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THE WESTERN APICULTURAL SOCIETY
OF NORTH AMERICA

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WAS



1995 CONFERENCE NEWS



OUR FIRST "OFF CAMPUS" CONFERENCE
AT THE



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SACRAMENTO, CA



AUGUST 15-18, 1995



Western Apicultural Society of North America

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All membership inquiries, dues payments, new memberships and renewals should be addressed to the treasurer. (Address and phone number above)

Publication Schedule

The Journal is published quarterly on a regularly scheduled basis:

October following the conference with a submission date for material of October 1st.

January with submission deadline of January 10th.

April with conference information and a submission date of April 1st.

July with final conference details and a submission date of June 15th.

Articles, news, letters to the Editor or President, or other items of interest are not only welcome but solicited from the membership on a regular or one time basis.

WAS Board of Directors

Each state/province in Western North America is entitled to elect one Director on the governing board of the Society. Directors meet before and after each general meeting and set policy and guidelines for the operation of the business of the Society. Throughout the year they serve as the liaison between the Society officers and the members in their respective states. They are responsible for recruiting new members, keeping track of state concerns and advising the membership of their activities through this Journal. The board currently consists of the following members:

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WAS '95 - A New Approach

This year's WAS Conference will be considerably different, yet, much the same. Emphasis has been placed on obtaining a balanced mix of academic and practical beekeeping presentations. There will be a shortcourse addressing critical beekeeping topics, a silent auction, a honey exchange, an awards banquet, and a noisy auction. Door prizes will be distributed liberally at four times during the conference. Be sure to arrive at the lecture room a few minutes in advance. Your door prize number will be on your name tag, which must be worn in order to win.

The exhibits room will, again, be the hub of socialization. Substantial free time and lengthy breaks have been scheduled, with beverages served in the exhibits room. The meeting and exhibits rooms are adjacent to each other in the hotel, to keep walking to a minimum.

Holding the meeting at an urban hotel is the major difference with this year's Conference. The Capitol Plaza Holiday Inn is so close to Old Sacramento and to the Downtown Plaza that I have left most meal times open for you to decide what and where you wish to eat. Eateries range from fast food to dinner theaters, with everything in between. All this is within walking distance, but some restaurants are not real close to the hotel.

Conference registration and hotel registration are being handled separately. Conference preregistration should be sent to President Mussen, as instructed on the preregistration form. Hotel registration should be sent directly to the hotel. A card, provided by the hotel, is enclosed for your convenience.

I know that the Conference is about three months away, but we have to make a great many decisions, involving estimates of numbers of people, many weeks in advance of the meeting. How many participants will be attending? How many will take the lunch cruise? How many need transportation to the Davis Campus for the workshops? How many want box lunches for that trip, and what kind of sandwiches and drinks? How many people plan to attend the banquet?

In order to prepare well, we need your preregistration forms returned to us as soon as you

can. We have a very liberal cancellation policy on preregistration fees: if you pay in advance, and let us know before the conference that you cannot attend, you get your money back. The hotel has the same policy. So, please, send your forms to us and to the hotel, soon. That way our planning is easier and your conference runs much more smoothly. It is more pleasant to request a refund than to find everything filled when you arrive.

The shortcourse will include topics of current interest in practical beekeeping, such as: queens and requeening; mite diagnosis and control; feeding carbohydrate and protein to colonies; and crop pollination. The absence of feral honey bees has caught the attention of gardeners and small farmers across the country. Perhaps they will help remove the restrictions that have been placed on beekeeping in various locations. Growers might even provide a little funding to have your bees around.

Academic speakers will share information on: 1) research developments in eastern and western USDA honey bee laboratories; 2) use of honey bee venom in holistic medicine; and 3) a wildlife biologist will discuss her efforts to thwart honey bees from nesting in wood duck boxes.

Beekeepers will describe their methods of keeping bees in different habitats and some of their specialized equipment for handling queens, bulk bees, and feeding colonies more efficiently.

The staff associated with the Bee Biology Facility will develop hands-on demonstrations that are both fun and informative, based on their research efforts and experiences with honey bees. In one exercise, you will have an opportunity to compare the length of the wings of your worker bees to the length accepted as belonging only to Africanized bees. Pluck the smallest workers that you can find from your hives, preserve them in rubbing alcohol, then see if you have found a bee in your operation that is small enough to FAIL the AHB test. Currently Riverside and Imperial County (California) beekeepers have a distinct advantage over the rest of us!

Maps and instructions for reaching the Conference site, as well as some local propaganda from the Sacramento Chamber of Commerce, and the tentative schedule will follow this mailing shortly.

Beekeeping Literature

by Karl Showler

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Code: anatoWAS [Western Apic Soc] laurel 1 1/2 ps2

From my Bookshelf: Books on Bee Anatomy

Beekeepers have for the last three hundred years had a growing interest in honey bee anatomy, but until the mid 19th Century they were held back by a lack of good affordable microscopes. Also the printing technology did not exist to reproduce the investigator's findings. By the Eighteen Seventies printing and microscopes had advanced to a degree that solved these limitations. In this contribution to the W.A.S. Journal I would like to consider the books of Cheshire, Cowan, Snodgrass and Dade who published work of outstanding merit.

Perhaps the first popular book to deal with bee anatomy at any length was the second (1879) edition of Professor A.J.Cook's Manual of the Apiary (Michigan State Agricultural College). Professor Cook devoted 52 pages to the subject, providing drawings by his leading student, W. L. Holdsworth, which showed a certain degree of ingenuousness. By including the anatomical section Cook's work had an extra dimension not seen in the other widely read manuals available. The next great step forward came in 1885 when Upcott Gill, London, England, commenced publication in monthly parts of Frank R.Cheshire's two volume Bees and Beekeeping.

Volume 1, 1886, 336p. was subtitled 'Scientific' and Volume 2, 1888, 652p 'Practical'. The volume pairs were produced in two distinctive decorated bindings one that included bees on willow twig blossoms, commonly called the 'pussy palm binding' and the other 'the small animal binding' as the blind stamped covers have panels with 19 small brown creatures entwined in foliage. The pair of volumes were reissued in 1921 without the additional decoration, with an 84 page appendix by J. B. Lamb. Volume 1 included 246 pages on bee anatomy. Frank Cheshire provided the most detailed drawings as well as eight single page plates. These were originally published some years before as part of two educational wall charts by the British Beekeeper's Association. Cheshire's rival in English Beekeeping circles, Thomas W.Cowan followed in 1890 with a small pocket size 220 page book aimed at the generally less well off, The Honey Bee, its natural history, anatomy, and physiology. Both Cheshire and Cowan wrote as part of a

systematic educational programme organized by the British Beekeeper's Association for beekeepers in the British Isles. From those days the exploration of the inner workings of the bee has always attracted enthusiasts who might be even better microscopists than beekeepers.

William Cowan, an engineer by profession was both wealthy and widely traveled, in later life he spent several years in the Western USA. As he was familiar with the already extensive anatomical literature of Europe his handy volume reproduced drawings from 19 European and U.S. authors as well as a bibliography of 172 citations. Using the illustrations of so many investigators gave Cowan's book a less even presentation than Cheshire's and also its pocket size compressed the page layout.

The next great bee anatomy text in English came from the pen of Robert E. Snodgrass of the US Bureau of Entomology in 1910. Snodgrass was of a generation trained in accurate drawing and careful preparation, to which he added skills as a cartoonist, sculptor, artist, and writer. He followed in the tradition of such great entomological illustrators as Professors John and Anna B. Comstock. The Comstocks worked on a range of projects at Cornell, in the last years of the 19th century, and the first decade of this. They founded the "Comstock Press" so as to be free of university constraints, publishing materials of their own choice, however they finally bequeathed the Press to Cornell. Until Snodgrass, Apicultural writers in the US, like Anna Comstock, often reproduced European bee anatomy plates because of a dearth of suitable US material. They were of course familiar with the 19th century European literature. The European anatomical publication tradition continued after the First World War with both Zander and Leuenberger's studies of the bee. Leuenberger used micro-photographs of some sophistication rather than the drawings favoured earlier. Snodgrass' 1910 publication is the now uncommon U S Bureau of Entomology, Technical Series, bulletin '18', The Anatomy of the Honey Bee, that ran to 162 pages. Many of the the drawings in this first edition of his work were reproduced in his subsequent books although marginally smaller. These diagrams may, therefore be considered Snodgrass' best. The Bulletin was followed fifteen years later by an outstanding book both for clarity of text. and production: The Anatomy and Physiology of the Honey Bee (1925) from McGraw Hill, which ran to six reprintings by the end of World War Two. Following the War Snodgrass wrote a 50 page illustrated summary for the The Hive and the Honey

Bee. Although beekeepers in the United Kingdom had Cheshire, Cowan and importations of Snodgrass it was felt that less expensive books should be produced. The first was Annie Betts, (1923), Practical bee anatomy aiming to give guidance to the dissection of the bee. Her simple drawings do not compare to those of Cheshire or Snodgrass. William Herrod-Hempsall (1938) produced a rival publication The Anatomy Physiology and Natural History of the Honey Bee.

In 1956 Snodgrass then aged 75 (he lived to be 87) published a major rewriting of the Anatomy and Physiology. The format of the new book enabled Snodgrass to provide some enlargement of the plates that was nearer to those of 1910 and to take in many developments in the understanding of the workings of the honey bee's organs. McGraw Hill having made over the copyright to Snodgrass, he turned to Comstock for publication, calling the new book The Anatomy of the Honey Bee. The first printing of Anatomy like Anatomy and Physiology was hardback but it has been reprinted as a less easily handled paperback. All three published versions of Snodgrass used good typography, the Second World War economy reprinting of the McGraw Hill text from standing type was tight on the page giving it a crowded look. Following a post World War Two upsurge in interest in honey bee anatomy Harry A. Dade in conjunction with Bee Research Association, now International Bee Research Association, Cardiff, Wales, UK set himself a very different task. As a British professional microscopist who was also instructing an evening class for amateur beekeepers, he responded to their need for a book on the dissection of the bee. From this class emerged The Anatomy and Dissection of the Honeybee. (1962) Dade aimed at and succeeded in providing instruction in both the practical dissection of the honey bee at the same time explaining its anatomical functions. Dade's attention to detail found expression in his drawings that open out as plates alongside the text so as to allow the worker to read and see at the same time. To fulfill a continuing demand Dade has been reprinted for the fourth time, 1994, by IBRA but this time with the fold out diagrams integral within the text. I am often asked what is the difference between Dade and Snodgrass as if one is a substitute for the other. Snodgrass does not aim to explain how to dissect the bee which was Dade's objective. It was natural that with such good material available beekeeping authors should seek to use them when discussing bee anatomy, so Cheshire's Snodgrass's and Dade's work is found in general

texts on beekeeping. In conclusion it seems reasonable to suggest that for the foreseeable future with both Snodgrass and Dade in print we will not have another book on honey bee anatomy using the classical light microscope. There will have to be some very wonderful developments in Electron microscopy to bring it within reach of the hobby market. Indeed it is difficult to picture anyone sitting down today to make such detailed drawings for publication.

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Editor's Notes:

This issue is a little late. I had hoped to get it out early to mid April but waited until the hotel information (enclosed) and a few other things became firm.

We will have another Journal out before the conference with a preliminary program, any late changes, and some firm driving directions for reaching the conference site.

Please notice that we have a couple of business card ads from members included this time and are prepared to include yours at the very nominal advertising rates quoted on page 1 of this issue. Make checks out to WAS.

None of the delinquent members have been deleted from this mailing and I am going to try mailing it bulk mail to the domestic members. Canada and England will continue to go first class. I won't have returns to change addresses from, so please notify us if you move or change address.



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Another Literary Review

Mr. Showler isn't the only reviewer of bee literature featured in this issue. This is from Tristin Mayhew in the second grade at Loomis Elementary School, who was assigned to read a non-fiction book and write a report. This is it:

Book Report Non-Fiction

Title: Life of the Honey Bee
Author: W.司徒 Ch. Li
Illustrator: Jill Payne

Name: Tristin Mayhew
Date: 3/19/21
Due Date: 3/24/21

Summarize the book. (Tell me about the book.)
Remember to start from the beginning and move towards the end. Do not forget to tell me about the main events in the book. Use your list that you have been keeping.

Dear Mrs. Spigler I learned a lot from this book. I learned that bees have five eyes. The silliest thing in this book is that a bee can arrest another bee from another colony. The queen bee is the only one that can lay eggs. After the queen bee has her wedding flight she doesn't fly anymore unless there is a swarm. The drone bee is funnier than all the others. After spring the drone bee is dragged out to die. I think it is

sad that they kill the drone bees. When it is still alive the honey bee has been for 100 years. The bee that guards the queen could actually kill her. I also think it is neat that if the queen bee is lost the worker bees immediately raise a new queen.

Write a letter to the author to say what you liked and didn't like about the book.

Dear W. Ph. how do bees arrest other bees from other colonies why do the worker bees angrily rob a new queen why don't they just take one little look for her.

Sincerely, Tristin

Draw a picture of your favorite part. It needs to be in color and it needs to be detailed.

