



Polly Graham, Editor

Newsletter

Vol. 15, Numbers 12
December 2008

MESSAGE FROM MAIN OFFICE

Greetings from the front office,

Congratulations to all for the splendid performances at ESA in Reno.

Congratulations to **Parwinder**, winner of the Entomological Foundation Recognition Award in Urban Entomology. Kudos to **Nicky Gallagher**, this fall's winner of the Delong award. Remember, we will have a second competition in spring thanks to the generosity of the Delong family and a recent increase in the bequest they have made in support of the Delong Fund.



Please look forward to reading the Buckeye Newsletter in December. If you'd like to submit something to be included, now is a good time to get it to Polly or Susan or Sara Gallaugher.

Here's hoping that your quarter ends smoothly and please keep our dear friend Dana Wrench in mind. She's still a bit under the weather and could use your thoughts and prayers.

Best,
Susan



CALENDAR

- | | |
|---|-------------------------------------|
| <u>December 4th</u> | Faculty Meeting Cancelled |
| <u>December 11th</u> | Holiday Party (more details soon) |
| <u>December 14th</u> | Autumn Quarter Commencement |
| <u>December 25th & 26th</u> | Holiday Season - OSU offices closed |

PRESENTATIONS

Acosta, N.M., Cañas, L.A. and Medina-Ortega, K.J. "Biological control and plant resistance: Key tactics for sustainable insect management in greenhouses." Management in Greenhouses Symposium. Entomological Society of America Annual Meeting. Reno, NV. November 16, 2008.

Bryant, J.L., Lanno, R.P. "Ecological impact of lead on Ground Beetle (Coleoptera: Carabidae) assemblages at a shooting range in Central Ohio." SETAC 29th Annual Meeting, Tampa Bay, FL, Nov. 16-20, 2008.

Batallas-Huacón, R. Cañas, L.A., Kuniyoshi, C.H., and Medina-Ortega, K.J. "Development of a novel nematode release system for preventive management of the fungus gnat *Bradysia impatiens* in ornamentals." 2008 International Scholar Research Exposition. Ohio State University. Columbus, OH. Nov. 3, 2008.

Cañas, L.A. "General insect diagnostic techniques: insect characteristics, web tools and key characteristics needed for remote identification." Pest and Disease Diagnostics for International Trade and Food Security An International Short Course. Wooster, OH. September 11, 2008.

Cañas, L.A. "Case study: insect group Hemiptera: Homoptera." Pest and Disease Diagnostics for International Trade and Food Security An International Short Course. Wooster, OH. September 17, 2008.

Cañas, L.A. and Acosta, N.M. "Case study: insect group Lepidoptera: Pyralidae and Noctuidae." Pest and Disease Diagnostics for International Trade and Food Security An International Short Course. Wooster, OH. September 19, 2008.

Cañas, L.A. and Acosta, N.M. "Case study: insect group Thysanoptera: Thripidae and Diptera: Tephritidae, Agromyzidae." Pest and Disease Diagnostics for International Trade and Food Security An International Short Course. Wooster, OH. September 19, 2008.

Cañas, L.A. "Using chemicals compatible with beneficials in conservatories and small production greenhouses." Association of Zoological Horticulture: Zoo Horticultural Certification IPM Program 2008. Cleveland, OH. September 30, 2008.

Cañas, L.A. "IPM Trends for the Near Future: Potential Pests and Their Management." Association of Zoological Horticulture Program 2008. Cleveland, OH. October 2, 2008.

Cañas, L.A. "Best management practices to manage insects in greenhouses: can sustainability be achieved?" Greenhouse IPM Program. Oklahoma State University. Stillwater, OK. Nov. 4, 2008.

Cañas, L.A. "Taking an ecological approach to improve pest management in controlled environments." Entomology and Plant Pathology Seminar Series. Oklahoma State University. Stillwater, OK. November 4, 2008.

Cañas, L.A. "Latin American Connections: Don Bob O'Neil and his impact on establishing lasting international collaborations. A celebration of the career and contributions of Robert J. O'Neil." Entomological Society of America Annual Meeting. Reno, NV. November 18, 2008.

- Cañas, L.A. "How to improve the activity of biological control agents in an IPM Program (in Spanish)." Biological control in greenhouses symposium. XXXI National Biological Control Congress. Zacatecas, Mexico. November 21, 2008.
- Cañas, L.A., Naranjo, S. Ellsworth, P. "New advances in the use of biological control agents in arid lands (in Spanish)." Keynote Address. XXXI National Biological Control Congress. Zacatecas, Mexico. November 21, 2008.
- Chiriboga, A., D.A. Herms and R. N. Royalty. "Effects of imidacloprid (Merit® 2F) on physiology of woody plants and performance of twospotted spider mite, fall webworm, and imported willow leaf beetle." 56th Annual Meeting of the Entomological Society of America. Reno, NV. Nov. 16-19, 2008.
- Chordbadjian, R., D.A. Herms, and P.L. Phelan. 2008. "Host phenological changes in foliar nutrients and chemical defenses constrain the performance of European pine sawfly larvae." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.
- Chiriboga, A. "Physiological response of woody plants to imidacloprid formulations." M.S. Defense Seminar. Wooster, OH. November 26, 2008.
- Denlinger, D. L. "Why study diapause? Symposium at Entomological Society of America, Reno, NV, Nov. 18, 2008.
- Ebrahimi, B., Shakibi, S. and Forster W.A. "Water agitation: A stimulus for egg hatching of *Anopheles gambiae*." ESA meeting. Reno, NV. November 17, 2008.
- Florence, D., H. Yang, P. S. Grewal, E. L. McCoy, J. Cardina, and W. A. Dick. "Movement of Nitrogen and Phosphorus through a B i - p h a s i c R a i n G a r d e n E c o s y s t e m" GSA-SSSA-ASA-CSSA-GCAGS International Joint Annual Meeting, Huston, TX Oct.5-9th, 2008.
- Font, A., and D.A. Herms. "Degree-day models for 43 pests of ornamental plants: comparing the accuracy of phenological predictions based on a generalized model, optimized models, and calendar days." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.
- Gallagher, N.T. and S.C. Jones. "Termite cooperation to alter moisture content of food items." Entomological Society of America Annual Meeting, 16-19 November 2008, Reno, NV.
- Gandhi, K.J.K., K.S. Knight, and D.A. Herms. "Dynamics of course woody debris in emerald ash borer-infested forest stands." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.
- Garcia, J. C., Bucheli, S. R., and Wenzel, J. W. "Addition of 16S ribosomal RNA to an existing molecular data set to help determine higher level relationships within Gelechioidea (Lepidoptera)." Entomological Society of America. Reno, NV. November 17, 2008.
- Grewal, P. S. "Ecological lawn care: Understanding and manipulating ecological interactions." Crystal Ball Meeting, Professional Landcare Network (PLANET), San Diego, CA. November 12-15, 2008.
- Grewal, P. S. "Developing and implementing integrated pest management in commercial lawn care." Entomological Society of America, Reno, NV. November 15-19, 2008.
- Grewal, P. S. "Expressed genome of the first entomopathogenic nematode." Departmental Seminar, Wooster Area Molecular Biologists Association (WAMA), October 24, 2008.
- Grewal, P. S. "How do nematodes and bacteria gang-up on insects?" Departmental Seminar, Department of Entomology, University of Georgia, Athens, GA, September 15, 2008.
- Harmon, C. and Cañas, L.A. "Distance Diagnostics through Digital Imaging." Pest and Disease Diagnostics for International Trade and Food Security An International Short Course. Wooster, OH. September 8, 2008.
- Herms, D.A. "Nitrogen and the ecology of plant defense." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.
- Horn, D. J. "Preparation of bird specimens workshop." Ohio Young Birders. Columbus, OH. 15 Nov. 2008.
- Hoy, C. W. "Social Networks for Local Food Collaborations." Panel Discussion. Northeast Ohio Food Congress. November 8, 2008.
- Hoy, C. W. "Ohio Farms, Ohio Food, and the Buckeye Tiger Economy." Ohio Legislative Service Commission Orientation for New Legislators, November 18, 2008.
- Hurdzan, C., Lanno, R.P. "Toxicity of chlorinated benzene mixtures to earthworms: Application of body residues and solid phase microextraction." SETAC 29th Annual Meeting, Tampa Bay, FL, Nov. 16-20.
- Johnson, N.F. "Questioning the current approach to publication: an entomologist's perspective." SEB Symposium: Beyond Paper: Diversity, Importance and Validation of Non-traditional Web-based Scientific Publication. Entomological Society of America Annual Meeting. Reno, NV. 19 November 2008.
- Johnson, N.F., L. Musetti, M.J. Yoder, A.A. Valerio, and E. Talamas. "Systematics of world species of the genus *Scelio* (Hymenoptera: Platygasteridae), egg parasitoids of Acrididae (Orthoptera)." Poster presentation. Entomological Society of America Annual Meeting. Reno, NV. 19 November 2008.
- Jones, S.C. "Research insights on termite management." University of Kentucky Annual Pest Control Short Course, 10-12 November 2008.
- Jones, S.C. "Bed bug biology and control." State Fire Marshall's Office In-Service Training, Reynoldsburg, OH, 24 Nov. 2008.
- Klumpen, H. "Ontogeny in Opilioacaridae, with notes on segmental structure in Parasitiformes." ESA Meeting, Reno, Nov. 16, 2008.
- Lanno, R.P. "Understanding bioavailability in ecotoxicology."

Biology Evening Colloquium, Heidelberg College, Tiffin, OH, November 13, 2008.

Luque, G., Wenzel, J. W. and DeVries, P. "Measuring temporal and spatial dynamics in tropical butterfly communities." Entomological Society of America. Reno, NV. Nov. 16, 2008.

Medina-Ortega, K.J. and Cañas, L.A. "Mechanisms of resistance of poinsettias to the silverleaf whitefly." Poster presented at the PhD President Prize Student Competition. Entomological Society of America Annual Meeting. Reno, NV. November 17, 2008.

Meuti, M.E., S.C. Jones, and P.S. Curtis. "The effects of dietary nitrogen on symbiotic nitrogen fixation in the eastern subterranean termite, *Reticulitermes flavipes* (Isoptera: Rhinotermitidae)." Entomological Society of America Annual Meeting, 16-19 November 2008, Reno, NV.

Morris, E.E. and Grewal, P.S. "Lure and kill: A novel approach to controlling the Japanese beetle (*Popillia japonica*)." Entomological Society of America Annual Meeting, Student Competition for the President's Prize, Section IPMIS2. Integrative Physiological and Molecular Insect Systems (2nd place). Reno, NV. Nov. 17, 2008.

Muilenburg, V., W.J. Mattson, and D.A. Herms. "Effects of elevated CO₂ and O₃ on paper birch resistance to bronze birch borer." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.

Musetti, L. and N.F. Johnson. "Revision of the species of the Neotropical genus *Pseudoheptascelio* Szabó (Hymenoptera: Platygasteridae), parasitoids of eggs of Acrididae (Orthoptera)." Poster presentation. Entomological Society of America Annual Meeting. Reno, NV. 19 November 2008.

Mynhardt, G. "What's in a genus? Phylogeny of *Cremastocheilus* Knoch (Coleoptera: Scarabaeidae) based on morphology." Entomological Society of America Annual Meeting. Reno, NV. November 16, 2008.

Mynhardt, G. "Phylogeny of *Cremastocheilus*: Musings on Morphology and Myrmecophily." SOLA Symposium, Entomological Society of America Annual Meeting. Reno, NV. November 15, 2008.

Noll, F. and Wenzel, J. W. "Caste in the swarming wasps: Queenless societies in highly social insects." Entomological Society of America. Reno, NV. November 19, 2008.

Ranger, C.M., M. Reding, D.A. Herms, and A. Persad. "Ability of plant stress volatiles to trigger attacks by the nursery-infesting black stem borer, *Xylosandrus germanus*." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.

Ranger, C.M., Cañas, L.A. and Derksen, R. Can pesticides play a role in sustainable insect management in greenhouses? Management in Greenhouses Symposium. Entomological Society of America Annual Meeting. Reno, NV. November 16, 2008.

Simini, M., Checkai, R.T., Phillips, C.T., Kuperman, R.G., Kolakowski, J.E., Kurnas, C.W., Lanno, R.P. "Toxicity of RDX to plants in natural soils with contrasting physico-chemical properties."

SETAC 29th Annual Meeting, Tampa Bay, FL, Nov. 16-20.

Park, S., B.B. McSpadden Gardener, and P.S. Grewal. "Exploring Urban Soil Ecology: Influence of the Length of Urbanization Period on Soil Chemical Properties and Nematode Community" GSA-SSSA-ASA-CSSA-GCAGS International Joint Annual Meeting, Houston, TX Oct.5-9th, 2008.

Sutherland, M., Lanno, R.P. "Population and community structure of Ground Beetles (Coleoptera: Carabidae) at a former aluminum processing center." Entomological Society of America Annual Meeting, Reno, NV, Nov. 16-20.

Taekul, C. and N.F. Johnson. "The species of the Old World genus *Platyscelio* Kieffer (Hymenoptera: Platygasteridae)." Poster presentation. Entomological Society of America Annual Meeting. Reno, NV. 19 Nov. 2008.

Talamas, E. and N.F. Johnson. "A Madagascan explosion of species: The genus *Trichoteleia* (Hymenoptera: Platygasteridae)." Entomological Society of America Annual Meeting. Reno, NV. November 17, 2008.

Uppstrom K.A. and Klompen, H. "What's in an ant's carry-on? Mites associated with ants of Ohio." Acarological Society of America Advances in Acarology Symposium. Reno, NV. November 16, 2008.

Valerio, A.A., A. Austin and L. Masner. "Aracnophilia... the *Cyphacolus* Priesner (Scelionida: Baeini): Review of the Afro-Oriental-Australasian species." Poster. Entomological Society of America Annual Meeting. Reno, NV. November 19, 2008.

Whitehill, J., D.A. Herms, and P. Bonello. "Constitutive phloem proteins, phenolics, and lignin in ash species resistant and susceptible to emerald ash borer (*Agrilus planipennis*)." Entomological Society of America Annual Meeting. Reno, NV. 16-19 November 2008.

Yang, H., E.L. McCoy, P.S. Grewal, and W.A. Dick. "Bi-phasic Rain Garden Design for Urban/Suburban Storm Water Runoff Management" GSA-SSSA-ASA-CSSA-GCAGS International Joint Annual Meeting, Huston, TX. October 5-9th, 2008.

Yu, S., Anderson, H., Basta, N, Lanno, R.P. "The effect of soil properties on metal bioavailability to earthworms: Validation of laboratory models using metal-contaminated field soils." SETAC 29th Annual Meeting, Tampa Bay, FL, November 16-20.

Yu, S., Anderson, H., Basta, N, Lanno, R.P. "Factors affecting the bioaccumulation factor (BAF) for cadmium by earthworms: A literature review." SETAC 29th Annual Meeting, Tampa Bay, FL, November 16-20.

PUBLICATIONS

Alumai, A., Salminen, S. O., Richmond, D. S., Cardina, J. and Grewal, P. S. 2008. Aesthetic, biological, and economic evaluation of five lawn management programs: A three year replicated lawn plot study. ***TurfNews, November-December 2008, 70, 36-38.***

Barto, K., S. Enright, A. Eyles, C. Wallis, R. Chordbadjian, R. Hansen, D.A. Herms, P. Bonello, and D. Cipollini. 2008. Effects of fertilization and fungal and insect attack on systemic protein defenses of Austrian pine. **Journal of Chemical Ecology** **34:1392-1400**.

Benoit, J.B., G. Lopez-Martinez, S.A. Philips, M.A. Elnitsky, J.A. Yoder, R.E. Lee, Jr. and D.L. Denlinger (2008). The seabird tick *Ixodes uriae*, uses uric acid in penguin guano as a kairomone and guanine in tick feces as an assembly pheromone on the Antarctic Peninsula. **Polar Biology** **31:1445-1451**.

Cheng, Z., Richmond, D. S., Salminen, S. O. and Grewal, P. S. 2008. Effectiveness of professional and do-it-yourself (DIY) approaches to lawn care: A survey of home lawns. **TurfNews, September 2008, 1-2**.

Derksen, R.C., H. Zhu, H.E. Ozkan, R.B. Hammond, A.E. Dorrance, and A.L. Spongberg. 2008. Determining the influence of spray quality, nozzle type, spray volume, and air-assisted application strategies on deposition of pesticides in soybean canopy. **Transactions of the ASABE**. **51(5): 1529-1537**.

DiFonzo, C.D., and R. Hammond. 2008. Range expansion of western bean cutworm, *Striacosta albicosta* (Noctuidae), into Michigan and Ohio. Online. Crop Management doi: 10.1094/CM-2008-05XX-01-BR.

Eisley, J.B., and R. B. Hammond. 2008. Seedcorn maggot control in corn, 2007. **Arthropod Management Tests 2007. 33: F17**.

Eisley, J.B., and R.B. Hammond. 2008. Corn Rootworm Larval Control in Corn, 2007. **Arthropod Management Tests 2007. 33: F19**.

Eisley, J.B., and R.B. Hammond. 2008. Corn Rootworm Larval Control with Soil Insecticides, 2007. **Arthropod Management Tests 2007. 33: F22**.

Gavino, A.C., G.R. Needham and W.A. High. Atopic dermatitis, patch testing and house dust mites: a brief review. **Dermatitis** **19:121-128**.

Grewal, P.S. & Kaya, H.K. 2008. "History of the development of nematodes as biocontrol agents." *In: An Anecdotal History of Nematology* (J.M. Webster, K.B. Eriksson & D.G. McNamara, Eds.), Pensoft Publishers, Sofia-Moscow, pp 246-257.

Hammond, R., A. Michel, and B. Eisley. 2008. Ohio 2008 Soybean Aphid Summary, 2009 Prediction Not Clear. Crop Observation and Recommendation Network (C.O.R.N.). 2008-39, November 18-December 2, 2008.

Hammond, R.B. 2008. Seed Treatments in Soybean, 2007. **Arthropod Management Tests 2007. 33: F20**.

Herms, D.A. 2008. "Case study 2: emerald ash borer." *In: P.N. Windle, R.H. Kranz, and M. La, eds. Invasive Species in Ohio: Pathways, Policies, and Costs*, pp. 36-37. Union of Concerned Scientists Publications, Cambridge, MA. 98 pp.



Herms, D.A. 2008. Understanding the biology and management of native flatheaded wood-borers. **The Buckeye Arborist** **39(6):13-15**.

Horn, D.J. 2008. "IPM as applied ecology: the biological precepts." *In: Integrated Pest Management - Concepts, Tactics, Strategies and Case Studies*. E.B. Radcliffe, W.D. Hutchison and R.E. Cancelado, eds. Cambridge University Press, Cambridge, UK. pp. 51-62.

Lightle, D.M., K.J.K. Gandhi, A.I. Cognato, B.J. Mosley, D.G. Nielsen, and D.A. Herms. 2008. New records of exotic and native ambrosia and bark beetle species (Coleoptera: Curculionidae: Scolytinae) from Ohio. **Great Lakes Entomologist** **40:194-200**.

Lopez-Martinez, G. and Denlinger, D.L. 2008. Regulation of heat shock proteins in the apple maggot *Rhagoletis pomonella* during hot summer days and overwintering diapause. **Physiological Entomology** **33:346-352**.

Mian, R., R. B. Hammond, and S. St. Martin. 2008. New Plant Introductions with Resistance to the Soybean Aphid. **Crop Sci.** **48(3): 1055-1061**.

Shapiro-Illan, D. I. & Grewal, P. S. 2008. "Entomopathogenic nematodes." *In: Encyclopedia of Entomology* (J. Capinera, Ed.), Second Edition, Springer Science, Leipzig, Germany, pp. 1336-1340.

Zhiqiang Cheng, Edward, McCoy, David Gardener, and Grewal, P. S. 2008. Nutrient run-off from lawns established on subsoil or topsoil: A preliminary report. **OLCA Newsletter, 9(2), 15-19**.

GRANTS

Norman Johnson. "Increasing efficiency of space utilization for the Triplehorn Insect Collection (OSUC)", 2008-2010. \$415,551.

MISCELLANEOUS

Kaitlin Uppstrom won the *Outstanding Student Presentation Award* for the Acarological Society of America annual meeting!

Alejandro Chiriboga successfully defended his M.S. thesis on November 26. Alejandro also won Second Place in the President's Prize Competition at the Entomological Society of America annual meeting.

Klompen, H. Organizer of Acarological Society of America symposium "Ecology of Soil Mites", Entomological Society of America Meeting, Reno, Nov. 16, 2008

Farewell to Dr. Kofi Afun who has been visiting for 3 months from Kwame Nkrumah University of Science and Technology in Kumasi, Ghana, as part of a faculty exchange program sponsored by USDA. While here, he attended a phyto-sanitary training program in Wooster in August and September, and worked with Luis Canas and Celeste Welty on developing distance education courses in pest management.

Celeste Welty attended the Rynaxypyr International Pome Fruit Symposium in Bolzano, Italy, on Nov 4-6.

Please congratulate Ronal Battallas-Huacón a visiting scholar working with Dr. Luis Cañas and based at Wooster. Ronald's work on developing a novel nematode release system for management of fungus gnats was selected for the 2008 International Scholar Research Exposition. His research posters will be displayed in the exposition from November 3 through December 31, 2008, outside President Gee's office, near the Office of the Vice President of Research, on the second floor of Bricker Hall.

Parwinder Grewal received the Entomological Foundation Recognition Award in Urban Entomology, Entomological Society of America in Reno Nevada on November 16, 2008.

Parwinder Grewal was invited as an expert to participate in the Crystal Ball Meeting on Sustainability organized by the Professional Landcare Network (PLANET), San Diego, California, November 12-15, 2008.

Hanbae Yang (Ph.D. Candidate in Environmental Sciences with Dr. Parwinder Grewal) received OSU Alumni Grant for Graduate Research and Scholarship (AGGRS), \$1,970 for his research on "Development and Evaluation of New Bi-phasic Rain Garden; Bioretention Systems for Storm Water Management."

Hanbae Yang (Ph.D. candidate in Environmental Sciences with Parwinder Grewal) won First Place Poster Award in Graduate Student Competition Environmental Quality Division (A-5) at the GSA-SSSA-ASA-CSSA-GCAGS International Joint Annual Meeting in Houston, TX, Oct.5-9th, 2008 for his paper:

Hanbae Yang, Edward L. McCoy, Parwinder S. Grewal, and Warren A. Dick. "Biphasic Rain Garden Design for Urban/suburban Storm Water Runoff Management".

Erin Morris (M.S. student with Parwinder Grewal) won 2nd place in the Student Competition for the President's Prize, Section IPMIS2 (Integrative Physiological and Molecular Insect Systems) at the Entomological Society of America Annual Meeting in Reno, NV, November 15-19, 2008 for her paper:

Morris, E. E. and Grewal, P. S. "Lure and kill: A novel approach to controlling the Japanese beetle (*Popillia japonica*)".

Megan E. Meuti was awarded 1st place in the Student Competition for the President's Prize, SVPHS: Structural Entomology. 2008 Entomological Society of America Annual Meeting, 17 November 2008, Reno, NV.

Nicky Gallagher was awarded 2nd place in the Student Competition for the President's Prize, SVPHS: Structural Entomology. 2008 Entomological Society of America Annual Meeting, 17 November 2008, Reno, NV.

Elijah Talamas' photographs of the genus *Oreiselio* are being displayed at the art show "Darwin's Bicentennial: Art, Science and the Origin of Species". The other art pieces include paintings, sculpture and video, all of which relate to or comment on Darwin's idea of evolution. The shows runs from November 12 to December 4 at the Hopkins Hall Gallery.

Following the meeting of the Entomological Society of America in Reno, Dr. Andy Austin has been visiting Norman Johnson's lab at Ohio State. This has been a great opportunity for all of us to compare notes on progress of the Platy PBI, to push forward taxonomic and molecular projects, and to develop plans for the next 12 months.

John Wenzel was invited as Visiting Professor Fellow to UNESP, Sao Jose do Rio Preto, SP, Brazil, from Oct 23 to Nov 13, 2008. He ran a one week workshop on phylogenetic methods attended by 20 graduate students and two Professors.

John Wenzel was elected President of the North American Section of the International Union for the Study of Social Insects.



Morpho icons by Adrian Melsha. Free for non-commercial use.

The **Newsletter** is a monthly publication of the of the *Department of Entomology, The Ohio State University*. All in the Department are encouraged to submit news, current happenings, achievements, images and important deadlines related to the OSU Entomology faculty, staff and students.

Send material for next month's **Newsletter** to Polly Graham.

Newsletter design: L. Musetti (2007-2008)