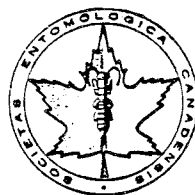


Proceedings of the
Twenty-ninth Annual Meeting
of the
ENTOMOLOGICAL SOCIETY

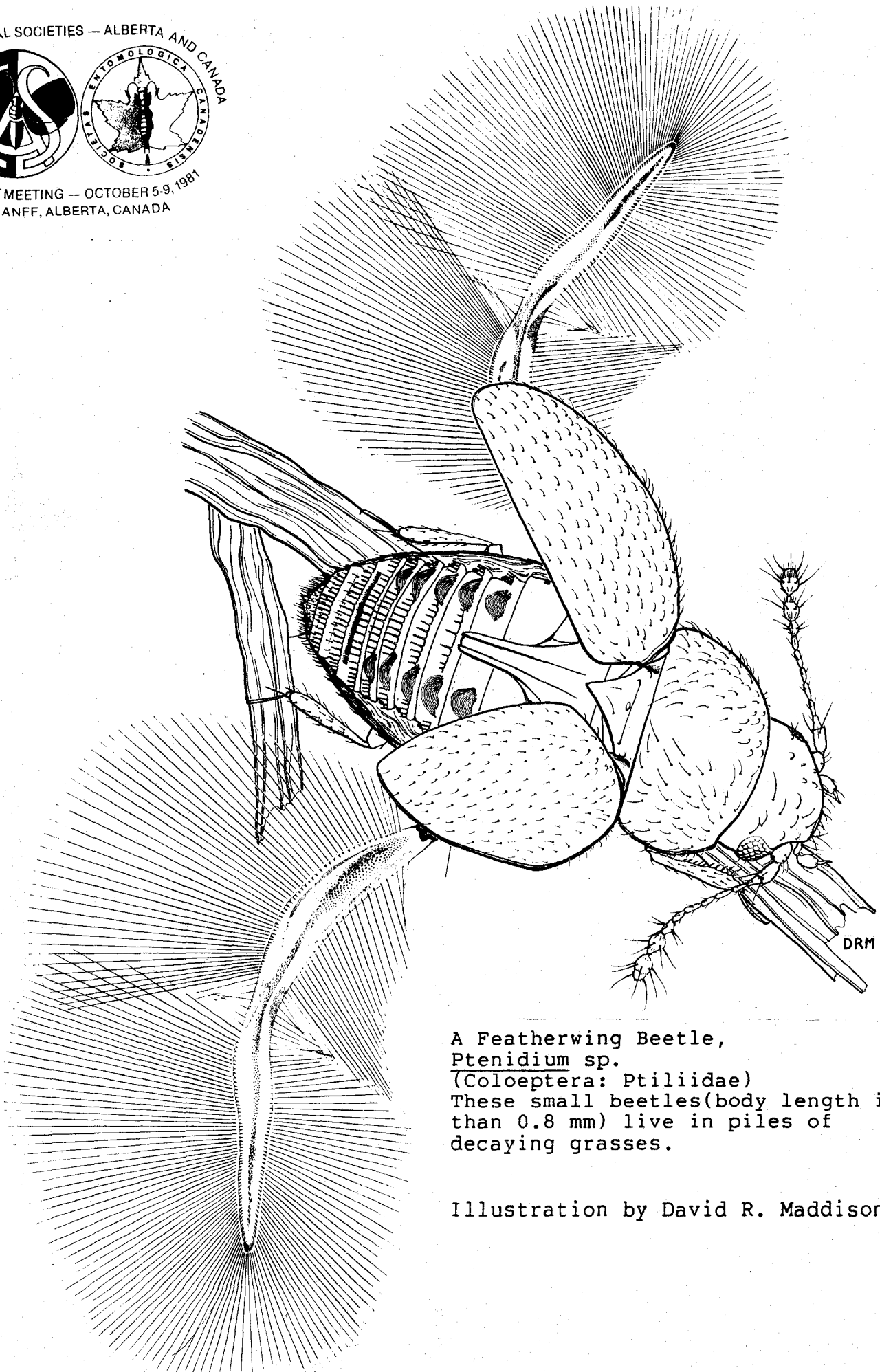
of
ALBERTA



held jointly with the
ENTOMOLOGICAL SOCIETY
of
CANADA



October 5 - 9, 1981
Banff Centre
Banff, Alberta



A Featherwing Beetle,
Ptenidium sp.
(Coleoptera: Ptiliidae)
These small beetles (body length is less
than 0.8 mm) live in piles of
decaying grasses.

Illustration by David R. Maddison,

PROCEEDINGS OF THE JOINT AND 29th ANNUAL MEETINGS OF THE
 ENTOMOLOGICAL SOCIETY OF ALBERTA
 AND THE
 ENTOMOLOGICAL SOCIETY OF CANADA
 OCTOBER 5-9, 1981
 BANFF CENTRE, BANFF, ALBERTA

Volume 29

June, 1982

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- Past President -----W.A. Charnetski
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Photographer	W.A. Nelson

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PROGRAM SYNOPSIS**SUNDAY, OCTOBER 4**

0900 Entomological Society of Canada Executive Board Meeting
 1700 Registration

MONDAY, OCTOBER 5

0830 Registration continued
 0900 Entomological Society of Canada Executive Board Meeting
 0900 Special Interest Group A
 "Photography for Amateurs and Professions - I"
 0900 Special Interest Group B
 "Biological Control by the Introduction of Exotic Natural Enemies"
 1300 Special Interest Group A (cont'd)
 "Photography for Amateurs and Professionals - II"
 1300 Special Interest Group C
 "Practical Use of Insect Sex Pheromones"
 1300 Special Interest Group D
 "Biological Survey of Canadian Grasslands"
 1600 Entomological Society of Alberta Executive Meeting
 2030 Traditional Wild Game and Wine Social

TUESDAY, OCTOBER 6

0800 Registration continued
 0900 ESA/ESC Joint Meeting - Opening Ceremonies
 C.G. Hewitt Award
 Gold Medal Award and Address
 1030 Feature Symposium
 "The Economics of Entomological Effort"
 1330 Feature Symposium continued.
 1530 Feature Symposium continued.
 1730 Western Style Bar-B-Que

WEDNESDAY, OCTOBER 7

0830 Feature Symposium continued
 1030 Submitted papers (two concurrent sessions)
 1330 Submitted papers (two concurrent sessions)
 1530 Entomological Society of Canada Business Meeting
 1800 Joint Meeting Gala Banquet
 2100 After Dinner Speaker
 "Canadians to Climb Mount Everest" - J.R. Amatt

THURSDAY, OCTOBER 8

0830 Submitted papers (two concurrent sessions)
 1030 Submitted papers (two concurrent sessions)
 1330 Submitted papers (two concurrent sessions)
 1530 Submitted papers (two concurrent sessions)
 1900 Entomological Society of Alberta Business Meeting
 2015 ESC Publication Committee and Editors Meeting

FRIDAY, OCTOBER 9

0830 Special Interest Group E
 "Black fly Biology and Control - Progress and Prognosis"
 0830 Special Interest Group F
 "Honey Bees"
 1330 Special Interest Group E - (cont'd)
 1330 Special Interest Group F - (cont'd)
 1330 Field Trip - Johnston Canyon

LADIES PROGRAM**MONDAY, OCTOBER 5**

2030 Traditional Wild Game and Wine Social

TUESDAY, OCTOBER 6

1120 Lunch at Banff Springs Hotel

1730 Western Style Bar-B-Que

WEDNESDAY, OCTOBER 7

1200 Free Music Recital

1315 Field Trip - Lake Louise

1800 Joint Gala Banguet

THURSDAY, OCTOBER 8

0930 Field Trip - Sulphur Mountain Gondola Lift

FRIDAY, OCTOBER 9

1330 Field Trip - Johnston Canyon

ESC NORMAN CRIDDLE AWARD WINNER FOR 1981
Mr. B.J. (Buck) Godwin
Olds, Alberta

Buck Godwin has had a distinguished career as an instructor at regional agricultural colleges in Alberta for the past 27 years. After obtaining a B.Sc. (Agriculture) from University of Alberta and a Diploma in Agriculture (Vermilion Agricultural College), Buck began instructing in horticulture and related courses at Fairview and Vermilion. Upon arriving at the Olds Agricultural College (now known as the Olds Agricultural and Vocational College), Buck assumed instructor duties in entomology as well as in horticulture. He soon developed a very keen interest in entomology which he was able to pass on to his students. His students were required to make an insect collection as part of their course requirements, and many of these collections were entered each year in the Entomological Society of Alberta Insect Collection Competition. Indeed, if it were not for these collections, there would not have been a competition in some years.

Buck is very patient with and supportive of his students. He would often bring in outside lecturers to speak to his students on applied entomology so that they became aware of the role of entomology in agriculture and forestry. Buck soon became recognized not only as an authority on the identification of local plants, but also on local nuisance and pest insects. His office desk often was cluttered with insect specimens dropped off by local residents and farmers seeking advice on the identification and control of particular insects. If he did not know, he would consult with provincial entomologists so that his "clients" did not go away without an answer.

Members of the Entomological Society of Alberta have long recognized and appreciated Buck's involvement in teaching college entomology and the strong support and encouragement that he provided students taking his courses. Our society is proud to select Buck Godwin as the 1981 recipient of the Norman Criddle Award for outstanding achievement in amateur entomology, so that his contributions to amateur entomology in Alberta can be recognized nationally through this Entomological Society of Canada award.

H.G. Philip, President
Entomological Society of Alberta

*B. J. "Buck" Godwin receives
the 1981 Society's Criddle
Award from President
S. R. Loschiavo at Banff,
Alberta for an outstanding
effort in stimulating interest
in entomology among young people.*



ex. Ent. Soc.
Can. Bull. 14:
15

ABSTRACTS OF SUBMITTED PAPERS BY MEMBERS
OF THE ENTOMOLOGICAL SOCIETY OF
ALBERTA

Aiken, R.B., Department of Entomology, University of Alberta, Edmonton, Alberta.

The medium governs the message: some rules for singing aquatic insects.

Singing aquatic insects must cope with different medium-imposed constraints than must their terrestrial counterparts. First, density of the medium dictates that singing structures must be relatively more massive than those of terrestrial insects. A survey of available literature shows this to be true. Second, the air-water and water-substrate interfaces can drastically alter the frequency components of any signal. This effect is especially evident in shallow water in which most aquatic insects sing. Such interference and alteration of signal frequency effectively eliminates frequency as a useful information bearing channel. In those aquatic insects studied to date, interspecific differences in song have been in temporal patterning of song elements. Finally, aquatic insects apparently cannot communicate over long distances. Experiments on the transmission of sound in shallow water habitats indicate that the effective transmission distance is less than 1 metre.

Anderson, J.R., Division of Entomology/Parasitology, University of California, Berkeley, California and J.A. Shemanchuk, Agriculture Canada Research Station, Lethbridge, Alberta.

Parity and mermithid parasitism of Simulium arcticum caught attacking cattle and flying over an Alberta river.

Dissection of flies from farm and river collections (14 June through 11 September 1974) revealed two brief seasonal peaks in numbers of nulliparous females and two subsequent prolonged periods when parous females predominated. Dissection of reared flies established that females were anautogenous, a fact supported by the parity data for flies attacking cattle and netted over the Athabasca River. Dissected females were checked for sperm and subcategorized as being teneral, non-blood fed, blood-fed, gravid or ovipositing. Dissection of 2003 flies caught over the river revealed little difference in mermithid (Isomermis spp.) infection rates of males and females throughout the season.

Anderson, Robert S., Department of Entomology, University of Alberta, Edmonton, Alberta.

Resource partitioning in the carrion beetle fauna of southern Ontario (Coleoptera: Silphidae).

Resource partitioning and ecological interactions in the silphid fauna of southern Ontario are examined in detail, using data from baited pitfall traps placed in four different habitats. A total of 9549 specimens of Silphidae were collected, representing twelve species, of which five were in the tribe Silphini and seven in the tribe Nicrophorini, genus Nicrophorus. The roles of different seasonal patterns, habitat specificity, food type and size, and body size in resource partitioning are discussed for all species.

Cheeseman, M., Department of Biology, University of Calgary, Calgary, Alberta.

Some aspects of fluid feeding in adult carabid beetles.

The fluid feeding habit of adults of two species of carabids, Scaphinotus marginatus and Carabus taedatus, is discussed. This feeding habit is contrasted with the more widespread trait of particulate feeding within the family. These two species exhibit structural adaptations of the mouthparts which both help to deliver digestive secretions onto the food and conduct partially digested food back into the mouth. Extensive setal fringes may also prevent the entry of particles into the gut. The proventriculus acts solely as a filtering device. The histology of the midgut is considered for it is the sole source of digestive secretions in carabids. Finally, the phenomenon of pre-oral digestion is investigated using spectrophotometric assays for trypsin-like and chymotrypsin-like enzymes in regurgitated fluids.

Craig, D.A., Department of Entomology, University of Alberta, Edmonton, Alberta.

Relation of mechanisms of filter feeding in simuliid larvae and use of Bacillus thuringiensis H14 for control.

Recent advances in theoretical modelling of mechanisms of filter feeding have allowed a better understanding of filter feeding behaviour of larval Simuliidae. Use of Bacillus thuringiensis as a control measure will be examined in the light of presence of larval simuliid filter feeding.

Gooding, R.H., Department of Entomology, University of Alberta, Edmonton, Alberta.

Comparative molecular genetics of tsetse flies (Diptera: Glossinidae).

Of the 30 species and subspecies in the genus Glossina, nine (four in the subgenus Nemorhina (= palpalis group) and five in the subgenus Glossina (= morsitans group)) have been examined by polyacrylamide gel electrophoresis. Variations in banding patterns in 10 thoracic enzymes, one testicular enzyme and one midgut enzyme were interpreted in terms of allele frequencies in the various taxa. The data support the grouping of G. palpalis palpalis, G. p. gambiensis, G. fuscipes and G. tachinoides as members of the subgenus Nemorhina, as well as the grouping of G. morsitans morsitans, G. m. centralis, G. m. submorsitans and G. pallidipes as members of the subgenus Glossina. However, the molecular genetic data place G. austeni in the former subgenus rather than the latter and raise questions about the status of G. morsitans submorsitans from Upper Volta.

Hardman, J.M., Agriculture Canada Research Station, Lethbridge, Alberta and M.K. Mukerji, Agriculture Canada Research Station, Saskatoon, Saskatchewan.

A model simulating grasshopper damage to pasture.

A grazing model was devised to assess the effects of population density and environmental conditions on forage losses caused by grasshoppers and to examine the effectiveness of different methods of pest management. The model includes a microclimate submodel and a population submodel. In the microclimate submodel, thermal units for grasshopper eggs depend on soil temperature which is computed from air temperature and net solar radiation. Thermal units for nymphs and adults are a function of body temperature which is in turn a function of air temperature and net solar radiation. The population submodel is a modified Leslie matrix where rates of development and grazing depend on the accumulation of thermal units. Survival rates for each age class depend on environmental conditions and are recomputed for each iteration. Each iteration represents one day. Simulations cover the interval from 1 April to 31 October. Practical use of the model is illustrated in simulations showing the importance of timing in the application of insecticides. In a pasture infested with the migratory grasshopper, Melanoplus sanguinipes, the optimum time to spray was when third instar nymphs were at their maximum density. Earlier applications did not control the population because many individuals were still in the egg stage. Later applications allowed the grasshoppers to inflict considerable damage before the population was brought under control.

Holmberg, R.G., Athabasca University, Edmonton, Alberta and J.M. Hardman, Agriculture Canada Research Station, Lethbridge, Alberta

Feeding rate and body size in grasshoppers.

With the long term goal of improving predictions of crop losses caused by grasshoppers, we measured weights of seedling spring wheat (Triticum aestivum variety Neepawa) eaten by adults and nymphs of: Camnula pellucida, Dissosteira carolina, Melanoplus bivittatus, M. infantilis, M. packardii, and M. sanguinipes. Trials were run for 24 h at 30 C. The best predictive equation, combining data for all instars, sexes and species, was of the form, $y = ax$, where y = dry weight, x = a measure of grasshopper size (i.e., body, femur or pronotum length, or dry body weight), and a and b are constants. The constants for body length were 0.0692 and 1.94; femur, 0.477 and 1.54; pronotum, 1.86 and 1.57; and body weight, 1.32 and 0.667. The strongest correlation between feeding rate and size was pronotum length ($r^2 = 0.91$); the weakest, femur length ($r^2 = 0.85$ and 0.86).

Khan, Ali, Alberta Agriculture, Edmonton, Alberta.

A history of warble control in Alberta.

No abstract available.

Leggett, Frances L., Department of Entomology, University of Alberta, Edmonton, Alberta.

Mouthpart embryogenesis in embryos of Macrosteles fascifrons (Stal) (Homoptera: Cicadellidae).

Macrosteles fascifrons has piercing and sucking mouthparts that it uses to suck fluids from plants. Development of these mouthparts is followed from anatrepsis to hatching. Following anatrepsis, mouthpart anlagen form as paired ectodermal evaginations of the germ band. The labium develops first, followed by the maxillae, mandibles, antennae and clypeo-labrum. Each maxillary anlage divides into inner and outer lobes. Over the next 20% of embryogenesis, the anlage grows, each inner stylet anlage becomes matchstick-like and the outer maxillary lobe conical. At the end of this growth period, the embryo rotates 180 degrees on its longitudinal axis and during rotation, the labrum unfolds caudally and the other mouthpart appendages shift cephalad resulting in formation of the hemipteroid mouthcone. At 50% of total development time, the embryo undergoes katatrepsis and enters a period of cell differentiation. By the time of provisional dorsal closure, the loral plates and their myoblasts are present and the salivary syringe is well formed. Anlagen cells acting as templates for the stylets' coadaptations secrete cuticle; later, these cells withdraw into the head leaving behind their cuticular stylets and forming the larval retort organs. By 85% of total development time, muscles have fully differentiated, the salivary syringe is fully formed and the head resembles that of adults.

Mutch, Bob, Department of Biology, University of Calgary, Calgary, Alberta.

Life history of Philocasca alba Nimmo (Trichoptera: Limnephilidae).

Philocasca alba Nimmo has been found to be the predominant shredder in pools of many first and second order creeks in the Rocky Mountains of southern Alberta. In Twin Creek, a second order stream, P. alba had a three year life cycle. Larval growth was confined to the period from June to October and overwintering larvae were dormant. Distribution of P. alba in Twin Creek was highly correlated with distribution of detritus of terrestrial origin and needles from the conifers Abies lasiocarpa (Hook) Nutt. and Picea glauca (Monech) Voss were the major food of the larvae. However, field observations, gut content analysis and feeding experiments indicated that stream-bank moss may be important in the nutrition of the final instar larvae. The role of P. alba as a comminutor of coarse particulate organic matter was emphasized by high consumption rates (30 to 60% of body weight per day) by larvae conditioned on A. lasiocarpa needles.

O'Hara, J.E., Department of Entomology, University of Alberta, Edmonton, Alberta.

Historical zoogeography of the Siphona tropica group - speculations about relict Mexican taxa (Diptera, Tachinidae).

Specimens of Siphona species are small (3-6 mm long) tachinids of cosmopolitan distribution. As the result of revision of North American Siphona species, six species groups are recognized, based in inferred phylogenetic relationships. One group, the S. tropica group, is recognized as monophyletic on the basis of two shared, derived character states; a long, broad third antennal segment and a very long proboscis. In the New World, the S. tropica group is most diverse in Mexico with four species recognized. In the Old World, members are apparently restricted to Africa. Since the group is not recorded from the Northern Hemisphere, an historical zoogeographic explanation must account for the group's geographic disjunction between Middle America and Africa. Phylogenetic relationships among Siphona species are not indicative of a Gondwanaland distribution. Since Africa is interpreted as a region of origin of Siphona, the probable route whereby the S. tropica group reached Middle America was through the Palearctic and Nearctic regions. S. tropica group taxa are tropical in adaptation, so it is inferred their Mexican ancestor was also. It is hypothesized that during the Tertiary climatic optimum (lasting to early Oligocene when the climate at high latitudes was paratropical) a S. tropica group taxon migrated through Beringia or across a North Atlantic land bridge to North America. Following deterioration of paratropical conditions, ranges of S. tropica group taxa shifted southward. In (North America, emigration to Mexico was followed by species) diversification. Therefore, Mexican species of the S. tropica group are interpreted as geographic relicts of a once widespread group range.

Ryan, James K., Department of Food Science, University of Alberta, Edmonton, Alberta

Honeybee protein from alkaline extraction.

Adult honey bees collected from one yard during honey harvest weighed an average of 1.76 kg fresh (0.59 kg dried) per colony. These were 54.7% protein, 7.54% lipid (including wax) and 27.1% reducing sugar (moisture-free basis). Bees were homogenized and body protein precipitate recovered in acid solution. Protein solubilized varied with treatment from negligible without alkali to 81% with severe treatment. With normal treatment, 60% of total solids were found in precipitate (myofibrillar proteins) and 40% (sarcoplasmic proteins) remained in solution. Precipitate was 66.3% protein, 9.4% fat and 7.9% ash. Heads, thoraces and abdomens were separated and treated. Head precipitate was purple, odorous and contained 19.3% of whole body precipitate which was 70.1% protein. Thorax protein was white and odorless. Abdomen protein was brown, sweet, 44.9% of body precipitate and only 36.6% protein. Amino acid analysis of these proteins show most are similar except Histidine levels are 250% greater and Arginine 40% as much in the head versus thorax and abdomen. The product is a typical animal protein.

Sutcliffe, J.F., Department of Biology, University of Waterloo, Waterloo, Ontario.

A physiological basis of feeding deterrance in leaf beetles (Coleoptera, Chrysomelidae).

No abstract available.

THE
REASON

THE
WAY

THE
PLACE

THE
MEETING

Mrs.
McAlpine

Ted Heming

Mrs. Heming

Frank
McAlpine

INSECT
COLLECTION
COMPETITION

EVEN
FOR
US?

Bill
Charnetski

Joe
Shemanchuk

Jeremy McNeil
"Attracts insects
and students"

Roberte
Boyle

"Why didn't
I leave
the social
earlier?"

"I have a
testament
for you"

Dick
Prentice

To the Bar-B-Que

....we went

Brenda DeVitt

George and Kay Ball

Doug
Barnes

Keith Kevan
sings his
grasshopper
song.

Good Old Time Music

Dolf Harmsen
and company

Doug Ross

Shereen and John
Anderson

Dolf Harmsen

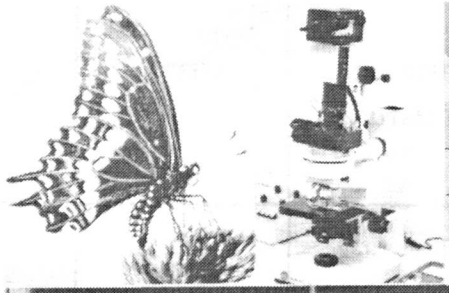
Jane
Wright

Marilyn
Steiner

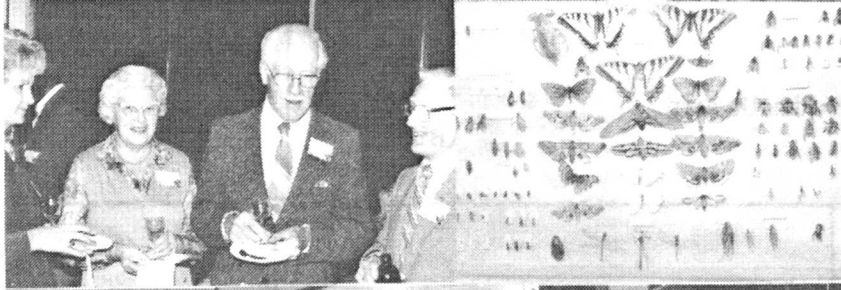
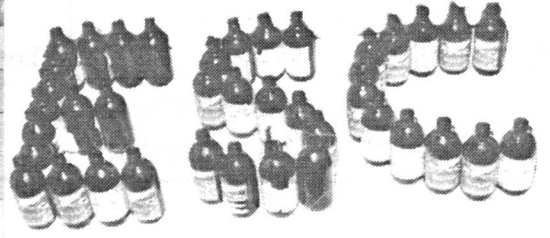
Dyx Kumbongsi

Aki Braimah

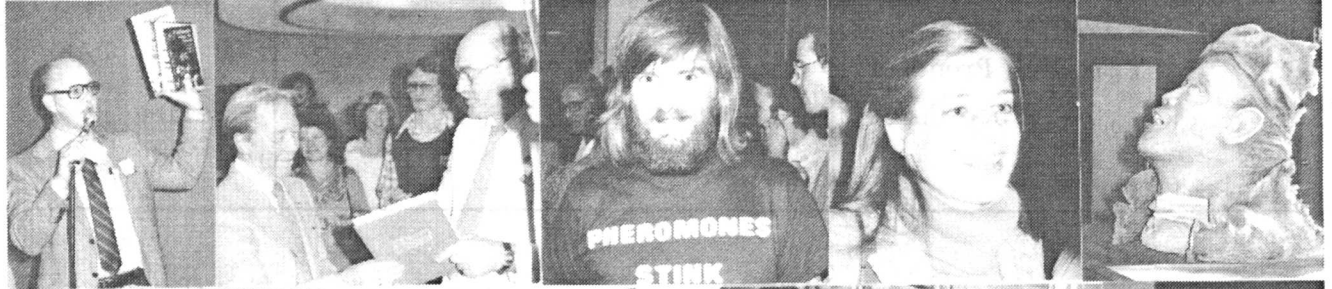
Sam
Loschiavo
(President
E.S.C.)



6 THE BANFF CENTRE
 SCHOOL OF FINE ARTS
 SCHOOL OF MANAGEMENT
 SCHOOL OF THE ENVIRONMENT
 CONFERENCE DIVISION
 Registration: Donald Cameron Hall



**NO PARKING
 THIS SIDE
 OF ROAD**



ENT. SOC. ALTA.-CANADA JOINT MEETING 81

M. Dolinski H. Philip J. Shemanchuk M. Steiner	B. Charnetski R. Holmberg G. Pritchard	Les Shipp	Joe Shorthouse Mike Hardman	Andy Nimmo	F. Siddiqui
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Murray Maw Larry Burgess Kurt Depner	To the Bar-B-Que Jim Drouin Bill Turnock	Alex Harper
--	---	----------------

Bill Turnock Dick Prentice Joe Gurba	The Fire!	Paul Riegert Karin Heming
--	-----------	------------------------------------

John Anderson Ali Khan	Ed Becker	E.S.C. Executive	Glenn Wiggins (incoming President E.S.C.)
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George Gerber (Hewitt Award) Sam Loschiavo (President E.S.C.)	Sam Loschiavo 'Buck' Godwin (Criddle Award)	Critters	Mrs. Riegert Paul Riegert Ken Richards
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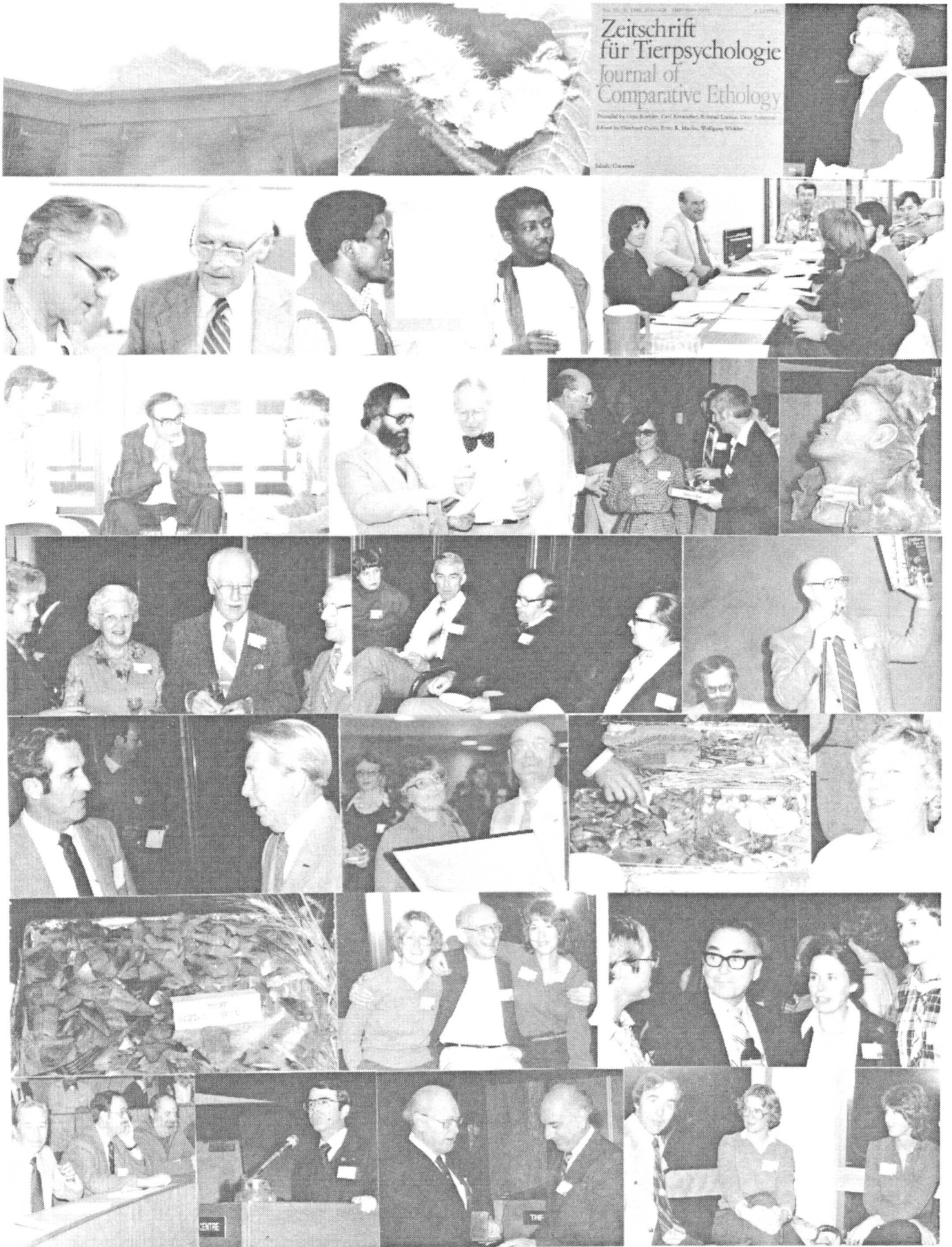
Hugh Philip Mark Leggott (E.S.A. Prize)	Hugh Philip (President E.S.A.)	Burt Schaber	Head Table Glenn Wiggins Bill Charnetski H. Philip
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Grubbing for Wild Grubbies	Doug Craig	Jim Ryan	Ali Khan	Ron Gooding	Mary Chance	Graham Griffiths
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ESA - TWENTY NINTH ANNUAL MEETING
BANFF, ALTA. - 1981

View from Bar-B-Que shelter	Gluttony	It ain't finished until its published!	
Joe Gurba Gerry Weintraub	Dyx Kumbongsi Aki Braimah	H. Philip M. Dolinski W. Charnetski R. Holmberg J. Shemanchuk M. Steiner G. Pritchard	
Dick Wong Ron Gooding	Burt Schaber Ed Becker	J. Shemanchuk Ced Gillott	"Why didn't I leave the Social earlier?"
Mrs. McAlpine Mrs. Heming Ted Heming	Frank McAlpine Murray Maw Larry Burgess Kurt Depner	Bill Charnetski (M.C.) Burt Schaber	
Jim Drouin Dick Prentice	Felix Sperling Colin Hergert Carol Wiggins Joe Shemanchuk	Wild Grubbies	Ann Weintraub
Smoked Grubbies	Bill Nelson Jane Wright Marilyn Steiner	Hugh Philip Kurt Depner Mary Chance Bob Sebastian	
Alex Harper Joe Shorthouse Dick Prentice	Hugh Philip (Pres. E.S.A)	Keith Kevan (Gold Medalist) Sam Loschiavo (President E.S.C.)	Dolf Harmsen Jane Wright Marilyn Steiner



**ENT. SOC. ALTA.- CANADA JOINT MTG.
1981**

Minutes of the
Entomological Society of Alberta
Executive Meeting
10 a.m., 28 February, 1981

Executive members present at the meeting, held in the Provincial Building, Airdrie, were W. Charnetski, M. Dolinski, H. Philip, G. Pritchard, R. Holmberg, J. Shemanchuk, K. Richards and M. Steiner.

1. Adoption of Minutes

The minutes of the previous executive meeting, held 23 October 1980 in Saskatoon were distributed and adopted as circulated, moved W. Charnetski, seconded M. Dolinski. Carried.

2. Business arising from the previous minutes

H. Philip reported he had sent a letter of thanks on behalf of the Society to Dr. Alex Harper for his work on the preparation of a bibliography of papers presented at ESA annual meetings, with a copy to his Director.

The President's Prize and Norman Criddle Award have been included as agenda items.

3. Correspondence

The secretary reviewed correspondence received since the last meeting. E. Becker as treasurer of Ent. Soc. of Canada advanced \$500 towards the joint ESC/ESA meeting costs.

H. Philip supplied ESC with a fact sheet on executive members of ESA.

The editors of Alberta Naturalist informed the Society of inserts in the journal concerning ESA meetings.

The Quebec City newspaper Le Soleil furnished copies of scientific articles as examples of the type of material it would be interested in receiving from society members.

The ESA account was transferred from Edmonton to Vegreville for the convenience of the two signing officers.

4. Financial Report

M. Steiner reported that as of 27 February, 1981, the Society's bank balance (general account) was \$1,324.84 plus \$3.17 cash on hand, giving a balance of \$1,328.01. M. Steiner moved adoption of this report, seconded K. Richards. Carried.

5. Committee Reports

(i) Review of Committee Involvement by ESA Members 1980/81.
W. Charnetski has compiled a list of ESA members involved in committees. This list is appended to the minutes and will be included in the 1980 Proceedings.

(ii) Membership
M. Steiner reported that there are 110 regular members, 5 honorary members, and 3 library member, for a total membership of 118.

(iii) Honorary Membership
There are no openings for honorary members at the current membership level.

- (iv) Editor
B. Heming was absent. The Proceedings are awaiting the financial report and the Committee Involvement list.
- (v) Insect Collection Competition
The Secretary was requested to contact R. Leech to see if he would be able to attend the Banff Meeting in October.
- (vi) Awards
Members were reminded that the deadline for submissions for the Gold Medal award and the C. Gordon Hewitt Award is October 31.
- (vii) ESC Director's Report
J. Shemanchuk reported that there is an ESC executive meeting April 8 and 9 in Winnipeg. The deadline for committee reports is 15 March. Memoirs to Canadian Entomologist are no longer included in the membership fee but must be purchased separately at \$17/annum.
- (viii) Environment Council of Alberta
J. Shemanchuk reported that public hearings on noise are scheduled for June or September. J. Shemanchuk will be checking with ESA as to whether it will be making a contribution.

6. Biological Survey of Canada - Prairie insect faunal survey.

G. Pritchard reported that there has not been too much activity. Hugh Danks has given G. Pritchard's preliminary suggestions to the sub-committee. The sub-committee is awaiting a progress report from G. Pritchard, to be submitted within a month. There is a need for an individual with time and energy to run the survey and define areas to be studied and information to be collected. A meeting of interested persons is required. Once a group is organized to conduct the survey, funds can be solicited.

7. Norman Criddle Award

A number of possible candidates were suggested. W. Charnetski will telex Dr. Laing (ESC) requesting terms of reference for this award and will forward the information to M. Dolinski.

8. The President's Prize

J. Shemanchuk presented a motion that 'this prize not be awarded in 1981', seconded G. Pritchard. In the ensuing discussion a number of opposing views were presented. W. Charnetski who was charged at the October meeting with striking a committee to examine the details, felt that students would be able to choose whether they would compete or not, that the motion should be defeated and the students then canvassed for their opinions. Their comments would be brought back to the committee and the membership for further study. G. Pritchard felt that both University of Alberta and University of Calgary students objected to the increased pressure this would put on them. R. Holmbeg considered that since the membership had already voted in favor of setting up this award that it should go ahead, but that students should be canvassed for their opinions and a negative reaction would call for possible cancellation. H. Philip felt that the membership should discuss the matter further, whereas B. Schaber considered that the committee should deal with the matter. The motion was passed with four in favor, two against and one abstention.

R. Holmbeg presented a motion that 'The Executive officers hold an informal questionnaire for graduate students who are members of the Society and eligible for this award, to decide if the President's Prize should be awarded in future years', seconded W. Charnetski. Carried. H. Philip requested G. Pritchard supply him with a list of University of Calgary graduate students. B. Heming would be approached for the University of Alberta list.

W. Charnetski presented a motion 'That the Entomological Society of Alberta Awards Committee be responsible for administering the President's Prize and establishing the

details of the award', seconded R. Holmberg. Carried.

9. Progress Report on 1981 ESC/ESA Joint Meeting

W. Charnetski summed up progress to date. Plans are well advanced and many speakers secured. Daily rates at the Banff Centre will be \$46. The budget is currently \$20,000.00.

10. Other Business

H. Philip was requested to look over the ESA Constitution and circulate necessary changes two weeks in advance of the annual meeting for voting on during the meeting.

The meeting was adjourned, at 12:00 h on a motion by M. Dolinski, seconded R. Holmberg.

Minutes of the
Entomological Society of Alberta
Executive Meeting
18 July 1981

A meeting of the Entomological Society of Alberta Executive was held 9 am 18 July 1981 at the Alberta Environmental Centre, Vegreville. Present were M. Dolinski, W. Charnetski, H. Philip, B. Heming and M. Steiner.

1. Adoption of Minutes.

The minutes of the last meeting, held 28 February 1981, were adopted as circulated. Moved Heming, seconded Dolinski.

2. Business arising from the minutes.

(a) 'President's Prize' Questionnaire results.

There were six replies to the sixteen questionnaires sent out (1 Calgary, 5 Edmonton), five were against, one was in favor. Among suggestions offered if the prize were to be awarded were an opting out clause, constructive criticism from a panel, and presentation of a plaque as prize. In view of the lack of interest from the students, the committee decided that the matter should go back to the members for further consideration and voting at the next general meeting. The executive will recommend the following alternatives (a) Shelve it (b) Have an all inclusive competition and prize with a choice of opting out (c) Have a student's prize with opting out provision. The results of the questionnaire should go out with the next mailing to members.

(b) Changes in ESA Constitution

Philip circulated a copy of the constitution with proposed changes. The Secretary will check with Alberta Consumer & Corporate Affairs, Society's Branch, re procedures for amending constitutions and changing by-laws. Charnetski suggested Standing Committees (no names of members) and their responsibilities be included under 'Rules & Regulations'. Heming would like to see them go in the Proceedings with members in this case. A time period is required for the elected member to the Environment Conservation Authority.

Charnetski moved that the changes to the Constitution as outlined should be presented to the membership, seconded Heming. Carried.

(c) Biological Survey of Canada.

John Spence has replaced George Ball on the committee. More information on the survey will be forthcoming from the special interest group to be held on this topic in Banff.

Treasurer's Report. The current bank balance (general revenue account) stands at \$1273.68. The Executive did not feel an increase in ESA annual dues was necessary at this time.

Norman Criddle Award. No terms of reference for this award have yet been received from ESC.

3. ESA Student's Prize 1981.

A communication from the Students Awards Office stated no suitable candidate for this award was found at the U of A. A letter from Gordon Pritchard recommended a student from U of C be awarded an "ESA Prize" for 1981.

4. Progress report on ESA/ESC Joint Meeting.

The current mail strike has caused complications. ESC has queried if ESA has contingency plans. One company requested an invitation to present a paper on economics of household and recreational insect control. Charnetski complied. The committee will meet again mid August if the mail strike holds till the Aug. 15 pre

registration deadline. Booklet of abstracts unlikely to be prepared in time. Philip will prepare index of special events giving dates and times for speakers in event of mail strike after 1 Aug.

Charnetski distributed the latest tentative program. The barbeque is now at Brewsters, at the same cost. John Amatt has been secured as the after dinner speaker at the banquet, to talk on the up-coming Canadian Mount Everest Expedition, 1982.

There is space in the Banff Centre for 15 displays, a photo salon and a coffee room. Six displays are firm (82 letters sent out). Twelve submitted papers on honeybees have been received. Sheul requested assistance from B. Taylor to cover phone calls. Charnetski suggested contacting the Honey Bee Association of Alberta and equivalent leafcutter bee association and charging members attending appropriate sessions \$10 for daily registration to recover costs.

The Photo Salon chairman resigned, also R. Leech. A substitute has not yet been found. The Secretary will contact R. Leech to see if he will be able to chair the insect collection competition. R. Holmberg is a possible alternative. The Secretary reviewed correspondence, and will write in reply to Oxycopsis Pond Research Station requesting copies of their Naturalist's Directory for display purposes and providing them with information on the ESA.

The meeting was adjourned 12 am on a motion by Steiner, seconded Charnetski.

Minutes of the
Entomological Society of Alberta
Executive Meeting
5 October 1981

A meeting of the Entomological Society of Alberta Executive was held at 1600 hours on 5 October 1981 at the Banff Centre, Banff. Present were M. Dolinski, W. Charnetski, G. Pritchard, R. Holmberg, J. Shemanchuk, H. Philip and M. Steiner.

1. Adoption of Minutes

The minutes of the last meeting, held 18 July 1981 in Vegreville, were adopted as circulated. Moved Shemanchuk, seconded Dolinski. Carried

2. Business Arising from the Minutes

2.1 Notice of Motion

Philip sent the Secretary a Notice to amend the Constitution and By-laws of the ESA on 13 August 1981. Copies of the amended Constitution were sent to each member in good standing. Pritchard requested a change to 'Vice President' from 'President' (page 4 italics). By-law no. 5 was changed to read 'approved by 75% of the members present' rather than 'approved by the majority of the members present' to conform to May 22, 1980 amendments to the Societies Act (Alberta Government). Also to conform to this Act, R. Holmberg presented a motion to change the designation 'Constitution' to 'By-laws', and 'By-laws' to 'Rules and Regulations'. The Secretary will submit only the new 'By-laws' to Consumer and Corporate Affairs. Seconded J. Shemanchuk. Carried. Environment Council of Alberta p5, 4e, was noted as a correction of Environmental Conservation Authority.

2.2 President's prize

After further discussion on the alternatives suggested at the previous meeting, Holmberg moved, seconded Pritchard, that 'Because of the results of the questionnaire, that the Executive recommend to the membership that we do not award any student's prize'.

3. Financial Report

M. Steiner reported an interim balance of \$1,434.58 in the general revenue account as of 1 October 1981.

4. Correspondence

The Secretary reported correspondence on June 12 from R. Arnett jr. of Oxycopis Pond requesting information on ESA and publicity for PIFON; on June 22 from the University of Alberta Student Awards Office advising that no suitable candidate had been found for the ESA prize; on August 3 from H. Philip advising of a Notice of Motion to amend the ESA Constitution and By-laws and on September 3 from Louise Martell, Secretary of NSERC inviting suggestions for individuals to serve on grant selection committees or advisory panels. Philip received a communication for E S America advising on informational material.

5. ESA Prize

Mark Leggott of University of Calgary will be awarded the \$50 prize at the joint meeting banquet. Philip has sent him a letter to this effect.

6. Reports

6.1 Awards Committee

Dolinski has now received guidelines for the Norman Criddle Award. B. Godwin will be presented with this award after the banquet.

6.2 Regional Director

Shemanchuk reported that the next meeting of ESC will be a joint one with E S America in Toronto in November/December 1982, in Regina 1983, 1984 Fredericton. A scholarship of \$1,000 each, went to two Larval University students.

6.3 Environment Council of Alberta

Shemanchuk - noise Pollution Hearings are currently in progress. The next meeting is in November in Grande Prairie. Shemanchuk hopes to attend in an official capacity.

6.4 Alternative Methods of Encouraging Amateur Entomology

Dolinski had no report and requested this be pursued on an individual basis and not by a standing committee.

6.5 Entomological Priorities

Dolinski stated he had had no further communication from J. McNeil on this matter. No further action by this committee is contemplated.

6.6 Insect Collection Boxes

M. Steiner reported she had no information on sales at this time.

6.7 Insect Collection Competition

Since R. Leech as Chairman is unable to attend, the committee will be selected by the new Nomination Committee.

6.8 Joint Meeting

ESC/ESA. Charnetski reported the special interest group on leafcutter bees will proceed.

7. Appointments for Annual Meeting

7.1 Nomination Committee - H. Philip, M. Dolinski and R. Butts.

7.2 Resolution Committee - J. Spence and G. Byrtus

7.3 Auditors - R. Gooding, D. Craig

8. New Business8.1 Membership Forms

Those designed by H. Philip were approved.

8.2 1982 Annual Meeting

No decisions were made. There is a possibility of holding a joint meeting with E.B.C. or the plant pathologists.

The meeting was adjourned at 1730 hours on a motion by Shemanchuk, seconded Dolinski. Carried.

MINUTES
 ENTOMOLOGICAL SOCIETY OF ALBERTA
 29th ANNUAL MEETING
 8 October, 1981
 1900 hr, Banff Centre, Banff

1. Adoption of Minutes of 1980 Annual Meeting

R. Gooding moved adoption of the minutes as circulated. Seconded - K. Ball. Carried.

2. Treasurer's Report

M. Steiner reported an interim balance as of 8 October, 1981 of \$1584.58 in the general revenue account.

Moved - M. Steiner, Seconded R. Mutch that this report be adopted. Carried.

3. Membership

M. Steiner reported a membership of 106 Ordinary members, 5 Honorary members, and 3 Library members for a total of 114. Since several of these are delinquent in their payments, she reminded members that fees are payable in advance at the time of the Annual Meeting and members neglecting to pay for two consecutive years are in danger of losing their membership status.

4. ESA Prize

A certificate and \$50.00 prize was awarded to Mark Leggott, University of Calgary

5. ESC Achievement Awards

Deadline for nominations for the Gold Medal and C. Gordon Hewitt awards is November 30. Nominations should be submitted to H.G. Philip.

6. Regional Director's Report

The next annual meeting is with ES Ontario and ES America in Toronto, November, 1982. The 1983 annual meeting will be in Regina, in 1984 in Fredericton. ESC gives \$100/year to regional Societies to promote Entomology. This will be given to B. Heming.

7. Committee Reports

7.1 Environment Council of Alberta

Shemanchuk reported that he attended meetings held on Noise Pollution and Hazardous Waste Disposal. The annual meeting will be held in Grande Prairie November 28, 29 and 30, 1981.

7.2 The Insect Collection Committee

The Insect Collection Committee at this meeting was C. Hergert, J. McNeill and J. McLean. Hergert requested guidelines for future competitions. Shemanchuk suggested drawing up new guidelines with two additional people.

7.3 Entomological Priorities in Alberta

Dolinski stated he wished to resign. Ball reported that the original study had taken a more specific turn and was proceeding on losses due to insects. Gooding stated that the Provincial Government was preparing a Science Policy to which the original study may have been directed. No further development has occurred. Ball further reported that the Science Policy Committee of ESC was developing a dossier of programs of high priority that can be put forward by ESC. ESC will

be requesting submissions by its members to this effect.

7.4 Alternative Methods of Encouraging Amateur Entomology

Dolinski suggested this committee be abolished and members proceed on an individual basis. No disagreement.

7.5 Science Fair Liaison

K. Richards was absent. His report should be forwarded to the Secretary for inclusion in the Proceedings.

7.6

ESC/ESA Joint Meeting

Charnetski reported a budget of \$20,000. A donation of \$1.00/person (\$300) would be forwarded to J. Amatt, the banquet speaker. B. Taylor commended the committee for its contributions towards a successful meeting.

7.7 Nominations

The following nomination slate for the 1982 Executive Council of ESA was presented by the Nominations Committee.

President - M. Dolinski
 Vice-President
 Past President - H. Philip
 Secretary/Treasurer - R. Butts
 Editor - B. Heming
 Regional Director - J. Shemanchuk
 Directors - B. Nelson
 - R. Holmberg
 - G. Pritchard
 Auditors - R. Gooding
 - D. Craig

H. Philip called for other nominations from the floor. W. Charnetski nominated J. Shemanchuk for Vice-President. J. Shemanchuk nominated B. Taylor. Seconded G. Ball.

Moved nominations cease - C. Hergert, Seconded - W. Charnetski. Carried. B. Taylor elected Vice-President.

Moved acceptance of the nomination slate - M. Dolinski. Seconded R. Butts. Carried.

8. New Business

8.1 Changes in ESA Committee Memberships

Moved - M. Dolinski. Seconded - W. Charnetski.

THAT the Committee under Rules & Regulations 4(b) be disbanded. Carried.

Moved - B. Heming. Seconded - B. Taylor

THAT Rules & Regulations 4(d) be similarly disbanded. Carried.

8.2

Amendments to ESA Constitution and By-Laws

Moved - G. Ball, Seconded - W. Charnetski.

ACCEPTANCE of Amendments as circulated, with changes made by Executive at 5 October 81 meeting. Carried.

8.3 "President's Prize" Student Questionnaire

H. Philip read out results of the questionnaire. G. Ball agreed no distinction should be made between student and non student member

Moved - J. Shemanchuk. Seconded - G. Ball.

THAT the "President's Prize" be done away with.

8.4 1982 meeting

After some discussion of locale and whether to hold a joint meeting, it was decided that there would be no joint meeting in 1982 and the incoming executive should be left to decide on location.

8.5 NSERC

Inviting suggestions for individuals to serve on grant selection committees and advisory panels. Charnetski suggested interested persons should contact H. Philip.

Moved - J. Shemanchuk. Seconded - B. Taylor.

THAT E. Gushul should be thanked for his donation of a photograph.

9. Moved - H. Philip. Seconded - R. Gooding.
THAT the meeting be adjourned, 2100 hr.

FINANCIAL STATEMENT

JOINT MEETING ENTOMOLOGICAL SOCIETIES
OF ALBERTA AND CANADA
BANFF, ALBERTA
October 5 - 9, 1981

<u>RECEIPTS:</u>	<u>BUDGETED</u>	<u>ACTUAL</u>
Registration	8,000.00	9,705.00
Grants - University of Calgary	200.00	-
- University of Alberta	2,000.00	1,050.00
- Alberta Government (Banquet Grant)	3,000.00	2,500.00
- Alberta Environment	-	2,000.00
- Ent. Soc. of Canada	2,500.00	2,500.00
Donations - Industry	4,000.00	3,200.00
Displays/Booths	-	1,726.57
Banff Centre Function Allowance	-	2,284.80
Bank Interest	100.00	413.53
Other	-	31.08
TOTAL	<u>19,800.00</u>	<u>25,410.98</u>

<u>EXPENSES:</u>		
Scientific Program - Program Speakers	5,000.00	1,525.15
- Programs & Abstracts	400.00	1,050.00
Special Interest Groups - Expenses	-	232.00
Social Program - Coffee and Donuts	750.00	919.25
- Banquet	3,400.00	2,383.80
- Banquet Speaker	300.00	300.00
- Banquet Extras	200.00	583.93
- Barbeque	4,400.00	4,648.00
- Wild Game & Wine	1,800.00	2,193.05
- Miscellaneous	350.00	930.78
Ladies Program	300.00	308.50
Photography	300.00	220.15
Photo Salon	400.00	-
Accommodation & Reception	150.00	140.03
Publicity	400.00	755.65
General - Stationary, Mailing	400.00	377.95
- Meeting Rooms & Fees	400.00	62.50
- Committee Expenses	300.00	23.45
- Telephone	-	231.68
- Bank Service Charge	-	6.30
- Contingency	500.00	-
TOTAL	<u>19,750.00</u>	<u>16,592.17</u>

M.G. Dolinski,
Chairman,
Finance Committee

ENTOMOLOGICAL SOCIETY OF ALBERTA

Financial Statement for 1981

<u>RECEIPTS</u>	<u>SUBTOTALS</u>	<u>TOTALS</u>
Bank Balance held in Edmonton Account Jan. 1, 1981	\$1,324.84	
Petty Cash Jan. 1, 1981	3.17	
	<u>\$1,328.01</u>	\$1,328.01
Membership Sales: 1979 - 2 at \$4.00	8.00	
1980 - 10 at \$4.00	40.00	
1981 - 69 at \$4.00	276.00	
1982 - 38 at \$4.00	152.00	
1983 - 1 at \$6.00	6.00	
	<u>\$ 482.00</u>	\$ 482.00
Bank Interest: Oct. 30, 1981	19.88	\$ 19.88
		<u>\$1,829.89</u>

TOTAL RECEIPTS FOR 1981

DISBURSEMENTS

Insect Collection Competition Prizes	\$ 132.25
Filing Fees, Alberta Consumer and Corporate Affairs, 1981	\$ 10.00
ESA Stamp, Alberta Stamp and Markin Co.	\$ 8.33
Stamps	\$ 5.10
	<u>\$ 155.68</u>

TOTAL DISBURSEMENTS FOR 1981

BALANCE SUMMARY

Total Receipts	\$1,829.89
Total Disbursements	\$ 155.68
	<u>\$1,871.24</u>

Petty Cash on Hand Dec. 31, 1981 \$ 8.07
 Bank Balance Dec. 31, 1981 \$1,666.14

\$1,674.21

Prepared by:

M. P. Steiner

Secretary/Treasurer

Approved by ESA Auditors

[Signature]

REPORT OF THE REGIONAL DIRECTOR

As Regional Director, I attended the Entomological Society of Canada Governing Board meetings on October 3, 4 and 8, 1981, held at the Banff Centre, Banff, Alberta.

Annual Meeting

The Annual Meeting of the Entomological Society of Canada was held jointly with the Entomological Society of Alberta. The meeting was very well attended with many graduate students present. The topic "The Economics of Entomological Effort" was very well discussed.

Future Meetings

- 1982 - Entomological Society of Ontario, Entomological Society of Canada and the Entomological Society of America - Toronto - November 29 to December 3.
- 1983 - Entomological Society of Saskatchewan and the Entomological Society of Canada - Regina, Saskatchewan - October 1-5.
- Proposed theme: Apiculture - Committees are set up and functioning - Dr. P.W. Riegert is general chairman.
- 1984 - Acadian Entomological Society and the Entomological Society of Canada to be held in Fredericton, New Brunswick. Committees have been set up and arrangements and dates and places will be announced.

Finances

The Treasurer reported that the Society was in a healthy financial position. The Treasurer did not recommend any change in fee structure for 1982. The Treasurer was not happy with the auditor's statement and recommended to the Board that the ESC change auditor for the coming year. A deficit budget for the next year was accepted.

An NSERC Grant for \$25,000 was received, which is being used to reduce publication costs.

Publications

- 210 papers were received.
- 42 are currently under review.
- 29 returned for revision.
- 26 were rejected.
- 71 were accepted, of which 35 were published.

Dr. D.C. Eidt recommended a salary increase to Margeret McBride, Managing Editor, and this was turned over to the Finance Committee by way of the Publications Committee.

Dr. D.C. Eidt also cautioned the Board that a replacement for Charles Miller, Assistant Editor, will be required in the near future. He suggested that the Board consider an appointment from the Fredericton area.

Dr. D.M. Davies advised the Board that he will be resigning as Editor of the Bulletin in the summer of 1982. The Board is looking for suggestions for his successor.

The Publications Committee is to review the standards and authorities for style used by ESC and, if necessary, make recommendations for changes to the Board.

Photo Salon

A photo salon was held this year. The recommendations of the Ad Hoc Photo Salon were defeated by the Board, which discontinues the holding of the Photo Salon at ESC annual meetings.

Arctic Arthropods

The arctic Bibliography has been published at a cost of \$5.00 and \$3.50 for members. Subscribers to the Memoirs will receive copies without charge.

The publication on Arctic Arthropods is now available at \$35.00 and \$24.50 to members.

Science Policy

The following change was made in the composition of the Science Policy Committee:

Composition of the Committee will be nine members: three appointed; six ex officio as follows: First Vice-President who shall be Chairman, second Vice-President who shall be Vice-Chairman, one SCITEC representative and one BBC representative, Chairman of the Public Education Committee and the President. The term of office for the appointed members will be three years.

Committee for a Study of the Cost of Destructive Insects in Canada

Formal approval of an Entomological Society of Canada project to evaluate economic costs of destructive insects on apple, onion and potato production in Canada has been granted by Canada Supply and Services.

The study team is composed of Dr. John A. George, Professor, University of Western Ontario and Mr. Marvin Stemeroff, Department of Environmental Biology, University of Guelph, Guelph, Ontario, and seven other members of the ESC.

Executive Council

The Executive Council for 1981-1982 is composed of G.B. Wiggins, President; G.E. Ball, First Vice-President; R.F. Morris, Second Vice-President; S.R. Loschiavo, Past President.

Trustees

The Trustees of the Society are E.C. Becker, Treasurer, D.C. Eidt, Scientific Editor, C.A. Miller, Assistant Scientific Editor, D.M. Davies, Bulletin Editor, H.G. Wylie, Secretary.

Awards

Gold Medal - Dr. Douglas Keith McEwan Kevan
C. Gordon Hewitt - Dr. George Hilton Gerber
Norman Criddle Award - Mr. B. Godwin

Fellowships

Dr. J.H. Borden
Dr. D.M. Davies
Dr. S.R. Loschiavo
Dr. S. McIver
Dr. J.N. McNeil
Dr. R.F. Morris
Dr. F.A. Urquhart

Officers

Past President - Dr. S.R. Loschiavo
President - Dr. G.B. Wiggins
First Vice-President - Dr. G.E. Ball
Second Vice-President - Dr. R.F. Morris
Secretary - Dr. H.G. Wylie
Treasurer - Dr. E.C. Becker

Scholarships

Successful Scholarship candidates in 1981 were:

Mr. Daniel Wayne Quiring - Laval University

Mr. Paul Gregory Fields - Laval University

These were selected from eight applications.

SUBMITTED BY:
J.A. Shemanchuk

REPORT OF REPRESENTATIVE TO THE ENVIRONMENT COUNCIL OF ALBERTA

As a member of the Pollution Study Group of the Public Advisory Committees, I attended four of the ten meetings held during the year. Subjects discussed at the meetings were as follows:-

1. Outdoors Unlittered Pollution Program.
2. Effects of Natural Gas Plants on the Health of Pincher Creek Residents.
3. Regional Sewage and Lagoon Sites.
4. Hazardous Wastes.
5. Recycling.
6. Private Sewage Disposal Systems.
7. Water Quality in the Bow River.
8. Environmental Impacts of the Future Coal Developments.

The Pollution Study Group proposed the following resolutions that were forwarded to the various Government Departments. It was resolved that:

1. Alberta Government encourage the utilization of sewage effluent for crop production.
2. Responsibility for private sewage disposal systems be transferred from the Department of Labor to the Department of Social Services and Community Health.
3. The Government of Alberta appoint a special select committee of the legislature to hold public hearings on air pollution.
4. Flaring from sulphur extraction gas plants be regulated.
5. Government of Alberta take immediate regulatory steps necessary to comply with the national emission guidelines for thermal power stations.
6. The Department of Environment expand and intensify its recycling program on paper products.

The Environment Council of Alberta Annual Meeting at Grand Prairie was attended by about 70 people. Topics discussed at this meeting were as follows:-

1. Development Potential for the Peace Country.
2. Acidification of soils and its connection with loss of productivity.
3. Impact of acidification of lakes and rivers on Biota.

4. Report from Panel on Hazardous Waste Management.
5. Future of agriculture in the Peace River Country.
6. Roadside Ditch Erosion.
7. The need for more gas exploration.
8. Planning for resource communities in a booming economy.

SUBMITTED BY:
J.A. Shemanchuk
ESA Representative

REPORT OF THE INSECT COLLECTION COMMITTEE

Committee members: Colin Hergert
Dr. Jeremy McNeil
Dr. John McLean

There were 10 collections submitted, 8 in the open category and 2 in the Junior category. All open collections were submitted by students from Olds College; the two junior collections were from Calgary.

Results of the judging are as follows;

<u>Open Category-</u>	1st place	Denis Tognet
	2nd place	Greg Feth
	3rd place	Hildur Fossberg

Honorable mention to Kim Webber.

Junior category

Honorable mention to:
Janice Illsey and Mary Lowrie, both 11 years old and very enthusiastic about future competitions. They will each be awarded a copy of Peterson's "Field Guide to the Insects".

C. Hergert
Acting Chairman
October 8, 1981

BY-LAWS
ENTOMOLOGICAL SOCIETY OF ALBERTA

Article 1

Title

This Society shall be known as the Entomological Society of Alberta in affiliation with the Entomological Society of Canada.

Article II

Object

The object of the Society shall be to foster the advancement, exchange, and dissemination of the knowledge of insects in relation to their importance in agriculture, horticulture, forestry, public health, industry and, for its own sake, among the people of the Province of Alberta.

Article III

Membership, Dues, and Expenditures

- a. Any person interested in entomology may become a Full Member by submitting a completed membership application form and membership fee payment to the Secretary of the Society.

Honorary Life Membership may be conferred on anyone who has performed long and distinguished service in the field of entomology. The total of Honorary Life Members shall not exceed five per cent of the total membership at the time of election. An Honorary Life Member will enjoy all the rights and privileges of Full Members but will be exempt from payment of dues. All Full Members are entitled to propose the name of prospective Honorary Life Members provided each such proposal is supported by two other Full Members and documentation is submitted in writing to the Secretary at least one month prior to the Annual Meeting. Such Honorary Life Members will be elected at an Annual Meeting.

- b. A member may withdraw from the Society upon giving notice in writing to the Secretary.
- c. An annual fee necessary for the operation of the Society shall be levied from each member as provided for in Section 1 of the Rules and Regulations.
- d. The Executive shall have power to meet expenses required in the normal operation of Society business. Such expenditures shall be subject to subsequent ratification at the Annual Meeting by the majority of the members present.
- e. A member who neglects to pay the annual fee for two consecutive years shall automatically cease to be a member.

Article IV

Meetings

Meetings may be called each year by the President at times and places suitable to the majority of the members. The fall meeting normally shall be considered the Annual Meeting and shall be held in the locality decided upon at the preceding Annual Meeting. One-quarter of the total paid-up membership shall constitute a quorum.

Article V

Officers

The Officers of the Society shall consist of a President, Vice-President, Secretary-Treasurer, and Editor. These Officers shall constitute the Executive of the Society with full power to act on behalf of the Society within the bounds of the Rules and Regulations, and to appoint committees as necessary.

Article VI

Council

The Council shall consist of the four Officers, the immediate Past-President, a Regional Director to the Entomological Society of Canada, and three Ordinary Directors. The Ordinary Directors shall represent the various fields of entomology and the geographical areas of Alberta as widely as possible.

Article VII

Elections

Elections shall be held once a year at the Annual meeting, and Officers so elected shall take office at the beginning of the following calendar year and remain in office for a term of one year.

The office of President shall not normally be held by the same person for two consecutive years. The Vice-President shall normally follow his/her term of office with a term as President. The Secretary-Treasurer and Editor shall be eligible for immediate re-election.

The Directors shall also take office at the beginning of the calendar year following their election.

The Regional Director shall be elected for a period of two years and shall then be immediately re-eligible for one more term.

The term of office of each Ordinary Director shall be three years, with one Director replaced in each year. Ordinary Directors are not immediately eligible for re-election.

Article VIII

Vacancies

Vacancies in any office (except that of President) on the Council between elections shall be filled by appointment by the President, with the concurrence of Council, the tenure of such co-opted members to terminate at the end of the calendar year during which the appointment is made. A vacancy in the office of President shall be filled by the Vice-President who will then serve his normal term as President.

Members elected at the Annual Meeting to fill vacancies on Council shall complete the period of service of the Council members whose places they have taken. On completion of this term they shall be eligible for re-election only if their period of service (co-opted and/or elected) has not exceeded 18 months.

Article IX

Duties of Officers

The President shall preside at all meetings and act ex-officio on all committees.

The Vice-President shall, in the temporary absence or disability of the President, perform the duties and exercise the powers of the President, and shall perform such other duties as shall from time to time be imposed upon the Vice-President by the Council.

The Secretary-Treasurer shall maintain a record of all meetings and act as custodian of minute books and current correspondence, and forward appropriate material to the University of Alberta for storage in the Society's archives. This person shall also receive and disburse all funds and prepare the annual financial statement.

The Editor shall receive and record reports and publications on behalf of the Society and act as editor of the Proceedings.

Article X

Signing Officers

The two signing officers of the Society shall be the President and the Secretary-Treasurer.

Article XI

Alteration of the By-Laws

The By-Laws may be altered or amended at any Annual Meeting of the Society with the approving vote of three-fourths of the members present and in good standing. Such alterations must be made by notice of motion, which shall have been sent to the Secretary and a copy of such forwarded to all members at least two weeks before the Annual Meeting.

RULES & REGULATIONS

1. a. The annual fee for full membership shall be \$4.00.
b. The fiscal year of the Society shall coincide with the calendar year; fees are payable in advance, at the time of the Annual Meeting.
2. a. An interim financial statement shall be presented by the Secretary-Treasurer at the Annual Meeting and the final, year-end statement at the first general meeting following the end of the fiscal year.
b. Two auditors shall be appointed at each Annual Meeting to examine the accounts of the current year and the annual financial statement.
3. Registration fees for student members of the Entomological Society of Canada attending the Entomological Society of Canada meetings shall be reduced when these meetings are held in Alberta with the Entomological Society of Alberta as host.
4. The following standing committees shall exist to assist the ESA Council achieve the objectives of the Society:
 - a. Achievement Awards Committee (to the ESC) - members: ESA Council.
 - b. Awards Committee (to the ESA) - members: three elected Society members.
 - c. Environment Council of Alberta - one ESA member shall be elected to represent the Society.
 - d. ESA-ESC Joint Meeting Committee - to be established a year preceeding any joint meeting of the Entomological Society of Canada and the Society; members to be selected from Society membership.
 - e. Insect Collection Competition Committee - members: one elected member plus two other members appointed by the elected member at each Annual Meeting of the Society.
 - f. Nomination Committee - members: the Past President, Vice-President and one member in good standing shall prepare a nomination slate prior to each Annual Meeting and the Vice-President shall present the slate of nominated Executive Council members at the Annual Meeting.
 - g. Resolutions Committee - members: two Society members shall be appointed immediately preceding each Annual Meeting.
 - h. Science Fair Liaison Committee - members: one elected Society member; other members to be appointed as necessary by the elected member.

All elections and appointments are not to exceed one year unless otherwise approved by the Society.

5. The Rules & Regulations may be changed by a motion approved by the majority of the members present at any general meeting.

October 8, 1981

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