifer* Zimmermann
— Mandibular depression round-bottomed, not bounded by distinct ridges. Clypeus below turning abruptly in toward body in side view 3

3. Mandibular depression deeper. Clypeus black with basal yellow spot or transverse band ..... *semenowi* Morawitz
— Mandibular depression shallower. Clypeus yellow with black central spot or band ..... *atrimandibularis* Zimmermann

Females, social

4. Erect hairs on mesoscutum almost twice as long as width of costal or subcostal vein of forewing. Clypeus black-marked, never entirely yellow. Mandibles yellow-marked, never entirely black 5
— Erect hairs on mesoscutum about as long as width of costal or subcostal vein of forewing 6

5. Ocelli in approximately equilateral triangle. Clypeus distinctly broader than long. Antennae blackened above along almost their entire length ..... *biglumis* (Linnaeus)
— Ocelli in clearly obtuse triangle, posterior ocelli farther from each other than from anterior ocellus. Clypeus about as long as broad. Antennae not blackened above along most of their length ..... *bischoffi* Weyrauch

6. Clypeus mainly or entirely yellow, about as long as broad basally. Mandibles partly yellow ..... *gallicus* (Linnaeus)
— Clypeus yellow with black spot or band, never entirely yellow or black. Mandibles black 7

7. Abdominal sternum 6 mainly yellow ..... *dominulus* (Christ)
— Abdominal sternum 6 mainly or entirely black 8

8. Abdominal sternum 6 entirely black or with a small yellow spot ..... *nimpha* (Christ)
— Abdominal sternum 6 brown-black with reddish apical spot ..... *associus* Kohl

Males, social-parasitic

9. Mandibles mainly black, at most with a basal yellow spot ..... *atrimandibularis* Zimmermann
— Mandibles mainly yellow, at most with a vague black stripe along outer edge 10

10. Fore- and mid-coxae partly or entirely yellow ... *sulcifer* Zimmermann
— Fore and mid-coxae entirely black. Mandibular sulcus less distinct..... *semenowi* Morawitz

Males, social

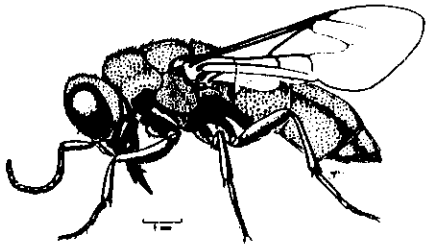
11. Erect hairs on mesoscutum almost twice as long as width of costal or subcostal vein of forewing 12
— Erect hairs on mesoscutum about as long as width of costal or subcostal vein of forewing 13

12. Ocelli in approximately equilateral triangle. Antennae blackened above beyond segment 3. Clypeus about as long as basally wide, approximately parallel-sided ..... *biglumis* (Linnaeus)
— Ocelli in clearly obtuse triangle, posterior ocelli farther from each other than from anterior ocellus. Antennae less extensively blackened above. Clypeus longer than wide, convergent below ..... *bischoffi* (Weyrauch)

13. Each lateral margin of clypeus with a distinct longitudinal ridge. Antennae distinctly darkened above beyond segment 3 14
— Lateral margins of clypeus without distinct ridges. Antennae not substantially darkened above beyond segment 3 15

14. Terminal segment of antenna obliquely truncated, at most 2+ times as long as broad. Clypeus about as long as basally wide, approximately parallel-sided ..... *nimpha* (Christ)
— Terminal segment of antenna at least three times as long as broad. Clypeus longer than wide, convergent below ..... *associus* Kohl

15. Clypeus approximately parallel-sided, with at least a few long erect setae. Terminal antennal segment clearly shorter than two preceding segments together ..... *dominulus* (Christ)
— Clypeus convergent below, without long erect setae. Terminal antennal segment almost as long as two preceding segments together ..... *gallicus* (Linnaeus)



Spinolia insignis (Lucas), male

New Records of Pompilidae from the Southern Rocky Mountain States

by
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Several years ago I published a list of new records of Pompilidae from the Rocky Mountain states (Evans, 1990). Recently I have discovered several additional records that seem worthy of note. Specimens are in the collection of Colorado State University.

Chirodamus pyrrhomelas (Walker)

CO: 1 ♀, Montezuma Co., Mesa Verde Nat. Park, 7 Aug. 1929 (P.R. Franke). A western species, not previously recorded from Colorado.

Entypus aratus (Townes)

CO: 1 ♂, Baca Co., Rd. 18, .8 mi N Rd. G, 12 July 1991 (W. Cranshaw and others). Recorded from Kansas, New Mexico, and Utah, but not previously from Colorado.

Entypus u. unifasciatus (Say)

CO: 1 ♀, Yuma Co., near Wray, 14 July 1992 (H.E. Evans and others). This is the westernmost record for this eastern subspecies.

Priocnemis oregona Banks

CO: 1 ♀, Montezuma Co., Mesa Verde Nat. Park, 1 June 1940 (D. Watson). A western species, not previously reported from as far east as Colorado.

Ageniella a. arizonica (Banks)

CO: 1 ♀, Otero Co., Purgatoire R., 18 mi. S La Junta, 17 July 1992 (H.E. Evans). NM: 1 ♀, 5 ♂♂, Socorro Co., 20 mi. N Socorro, 1-15 July 1975-76 (Malaise trap, W. Rubink). Described from southern Arizona; not previously reported from New Mexico or Colorado.

Ageniella fulgifrons (Cresson)

CO: 1 ♀, Larimer Co., Fort Collins, 25 Aug. 1990 (H.E. Evans). An eastern species, not previously reported from Colorado.

Psorthaspis sanguinea (Smith)

CO: 2 ♀♀, Baca Co., Carrizo Creek Picnic Area, 12-13 July 1991 (P. Opler and others); 5 ♀♀, Otero Co., 15 mi. S La Junta, 17 July 1992 (H.E. Evans and others). NM: 1 ♀, Lincoln Co., 20 mi. NE Ruidoso, 7 Aug. 1986 (H.E. Evans). Recorded from Kansas and western Texas, not previously from New Mexico or Colorado.

Pompilus phoenix Evans

NM: 2 ♂♂, Chaves Co., Bitter Lake Wildlife Res., 24 July 1990 (H.E. Evans). A predominantly Mexican species, not previously recorded from New Mexico.

Literature

Evans, H.E. 1990. New distribution records of spider wasps (Hymenoptera, Pompilidae) from the Rocky Mountain states. Great Basin Naturalist 50:193-195.

Checklist of Pompilidae and Sphecidae at the BIOLAT Biological Station, Pakitza, Rio Manu, Perú

by
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Diomedes Quintero A. and I went on a BIOLAT (Biological Diversity in Latin America Project) field expedition to Pakitza, Perú, from February 13 to March 10, 1992 (rainy season), to study the mutillid fauna. Collecting was done at the forest edge, in clearings, and inside the forest using three different methods: two Malaise traps (Townes model available from Golden Owl Publishers, 182 Chestnut Rd., Lexington Park, Maryland 20653), 30 yellow pans, and sweeping. In these samples, we collected many other insect groups, among which the pompilids and sphecid wasps were very well represented. Because specimens of these two groups were processed and identified, I thought it might be useful to prepare and publish a checklist.

Pakitza, with its fascinating rain forest, high in hymenopteran diversity, is an ant paradise!, no question about it. It is located in the Reserved Zone of Manu about 10 km south of the Manu National Park boundary and 21 km south of the Cocha Cashu. The Pakitza guard station, and the associated BIOLAT Biological Station (11° 56' 47" S and 71° 17' 00" W.), at an elevation of 356 m, are about half way up the Rio Manu, approximately 65 km (river distance) from its mouth at the Rio Madre de Dios, and about 32 km from the Andes (see Erwin, 1990 for additional details).

It should be mentioned that we encountered only 60-70% of the number of species we expected for Pakitza, which we attribute both to the short collecting period (27 days) and to the fact that the rainy season is a time of low flight activity.

All specimens from Pakitza, Perú, recorded in the following list (74 species of pompilids in 15 genera, and 50 species of sphecids in 26 genera), have been deposited in the collection of the Museo de Invertebrados "G. B. Fairchild", Universidad de Panamá (MIUP). The MIUP reference collection includes nearly 3000 specimens of pompilids and 4000 specimens of sphecid wasps from many New World countries. Loans are made to persons who are qualified and have a good reputation for returning specimens.

CHECKLIST OF POMPILIDAE AND SPHECIDAE OF PAKITZA, PERÚ

POMPILIDAE

Ceropalinae:
- *Irenangelus ichneumonoides* Ducke, 1908
- *I. lucidus* Evans, 1969
- *Notocyphus* spp. (9 different species)
- *Ceropales* sp. 1
- *Ceropales* sp. 2
- *Minagenia* sp. 1
- *Minagenia* sp. 2

Pepsinae:
- *Pepsis egregia* Mocsary, 1885
- *P. festiva* Fabricius, 1805
- *P. purpurea* Smith, 1873
- *Pepsis* spp. (3 different species)
- *Mystacagenia albiceps* Evans, 1973
- *Priocnemella rufothorax* (Banks, 1925)
- *P. fairchildi* (Banks, 1925)
- *P. delila* (Banks, 1944)
- *Priocnemella* sp.
- *Caliadurgus* sp. 1
- *Caliadurgus* sp. 2
- *Auplopus* spp. (9 different species)
- *Ageniella* spp. (17 different species)
- Ageniellini: Unidentified genera, 4 different species

Pompilinae:
- *Balboana auripennis* (Fabricius, 1804)
- *Balboana* sp. 1
- *Balboana* sp. 2

Euplaniceps ceres (Cameron, 1897)
Euplaniceps sp.
Priochilus scrupulum (Fox, 1897)
P. sericeifrons (Fox, 1897)
P. splendidulum splendidulum (Fabricius, 1804)
P. veraepascis (Cameron, 1893)
Aporus sp.
Anoplius sp. 1
Anoplius sp. 2
Pompilini: Unidentified genera, 4 different species

SPHECIDAE

Ampulicinae:
Ampulex sp. 1
Ampulex sp. 2
Crabroninae:
Quexua cashibo Pate, 1942
Q. pano Pate, 1942
Q. verticalis (F. Smith, 1873)
Oxybelus sp. 1
Oxybelus sp. 2
Rhopalum sp.
Entomocrabro duckei (Kohl, 1905)
E. richardsi ? Pate, 1941
E. sacuya Pate, 1941
Ectemnius sp.
Larrinae:
Larra altamazonica (Williams, 1928) [ident. by Arnold Menke]
Larra sp. 2
Pison cooperi Menke, 1988
P. convexifrons Taschenberg, 1870
P. delicatum Menke, 1988
P. wasbaueri Menke, 1988
Tachytes sp.1
Tachytes sp.2
Tachysphex inconspicuus (Kirby, 1890)
Trypoxylon spp. (6 different species)
Liris spp. (4 different species)
Bothynostethus sp.
Lyroda sp.
Nyssoninae:
Foxia divergens (Ducke, 1903)
Metanysson sp.
Bicyrtes variegata (Olivier, 1789)
B. discisa (Taschenberg, 1870)
Hoplisoides sp.
Sagenista sp.
Pemphredoninae:
Pluto sp.
Stigmus sp.
Philanthinae:
Cerceris spp. (3 different species)
Sphecinae:
Isodontia sp.
Sphex sp.
Trigonopsis violascens (Dalla Torre, 1897)
Trigonopsis rufiventris (Fabricius, 1804)
Eremnophila opulenta (Guérin - Méneville, 1838)

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Breve Observacion sobre de *Microstigmus* en Roca, Risaralda, Colombia

by

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Poco se conoce sobre la biología de las escasas formas sociales dentro de Sphecidae, aunque existen estudios en *Microstigmus comes* (Ross & Carpenter 1991).

Sobre es aspecto de sustrato de nidificación, *Microstigmus* prefiere como sustrato las palmas de *Chrysophila quaquara* (Matthews & Starr, 1984), aunque Cubillos y Martinez (1989) encoutraron un nido de *Microstigmus comes* en una Melastomataceae, debajo de una hoja, Ambos registros corresponden a tierras bajas, a ambientes de bosque o poco alterados, y a vegetación como sustrato.

He tenido oportunidad de hacer una breve observación que podría aportar algunos datos a la biología del género. Durante una expedición de colección en el Norte de Risaralda, Colombia, y en inmendiaciones de la finca Las Delicias, Municipio de Santuario, 2200 metros de altura, pude descubrir un nido de *Microstigmus* construido sobre una hoquedad en una roca de 1.2 metros de altura. El nido corresponde bien al tamaño y forma do los descritos en la literatura; en dos ocasiones pude ver entrar y salir a una hembra (no capturada) cuya apariencia corresponde bien a la de *Microstigmus comes*. El nido poseía varias cámaras y al remover una de ella cayeron dos colémbolos aparentemente paralizados.

Tanto la apariencia del nido como la de la hembra, así como la presencia de colémbolos refuerza la posibilidad de que se trate de *M. comes*. De ser así, sería el primer registro de utilización de roca coma sustrato de nidificación, en vez de palmas u otros vegetales. Un hecho interesante es que esta roca se alza en medio de un pastizal con pendiente, cerca a una quebrada. Este pastizal se utiliza para alimentación de reses y es muy alterado y transitado.

La nidificación de este pequeño esfécido social en un ambiente tan alterado es una muestra de plasticidad y adaptación, haciendo menos dramático el gradual ocaso de los bosques altoandinos en Colombia.

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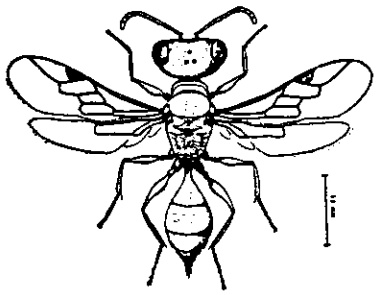

Microstigmus comes Krombein, female

A Stridulating Sphecid

by

Martin Cooper
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While collecting on the northern coast of Colombia in September of 1990 I caught a female gorytine in dry tropical woodland east of Santa Masta. The wasp, an undescribed species of *Pterygorytes,* stridulated as it struggled in the net. An apomorphy of the genus is a central polished triangle at the base of tergum 3. On examination this was seen to be covered with extremely fine transverse striations which reflected incident light as iridescent bands. It is therefore the file which rubs against the posterior margin of tergum 2. Analagous structures are found in the Mutillidae (see article by Genise and Straneck in **Sphecos** 21:7) and some ants.

I requested Mr. C.R. Vardy to examine the *Pterygorytes* in the Natural History Museum (B.M. (N.H.)) and see whether the median triangle of tergum 3 is similar. He confirms that this is so for the female of *P. triangularis* (Sm.). Furthermore, he discovered that females of two related genera, *Ammatomus* and *Tanyoprymnus,* possess "similar but not identical structures." A third related genus, *Handlirschia* is not represented in the Natural History Museum collection.

Like the two described species of *Pterygorytes* this new species possesses the apomorphies of a stizin thorax, an anterior tubercle on sternum 2 and a pygidial plate densely covered with stout setae. It differs in that the jugal lobe of the fore wing is well-developed; the other species have an undeveloped jugal lobe.

Do readers of **Sphecos** know of other instances of stridulation in the Sphecidae?

A Second Prey Record for *Scapheutes* (Sphecidae)

by

Martin Cooper

To the first prey record for a *Scapheutes* (**Sphecos** 17:13) I can add a second. I caught *S. flavopictus* (Sm.) with prey in primary forest at Barbacoas on the Pacific coast of Colombia in October 1990. Like *S. brasiliensis* Handl. the prey was a tettigoniid nymph with legs still attached about 1cm in body length. This is the first record of *flavopictus* west of the Andes, although Menke records a *Scapheutes* sp. from Costa Rica (**Sphecos** 22:10). It is the most infrequently collected species of the genus: probably because it is confined to forest.

Xysma (Sphecidae) in Ecuador

by

Martin Cooper

I caught two females of a species of this genus of tiny pemphredonine wasps in the lower montane zone of the eastern slope of the Ecuadorian Andes (Morona-Santiago, Cord. de Cutucú, 6km east of Macas, 1,100m. 8.V.1981). They were flying up a dead tree-trunk in a field surrounded by forest. Only two species of the genus are described to date; one from the eastern U.S.A.; the other from S. Africa. The omaulus of this species is prominent, not indefinite as in the others.

COLLECTING REPORTS

Guana Island – 1992

by

Roy Snelling
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The Guana Island trip was a smashing success: I was able to add quite a few species to the list of those I collected last year (see **Sphecos** 23:12-14) (a complete list of the known Aculeata wasp fauna is included below). In part this is due to my use of two Malaise traps, but most of the additional species were netted, not trapped. The traps were especially useful for the little stuff, mostly non-aculeates.

Entomology was pretty well represented on Guana this year. I was there for the entire month of October. Other entomologists, visiting for shorter periods of time, included a batch of termite folks (the inimitable and indominitable Margaret Collins; Mike Haverty; Barbara Thorne; Jan Krecek). The AMNH was represented by Dave Grimaldi and Julian Stark (nice folks!). Also had the pleasure of meeting Mike and Donna Ivie, hard working beetle collectors; Mike is doing a study of the beetles of the Virgin Islands and was putting out some pretty impressive pitfall traps.

Because the rainy season was delayed, collecting results were quite different from the same period in 1991. Some species that were abundant then throughout the month of October were scarce until near the end of the month, after the rain finally started. I also spent a lot of time on the trail along Long Man's Point, the elongate point NW of the hotel area, bounding Muskmelon Bay on the north. This area is more arid than much of the island and combines a greater diversity of microhabitats than any other area.

The sphecid taxa that last year I reported to be conspicuous by their absence in 1991 (*Bembix* and Sphecinae) were collected this year. Perhaps the surprize catch of the season was two males of a species of *Pseudomethoca* (Mutillidae), both in the wooded area behind North Beach; one in a Malaise trap and one that landed on the trail right in front of me. Little guys, less than 4.5 mm long, all black. There appear to be no records for Mutillidae in the Puerto Rico Bank (Puerto Rico and the Virgin Islands), but I haven't searched the literature very intensively.

The seven species of Bethylidae are really no surprise; there likely are more. None of those that I collected can be definitely identified at this time, but I expect some, at least, to be undescribed. Mike Ivie has agreed to send me the Hymenoptera from his traps and Berleses, so we can expect a lot of really great material to turn up.

It wasn't all hard work (though most nights, by the time I hit the sack I was convinced that no matter where you go on Guana, it's always via an uphill trail, usually steep and rocky). One night a few of us went over to Jost Van Dyke Island to a little bar called Foxy's. The guy behind the bar was so delighted to have an Indian in his place that he kept my tequila flowing at no charge. He also kept Grimaldi well supplied with rum, though for a different reason. Shore one helluva boat ride back!

Although most of the month was spent on Guana, we made day-trips to several other islands. Anegada Island: outermost of the BVI, 13 miles long, 1 mile wide and 26 feet at the highest! Completely inundated by major hurricanes. But, even the iguanas survive. Ginger Island. Virgin Gorda. Tortola. Eventu-

ally, I'll get to all – or at least most, of the BVI. Maybe.

Following the month at Guana I went to Puerto Rico. Thanks to my good friend Juan Torres I had a place to stay and transportation. Collecting was good in most areas but my best results were in bees and this **Sphecos** crowd don't care for bees (or, they can read about it in **Melissa**). Met another termitologist, Susan Jones (Gad, they seem to come outa de woodwork!). Juan, Susan, and I spent five days on Mona Isl. Got some more goodies out there (see list). Two highlights of the Mona jaunt were some fabulous tasting barracuda and Susan's rat (of which there is a tale): The three of us shared a cabaña at Playa Sardinera; I chose to sleep outside (couldn't abide Juan's snoring). When I got up on the fourth morning and went inside to use the facilities, I noticed a ravaged bag of dry Gator-Aid™ on the floor. Juan exited the bathroom and warned be that there was a rat (live) in the toilet bowl. Well, 2+2=?!: rat got into Susan's Gator-Aid™, developed a powerful thirst, fell into toilet bowl from which he couldn't exit. Ergo, it was Susan's rat and Susan's problem (but she didn't know it yet). Short time later, as I was walking over to the "mess hall", Susan yelled at me that there was a rat in the toilet bowl and I was to come take care of it. She took it amiss that I refused to do so, it being her rat and her responsibility; as a biologist and liberated women she should be able to handle it. She ultimately did, but I suspect will never forgive me for not coming to her rescue. She also wouldn't admit the humor of the situation. Well, one more cross for me to bear (Not to mention the outraged readers who think I am a male chauvinist pig!). Ah, well – such is life.

ACULEATE WASPS OF GUANA ISLAND

* Indicates taxon not previously collected on Guana or Mona.

*DRYINIDAE

One alate female, genus unknown.

*BETHYLIDAE

**Anisepyris* sp.

**Epyris* sp. (*tricostatus* group). A metallic greenish species, the female of which keys to *luteicornis* (from Venezuela) but clearly isn't. The male doesn't key to anything.

**Epyris* sp. 2. (*rufipes* group). Another greenie, keys to *E. cubanus* and is evidently similar to that species but I've no material at hand for comparison.

**Holepyris* sp. 1. Probably *H. incertus* (Ashmead).

**Holepyris* sp. 2. Males only; very similar to those of sp. 1, possibly only variants.

**Pristocera* (?) sp.

**Pseudisobrachium* sp. 1

**Pseudisobrachium* sp. 2

*MUTILLIDAE

**Pseudomethoca* sp. Two males, both taken in the woods behind North Beach. Apparently no mutillids have been recorded from the Puerto Rican Bank, although there are a number of species on Hispaniola.

TIPHIIDAE

Myzinum haemorrhaoidale (Fabricius). Specimens also collected on Virgin Gorda Island.

SCOLIIDAE

Camposomeris dorsata (Fabricius). Both sexes were common this year, visiting flowers of *Ipomoea pes-capri braziliensis.*

**Camposomeris trifasciata* (Fabricius). One female, taken in the hotel area.

VESPIDAE

Polistes crinitus (Felton). Common. Also on Virgin Gorda and Tortola.

Polistes major (Beauvois). Still not a confirmed resident.

Mischocyttarus phthisicus (Fabricius). Common. Also at East End, Anegada Isl.

POMPILIDAE

Pepsis rubra Drury. Common.

**Pepsis ruficornis* (Fabricius). Three females, all collected in the plantationa area.

Psorthaspis sp. Two more females were collected this year, one by Julian Stark; also got 3 males that almost certainly belong to this species, much less spectacular than the females. Like the females, they don't match up with anything recorded from the West Indies by Bradley.

Aporus prolixus Bradley

**Poecilopompilus flavopictus* (F. Sm.)? Several names have been applied to *Poecilopompilus* in the islands of the Puerto Rico Bank: *flavopictus* (F. Sm.); *mundiformis* (Rohw.); *mundus* (Cress.); *hookeri* (Rohw.). The two females collected on Guana match Rohwer's description of *P. mundiformis*, but so will females of *P. flavopictus* from Central America, so who knows?

SPHECIDAE

Tachysphex alayoi Pulawski. Common this year. The eyes are bright red in live specimens.

Tachytes chrysopyga (Spinola)

Tachytes tricinctus (Fabricius)

Liris ignipennis (F. Sm.)

Liris luctuosus dahlbomi (Cress.)?

Liris sp. 1. Also on Anegada Isl., Ginger Isl., and Virgin Gorda Isl.

Liris sp. 2

(Delete "*Liris* sp. 3" from my previous list; this appears to be merely an unusually large and robust example of sp. 2)

**Sceliphron assimile* (Dahlbom)

**Sphex ichneumoneus* (Linné)

**Prionyx thomae* (Fabricius). Also collected on Ginger Island.

**Hoplisoides ater* (Gmelin). Females mostly collected searching in short grass behind White Beach.

**Epinysson* sp. Both sexes were collected, females don't wholly agree with Rohwer's description of *E. basirufus* (preocc. and renamed *boringuinensis* by Pate), described from Puerto Rico, but the differences may only be cosmetic.

Ectemnius craesus (Lepel. & Brulle)

Ectemnius sp.

Cerceris sp. This agrees pretty well with the description of *C. margaretella* Rohwer, described from Puerto Rico (males only). But, as with so much of the fauna, the Caribbean *Cerceris* are too poorly known and I derive no comfort from the fact that my samples are apparently conspecific with the Puerto Rican wasp.

Stictia signata (Linné)

Bicyrtes spinosa (Fabricius). Also collected at East End, Anegada Isl.

**Bembix americana* Fabricius. Also collected at East End, Anegada Isl.

(*Microbembix monodonata* (Say). Not collected on Guana, but fairly abundant at East End, Anegada Isl.)

ACULEATE WASPS OF MONA ISLAND

*BETHYLIDAE

**Holepyris incertus* (Ashmead)? Apparently conspecific with Guana Island material.

**Holepyris* sp.

**Pseudisobrachium* sp.

All bethylids are from malaise traps.

TIPHIIDAE

Myzinum haemorrhaoidale (Fabr.). Ramos recorded this in the genus *Elis*.

VESPIDAE

Polistes crinitus (Felton)
Mischocyttarus phthisicus (Fabricius)
Zethus rufinodus Latr.
Euodynerus apicalis (Cress.)
Pachodynerus tibialis (Sauss.)

POMPILIDAE

Priocnemis sp.
Episyron conterminus posterus (Fox)
Anoplius amethystinus (Fabr.)
Anoplius hispaniolae Evens

SPHECIDAE

Sphex ichneumoneus (Linné)
Sceliphron assimile (Dahlbom)
Prionyx thomae (Fabricius)
**Tachytes chrysopyga* (Spin.)
Tachytes tricinctus (Fabricius)
**Liris* sp. 1 (= Guana sp. 1)
Liris sp. 2 (= Guana sp. 2). This is the one I recorded last year as *Liris* sp.
**Liris* sp. 3. One female from Sardinera is similar to those of species 1, but apical margin of clypeus is not concave.
Tachysphex alayoi Pulawski
Bicyrtes spinosa (Fabricius)
Stictia signata (Linné)
Trypoxylon (*Trypoxylon*) sp.
**Oxybelus* sp. Several specimens were taken along the road above Playa Uvero ("Camino del Inferno"). There are no prior records of *Oxybelus* in the Puerto Rico Bank. Two species (*analis* Cresson and *confusus* Alayo) are known from Cuba; confusingly, *confusus* is not in the Big Blue Book (while it may be somewhere amidst the 167, or so, "additions & corrections" to BBB, I've not the patience to seek it out). [No, Roy, it was overlooked, but subsequently added in one of my many errata installments - editor]

Backpacking in Evolution Basin of Kings Canyon National Park Sierra Nevada Mtns., California
by
Arnold Menke

Last July my son Kurt, my running buddy, Bill Rowe, and I took a 14 day backpack hike into upper Kings Canyon NP. Our objective was to get into the remote Ionian Basin, a trailless high altitude area filled with lakes and by no means basin-like. That is, it is up and down. We had gotten a view of the basin 3 years ago from Mt. Goddard (see **Sphecos** 19:28), and that had whetted our appetite. Getting into the basin would involve considerable cross-country hiking at elevations of 11,000 feet and above. As usual I obtained a permit from the Park Service to collect wasps during the trek, but on this particular hike I captured very few wasps.

We started at Florence Lake which is about a two hour drive north of the town of Shaver Lake. At Florence Lake we took a boat to the other end of the lake (southeast end). It's about a 20 minute ride, and saves you several miles of hiking. After unloading we began our hike by following a trail up the canyon of the south fork of the San Joaquin River. We passed by Blainey Mdws. and a hell of a lot of pesky mosquitoes, eventually coming to the privately owned guest ranch at a hot spring (circa $5000 per week!!). That was 5 miles up the trail. We eventually reached the junction with the John Muir trail and followed it to Piute Creek (8000 feet) where we camped, 8 miles in from our starting point. We were pleased to get that far on our first day. Bill and Kurt had back aches, etc. but I ("old Super Body") was fine. I had absolutely no problems with the pack or anything. We slept under the stars that night because it was so warm.

The next day we continued on the Muir trail up the canyon of the San Joaquin River and in places it was spectacular with falls, rapids and so on. Along the way I saw several *Ammophila*, but did not catch any. In about 4 miles we reached the Goddard Canyon trail junction and the bridge that crosses the river. Here I captured a female of *Ammophila azteca* Cameron that was nesting on the trail. Continuing on the Muir trail we began a slog up a series of switch backs that lead to Evolution Creek and eventually Evolution Valley. When we reached the creek it was a beautiful sight with spectacular falls. There was a large flat rock in the center of the creek at the point of the falls and the three of us got out to it and sat there enjoying the view of the cascades and the vista of the canyon of the San Joaquin river in the distance. After eating and taking photos we continued on, the trail now being reasonably level. Within a mile or so, we came upon the first of many beautiful meadows in Evolution Valley: Evolution Mdw. (9400 feet). In the distance loomed several high peaks, and the view was spectacular. We decided to go on to McClure Mdw. and it was a pretty good up hill slog at times, and we were getting tired, but we persevered and made it finally! Kurt found us the best possible camp site imaginable! We were at the western end of the huge McClure Meadow with Evolution Creek meandering through it and the beautiful peaks at the east end of the valley towering above (Mt. Darwin, Mt. Mendel, The Hermit). Wow! We were thrilled by this vista and took many photos. Our camp site had to offer one of the best views in the Sierras.

The next day our goal was to reach Evolution Lake at about 10,600 feet. We continued on up Evolution Valley passing through Colby Mdw. where Kurt and I captured a few bristle-butts (Tachinidae, *Adejeania veratrix* (O.S.)), finally reaching a series of switchbacks that took some time to get up and over. Kurt was way ahead of Bill and me. It was a hot slog but we made it to the top and were rewarded by fantastic westward views of Evolution Valley from the heights. A little farther on we reached Evolution Lake. Quite a few people were there and it took some time to find a good camp site, but Kurt found one. This is a pretty lake and full of fish, but none big enough to really consider eating, so we threw them all back. We had planned to spend two nights here and sort of rest and relax, but the next day after taking baths in the lake, felt like moving on.

So around 1 PM we packed up and hiked on up trail. Evolution Lake is long and it took us about a half hour to reach the upper end. There was a trail crew making a new trail around the lake at a higher elevation. They plan to close the current trail which goes through meadowy areas next to the lake. This will allow these delicate areas to rejuvenate. Above Evolution Lake we had to cross the creek which, in this area, was full of cascades. Rather than wade across we decided to find a rock hopping area, but had to go quite a ways to find one, and then it was no easy job, but we made it. We reached Sapphire Lake but there were no decent places to camp so I suggested that we continue on to Wanda Lake. Kurt was experiencing diarrhea so I gave him some Kaopectate™ and he soon felt better (trail "nerves" I guess). Anyway, we reached Wanda and camped there. This was about 4 miles from Evolution Lake. Wanda is large, about a mile long, and the elevation is 11,400. The Goddard Divide flanks the south side of the lake and from our camp we had a good view of this dark, brooding ridge with its ice

fields and receding glacier. It was really spectacular. At the west end of the divide was 13,568 foot Mt. Goddard which we had climbed 3 years ago. At the other end was Muir Pass and the Black Giant, a peak nearly as tall as Goddard. We took a lot of pictures from our camp. We also discovered that this big lake is fishless! Actually nearly all Sierra lakes above 10,000 feet were fishless until trout were introduced by the Fish and Game and back packers. Why Wanda was never stocked is a mystery.

We ended up staying at Wanda four nights. Each day we took day hikes to various points of interest. This was also the beginning of a many day period of afternoon cloudy weather with thunder, lightning, rain, hail, etc., although we seldom got wet. Anyway, the first day at Wanda we hiked to Muir Pass which is 11,995 feet. On top of this pass is a hut built up from granite slabs – it's called the Muir Hut after John Muir. From a distance it looks like a beehive. After entering our thoughts in the log book in the hut and taking many photos, we returned to camp. On the way back I collected butterflies and a few odds and ends, but no sphecids. Bill stopped at Lake McDermand to fish. He caught a lot of golden trout, 9-12 inches. It began to hail late in the afternoon and it continued for some time. The clouds were very dark and the result was a very scenic vista from our camp. I was down at the lake pumping water while it hailed. The ice hitting the water made plinky sounds.

The second day we decided to attempt to climb the Black Giant. So off we went to Muir Pass again. From there we had to make our way across a huge boulder field (glacial moraine) to reach a saddle below the peak. By the time we reached the saddle the clouds were building up and Kurt and I decided that it would be risky to attempt the climb because of the brewing storm. So we viewed the east end of the dark Ionian Basin from the saddle, took photos, etc. Bill had already started up the Black Giant, but he finally realized that the weather was getting worse and came down and met us. We hiked back to Muir Pass and on down the trail back to our camp at Wanda. We didn't get much weather from the storm, but it sure was raining like heck in nearby Ionian Basin.

The third day we decided to hike up to Wanda Pass, a trailless trek that would give us a view of the central part of the Ionian Basin from the pass. It was another rock and boulder hopping exercise to reach the pass at 12,440 feet, but we made it ok. Some of the rocks were car size! The view south from Wanda Pass was terrific! Below was the Ionian Basin and its narrow outlet called Enchanted Gorge, home of Disappearing Creek. In the distance we viewed various high ridges in Sequoia National Park. To the north we could see Wanda Lake below and various high peaks some of which were close to Yosemite. To the northwest lay large Davis Lake which we planned to hike to after leaving Wanda Lake. Above Davis Lake loomed the dark, brooding Mt. McGee.

The next day we broke camp at Wanda and headed for Davis Lake. Davis is as big as Wanda and we knew from other backpackers that it had fish. There is no trail to Davis, which meant cross-country hiking, but we only had to go over a low saddle from Wanda to reach the lake. Well, the low saddle turned out to be a pile of huge boulders and rocks that required careful negotiating. Kurt led the way and found us a good route. We dropped down 400 feet to a small lake surrounded by meadow. It was very pretty. The Goddard Divide glacier was to our left. Very scenic. We then moved on toward Davis Lake. Getting to the south side of Davis proved to be a minor hassle. We had to climb up to get down to it. We got there finally and had a fine campsite all to ourselves. We were really alone here. Bill immediately started fishing but came up empty handed - no fish!! We were perplexed about this since Davis lake was supposed to have fish. Kurt and I decided to explore the lake more thoroughly and look for a camp site at the westen end of the lake for the next day. As we made our way along the south side of the lake we had to cross through some horrendous boulder fields with blocks the size of cars and bigger. We finally reached an isthmus that on the map appeared to nearly divide the lake into two. Well as it turned out, Davis Lake is actually two lakes! The isthmus completely divides the lake and there is a small cascade from the upper one to the lower one, with a drop of only about 6 feet. Kurt and I saw no fish in the lower lake, but Bill arrived shortly with his rod and after a few casts caught a huge 15 inch trout!! We were elated. So the upper lake had no fish, but the lower one had plenty, and most were really big. Strange that no fish would migrate from the lower lake to the upper lake but that apparently is the case. Bill caught a couple more fish and we ate trout for dinner that night. By this time my cold, or whatever it was that I had been suffering from for about two days, was getting into my throat and my voice was giving out. I felt pretty tired by the afternoon but Kurt and Bill took good care of me. I took an Excedrin PM™ pill that evening and got a good nights sleep.

The next day we packed up and headed for lower Davis Lake. Going through the boulder fields with our packs on was strenuous and hairy at times but we made it. We reached the far end of the lower lake but found no really nice camp sites. We depacked and Kurt and I decided to scout around for a place to camp while Bill fished. Kurt and I went over a small saddle and found a magnificent camp site under some white bark pines at the head of a deep canyon containing North Goddard Creek, the outflow from Davis Lake. The view from here was spectacular with the LeConte Divide, Zebra Mountain* and Red Mountain in the distance, and we were only a short walk from Davis Lake. So we went back to find Bill. He had caught several large trout including one that measured 18 1/2 inches! It was a male and its mouth had those strange hooklike deformaties that trout and salmon get during mating season. We put on our packs and headed for the campsite. Trout for dinner that night!! Boy, were they good.

The next morning Kurt was anxious to go fishing and got up very early, started a fire, made coffee and took off. I got up about 6:30 and enjoyed the fire, although it was not cold, about 50 degrees. Bill got up later. We had breakfast and then took off ourselves. Bill wanted to explore, so he planned on spending the day hiking, climbing and fishing nearby lakes. I joined Kurt with my rod and bug net. Bill and I finally found Kurt around 9:30 and he had just caught his first fish. It had been slow going and obviously the fish weren't biting early in the morning. Bill went on his way and I joined Kurt fishing. I also spent a fair amount of time collecting on the talus slope of Mt. McGee which goes right into the lake. Here I got two species of *Tachysphex*, an *Ancistrocerus*, and that common high country wasp, *Pseudomasaris zonalis* (Cresson), the

*Zebra Mountain (11,990') is what we have come to call an unnamed but distinctive landmark peak on the LeConte Divide. It is south of Hell-For-Sure Pass and southeast of Mt. Hutton. Zebra Mt. is so named because it has a light granite spur with distinctive black stripes.

last on a species of *Phacelia*. We ended up keeping about 7 fish, throwing back anything under 15 inches! I caught a fish equal to Bill's 18 1/2 incher. I also did a lot of wasp collecting. I'd collect, then fish, then collect, etc. At noon Kurt and I went back to camp, cleaned the catch and cooked up 3 of them for lunch. Then he and I decided to explore the end of Davis Lake and find the outlet. It was impossible to reach the outlet by walking around the lake due to the steepness of the terrain. So we hiked down into the canyon below the lake and then followed the outlet stream (North Goddard Creek) up to the lake. There were many falls and cascades, and much to our surprise there were large trout in the stream attempting to swim up them. It was fun watching them jump. The long, steep nature of the falls was such that I doubt that they could make it up, but they sure didn't give up trying! We finally got to the lake and took some photos. Very scenic. The weather was building up again with thunder, black clouds, and the threat of rain, so Kurt and I headed back to camp. Bill arrived shortly, after having explored a lot of country. He was pretty tired. The various lakes he fished were fishless.

The next day we broke camp and began our descent from the high country to the trail head. We headed right down into the canyon beyond the campsite and along the canyon bottom. Published info on this cross-country section indicated that the stream dropped down suddenly through a narrow canyon and that at that point you should cross the stream and hike up and over several low ridges. We attempted this but discovered that we really didn't need to and eventually worked our way back down to the stream. It was very pretty in the canyon as we got down lower and lower. We finally reached Goddard Canyon and hiked up-canyon to a camp area that we had used 3 years earlier. When we got there, we found the site occupied by a number of people. So we simply camped out in the nearby meadows. It was late afternoon but I still had a couple hours of daylight and walked uptrail to try some collecting. At about 10,300 feet I picked up many *Pseudomasaris zonalis* on *Phacelia*, a female of *Ammophila azteca* and males of *Dolichovespula arenaria*. We had a nice fire that night and slept out in the open (just like we had done at our second Davis Lake campsite). The evenings had been so warm that tents seemed unnecessary. In the morning our sleeping bags were wet with dew, but mine was Gore-Tex™ and the water ran right off.

We packed up and started down Goddard Canyon, finally back on a real trail. Most of this trail was new to us and it was very pretty in places. The strata here are tilted up vertically the entire length of the 7 or 8 mile canyon, and stream erosion has resulted in quite a few stretches of streambed going through narrow slots. The walls in such places are vertical and the stream unreachable. We hiked about 5 miles, stopping finally at Franklin Meadow (8750 feet) where we found a nice campsite with good "site furniture" (= logs around a firepit). This was our last good campsite (= we were alone). Kurt and I collected insects while Bill sat around and observed ants. *Pseudomasaris zonalis* was common here.

The next day, our next to last, we continued on down Goddard Canyon, reaching the John Muir trail in about 20 minutes. Then we were back on familiar ground again. In 4 more miles of fast hiking we reached Piute Creek where we had camped the first night. Enroute I collected three species of *Ammophila*: *azteca, strenua* and *stangei*. We had lunch at Piute Creek, soaked our hot tired feet in the stream, etc., then continued on down the trail until we reached the hot spring 3 miles farther on. Lots of people here and not much fun camping but we wanted to try the hot spring. We camped, then crossed the San Joaquin river to get to the spring. It was in a large, pretty meadow. The spring was simply a large hole in the meadow, about 10-13 feet in diameter and about 3 feet deep. The water was hot, I'd guess about 100 degrees at least. It felt good, but the water was full of silt so we got out about as clean as we went in.

The last day we got going early, about 7, and Kurt and I rolled down the trail toward Florence Lake, with Bill trailing behind. "Power hiking" is what I called it. We covered the remaining 5 miles in less than 2 hours! When we saw the lake we could see the wake of an approaching boat, but by the time we got closer, the boat had already left. We could hear its motor. So when we reached to the lake it was gone. But Kurt used their telephone immediately and told their operator that we were there. Suddenly we heard the boat motor quit. Then it started up again and returned to pick us up. Evidently they were able to radio the boat operator and request that she turn around and get us. So we got back to the far side of the lake by around 9:30AM. All in all a terrific hike, but our goal of getting into the Ionian Basin was thwarted by bad weather. However, at least we got two good views of it, and there is always a next time!

MUSEUM/COLLECTION NEWS

Mickel Paratypes at the University of the West Indies

by

Christopher K. Starr
(Dept. of Zoology, University of the West Indies, St. Augustine, Trinidad)

The Trinidad campus of the University of the West Indies has a small but diverse insect collection. It has been rather directionless for the past several years, and as the new curator it is my business to modernize it and improve its focus. We have recently applied for – and expect to receive – the physical means to substantially enlarge and reorganize the collection.

It will continue to be our policy to avoid keeping primary types, even those arising out of our own collecting efforts. However, the collection includes one significant set of paratypes, mutillids described by Clarence Mickel. All bear unambiguous red paratype labels, and unless otherwise noted they are from Trinidad and in good condition.

Ephuta emarginata, 1♂
Hoplocrates pompalis, 4♀♀
Hoplomutilla opima, 4♀♀ 1♂
Lophomutilla denticulata guianensis, 1♀, Guyana
Pertyella decora, 5♀♀, including 2 from Venezuela
Timulla byblis, 4♂♂
Timulla eiphyla, 1♀, headless
Timulla nisa, 1♀
Timulla valeria, 1♂, Guyana
Traumatomutilla gausapata, 1♀, Guyana
Traumatomutilla latona, 2♀♀.

MISCELLANEA

Living with *Vespula maculifrons*

by

Arnold Menke

This past summer a colony of *Vespula maculifrons* had their nest in my backyard. This is not the first time I have had social wasps nesting there, but the location of this colony was next to a doorway that was used frequently and I was somewhat careful about passing through it, lest I disturb them. The wasps' nest was subterranean. It was behind two railroad ties used to retain a bank of soil, and the entrance was between the outside wall of the house and the end of the railroad ties that butted up against the house.

By late summer (September) the colony was quite large and numerous wasps were coming and going. At this time I was installing some new electric wiring in my house that necessitated gaining access to the subflooring of the second floor which overhangs the first floor by a couple of feet. This meant standing on the railroad ties while prying away the plywood covering the floor joists. I spent several hours at the site drilling holes, installing wiring, nailing, etc., all the while standing at or near the nest entrance. At times my wife Nancy assisted me so that the disturbance from the wasps' point of view was doubled.

At no time did the vespids exhibit any animosity toward me or Nancy. They just went about their business of foraging, flying between our legs and the legs of the step ladder that we sometimes used. Not once did we get stung. Social wasps apparently can be quite docile.

The colony held on until about Nov. 1, when cold weather finally killed the inhabitants.

Memphis Minnie's "Dirt Dauber Blues"

by

Christopher K. Starr
(Dept. of Zoology, University of the West Indies, St. Augustine, Trinidad)

In a recent book on the blues, Paul & Beth Garon treat two songs about stinging insects. The several versions of "Bumble Bee" all revolve around the metaphor of the bee as a lover. The imagery is uncomplicated and readily accessible, as seen, for example, in the verse

I got a bumble bee, don't sting
nobody but me.
I got a bumble bee, don't sting
nobody but me.
And I tell the world, he got all the
stinger I need.

The "Dirt Dauber Blues" is quite a different matter. It has little or nothing to do with stinging, has no obvious sexual imagery, and emphasizes the wasp's nest-building activity and "dirt dauber tea". Here are the lyrics:

Everybody worrying me, want to
know why I'm so crazy about dirt
dauber tea.
Everybody worrying me, want to
know why I'm so crazy about dirt
dauber tea.
Because when I was young, they
built their nest on me.

Now everybody tells me I need a
doctor, I need someone to stay
here with me,
But I don't need nothing but that
dirt dauber tea.
Because when I was young, they
built their nest on me.

Hmmmm, hmmmmmmm,
Hmmmm, hmmmmmm,
Hmmmmmm, hmmmmm.

And out of all that I crave, all that I
seen,
I don't want nothing but that dirt
dauber tea.
Because when I was young, they
built their nest on me.

When I was down sick in my bed,
blind, couldn't hardly see,
That dirt dauber flew down in my
bed and built his nest on me.
That's why I say, "I'm crazy about
that dirt dauber tea."

Aww, dirt dauber's a builder,
Aww, dirt dauber's a builder.
Dirt dauber is a builder, he built his
nest on me.
That's why I say, "I'm crazy about
that dirt dauber tea."

The species must be *Sceliphron caementarium* or the organ-pipe mud dauber, *Trypoxylon politum*, both common in the southeastern USA. These wasps readily habituate to being around humans and build their nests on and even inside buildings, so that they are familiar insects to rural Southerners. Minnie's remark that they built their nest on her may be taken almost literally. If Minnie was bed-ridden in an unscreened house in the summertime, a mud dauber may well have taken to making a nest right on her bedpost or headboard. Lying immobile, she would have seen the wasp come and go many times, gradually building up the nest.

The humming verse of the "Dirt Dauber Blues" is an especially attractive feature. Both *Sceliphron* and *Trypoxylon* make a distinct buzzing sound while adding mud to the nest, apparently from vibrating the wing muscles while keeping the wings still. Anyone lying in bed, with leisure to watch a wasp bring and apply mud several times a day, would certainly notice what George Shafer called the "building song". The humming verse seems likely to be an imitation of this song, having nothing in common with the threatening buzz of provoked yellowjackets or honey bees.

The authors cite several uses in southern folk medicine for mud-dauber nests and a tea prepared from them.

In writing the book, the Garons discussed this song with me and incorporated some of my remarks. Against my advice, however, they suggest a fear of the wasp's sting as an element in the song. Despite numerous attempts, I have never gotten any *Sceliphron* or *Trypoxylon* to fly at and sting me. Even if one dismantles her nest right in front of her, the mother wasp will always flee if she can. Rural Southerners distinguish mud daubers from social wasps, and I assume they know that the former are quite harmless. In this respect and some others, in contrast to the authors, I interpret the "Dirt Dauber Blues" as reflecting an attitude of easy familiarity between people and their wasps.

Reference

Garon, P. & B. Garon 1992. Woman with Guitar: Memphis Minnie's Blues. New York: Da Capo 332 pp. (Available from Da Capo Press, 233 Spring Street, New York, NY 10013 USA; 800-321-0050; pb $15)

SOME COMMENTS ON A SINISTER SUBJECT

I can't let your comments on left-handed hymenopterists (which I'm sure extends to Dipterists too) go without rebuttal (see The Mud D'aub, **Sphecos** 23:15). I think the real reason that some labels are "backwards" is that the labeler has read Borror and DeLong (and maybe Triplehorn, too) and looked at the picture on page 702 (blue version, 3rd edition) which shows the "backward" configuration. I was taught that the book was good but the picture was not. To automatically ascribe some deviant procedure to lefties (yes, including me) is unfair, and in itself sinister. If you persist in this manner I shall begin to put my labels on upside down, then you'll come to know what sinister really means.

Larry G. Bezark
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Sacramento
California 95819

Ensuite une simple remarque concernant l'article paru dans le dernier numéro :15 "Left-handed Hymenopterists or the Right-handed do it right!". En Europe continentale, les "backwards labels" ne sont pas le fait de "left-handed labeler" car traditionnellement les étiquettes ont toujours été placées dans cette position, contrairement à ce que était pratiqué dans les pays anglo-saxons (U.S.A., U.K.) et, phénomère plus récent, par quelques entomologistes européns. Il ne serait donc pas correct de conclure, selon la position de l'étiquette, que l'entomologiste concerné soit droitier ou gaucher.

Raymond Wahls
rue des 7 Collines, B. 4052
CHAUDFONTAINE, Belgium

BIG BLUE BOOK ERRATA Part 19

I thank Woj Pulawski for most of this installment.

p. 133, LC, L 2 from bottom: 1899 is correct, not 1889.
p. 153, LC, L 30: 1873 is correct, not 1856.
p. 153, LC, L 6 from bottom: insert after 1893: (April, Rendiconti).
p. 153, LC, insert as synonym after L 6 from bottom: *quadraticollis* A. Costa, 1893 (May, Atti).
p. 162, LC, L 3 from bottom: delete parenthesis around W. Fox and delete: (*Psen*).
p. 166, RC, L 8: delete entire entry (*erraticus*).
p. 172, RC, L 18 from bottom: 1860 is correct (not 1861).
p. 185, RC, L 3: 1928c is correct.
p. 251, RC, last L: 1899 is correct, not 1898.
p. 252, RC, L 8: (fig. 69B) is correct.
p. 263, RC, L 14 from bottom: insert inside parenthesis in front of Rend.: April.
p. 263, RC L 13 from bottom: insert inside parenthesis after Naples: May.
p. 270, RC, L 20: *ashmeadii* is correct.
p. 271, Fig. 74F: *ashmeadii* is correct.
p. 290, LC, L 27 and RC, L 25 and 35: Ahrens' is correct, not Ahren's.
p. 291, LC, L 16 from bottom: 1899 is correct, not 1898.
p. 336, LC, insert as synonym after L 29: *maculipenne* F. Smith, 1873, nec Smith, 1860.
p. 426, LC, L 22: delete entire line (syn. established by Leclercq in 1974).
p. 469, LC, L 22: change to: *decemnotatus* Dalla Torre, 1897, lapsus for *decemmaculatus* Spinola, 1807.
p. 490, RC, L 16: 1970 is correct, not 1969.
p. 492, RC, L 31: *tonsus* is correct.
p. 495, LC, L 1: 1838 is correct, not 1837.
p. 503, LC, L 25: s. California is correct, not Arizona.
p. 511, LC, L 31: remove parenthesis from Gribodo and delete: (*Stizus*).
p. 513, LC, L 15: *africanus* is a synonym of *spinifer* s. s. (L 9 from bottom).
p. 520, RC, L 13 from bottom: 1939 is correct, not 1940.
p. 520, RC, L 17 from bottom: 1945 is correct, not 1954.
p. 521, RC, L 2: change (*Hoplisus*) to (*Gorytes*).
p. 521, RC, L 31: insert after 1893: (April, Rendiconti).
p. 521, RC, insert as synonym after L 31: *curtulus* (A. Costa), 1893 (May, Atti) (*Gorytes*).
p. 522, RC, insert as synonym after L 11 from bottom: *scutellaris* Smith, 1851 (*Gorytes*), nec Spinola, 1841.
p. 526, LC, insert after L 31 as synonym of *aegyptius*: *dichroa* Klug, 1845 (*Larra*).
p. 526, RC, insert as species after L 8: *cincta* (Fabricius), 1793(*Larra*); locality unknown.
p. 526, RC, insert as species after L 24: *erythrocephalus* (Fabricius), 1793 (*Larra*); South Africa.
p.526, RC, L 25: *erythrocephalus* is correct. Species is a synonym of *bizonatus* (L 3) and should be placed after L 4. It is also a junior homonym of Fabricius, 1793.
p.526, RC, L 7 from bottom: *huegelii* is correct.
p. 527, RC, L 30 from bottom: insert after 1893: (April, Rendiconti).
p. 527, RC, insert as synonym beneath L 30 from bottom: *tunetanus* A. Costa, 1893 (May, Atti).
p. 530, RC, L 21 from bottom: *nectarinioides* is correct.
p. 530, RC, L 10 from bottom: place question mark after Europe. Origin of species is in doubt.
p. 531, RC, insert under L 14 as synonym of *loriculatus*: *histrio* Saussure, 1892 (*Stizolarra*).
p. 531, RC, L 5 from bottom: ssp. *biarmatus* is only a synonym. delete: ssp. and Turkey.
p. 532, LC, last L: remove parentheses from Lohrmann and delete: (*Stizus*).
p. 538, LC, insert as synonym after L 17: *dissecta* Dahlbom, 1844 (*Monedula*).
p. 545, LC, L 23 from bottom: *sanctaerosae* is correct (no hyphen)
p. 545, LC, last L: 1872 is correct.
p. 546, LC, L 26: *kirgisica* is a valid species; move entry to page 547, LC, after L 1. Add as synonym under *kirgisica*: *ganglbaueri* Handlirsch, 1893, from p. 546, RC, L 15.
p. 564, RC, L 13: precede entry with a dagger symbol and add at end of line: nec Thunberg, 1815 (now in *Lestica*).
p. 579, RC, L 32 from bottom: *cucullata* is correct, transpose with L 31.
p. 624, RC, insert after L 14: 1928c. The natural history of a Philippine nipa house with descriptions of new wasps. Philippine J. Sci. 35:53-118.

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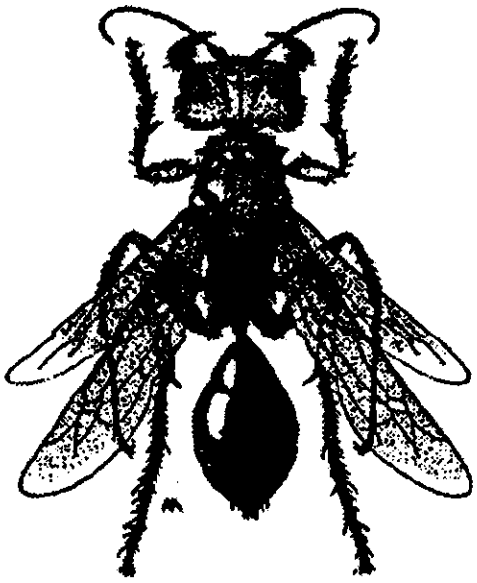

Chlorion regale F. Smith
(Hymenoptera, Sphecidae)

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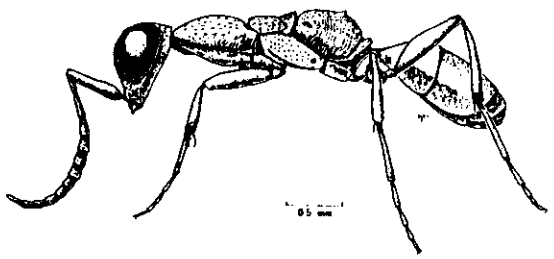

Leptosega gracilis Krombein, male