IDAHO ENTOMOLOGY GROUP NEWSLETTER

Volume 34, Number 4, page 17 30 April 2007

The Idaho Entomology Group (IEG) is composed of professional and non-professional people interested in any facet of the study of insects. Participation is not restricted to Idaho. Membership dues are $5 / year (non-domestic E-subscriptions only), used to cover costs of the bimonthly newsletter. Application can be made to any officer (see below) or the Idaho Entomology Group, c/o Orma J. Smith Museum of Natural History, Albertson College of Idaho, Caldwell, ID 83605, USA. **Materials for publication** (e.g. important dates, summaries of meetings, references, publications of members and others, collection records, etc.) should be sent directly to the Editor. Deadline for submission is the 20th of every second month. Back issues are available at cost (contact: William H. Clark, OJS Museum of Natural History, Albertson College of Idaho, Caldwell, ID 83605). Advertisements are included in the *Newsletter* at the Editor's discretion when items are thought to be within the membership's interest. There is no cost for advertisement, deference in publication is given to members. The IEG is an affiliate of the Idaho Academy of Sciences.

2006 OFFICERS: **PRESIDENT**, James K. Ryan, 6614 Newman St., Boise, ID 83704; jameskryan@hotmail.com; **SEC./TREAS.,** Barbara Alexander, 2715 Snowflake Dr., Boise, ID 83706 ☎: 208-344-6017, 208-863-4024 (cell), bmerrill@cableone.net; **NEWSLETTER EDITOR**, Paul Blom, 1107 Grant Ave., Prosser, WA 99350-1115 ☎: 509-788-0181/786-9358, e-mail pblom@BioDataManagement.com.

---------- C A L E N D A R ----------

May	5	OJS Museum Workday
June	2	Pig Butt Roast
	8-9	BioBlitz at Deer Flat Natl. Wildl. Refuge
July	7	OJS Museum Workday
		4J Butterfly Count
Dec	9-13	ESA Annual Meeting, San Diego, CA

---------- PIG BUTT ROAST ----------

Bill, when you send out the next Volunteer Workday message, would you please include an invitation to all volunteers and museum camp-followers to our First Annual (in Boise) Pig Butt Roast? We (Pat and Alan Gillogly) are also throwing this open to the IEG, and will send copies of this to Jim Ryan and Paul Blom, so they can include a note in the next Newsletter(s).

Festivities will begin at 6PM, Saturday, June 2, and we will provide the roast/smoked pork and light refreshments (like lemonade). Attendees are requested to bring a potluck-style dish of their choice, any drinks other than lemonade that suit their taste, and lawn chairs or other seating paraphernalia (we don't expect fire ants, so most anything should work on the lawn). Bill, you still have two beers in the refrigerator from December, so you can count those as you're preparing. :) Children are absolutely welcome, but not required.

We would very much appreciate RSVPs, so we can plan on the amount of pork to prepare (phone 208-377-3567; gillogly@cableone.net; no mail is delivered to the house - no mailbox).

Our address is 1711 N. Fowler, Boise - about 2.5 short blocks NW of the intersection of Fairview and Orchard.

---------- TREASURER'S REPORT ----------

The last statement showed IEG with a balance of $426.50. There'll be postage to pay yet, but there are also recent dues paid not on this statement, so we're in the best shape since I've been Treasurer! Barb Alexander

---------- MEMBERS IN THE NEWS ---------

William H. Clark, Director, Orma J. Smith Museum of Natural History, recently was recertified as a “Certified Fisheries Professional” by the Board of Professional Certification, American Fisheries Society (AFS). He was first certified with AFS in 1984. Certification requires a certain level of Professional Development in the areas of continuing education-fisheries, continuing education-non-fisheries, oral communications in fisheries and non-fisheries subjects, written communications and service, and is good for a period of five years. Clark relied heavily on his work with the State Department of Environmental Quality as an entomologist, Idaho Power Company as a macroinvertebrate biologist, and his work as Director of the OJS Museum to fulfill the requirements. The certification brings more notice and PR to the Museum and its programs.

---------- BIOBLITZ IN JUNE ----------

8-9 June 2007, 24-hour intensive survey and celebration of biological diversity. Contact us at 208-467-9278, or deerflat@fws.gov if you have any questions or would like to volunteer during the BioBlitz. Volunteers can help survey plants and animals, help organize the festival, have a booth at the festival, do a presentation or lead a walk sharing your expertise about the natural world, photo-document the event, pledge to donate to refuge environmental education programs for each species documented, or participate in a variety of other ways. Contact us to find out how your skills and enthusiasm might help! www.fws.gov/deerflat/currevents.htm#bb

Specifically IEG members could assist in the "Bug Tent" and lead groups of people into the field during the BioBlitz Festival from 10-3 to collect insects every 45 minutes.

Amy Ulappa
Amy_Ulappa@fws.gov

---------- BAIT STATIONS ----------

It started with a dead rabbit in Sublett mountains and rotting apricots in my Buhl, ID backyard. An early version of this concept started with a 55 gallon drum and several pounds of dead fish – but that was just nasty. Currently, there are bait stations for butterflies at Big Oak Tree State Park near East Prairie, Mo. It is hoped that the stations will provide viewing opportunities for butterflies that don't normally visit flowers. As of this writing (23 April 2007) the stations have been up for less than one week and the results have been good as you can see from the pictures. It will be interesting to see what comes to the baits as the season progresses.

Doug, a park volunteer, made the bait stations from pieces of branches 2-3" in diameter and 18-24" long, with a groove cut lengthwise on the top to hold a liquid bait. The bait stations were then hung by 17 gauge fencing wire from branches such that they are 3-4' off of the ground. These are very similar to the stations I saw at the NABA butterfly park in Mission, TX.

Many recipes exist for bait, and each batch is different. My current recipe is smashed bad fruit (black bananas rock!), sugar, and beer combined in more or less equal amounts with a pinch of yeast. This mixture is allowed to ferment at ambient temperatures for a couple of days in a container twice the volume of the bait solution (it will expand). WARNING: it is actively producing carbon dioxide-- in a capped container it will explode!! The end result will be a pleasant, fruity smelling, brown goo (with chunks) that can be poured into the groove on the bait station.

Amazingly, butterflies were on the bait stations within an hour of the first baiting. W.J. Holland in The Moth Book (1904) gives an evocative description of using baits for moths that should inspire you to try some bait at home or in another favorite spot. Good luck! Kent Fothergill

---------- BOOK REVIEW ----------

The American Plague by Molly Crosby (2006, Berkley Books) presents a story of Yellow Fever in the United States, with emphasis on the 1878 epidemic in Memphis, Tennessee. The fact that nearly one third of the city's population perished overlooks a racial disparity; the mortality among whites was 70%, while among blacks it was 8%, due to immunity from prior exposure. Some of the mortality resulted from the strict quarantine imposed by federal officials to limit the spread of the disease, which effectively cut off food and assistance to the residents. Memphis had been an important business and trade center, and a bridge between the civil war ravaged confederacy and the north. The epidemic left the city struggling for financial survival for decades.

There were previous, and subsequent, Yellow Fever epidemics up the Mississippi valley. Rum smugglers were cited as being responsible for bringing the disease from Cuba, where it was endemic, to the United States This contributed to the rationale for the Spanish-American war.

During and after the war, American troops in Cuba suffered from Yellow Fever virus. This led to research which proved that mosquitoes, specifically the "steg" *Aedes aegypti*, was the vector. Walter Reed became famous in the United States, although he did little of the actual research. Carlos Findlay is forgotten here, but he is a national hero in Cuba. He believed that mosquitoes were the vectors, and almost demonstrated this 20 years before Reed's group. He had not allowed enough time for the virus to develop in his mosquitoes before testing them. His views, plus Ronald Ross's recent discovery that malaria was vectored by mosquitoes, persuaded Reed to include the mosquitoes provided by Findlay in the research.

Entomologists know this story. It is worthwhile to review the details, and Crosby writes them well. Victims viewed the first signs of Yellow Fever as a death sentence. Healthy people avoided contact with the sick out of fear that they would catch the disease. Suffering from fever reaching 105 °F, blood which failed to clot, and kidney failure, victims were abandoned to die of thirst lying in their black (hemorrhagic) vomit. Before the germ theory of disease became accepted, the fear created by Yellow Fever was tragic. The valor of those who volunteered to be exposed to victims' soiled linens and bed clothing was heroic. The heroism was greater for those who exposed themselves to mosquitoes which had fed on victims. This history is gripping.

The book ends with an apocalyptic view. There can be a resurgence of Yellow Fever; a future epidemic could be as destructive as past epidemics. Researchers should be prudent about endorsing this view. Alarmism sometimes helps to fill research budgets, but careful risk analysis should lead to more sanguine conclusions.

West Nile Virus was *our* recent plague. In 2006 it caused 23 deaths and over 1000 clinical cases in Idaho. This outbreak was serious, but in the1800's it would have been worse. West Nile will cause future harm, but not on the scale of historic Yellow Fever epidemics. In the future, the general population will gradually become less susceptible as exposure leads to immunity. "Herd immunity," as the proportion of the immune population increases, will limit the impact. Reasons why our epidemic was not as deadly as it would have been in the past bear comparison:

1) Screens on windows barricade sleepers from hungry mosquitoes. Screens automatically reduce the intensity of attack and the probability of disease spread. Without screens in the 1800's, mosquitoes were fact-of-life nuisances. They were not understood to be associated with disease.

2) Settlements in the 1800's had no storm water drainage, nor sewage treatment, nor garbage removal. These conditions permitted mosquitoes to breed in great numbers close to humans. It is relevant to note that the first sanitary sewer system in the U.S. was designed by George Waring for Memphis in 1879 "to clean up the foul, disease-ridden city." The system improved public health on many fronts, and would have reduced mosquito populations as well.

3) Knowledge has an immeasurable impact in disease prevention. In 1878, the cause of Yellow Fever, its means of transmisssion, and effective clinical management of the disease were unknown. Fear of contagion kept many victims from receiving any treatment. Now we have a Yellow Fever vaccine. We have a sophisticated health care system. Ironically, victims now are likely to be overly confident in the power of physicians, and not recognize the serious reality of the disease.

4) News media inform of the probability of an epidemic, and monitor its course. They describe signs and symptoms of the disease so people can promptly seek medical attention. Dr. Dan Wingard, a retired Caldwell physician, deserves a good deal of credit for lobbying Idaho news media and authorities about the potential impact of West Nile Virus before it arrived here.

5) Current pest control technology and abatement strategies are sophisticated. Knowledge of mosquito biology, and of which species are competent disease vectors, increases the potential of control efforts to disrupt the transmission of arboviruses. We know which larval species to target for control. In the 1950's, insecticide fogging to control adults utilized powerful insecticides that disrupted mosquito vectored diseases. Presently we restrict our use of this control technique, but a major epidemic could justify its return. Contrast this to the indifference to mosquitoes in 1878, when the nicotine in cigar smoke was the only "insecticidal fog" protection. The potential for disease transmission now, and then, differs dramatically.

It is not realistic to assert that the 1878 epidemic is a model for the potential impact of a new Yellow Fever epidemic in the U.S. I suspect that exaggerating the potential for a 1878-style epidemic may generate as

much skepticism as support for vector control. The actual impact of West Nile Virus provides a more realistic model of a future Yellow Fever epidemic. It illustrates the serious impact of a deadly arbovirus in spite of our present technological sophistication. The epidemic could have been much worse. It should have been less severe. There should be broad support by government officials and the general public for vector mosquito control, as well as for research funding. Public safety requires this. Entomologists should be involved in this and support these efforts. James K. Ryan, PhD

---------- O.J. SMITH ----------

MUSEUM OF NATURAL HISTORY NOTES (ALBERTSON COLLEGE OF IDAHO)

Museum ☎: (208) 459-5507, bclark@albertson.edu. http://www.albertson.edu/campus/community/museum

**** MUSEUM MAILING LIST**

To get on the Museum's mailing list contact Bill Clark at clarkfam1@mindspring.com

**** MUSEUM MONTHLY VOLUNTEER WORKDAYS**

For the Workday Schedule see the Museum Event Web Page: http://www.albertson.edu/campus/community/museum/event.htm

The Museum is open all day on Workday Saturdays, 8 AM until late afternoon. Enter via west basement door. We have a variety of Museum tasks that need volunteer assistance. We currently need someone to construct wooden bases for displays. We have tasks for students and non-students alike. We need volunteers to assume a variety of Museum duties and responsibilities. We have the following needs: Plywood, particle board, Masonite, 1x2" stock lumber, electrical fixtures, bookshelves for journals and funds for specific Museum projects.

We supply coffee and hot water for drinks as well as a taco lunch for volunteers. We usually have a brief research seminar at noon. The Museum collects aluminum for recycle. Please leave in Museum or contact Bill Clark (208-375-8605), John Keebaugh (208-459-5507), or Dr. Eric Yensen (208-459-5331).

Bill Clark

**** COMING 2006 LUNCH SEMINARS**

May	5	Mary Clark –"Travels in Ireland, Part 1"
June	2	Mary Clark –"Travels in Ireland, Part 2"
July	7	Dr. Paul Castrovillo – "Idaho's Most Distinctive Butterflies" and "Training for the Fourth of July Butterfly Count."
August	4	Elizabeth Dickey – "Bug Day Announcement" AND Gene M. Gray – "Vegetation and Sage Grouse in West Central Idaho."
September	8	Dr. James K. Ryan - "Ultrasonic Control of Pests."
October	6	Jan Summers Duffy - "Egyptian Archaeology."
November	3	Alan Gillogly - "Biology of Passalid Beetles."
December	1	Dr. David M. Ward, Jr. - "Baja California Travels and Entomology."

-------- SATURDAY NIGHT SURPRISE ------

It was a dark and stormy night...the phone rang, and it was Jerry Mills and Janet Miller. "Hey, Barb, are you going to be home? We want to bring you some bees!"

They arrived shortly with some Blue Orchard Bees and a host Binderboard drilled with holes for me to put in the back yard. "They like the sun to hit the house first thing in the morning so they can warm up," Jerry said as he was walking around the yard trying to find the perfect spot to place the bee cocoons. We picked a spot on a trellis. Janet and I picked out 25 male and 25 female cocoons to put in a tray just under the metal roof. (The male cocoons are smaller.) We dug a mud hole nearby, went in the house, and celebrated that hopefully I'd be able to have every one of those 49 holes filled and capped with mud by June!

Three days later, my grandson Duncan and I investigated the tray of cocoons; most have hatched, and the larger females were already actively filling the holes. The pink blossoms on the apple tree were abuzz with large greyish bees happily pollinating away.

We're hoping they'll continue to thrive in my back yard. I'll let you know how it's going. Here's some facts on the bees:

The Blue Orchard Bee, *Osmia lignaria* has been used successfully on a limited scale for pollination of almonds, apples, cherries, and prunes. It is available commercially from a small number of vendors, most in the Northwest and California. Most *Osmia* species nest in tunnels in wood, and can be enticed to nest in straws and artificial tunnels. They are docile, relatively easy to manage and may be suitable supplementary pollinators for fruit.

Karen Strickler's web site is an additional source of information on these bees and related species http://www.pollinatorparadise.com. Barb Alexander

---------- A CONTEST ? ----------

Here is something for the IEG News, maybe a contest? John Whitaker, Jr., a friend and colleague, just sent me these photos and he would like to know what the critter is. Here is what he describes in an email:

"And here is another question for you. A friend of mine is working on Cumberland Island, and found this on the ground on Wassaw Island (A barrier Island off the coast of Georgia). It was on the ground. With those huge claws I wondered about one of the parasitic flies, perhaps from a bird. It looks to me like it has tiny wings, or wing covers. Perhaps the wings are actually tiny, or perhaps they are just expanding. I have attached a photo of it."

Bill Clark

So how about it? Any ideas out there from you entomophiles?

---------- OF POTENTIAL INTEREST --------

CONNOTEA, A FREE ONLINE REFERENCE MANAGEMENT FOR CLINICIANS AND SCIENTISTS.

This one may be of interest not only to we entomologists, but to scientists in general: an on line resource-community for organizing and sharing literature. If you are interested the URL is http://www.connotea.org/.

PADI - PRESERVING ACCESS TO DIGITAL INFORMATION.

http://www.nla.gov.au/padi/index.html. A useful site for understanding issue surrounding digital information and information systems, including explanation of many of the acronyms (thesaurus topics) associated with the Age of the Web in which we live.

W.B. RICHFIELD.

IEG member W.B. Richfield is interested in the exchange of insect specimens. He would consider receiving "quality papered insect specimens", being "especially interested in obtaining pairs of uncommon and locally common selective USA rhopalocerans as well as selective heterocerans. Likewise, other insects, especially coleopterans, e.g. lucanids, buprestids, cicindelids, paired coccinellids, etc." He also has some holdings in literature of various groups. If you are interested in exchanging materials, contact Wayne at:

Wayne Richfield
PO Box 1066
Goleta, CA 93116-1066

Send a list of any materials you might offer in exchange and taxa that your are seeking.

- PUBLICATIONS BY FORMER MEMBERS

Furniss, M.M. and Kegley, S.J. 2006. Observations on the biology of *Dryocoetes betulae* (Coleoptera: Curculionidae) in Paper Birch in northern Idaho. Environmental Entomology-Environ. Entomol. 35.4:907-911.

---------- QUIZ-ZY BEE ----------

Abstracted from a piece by Susan Clark in the Oregon Tilth, which she'd lifted from the February 2007 issue of USDA's Agroforestry.

Here is a quiz you can take to see how much you know about the world of bees. Have fun with it. You can be the quiz mater and query a parent or family member. In the process you can all learn more about becoming more 'bee friendly'.

1) True or False. Most native bees are active only for a few weeks in the year.

2) True or False. Honey bees were brought to the U.S. from Europe in the 1600s.

3) True or False. There are many other kinds of bees that are native to the U.S.

4) Native bees can nest in:
   a) tunnels in wood
   b) old mouse nests
   c) hollow plant stems
   d) straws
   e) all of the above

5) How many kinds (species) of native bees do you think there are in the U.S.?
   a) 400
   b) 4,000
   c) 40

6) True or False. Most native bees are active only for a few weeks in the year.

7) Bumble bees:
   a) are very good pollinators
   b) are social bees with a queen
   c) live under ground in colonies
   d) need flowers for food
   e) all of the above

8) Which of the following will harm native bees (pick 2)?
   a) using insectcides
   b) tilling or mowing from fence to fence
   c) leaving dead branches on the ground
   d) leaving wet clay available
   e) planting many kinds of native plants

Answers: 1. False. **2.** True. **3.** True. **4.** E-all of the above. **5.** B-4,000 species. **6.** True. The rest of the year they spend in their tunnels or nest. **7.** E-all of the above. **8.** A and B are harmful. C, D, and E are helpful to native bees.

---------- WHO'S WHO CONTEST 3 ---------

OK, Barb Merrill wins on this one, she correctly identified: 1) Bob Chehey, 2) Chuck Baker, 3) Bill Clark, 4) George Stephens. She did NOT however earn the Extra Gold Star for guessing the event. This was a photo of the 1st 4th of July butterfly count, Mores Mtn., 1991. Barb will get a special treat from the OJS Museum of Natural History Gift Shop for recognizing these statesmen of the IEG !!

This year's Count for the Boise folk is 8 July. Mark your calendars and plan to attend the 7 July training session!

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