



ENTOMOLOGICAL SOCIETY OF SASKATCHEWAN

NEWSLETTER

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EDITOR'S COMMENTS

We would like to wish everyone a very Merry Christmas and a healthy Happy New Year. We would like to thank all of those that contributed to this newsletter and hope such participation continues. We would appreciate hearing from you if you have any comments.

UPDATE OF THE JOINT MEETING ESS/ESC 1992 - J. SOROKA (LOCAL ARRANGEMENT CHAIR, 975-7014)

The Joint meeting of the Entomological Society of Saskatchewan and the Entomological Society of Canada is scheduled for September 27-30, 1992 at the Delta Bessborough in Saskatoon. If you have any ideas for the meetings such as conference tours, spousal programs or even ideas from previous conferences you have attended which we can plagiarize, please let the Local Arrangements Committee know (J. Soroka, O. Olfert, R. Weiss or W. Goerzen). Better yet, volunteer to work on the Local Arrangement Committee and make sure your ideas get done right. How about a theme? Surely we can do better than Acanadent or Hexapodoxa. ESCESS-Y 92, anyone?

REPORT FROM THE GRASSLANDS INSECT SURVEY COMMITTEE - KEN PIVNICK

Dr. Hugh Danks, head of the Biological Survey of Canada (Terrestrial Arthropods section), visited Saskatoon on November 6-7; this was his first visit in three years. The Biological Survey of Canada provides national direction for work on the Canadian fauna; "it synthesizes ideas, focuses

available expertise towards topics that are particularly significant, and acts as a clearinghouse for information". There are an estimated 55,000 species of insects (including 4,000 which live north of the treeline) and 11,000 species of other terrestrial arthropods which live in Canada. Only half of these species have even been described and few have been studied. Dr. Danks gave three talks during his visit: *Intrinsic Elements in the Control of Insect Diapause* (at Agriculture Canada); *Boreal Insects of Canada* (for the Saskatoon Regional Zoological Society); and *Using Insects to Evaluate Disturbance of the Environment Caused by Man's Activities* (at Canadian Wildlife Service).

He also presided over an informal meeting of interested parties to describe the recent activities of the Survey, and to exchange information about current research. Dr. Danks reported that the project describing the arthropod fauna of the Yukon is almost completed and is expected to be published next year. This will allow many of the scientists who have been involved in this project to shift their focus to Canada's grasslands. The first fascicle of the *Illustrated Keys to the Families of Terrestrial Arthropods of Canada*, which covers the Myriapods, has been published (price \$6); several others are in preparation. The latest symposium organized by the Survey was "Arthropods of Canadian Peatlands", held at the ESC annual meeting in Banff in October; proceedings will be published within a year. Dr. Danks has also been contacted by American entomologists who are interested in setting up a similar biological survey. This is definitely a strong indication that the organization is working well.

ANNUAL ESS SPRING MEETING ANNOUNCEMENT - J. SOROKA

The spring meeting of the Entomological Society of Saskatchewan will be held on Friday, April 12, at 0900hrs in the boardroom of the Saskatoon Research Station, Agriculture Canada.

VIDEO AVAILABLE - KEN PIVNICK

A video highlighting the migration of the beautiful Monarch butterfly is now available from the Xerces Society (a society dedicated to the conservation of rare invertebrates and their habitats). If you are interested either in obtaining more information on this video or in joining the Xerces Society, please contact Ken Pivnick at the Saskatoon Research Station.

NEWS FROM REGINA - P. RIEGERT

Barry Pittendrigh, a recent graduate of the Biology Dept., at the Univ. of Regina, is one of the few students who has evinced a continuing interest in entomology at U. of R. He began his studies in 1986, was the Gold Medal Winner of the 1984 Canada Wide Science Fair, received the 1985 and 1986 Canada award of Excellence, and was declared the 1985 Saskatchewan Junior Citizen of the year. Barry represented Canada at the 1986 Nobel Prize Ceremonies in Stockholm, Sweden, received an NSERC Post-graduate Award, and will pursue post-graduate studies at Indiana University. Seldom have we seen such an outstanding student from this university. We hope his talents will not be lost to the United States.

Paul Riegert has been elected 2nd Vice-President of the Entomological Society of Canada. He will proceed to the Presidency at the Joint meeting to be held in Saskatoon in 1992. Congratulations Paul!

R. Y. Zacharuk was in Hawaii from October 7-12th and attended the following: a) the International Chemoreception Workshop on Insects (ICWI), b) a meeting with scientists of the U.S.D.A. at Hilo to discuss insect sensilla, and c) a meeting with researchers at the Univ. of Hawaii to discuss sense organs of the Crustacea group.

W. Chapco and R.Y. Zacharuk and their respective graduate students, David McFadyen and Vonnie Shields, as well as P.W. Riegert, attended the 38th Annual Meeting of the Entomological Society of Saskatchewan

held in Regina on November 3-4th.

The booklet "Entomologists of Saskatchewan" is currently at the printers; copies will be available in the New Year.

NOTES ON THE ANNUAL MEETING OF THE ENTOMOLOGICAL SOCIETY OF AMERICA - O. OLFERT

The conference in New Orleans was attended by several E.S.S. members including, W. Chapco, L. Harris, O. Olfert and K. Pivnick. Prior to the main meetings the Orthopterists' Society met for an informal conference. Twenty papers covering a wide variety of topics were presented. President D. Otte closed the meeting with a reminder that the Orthopterists' Society is gearing up to publish a new scientific journal and will be looking for submissions in the near future.

The ESA program was, as usual, a very full one with many concurrent paper sessions and poster sessions. Persons interested in titles of papers presented at Symposia or at Submitted Paper sessions should contact one of the attendees for a copy of the program.

Congratulations are extended to Lloyd Harris for receiving an award in the category "BEST SLIDE FOR AN ESA MEMBER" for his slide of a polyphemus larva. The award was presented during the Opening Ceremonies of the Entomological Society of America meeting. As a matter of interest there were two additional slide awards (a Silver Medal and one for the Most Unusual Subject); all were presented to Canadian slide entries.

STATUS OF CHALKBROOK IN SASKATCHEWAN ALFALFA LEAF-CUTTING BEE POPULATIONS - D. W. GOERZEN

The alfalfa leafcutting bee, *Megachile rotundata* (Fab.), is an important pollinator of alfalfa grown for seed. Chalkbrood, a disease caused by the fungus *Ascosphaera aggregata* Skou, is currently present at high levels in northwestern U.S. and southern Alberta *M. rotundata* populations. The disease has been detected only sporadically and at low levels in Saskatchewan populations over the past five years. The 1989/90 Saskatchewan leafcutting bee survey revealed no incidence of classic sporulating chalkbrood; non-*Ascosphaera* larval and pollen moulds were present in 0.3% and 2.8%, respectively, of leafcutting bee cocoons examined. Analysis of the contents of trapnests deployed throughout

Saskatchewan during the 1990 field season (i.e. June -September) indicated that only non-Ascospaera moulds were present in association with larval cadavers and spoiled provisions, at levels of 0.6% and 5.4%, respectively. While A. aggregata was not identified in material collected in trapnests during 1990, a chalkbrood-infected larva of a native leafcutting bee (Megachile relativa) was found in one trapnest in 1989. The occurrence of chalkbrood in a native leafcutting bee species often found in conjunction with the alfalfa leafcutting bee indicates a possible pathway for the movement of A. aggregata into domesticated M. rotundata populations.

UPDATE OF BIOLOGICAL CONTROL OF THE RUSSIAN WHEAT APHID IN SASKATCHEWAN - J. DOANE AND M. MATHESON

Two research projects intended to reduce the impact of a RWA infestation are in progress at the Saskatoon Research Station of Agriculture Canada. Both receive funding support from the Saskatchewan Agriculture Development Fund. Field work for this project resumed in June when regular surveys in spring wheat fields were initiated to monitor Russian Wheat aphid, other cereal aphids and natural enemies. Dr. Owen Olfert monitored possible dispersal of the RWA from the United States using six suction traps set up in southern Saskatchewan. The first RWA winged adults were captured in suction traps at Robsart and Shaunavon on August 15. Subsequently, an average of 20 (range 0-50) RWA per tiller were found on a sample of volunteer cereals from Robsart. A lightly infested field was also found near Kyle. Surveys on fall-sown cereals are continuing to determine the extent and degree of the infestation. High populations of RWA occurred during August in southern Alberta on late-seeded spring cereals, with as many as 100 per cent of the plants infested at levels of 20 to 80 aphids per tiller. Fall-seeded cereals are also infested and some insecticide treatments have been undertaken.

THE 1991 GRASSHOPPER FORECAST IN SASKATCHEWAN - R. WEISS

Grasshopper populations are expected to increase, both in terms of density (number per square meter) and area of infestation, in 1991; densities will be similar to infestations that occurred in the early 1980's. Infestations

are predicted to spread further north and east than in 1990. More than 80% of the infestation is categorized as very light and light, 14% moderate, 3% severe and 2.5% very severe. Severe and very severe infestations are expected in west central and north central Saskatchewan.

The severity of grasshopper infestations depends primarily on weather. A warm, dry fall, as experienced in 1990, enhances egg laying and egg development; a warm, dry spring and early summer increases nymphal survival and potential for subsequent damage to crops.

IN REMEMBRANCE - J. DOANE

We were saddened to hear of the death of R. O. (Bob) Vibert on October 27, 1990. Bob never lost his positive outlook on life despite his long illness.

Bob began working with the Dominion Entomological Laboratory in 1950 and over the years was involved with many studies, including wireworms, grasshoppers, bertha armyworm and more recently wheat midge. He retired in 1989 after 39 years service.

Bob was noted for his ability to fix just about anything. He added immeasurably to any project he worked on, both because of his ability and cheery disposition. Bob will be sadly missed by all his friends at the Saskatoon Research Station.