The Entomological Society of Manitoba

Newsletter

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About the ESM Newsletter

The Entomological Society of Manitoba Newsletter is published three times per year.
It is a forum whereby information can be disseminated to Society members. As such, all members are encouraged to contribute often. The Newsletter is interested in opinions, short articles, news of research projects, meeting announcements, workshops, courses and other events, requests for materials or information, news of personnel or visiting scientists, literature reviews or announcements and anything that may be of interest to ESM members.

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Important

PLEASE NOTIFY US OF ANY CHANGES IN ADDRESS

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Note from the Editor

Greetings fellow ESM members. Winter is on the way and it is time for another issue of our newsletter. The last one before the much anticipated joint meetings of the Entomological Societies of Canada and America in Montreal. I am confident someone will step forward with a synopsis of the meetings to include in the next issue of the newsletter. Maybe Brent and Rhéal can team up and review some of Montreal's more popular watering holes. Of course, being the newsletter editor I will have to accompany them and make sure their opinions are entirely accurate. I would like to thank Dr. Darren Pollock for his Insects on Stamps submission in this issue. For those of you who don't know Darren and his family are now living in Texas where he is working with Coccinellids. Please enjoy this issue.

Jason Diehl,
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Insects on Stamps - Good Guys and Bad Guys

Philately & entomology are both large, multi-faceted fields of study. For those who are both entomologically and philatelically inclined, the combination of both pursuits into "entomophilately" can be a very rewarding and educational hobby. Still, what does one include in a short treatment of the subject? Obviously, insects have been around considerably longer than postage stamps, and have been both reviled and revered by humanity. I have decided to concentrate on the

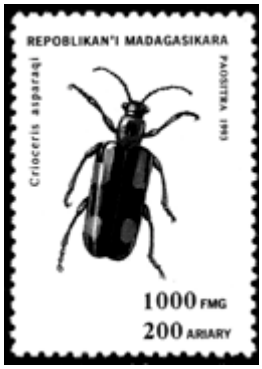
depiction of these two extremes (i.e., the beneficial and the harmful insects) on postage stamps. Before that, however, I should like to say a few words about insect stamps and thematic stamp collecting.

If one flips through the pages of a stamp catalogue, it becomes immediately apparent that insects are a popular theme. Almost all countries have issued stamps depicting insects. As of 1990, 300 independent countries or other political sub-divisions had issued about 5,000 stamps portraying over 1700 species of insects in 14 different orders. The earliest insect stamp was issued in 1891 by Nicaragua and consisted of a bee hive as part of a scene depicting productivity and fruitfulness. The first coleopterous subject matter was the stag beetle *Chiasognathus granti*, issued as part of a faunal series by Chile in 1948. Butterflies, which are easily the most popular subjects for insect stamps, appeared first in 1951, on a stamp from Sarawak. Over the years since then, insect stamps have greatly increased in frequency.

The variety of entomological subject matter on world postage stamps is incredible. Of course, the showy, colourful species predominate, since most of these stamps are issued with the collector in mind. There are extremes in scientific accuracy of names, accuracy of the actual insect images, and in the overall aesthetic value. The insects on some stamps are little more than cartoons, while others are true works of fine art.

As mentioned earlier, insects have both fascinated and terrified people for many thousands of years. This was not lost on designers of postage stamps, who have deemed insects worthy of prominence as stamp subjects. Although the vast majority of insect species are directly neither harmful nor beneficial to humans, there are some that fall into either of these two categories. For the rest of this article, I shall address some of the villains and heroes of the insect world, as they are portrayed on postage stamps.

Harmful insects have made their way onto postage stamps; most of these are pests of crops, trees, and other human commodities.



The asparagus beetle stamp from Madagascar (1993) is part of a set of beetles, none of which are native to Madagascar. Solomon Islands issued a set of five stamps in 1990 showing five different harmful insect species, including the sweet potato weevil illustrated here.

The migratory locust has been a pest in Africa for many years; in 1964, Mali issued a set of three stamps with the theme "war against the locust". The 5f value shows a map of Africa with the area invaded by these grasshoppers from 1928-1942.

In 1967, Austria issued a stamp commemorating the 6th International Congress on Plant Protection showing an adult Colorado potato beetle.

The final example shown is from Iran, from a series of two stamps devoted to the fight against harmful insects. The illustrated 6r value shows a bark beetle.

While mankind is constantly at war with various harmful species of insects, there are some species that are highly revered. The domesticated honeybee, *Apis* spp, is revered not only for its production of honey, but also for its value as a pollinator, and of course, for its intriguingly complex life history and habits. The fact that we hold this insect in such high esteem is evident by the number of postage stamps depicting images of the honeybee and of apiculture. Many different countries have devoted a stamp, or an entire series of stamps to the honeybee. The first example shown is from the Soviet Union, and illustrates a bear breaking into an early-style beehive suspended in a tree.

Apimondia is the International Federation of Beekeepers' Associations, and every two years, a congress on apiculture is held in a host country throughout the world.

Many of these host nations, including Hungary (1983), Japan (1985), Poland (1987), China (1993), and Belgium (1997), have issued stamps commemorating both the honey bee, and their hosting of the Apimondia congress. Shown above and at the top of the next column are Apimondia stamps from Poland and the Soviet Union.

The stamp from Tanzania (1986) shows worker bees performing one of their most important tasks -- pollination.

The second most popular group of beneficial insects on stamps are the ladybird beetles (Coccinellidae). These beetles are acknowledged as very important predators of various pest insects and mites, and are even the subject of various nursery rhymes and folklore. Of course, they are a good topic for stamps even if only for their dramatic orange and black colouration. Ladybird beetles have been used extensively in biological control efforts throughout the world, as is evident from the stamps I chose to illustrate here.

Three of the ladybirds are *Coccinella septempunctata* Linnaeus, which has been introduced to many different areas; among other countries, this species has been portrayed on stamps of Denmark, China, and Republic of Congo.

The issue from Argentina is part of a series of five values devoted to beneficial insects, two of which are ladybirds, with a stink bug, and damsel bug, and a ground beetle.

The *Anatis mali* (Say) depicted on the United States issue is part of a fantastic series of 20 stamps showing various insects and spiders. These stamps are unique (at least among world insect stamps) in that each stamp has a small description of the insect on the reverse, so that licking the adhesive can be a learning experience!

Stamps have been issued to celebrate useful insect species, alert us to the battles against the harmful ones, draw attention to the need to conserve endangered species, or simply to portray the varied and wondrous shapes and colours of insects. I have found the collection of entomologically-related stamps to be a very satisfying hobby, and I continue to be amazed at the numbers and variety of these "buggy" stamps. The task of collecting even most of these issues is not easy, but there are several important sources of information that can help. There are several different world stamp catalogues, the most popular of which are Michel, Scott, Stanley Gibbons, and Yvert and Tellier; these are definitely a place to start, and while usually quite expensive, they usually can be found at the local library. There exist several more specific stamp catalogues for insect issues, including: Domfil Thematic Stamp Catalogue. 1996. Butterflies and Other Insects (24th Edition), Sabadell, Spain; Hamel, D.R. 1991. Atlas of Insects on Stamps of the World. Tico Press, Falls Church, VA, USA; Wright, D.P., Jr. 1993. Insects on Stamps of the World. American Topical Association Handbook No. 123. There are hundreds of pages on the Internet devoted to philately in general, but for a site devoted specifically to insect stamps, try the following WWW site: http://clubs.yahoo.com/clubs/insectsonstamps.

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First Meeting of the Entomological Society of Manitoba in the New Millennium

Reminder of the 56th Annual Meeting of the Entomological Society of Manitoba. October 20 & 21, 2000

In honour of the new millennium, the theme for this year's meeting will be: "Looking Ahead: New Frontiers in Entomology". To make the meeting even more dynamic than in past years, we have modified the format somewhat. This year's program will feature three keynote speakers rather than one and the line-up of speakers is impressive.

Harvey Artsob from the Zoonotic Diseases and Special Pathogens Branch of Health Canada will discuss arbovirus activity in Canada: past, present and future. Medical important viruses like Western equine encephalitis virus, and the recent emergence of the mosquito-borne pathogen, West Nile virus, will be focal points of his talk,

Steve Ashe, Chief Curator of the Natural History Museum at the University of Kansas, will discuss biological informatics and the changing nexus of museum collection data, biodiversity research and systematic biology,

Martin Erlandson, from the Insect BioControl Laboratory (Agriculture and Agri-Food Canada) in Saskatoon, will discuss the potential of insect-specific viruses to act as biological control agents of insect pests.

In addition to these invited speakers, we once again have a good crop of speakers drawn from students, Agriculture Canada scientists and others with expertise and interest in entomology. A total of 12 oral presentations will be given covering a range of insects from agriculture pests like wheat midge, through stored product insects, parasitoids to mites of bees.

As in previous years, the annual meeting will be held at the Freshwater Institute at 501 University Crescent on the University of Manitoba campus. The banquet will be held on Friday evening at the Round Table Restaurant on Pembina Highway. This English-style pub/restaurant is well known for its fine cuisine, friendly atmosphere and recreational activities (darts, billiards, elbow-bending, etc.). Bob Lamb and Pat MacKay will once again host the mixer on Saturday night so we will have a chance to meet the speakers and other visitors.

Mark your calendar and we look forward to seeing you at the meeting.

Registration for the meeting is at 8:30 am on Friday, October 20, 2000 at the Freshwater Institute

Robbin Lindsay
Chair, ESM Scientific Program Committee

AWEME, MB - An important historical grasslands site.

Part 2 of 2

Aweme site description.

The paleoecology of southern Manitoba was dominated during the late Pleistocene and Holocene by Glacial Lake Agassiz and most of the land forms of the area are remnants of old lake shorelines and beaches. Details of the geological & vegetational history of the area can be inferred from papers in Mayer-Oakes (1967). The postglacial, geophysical history of southern Manitoba is summarized in Teller and Last (1981).

The flora of Manitoba is documented by Scoggan (1957). The native vegetation of Aweme is described in Bird (1927) and Coupland (1950). The vegetation of Aweme is dominated by the shortgrass *Bouteloua gracilis* (HBK.)Lag. [Buffalo grass], a sedge, *Carex obtusata* Lilj., and the midheight bunch-grasses *Stipa spartea* Trin. [Porcupine Grass] and *Andropogon scoparius* Michx. [Wiregrass] as well

as the somewhat taller *Koelaria cristata* Pers. [June Grass]. In undisturbed areas the creeping evergreen shrub, *Juniperus horizontalis* Moench [Creeping Juniper], is common and there are a number of common forbs such as *Artemesia frigida* Willd. [Prairie Sagewort], *Cerastium arverse* L. [Field Chickweed] and *Galium boreale* L. [Northern bedstraw].

The invasive weed, leafy spurge *Euphorbia esula* L., is a problem on the property and it rapidly colonizes disturbed areas. Although this area is a release site for the biological control agent, Aphthona spp. (Shay 1995a) it is occasionally treated with broadleaf herbicides. The European flora, predominantly invading from abandoned agricultural areas is composed of *Poa pratensis* [Blue Grass], and *Bromus inermis* [Brome Grass]. These two introduced grasses are taller and negatively affect the native prairie species. Brome grass appears to be a very poor habitat for insects (Roughley, pers. obs.) reinforcing the long-held observation that many things appropriate for agriculture are not appropriate for conservation.

From vegetation analysis, it appears that certain areas directly to the north and south of St. Albans are undisturbed, unploughed fescue prairie. The remainder of the area appears to have been cultivated. Compared to an earlier photographs of St. Albans, the site is now more treed with trembling aspen in particular becoming more dominant and increasingly overgrowing the prairie.

Insect fauna.

For many years our knowledge of the insect fauna of Manitoba was synonymous with our knowledge of the insect fauna of Aweme. It remains true that the majority of the insect fauna recorded from Manitoba is known only from or was first recorded from Aweme. It is not possible, at the present time, to list the insects collected at Aweme. Therefore a few examples might indicate the nature of the insect fauna of Manitoba.

Pollock and Roughley (unpubl.) have surveyed all published records of Carabidae (incl. cicindelines) of Aweme and supplemented this by examining all of the holdings of the JBWM and CNC for records from Aweme. This combined effort has amassed a list of 190 species and subspecies of ground beetles from Aweme which represents 54% of the 350 species of Carabidae known from the province (Bousquet 1991). This suggests that some of the insect fauna known from Aweme is fairly widespread throughout the Province of Manitoba and many are widespread across Canada. Some species are western species with their eastern limits at Aweme; some species are eastern species with their western limits at Aweme and other species are prairie species with their northern limit at Aweme.

The distribution of certain other species are much more restricted. *Quedius (Megaquedius) manitobensis* (Casey) [Coleoptera:Staphylinidae] was described from Aweme. It is an interesting example of the collecting abilities of the Criddles. It is presently known only from Aweme and Calgary, Alberta. It is known from Aweme from only a few specimens collected in July, 1910, May, 1918, & November, 1927 (Smetana, 1971). The specimens were probably extracted from the nest or dung chambers of the northern pocket gopher, *Thomomys talpoides*. During the 1980's, the entomologists from the Department of Entomology at the University of Manitoba have made a number of forays to collect this insect and other pocket gopher inquilines such as *Foxella ignota* (Baker) (Siphonaptera: Ceratophyllidae). In each case we abandoned our attempts after much

searching and digging and at about 2 m in depth. Our problem was that we did not know how to find the appropriate habitat; when we asked the local mammalogists about the depth, position and appearance of a pocket gopher nest chamber they said that the only published attempts to dig up the nest were made by Norman and Stuart Criddle. Also associated with these burrows are the scarab beetles, *Aphodius talpoides* (Brown) and *A. peculiosus* Schmidt which are still known only from Manitoba and Aweme in Canada. The anthicid beetle, *Notoxus manitoba* Chandler, is known only from the male holotype (Chandler 1982) collected at Aweme by Norman Criddle in 1924.

Other species, found at Aweme, appear to be at the northern limit of their range. The northern-most record of the stink bug, *Chlorochroa belfragei*, is Aweme (Scudder and Thomas, 1987). There are sporadic records south through North Dakota, and South Dakota to Nebraska and east to Illinois. It was formerly listed as a candidate species for endangered or threatened species status but it is now considered to be a species of management concern in North Dakota (http://www.greatplains.org/npresource/distr/others/nddagner/ species/ chlobel.htm). The Manitoba pinkstriped oakworm, *Anisota manitobensis* McDun. (Lepidoptera: Saturniidae), is known only from southern Manitoba and extreme northern Minnesota (Tuskes et al. 1996). Type specimens were collected by Norman Criddle at Aweme, Manitoba and were described by McDunnough (1921). This very handsome moth is confined to bur oak habitats and is rarely encountered. This species has been extirpated from many areas of southern Manitoba by intensive agriculture and habitat destruction. The known distribution of these insects are examples of a pattern of grassland distribution in which Aweme is at or near the northern limit of distribution.

A somewhat different biogeographic pattern is emerging from studies of other groups of insects. A moth, *Pyla arenaeola* Balogh & Witerding (1998) (Lepidpotera: Pyralidae) is a resident of sand dunes and it feeds on the leaves of bearberry, *Arctostaphylos uva-ursi* (L.) (Ericaceae). Despite the widespread distribution of its holarctic host, this pyralid is apparently restricted to a few localities with loose, sandy soils. Documented localities include the dunes of the Great Lakes and Aweme. The disjunct Manitoba record may seem problematic until it is realized that Aweme is located in a region of fossil Pleistocene sand dunes which formed at the delta of the Assiniboine River where it entered glacial Lake Agassiz (Dubois 1976, Teller 1984). Therefore the southern shoreline of Lake Agassiz may have provided a biogeographic corridor between the dunes of the Assiniboine delta and those of the Great Lakes shoreline when glacial Lake Agassiz drained southeastwards into the Great Lakes. A similar biogeographic pattern could be inferred for the winter stonefly, *Capnura manitoba* (Plecoptera: Capniidae) (Burton 1985). This species occurs in a Sphagnum spring-fen located on the margin of the Assiniboine River ca. 3 km SSW of St. Albans. The type locality is Aweme but the known distribution is decidedly eastern with most records from Ontario and Quebec, extending north to Ungava Bay, east to the Gasp, Peninsula & southeastward into New England (Hitchcock 1974). The Aweme record is separated from the closest eastern record by more than 1000 km (Nelson and Baumann 1987, fig. 50, p. 23)

<u>Concluding statement</u>

I admit an inordinate fondness for Aweme. Is it

the feeling of being at a historically important locality? Is it the ghosts of past entomologists collecting, thinking and discovering knowledge about insects? Is it the feeling of having the wind in your hair out on the prairie? Is it a day away from telephones and e-mail? Yes.
(From original article appearing Arthropods of Canadian Grasslands Newsletter No. 6, 2000)

Written by **R.E. Roughley**
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Joint Annual Meeting Information

Subject: Meeting registration material, and change of schedule for the annual general meeting

Dear friends,
You should have received your registration packages by now, or you soon will. (If it does not arrive, e-mail me at JohnsonDL@em.agr.ca or ESCPresident@em.agr.ca). You may use the paper copy to register, or you may register via the on-line version at: HTTP://www.entsoc.org/annual_meeting/2000/Regis_new.pdf

Please note that in order to qualify for member rates you must be a member (with dues for 2000 paid) of any of the three societies: ESA, ESC or SEQ. You do not need to be a member of ESA.

With the registration package you received, you will find a copy of the ESC membership application form that is also found on our website. You can pass along to a potential new member (or lapsed member). Declining membership is a problem for most scientific societies, and you can do a great service for the Entomological Society of Canada by recruiting new members.

With your registration material, you will also receive a calendar of social events and society activities planned by the Entomological Society of Canada and la Société d'entomologie du Québec. ESC and SEQ social activities will be held Monday evening at the Château Ramezay Museum, a former governor's residence.

Correction: The ESC Annual General Meeting will not be held Monday night as stated in the calendar of activities in your registration packet, but has been rescheduled to Tuesday, Dec 5, at 5-6 p.m. (Palais des Congrès; room TBA). All ESC members are welcome and encouraged to attend.

The SEQ Annual General Meeting will be held on Monday, Dec 4, at 7-8 p.m. in the museum, as stated in the calendar.

ESC students are invited to attend the "Students Meet the Board", at 8 p.m. in the museum, where they will have time to meet and chat with the ESC Executive and Governing Board members (not that we are all museum pieces, but, whatever works for you). In order to maximize the useful contacts and interactions, I invite the students to remain and make other contacts at the President's Reception, also in the museum, which continues until midnight. To make it even merrier, SEQ President François Lorenzetti and I have decided to combine the ESC President's Reception with the SEQ social this year; all ESC and SEQ members are invited to attend.

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Calendar of Events

50th Annual Meeting
Joint Meeting with the Entomological Society of America and the Société d'Entomologie du Québec
3-7 December 2000
Montréal, Canada
The ESC Annual Meeting will be held at the Palais des Congrès de Montréal, the city's convention centre.