Mid-Atlantic Ecology Conference

Sustainable Landscapes

March 27th – 28th, 2004
Franklin and Marshall College, Lancaster, Pennsylvania

Program

MEETING SCHEDULE

Saturday March 27, 2004

8:30 - 9:30	Registration	*Steinman Center - West entrance*
	Poster set-up (complete by 11)	*Steinman Center – Atrium and balcony*
	Refreshments	*Steinman Center - Upstairs alcoves*
9:30 - 10:30	Introduction/Welcome	*Steinman Center - Booth Ferris*
	Plenary talk by Larry Coffman *Associate Director, Prince George's County, MD, Dept. of Environmental Resources* "Low impact development technology: An ecosystem based approach to protecting and restoring our receiving water"	
10:30 - 11:00	Break	*Steinman Center - Atrium, etc.*
11:00 - 12:00	Oral Presentation session #1	*Steinman Center - Booth Ferris North*
	Oral Presentation session #2	*Steinman Center - Booth Ferris South*
12:00 - 1:00	Lunch (box lunch provided)	*Steinman Center - Buchanan room*
12:30 - 2:00	Career Panel	*Steinman Center - Booth Ferris North*
	Poster display (without authors)	*Steinman Center – Atrium & balcony*
2:00 - 3:45	Oral Presentation session #3	*Steinman Center - Booth Ferris North*
	Oral Presentation session #4	*Steinman Center - Booth Ferris South*
3:45 – 4:15	Break	*Steinman Center - Upstairs alcoves*
4:00 - 5:00	Poster sessions #1 - #8 (with authors)	*Steinman Center – Atrium and balcony*
5:00 – 5:30	Poster break-down	
5:30 - 7:30	Dinner (buffet banquet provided)	*Ben Franklin - Dining Room 4*
	Keynote address by Rich Pouyat *President of Mid-Atlantic Chapter of ESA and Forest Ecologist, USDA Forest Service* "Integrating science and policy: What we can do"	
8:00 – 9:00	Mid-Atlantic chapter business meeting	*Steinman Center - Armstrong room*

Sunday March 28, 2004

8:30 – 3:00 Field trip to Middle Creek Wildlife Preserve (box lunch provided)
meet in Williamson parking lot

SCHEDULE OF SESSIONS

Plenary Talk *(9:30 am, Booth Ferris)*

1 9:30 **Low impact development technology: An ecosystem based approach to protecting and restoring our receiving water**
COFFMAN, L. *Associate Director, Prince George's County, MD, Dept. of Environmental Resources* 9400 Peppercorn Place, Suite 500, Largo, Maryland 20774 USA

Oral session #1 Human Dominated Systems *(11:00 am - 12:00 pm Booth Ferris North)*

2 11:00 **The effect of urban land use on stream temperature regimes in the Gwynns Falls and Jennifer Branch (Cub Hill) watersheds**
BELT, K., G. HEISLER, J. STUBBS, and L. OLSZEWSKI. Center for Urban Environmental Research and Education, University of Maryland, Baltimore County; 1000 Hilltop Circle, TRC Room 102; Baltimore, MD 21250 USA

3 11:15 **The heterogeneity of soil characteristics in a residential neighborhood: Cub Hill a case study**
YESILONIS, I., J. RUSSELL-ANELLI, and R.V. POUYAT. Center for Urban Environmental Research and Education; University of Maryland, Baltimore County; 1000 Hilltop Circle, TRC Room 102; Baltimore, MD 21250 USA

4 11:30 **The USDA-ARS Farming Systems Project: Evaluating the sustainability of organic and conventional cropping systems in the Mid-Atlantic region**
CAVIGELLI, M. A. [1], J. R. TEASDALE[1], K. SZLAVECZ[2], K. NICHOLS[3], and V. S. GREEN[1].
[1] USDA-ARS, Sustainable Agricultural Systems Laboratory (SASL), BARC-West, Bldg 001, Rm 140, 10300 Baltimore Ave., Beltsville, MD 20705 USA
[2] Department of Earth and Planetary Sciences, The Johns Hopkins University, Baltimore, MD 21218
[3] USDA-ARS, Northern Great Plains Research Lab, Mandan, 58554 ND USA

Oral session #2 Plants and Plant-Animal Interactions *(11:00 - 12:00 Booth Ferris South)*

5 11:00 **A field test of the Reproductive Assurance Hypothesis: Pollinator failure in populations of *Collinsia verna* (Scrophulariaceae) results in adaptive mixed mating**
VOGLER, D. W.[1], S. KALISZ[2] and K. HANLEY[2]
[1] Biology, Science Bldg 1 116, SUNY College at Oneonta, Oneonta NY 13820 USA
[2] University of Pittsburgh, Department of Biological Sciences, 4249 Fifth Avenue, Pittsburgh, PA 15260 USA

6 11:15 **Phenotypic plasticity in outbred and selfed *Mimulus ringens* under soil moisture stress**
RIES, L. P., D. E. CARR. Department of Environmental Sciences, University of Virginia, Charlottesville, Virginia 22903 USA

7 11:30 **Small-scale resource movement by animal consumers**
LEE, P.-J., M. A. BOWERS, and S. A. MACKO. University of Virginia, Charlottesville, Virginia 22903 USA

8 11:45 **Butter-butts and candle berries: a case of reciprocal specialization**
LOWE, E. G. Department of Biology, University of Maryland, College Park, MD 20742 USA

Oral session #3 Aquatic and Wetland Ecology *(2:00 pm - 3:45 pm Booth Ferris North)*

9 2:00 **Marine animals that secrete high-Mg calcite in modern seas produce low-Mg calcite in seawater of Mid-Cretaceous composition**
RIES, J. B. Morton K. Blaustein Department of Earth and Planetary Sciences, Johns Hopkins University, Baltimore, MD 21218 USA

10 2:15 **Nutrient effects on phytoplankton and metaphyton in shallow ponds**
FAIRCHILD, G. W.[1], J. N. ANDERSON[1] and D. J. VELINSKY[2]
[1] Department of Biology, West Chester University, West Chester, PA 19383 USA
[2] Patrick Center, Academy of Natural Sciences of Philadelphia, 19th and the Parkway, Philadelphia, PA 19103 USA

11 2:30 **Sediment nutrient accumulation and nutrient availability in two tidal freshwater marshes along the Mattaponi River, Virginia, USA**
MORSE, J. L. [1, 2], J. P. MEGONIGAL[3] and M. R. WALBRIDGE[4]
[1] Environmental Science and Policy Department, George Mason University, 4400 University Drive, Fairfax, VA 22030 USA
[2] Present address: Entomology Department, University of Maryland, 4176 Plant Sciences Bldg, College Park, MD 20742 USA
[3] Smithsonian Environmental Research Center, PO Box 28, 647 Contees Wharf Rd, Edgewater, MD 21037 USA
[4] Department of Biology, PO Box 6057,West Virginia University, Morgantown, WV 26506-6057, USA

12 2:45 **Turtles versus Ducks: Effects of a wetlands drawdown on aquatic turtles**
WALTHER T. R., R. A. SEIGEL, and R. WOODS. Department of Biological Sciences, Smith Hall, Towson University, 8000 York Road, Towson, MD 21252-0001 USA

13 3:00 **Spotted Turtle (*Clemmys guttata*) movement and habitat use in a heavily managed area of Michaux State Forest, Pennsylvania**
LIBRANDI MUMMA, T. and T. MARET. Department of Biology, Shippensburg University, Shippensburg, PA 17257 USA

14 3:15 **The effects of size variation on ecological interactions in larval *Ambystoma*: Implications for community structure**
MOTT, C. L. and T. MARET. Department of Biology, Shippensburg University, Shippensburg, PA 17257 USA

Oral session #4 Forest Ecology, Change and Management *(2:00 pm - 3:45 pm Booth Ferris South)*

15 2:00 **Photomonitoring ecological change in Northwest Yunnan, PRC**
LASSOIE, J., R. MOSELEY, and K. GOLDMAN. International Professor of Natural Resources, Department of Natural Resources, 10 Fernow Hall, College of Agriculture & Life Sciences, Cornell University, Ithaca, New York 14853-3001 USA

16 2:15 **Increasing temperate forest vulnerability to weak storms: Hurricane Isabel and the implications for changes in Piedmont forest composition**
RODICK, C.[1] , D. H. BOUCHER [1], J. SNITZER[1] and K. L. KYDE[2]
[1] Department of Biology, Hood College, 401 Rosemont Avenue, Frederick, MD 21701 USA
[2] USDA-ARS Foreign Weeds and Diseases Research Unit, 1301 Ditto Avenue, Frederick, MD 21702 USA

17 2:30 **Invasive plant response to natural disturbance in a Piedmont forest in Maryland**
SNITZER, J.[1] , D. H. BOUCHER[1], K. L. KYDE[2] and C. RODICK[1]
[1] Department of Biology, Hood College, 401 Rosemont Avenue, Frederick, MD 21701 USA
[2] USDA-ARS Foreign Weeds and Diseases Research Unit, 1301 Ditto Avenue, Frederick, MD 21702 USA

18 2:45 **Is the biology of the Mid-Atlantic suburbs sustainable where forest dominant trees fail to reproduce? Chronic irruptions of midsize predators and midsize herbivores also lead to declines in other vertebrates, and to seven emerging diseases**
MEYER, E. Dept Biology, Loyola College. Baltimore, MD 21210 USA

19 3:00 **An explanation of patterns of breeding bird species richness and density following clearcutting in Northeastern U.S.A. forests**
KELLER, J. K.[1], M.E. RICHMOND[2], and C.R. SMITH[2].
[1] HABITAT by Design, 74 Stagecoach RD., Pipersville, PA 18947 USA
[2] New York Cooperative Fish and Wildlife Research Unit, Department of Natural Resources, Cornell University, Ithaca, NY 14853, USA

20 3:15 **Carbon gain in seedlings of Eastern Deciduous Forest**
FETCHER, N.[1] and J. W. CORONA[2]
[1] Dept. of Biology, University of Scranton, Scranton, PA 18510 USA
[2] Dept. of Earth and Environmental Sciences, Lehigh University, 31 Williams Dr., Bethlehem, PA 18015 USA

21 3:30 **Tests of diversity cascades and resource concentration models in *Piper cenocladum* and associated arthropods**
STEELE, P. R.[1] and L. A. DYER [2]
[1] 711 Randolph St., Apt. 2, Hanover, PA 17331 USA
[2] Department of Ecology and Evolutionary Biology 310 Dinwiddie Hall Tulane University New Orleans, LA 70118 USA

Poster session #1 Plant Ecology *(4:00 pm – 5:00 pm)*

22 **Modes of selfing in *Fragaria virginiana***
BERMAN, S., D. COLE, S. PAPPERMAN and T.-L. ASHMAN. Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA 15260 USA

23 **Variation in ploidy levels between native and introduced populations of *Phragmites australis* in the Mid-Atlantic region**
BURNETT, A. [1], K. GLENNON[1], K. HUNTER[1], R. HUNTER[1], and K. SALTONSTALL[2]
[1] Dept. of Biology, Salisbury University, Salisbury, MD 21801 USA
[2] Horn Point Lab, Cambridge MA 21613 USA

24 **Light-treatment-dependent phenotypes of *Chenopodium album***
GRISÉ, D. J. [1] and A. M. KENNEY[2]
[1] Department of Biology, Box 6931, Radford University, Radford, VA 24142 USA
[2] Department of Plant Biology, The University of Georgia, Athens, GA 30602 USA

25 **New ways to use "Wisconsin Fast Plants" (rapid cycling *Brassica rapa*) in ecological research and instruction**
KELLY, M. G. Department of Biology, Buffalo State College (SUNY), 1300 Elmwood Ave., Buffalo, NY 14222-1095 USA

26 **Maintaining flower color polymorphism: Variety is the spice of life**
MAJETIC, C. and T.-L. ASHMAN. Department of Biological Sciences, 222 Clapp Hall, 4249 Fifth Avenue, University of Pittsburgh, Pittsburgh, PA 15260 USA

27 **Fire management effects on vegetation in the New Jersey Pine Plains at Warren Grove Air National Guard Range**
MCKESSEY, A. N., W. F. BIEN, J. R. SPOTILA, and H. W. AVERY. Department of Bioscience and Biotechnology, 32nd And Chestnut Streets, Stratton Hall 227, Drexel University, Philadelphia, PA 19104 USA

28 **Community composition of soilborne pathogens in an old field: Implications for *Prunus serotina* seedling survival and succession**
SHADE, A. L. and A. A. PACKER, Department of Biology, Susquehanna University, Selinsgrove, PA 17870 USA

29 **Effect of pollination distance on viable seed production of *Gentianopsis crinita* (Frole.) Ma. (fringed gentian).**
SLAVIK, E. and J. C. HULL. Department of Biological Sciences, Towson University, 8000 York Road, Towson, Maryland 21252 USA

30 **The role of environmental factors in the germination of *Campanula americana***
STUBLE, K. L.[1], L.F. GALLOWAY[2], W.E. WILLIAMS[1]
[1] St. Mary's College of Maryland ,Campus Center # 1992; 16800 Point Lookout Rd, St. Mary's City, MD 20686 USA
[2]University of Virginia, Gilmer Hall, Charlottesville, VA 22904-4328 USA

Poster session #2 Plant/Animal Interactions *(4:00 pm – 5:00 pm)*

31 **Influence of insect galls on the reproduction of goldenrod: A test of the Plant Vigor Hypothesis**
BAUMERT, A.J., S.E. RUTISHAUSER, and W.P. CARSON. University of Pittsburgh, Pittsburgh, PA 15260 USA

32 **Sex-differential resistance and tolerance to herbivory in wild strawberry**
COLE, D., M. BRADBURN, and T.-L. ASHMAN. Department of Biological Sciences, 222 Clapp Hall, 4249 Fifth Avenue, University of Pittsburgh, Pittsburgh, PA 15260 USA

33 **Forest stand structure and species composition in a wildlife preserve subject to extreme deer herbivory**
DURKOTA, J. M. and B. S. PEDERSEN. Department of Environmental Studies, Dickinson College, Carlisle, Pennsylvania 17013 USA

34 **Quantifying acorn removal by seed predators in a wildlife preserve, south-central Pennsylvania**
HOFFMEIER, A. L. and B. S. PEDERSEN. Department of Environmental Studies, Dickinson College, Carlisle, Pennsylvania 17013 USA

35 **Effect of population size on insect visitation of *Gentianopsis crinita* (Frole.) Ma. (fringed gentian)**
LETENDRE, K. and J. C. HULL. Department of Biological Sciences, Towson University, 8000 York Road, Towson, MD 21252 USA

36 **Effect of gypsy moth outbreaks on the growth rates of surviving host and non-host trees in a mixed deciduous forest**
PEARS, S. L., B. S. PEDERSEN, and R. C. HANIFIN. Department of Environmental Studies, Dickinson College, Carlisle, PA 17013 USA

37 **Chemical gradients within acorns suggest evolutionary responses to enhance dispersal**
STEELE, M. A.[1], E. STILES[2], A. MCEUEN[1], P. D. SMALLWOOD[3], W. TERZAGHI[1], S. AGOSTA[4], and K. MUNROE[1].
[1] Wilkes University, Wilkes-Barre, PA 18766 USA
[2] Department of Biological Sciences, Rutgers University, Piscataway, N.J 08854 USA
[3] Department of Biology, University of Richmond, Richmond, VA 23173 USA
[4] Department of Biology, School of Arts and Sciences , University of Pennsylvania, 102 Leidy Laboratories, 415 S University Avenue , Philadelphia, PA 19104 USA

38 **Vegetative herbivory affects the mating system of *Impatiens capensis*.**
STEETS, J. A. and T.-L. ASHMAN. Department of Biological Sciences, 222 Clapp Hall, 4249 Fifth Avenue, University of Pittsburgh, Pittsburgh, PA 15260 USA

Poster session #3 Carbon cycling *(4:00 pm – 5:00 pm)*

39 **Impacts of nitrogen additions on soil respiration, litter chemistry, and forest growth in a temperate deciduous forest**
BALDAUF, N. and G. DUNKLE. Dept. of Environmental Science, Allegheny College, Meadville, PA, 16335 USA

40 **Nitrogen additions reduce microbial respiration in temperate forest soils at the Harvard Forest LTER**
BOWDEN, R. D.[1], E. DAVIDSON[2], K. SAVAGE[2], C. ARABIA[1], and P A. STEUDLER[3].
[1] Allegheny College, Meadville, PA 16335 USA
[2] Woods Hole Research Center, P.O. Box 296, Woods Hole, MA 02543-0296
[3] The Ecosystems Center, Marine Biological Laboratory, Woods Hole MA 02543

41 **A comparison of root respiration rates under hemlock and black birch trees: Will hemlock decline have ecosystem-level effects?**
CLARK, N. M. and W. T. PETERJOHN. West Virginia University, Morgantown, WV 26505 USA

42 **Leaf litter decomposition on nitrogen-fertilized plots in a temperate deciduous forest**
COBLE, A. Dept. of Environmental Science, Allegheny College, Meadville, PA 16335 USA

43 **Contributions of leaf litter, root litter, and root respiration to total soil respiration in two temperate forests**
COPELAND, M. and K. ANGLEBERGER. Allegheny College, Box 312, Meadville, PA 16335 USA

44 **An ecological assessment of coarse woody debris volume and wildlife use in Virginia**
FUHRMAN, N. E. and C. A. COPENHEAVER. Department of Forestry, 228 Cheatham Hall, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061-0324 USA

45 **Duff moisture in thinned black spruce stands and related changes in predicted fire behavior**
HROBAK, J. Allegheny College, Meadville, PA 16335 USA

46 **Coarse woody debris in loblolly pine plantations of the southeastern United States**
PITTMAN, J. R. and C. A. COPENHEAVER. Forestry Department, 228 Cheatham Hall, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061 USA

47 **Organic carbon loss from various soil types due to biomass burning**
WERTS, S. P. and A. H. JAHREN. Johns Hopkins University, 113 Olin Hall, 3400 North Charles Street, Baltimore, MD 21113 USA

Poster session #4 Behavioral Ecology *(4:00 pm – 5:00 pm)*

48 **The effect of predator hunger on chemically-mediated antipredator responses and survival in the wolf spider *Pardosa milvina* (Araneae: Lycosidae)**
BELL, R. D.[1], A. L. RYPSTRA[2], and M. H. PERSONS[1]
[1] Susquehanna University, Selinsgrove, PA 17870 USA
[2] Department of Zoology, 212 Pearson Hall, Miami University, Oxford OH 45069

49 **Foraging ecology of black-crowned night herons (*Nycticorax nycticorax)* in the New York City area.**
BERNICK, A. J. College of Staten Island, 2800 Victory Blvd., Biology Department, Room 6S-143, Staten Island, NY 10314 USA

50 **Scared to death: Prolonged exposure to predator chemical cues increase mortality in wolf spiders**
BOYER, A. A.[1], D. E. CONDUAH[1], A. RYPSTRA[2], and M. H. PERSONS[1].
[1]Department of Biology, Susquehanna University, Selinsgrove, PA 17870 USA
[2]Department of Zoology, 212 Pearson Hall, Miami University, Oxford OH 45069

51 **Influence of human and natural disturbances on nesting behavior of bald eagles**
DONICK, E., Allegheny College, Meadville, PA 16335 USA

52 **Escape behavior of neotropical homopterans in response to a flush-pursuit predator: The importance of primary defenses**
GALATOWITSCH M., Biology Department, Allegheny College, Meadville, PA 16335 USA

53 **The influence of predator mating status on chemically-mediated antipredator responses in the wolf spider *Pardosa milvina***
HARGETT, A. and M. H. PERSONS. Department of Biology, Susquehanna University, Selinsgrove, PA 17870 USA

54 **The influence of predator reproductive state on chemically-mediated antipredator behavior and survival in the wolf spider *Hogna helluo*.**
HAVERSTICK, N. J. and M. H. PERSONS. Department of Biology, Susquehanna University, Selinsgrove, PA 17870 USA

55 **Morphological and behavioral factors influencing mating success and cannibalism risk in the wolf spider *Hogna helluo* (Araneae, Lycosidae).**
OETTING, A. A. and M. H. PERSONS, Department of Biology, Susquehanna University, Selinsgrove, PA 17870 USA

56 **Field evidence of an airborne enemy-avoidance kairomone in wolf spiders**
SCHONEWOLF, K. W. and M. H. PERSONS, Department of Biology, Susquehanna University, Selinsgrove, PA 17870 USA

57 **Cache pilferage in free ranging Gray Squirrels**
SHERICK, M., A. GLAHN, S. REED, T. M. JENKINS and M. STEELE. Wilkes University, Biology Department, Wilkes Barre, PA, 18766 USA

58 **A behavioral analysis of *Tursiops truncatus* in the Assateague Island region.**
YUHAS, J.[1], A. CASTELLOW[2], B. HURLEY[2], D. SPONTAK,[2] S. BEECHING[2], and W. RYAN[2].
[1]Wilkes University, Wilkes-Barre, PA 18766 USA
[2] Marine Science Consortium, Wallops Island, VA 23337 USA

Poster session #5 Aquatic Ecology *(4:00 pm – 5:00 pm)*

59 **Island biogeography at a microscale: Species – area relationships between diatom taxa in Penns Creek, Pennsylvania**
BLAKE, S., T. LEONARD, S. KIEMLE, J. R. HOLT and J. GRAHAM. Susquehanna University. Selinsgrove, PA 17870 USA

60 **Long Island Sound: Diatoms from sediment cores as part of environmental and ecological change studies**
COOPER, S. R. [1], E. THOMAS[2] and J. C. VAREKAMP[2]
[1] PO Box 717, Biology Dept., Bryn Athyn College, Bryn Athyn, PA 19009 USA
[2] Wesleyan University, Wesleyan Station, Middletown, Connecticut 06459 USA

61 **Species replacement along predator-permanence gradients: Effects of desiccation and fish predation on *Libellula* dragonflies**
DALE, D. V. and S. A. WISSINGER. Dept. of Biology, Allegheny College, Meadville, PA 16335 USA

62 **Effects of ultraviolet radiation on zooplankton: Behavioral and population responses**
FISCHER, J. [1], J. NICOLAI[1], C. E. WILLIAMSON[2], A. PERSAUD[2], AND R. LOCKWOOD[2].
[1] Department of Biology, Franklin & Marshall College, Lancaster, PA 17604 USA
[2] Address: Department of Earth and Environmental Sciences, 31 Williams Hall, Bethlehem, PA 18015-3188 USA

63 **Comparison study of fecundity and size between urban and rural Black Nosed Dace (*Rhinichthys atratulus*) populations**
MC AFEE, E. M. and J. SNODGRASS. Towson University, Biology Department, 8000 York Road, Towson, MD. 21252 USA

64 **Improving the management of aquatic natural resources through the development, integration, and distribution of spatial datasets**
MILLER, S. A. and A. E. MARTIN. Virginia Department of Game and Inland Fisheries; 4010 W. Broad Street; Richmond, VA 23230 USA

65 **Land use effects on amphibian use of retention ponds and larval metal concentrations**
SIMON, J. A.[1], J. W. SNODGRASS[1], R. E. CASEY[2]
[1] Department of Biological Sciences, Towson University, 8000 York Rd., Towson, MD 21252 USA
[2] Department of Chemistry, Towson University, Towson, MD 21252 USA

66 **Correlation of spatially-variable fish species diversity with groundwater inflows in an urbanized stream system**

STEFFY, L. Y. [1], A. L. MCGINTY[2], C. WELTY[3], AND S. S. KILHAM[1]
[1] Drexel University, Department of Bioscience and Biotechnology 3141 Chestnut Street, Philadelphia, PA 19104 USA
[2] U.S. Geological Survey, MD-DE-DC District 8987 Yellow Brick Road, Baltimore, MD 21237 USA
[3] University of Maryland Baltimore County, Center for Urban Environmental Research and Education 1000 Hilltop Circle, TRC 102, Baltimore, MD 21250 USA

67 **Natural fluctuations in amphibian population size**

WISSINGER, S. A.[1,2], S. E. MATTIE[1,2], D. V. DALE[1,2], M. L. MUMFORD[1,2], M. L. GALATOWITSCH[1,2], H. H. WHITEMAN[2,3].
[1] Allegheny College, Meadville, PA 16335 USA
[2] Rocky Mountain Biological Laboratory, P.O. Box 519, Crested Butte, CO 81224 USA
[3] Murray State University, 334 Blackburn Science Building, Murray, KY 42071-3346 USA

Poster session #6 Conservation Ecology - Biodiversity *(4:00 pm – 5:00 pm)*

68 **Relationship between tree age and size for the invasive tree-of-heaven (*Ailanthus altissima*)**

DONALDSON, L. A., J. L. WAGGETT, A. HNATKOVICH, and T. E. YORKS. Department of Biological and Environmental Sciences, California University of Pennsylvania, 250 University Avenue, California, PA 15419 USA

69 **Nonlinear responses of *Alliaria petiolata* to environmental quality throughout plant life history**

GOLINSKI, A., M. SIDDIQUE, J. BRASNO and L. A. HYATT. Department of Biology, Rider University, 2083 Lawrenceville Rd., Lawrenceville, NJ 08648 USA

70 **Natural and human-mediated dispersal of zebra mussel from Eaton Brook Reservoir, Madison County, NY**

GRAY, M. S. [1], T. G. HORVATH[1], and S. INGMIRE[2]
[1] Biology Department, SUNY Oneonta, Oneonta NY 13820 USA
[2] Madison County Planning Department, Wampsville NY 13163 USA

71 **Species richness, abundance and composition of ground-dwelling ants in northern California grasslands: the role of plants, soil, grazing, and dominant species**

KOLTOWSKI, L. and A. M. BOULTON. Dept. of Biology, Villanova University, Villanova, PA 19085 USA

72 **Morpho-species richness and abundance of ground-dwelling arachnids in northern California grasslands: the role of plants, soil, and dominant species**

SAFDAR, S. and A. M. BOULTON. Dept. of Biology, Villanova University, Villanova, PA 19085 USA

73 ***Narceus annularis*: Native millipede of the Mohonk Preserve**

TOWNSEND, K. and K. SZLAVECZ. Department of Earth and Planetary Science, The Johns Hopkins University, Baltimore, MD 21218 USA

74 **Prevalence of raccoon roundworm (*Baylisascaris procyonis*) as a factor in the disappearance of the Allegheny woodrat (*Neotoma magister*) in Ohio**
WIELAND, L. M.[1], A. LECOUNT[2], K. LOZENSKI[1], C. MOLLOHAN[2], and J. WRIGHT[1]
[1]Department of Biology, Dickinson College, Carlisle, PA 17013 USA
[2]Hocking College, Nelsonville, OH 45764 USA

75 **Relationships between an invasive plant species, Japanese knotweed (*Polygonum cuspidatum*), and understory vegetation in riparian zones in southwestern Pennsylvania**
ZINN, J. D. and T. E. YORKS. Department of Biological and Environmental Sciences, California University of Pennsylvania, 250 University Avenue, California, PA 15419 USA

Poster session #7 Conservation Ecology – Management *(4:00 pm – 5:00 pm)*

76 **The Plum Creek Wetlands mitigation project**
ADAMS, M. T. Dept. of Environmental Science, Allegheny College, Meadville, PA, 16335 USA

77 **Innovative environmental education contributes to improved management practices in the Mid-Atlantic**
BRADLEY, M. P.[1] and E. S. WALBECK[2].
[1] U.S. EPA, Mid-Atlantic Integrated Assessment, Environmental Science Center, 701 Mapes Road, Ft. Meade, MD 20755-5350 USA
[2] TPMC, °/o U.S. EPA, Mid-Atlantic Integrated Assessment, Environmental Science Center, 701 Mapes Road, Ft. Meade, MD 20755-5350 USA

78 **Sustainable orchard pest management for the Mid-Atlantic region**
BROWN, M. W. [1], and C. R. MATHEWS[2].
[1] Appalachian Fruit Research Station, 2217 Wiltshire Road, Kearneysville, WV 25430 USA
[2] Institute of Environmental Sciences, Shepherd College, Shepherdstown, WV 25443 USA

79 **June bugs invade links: Pesticide use reduction with geographic information systems**
ENGEL-COX, J. A.[1], P. BRADLEY[2], J. T. HARKINS[3].
[1] University of Maryland, Baltimore County, Center for Urban Environmental Research and Education Battelle Memorial Institute, 2101 Wilson Blvd Suite 800, Arlington, VA 22201-3008 USA
[2] U.S. Environmental Protection Agency, Mid-Atlantic Integrated Assessment Environmental Science Center, 701 Mapes Road, Ft. Meade, MD 20755-5350 USA
[3] Entomological Sciences Program, U.S. Army Center for Health Promotion and Preventative Medicine, 5158 Blackhawk Road, Aberdeen Proving Ground, Aberdeen, MD, 21010-5403 USA

80 **Tree invasion on reclaimed strip mines: Reevaluating inhibition**
DIGERARDO, J., J. KELLER, R. KLEMISH, R. HELFRICK, T. TONKIN, and K. M. KLEMOW. Wilkes University, Wilkes-Barre, PA 18766 USA

81 **Preliminary results of residential lawn care survey near the Cub Hill flux tower**
FUNDI, S.[1], S. MYERS[1], J. STUBBS[1], I. YESILONIS[1], J. R. ANELLI[2], and R. POUYAT[3]
[1] Center for Urban Environmental Research and Education, University of Maryland Baltimore County, Technology Research Center 102, 1000 Hilltop Circle, Baltimore, Maryland 21250 USA
[2] 709 Bradfield Hall, Cornell University, Ithaca, New York 14853 USA
[3] USDA Forest Service, Technology Research Center 102, Hilltop Circle, Baltimore, Maryland 21250 USA

82 **Nitrogen balance in organic and conventional cropping systems in the Mid-Atlantic region**
GREEN, V. S.[1], M. A. CAVIGELLI[1], and J. J. MEISINGER[2]
[1] United States Department of Agriculture, Agricultural Research Service, Sustainable Agricultural Systems Laboratory, 10300 Baltimore Ave., Beltsville, MD 20705-2350 USA
[2] United States Department of Agriculture, Agricultural Research Service, Animal Manure and By-products Laboratory, Building 306, BARC-East, Beltsville, MD 20705-2350 USA

83 **Natural or chemical control: A comparison of the salinity and glyphosate treatment of Japanese Barberry (*Berberis thunbergii* DC)**
HNATKOVICH, A. and T. E. YORKS. Department of Biological and Environmental Sciences, California University of Pennsylvania, 250 University Avenue, California, PA 15419 USA

84 **Varying hydrology of agro-ecosystems due to earthworm communities**
PITZ, S. [1], K. SZLAVECZ[1], and M. CAVIGELLI[2].
[1] Department of Earth and Planetary Science, The Johns Hopkins University, Baltimore, MD 21218 USA
[2] United States Department of Agriculture, Agricultural Research Service, Sustainable Agricultural Systems Laboratory, 10300 Baltimore Ave., Beltsville, MD 20705-2350 USA

85 **Establishment of tree seedlings in degraded lands in Southwest Iceland by lupine facilitation**
RIEGE, D. A. 46490 Mirage Court, Lexington Park, Maryland, 20653 USA

86 **The effects of lawn care on arthropod diversity**
STILTZ, J. [1] and K. SZLAVECZ[2]
[1] Towson University, Environmental Science & Studies Program, 8000 York Road, Towson, MD 21252 USA
[2] Department of Earth and Planetary Sciences, The Johns Hopkins University, Baltimore, MD 21218

87 **A model for reclaiming severely disturbed upland areas in the New Jersey Pinelands**
ZOLKEWITZ, M. A., W. F. BIEN, and J. R. SPOTILA. Center for Biodiversity and Conservation, Department of Bioscience and Biotechnology, Drexel University, 32nd and Chestnut Streets, Philadelphia, PA 19104 USA

Poster session #8 Conservation Ecology - Environmental Quality *(4:00 pm – 5:00 pm)*

88 **A comparison of regional and local sources of atmospheric mercury deposition in Waynesboro, Staunton and Harrisonburg, VA**
ALLAK, A. and D. COCKING. Department of Biology, James Madison University, Harrisonburg, VA 22807 USA

89 **Acid-mine and sewage effluent: Effects of Shamokin Creek on the Susquehanna River**
BRENNAN, M. E. and J. R. HOLT. Susquehanna University, Selinsgrove, PA 17870. USA

90 **Ecological indicators of river health on two tributaries of the Maurice River, NJ**
BURTON, R., C. MCCARTHY, P. MOSTO, W. PITTS, C. RICHMOND, L. SALCEDO, E. SCARPA, S. SHTERBAN, and M. SZUTOWSKA. Department of Biological Sciences, Rowan University, Glassboro, NJ 08028 USA

91 **UV radiation and ephemeral pool food webs**
CLAUSER, A. S. , and C. E.WILLIAMSON. Dept. of Earth and Environ. Sci., 31 Williams Drive, Lehigh Univ., Bethlehem, PA, 18015 USA

92 **Stream biomonitoring using macroinvertebrates in the New Jersey Pinelands: Consistency with water chemistry and landuse**
CROMARTIE, J., L. MAUN, J. AKERS, T. JOHNSON, J. GLIDDON, J. GRIMES and D. MONZO. Division of Natural Sciences and Mathematics, The Richard Stockton College of New Jersey, PO BOX 195 Pomona NJ 08240 USA

93 **Effect of urbanization on water quality of Molly Ann Brook, Passaic County, New Jersey**
HWANG, C. and M. J. SEBETICH. Department of Biology, William Paterson University, Wayne, NJ 07470 USA

94 **Relative contributions of fish hatchery carbon to sediments and pollution tolerant isopods in limestone-influenced streams of Cumberland County, Pennsylvania.**
JESIC, S., S. MILLER and T. M. HURD. Department of Biology, Shippensburg University, Shippensburg, PA 17257 USA

95 **Analysis of nitrate and potential flowpaths within a system of karstic spring creeks in Cumberland County PA**
KIRKHOFF, C. and T. M. HURD. Department of Biology, Shippensburg University, Shippensburg, PA 17257 USA

96 **The effects of development on water quality in Hilton Run subwatershed**
MASON, A. and R. W. PAUL. 27041 Dogwood Ln., Mechanicsville, MD 20659 USA

97 **Mechanisms of UV radiation tolerance displayed by benthic macroinvertebrates**
SHIREY , L. J. and C. E. WILLIAMSON. Department of Earth and Environmental Sciences, Lehigh University, 31 Williams Drive, Bethlehem, Pennsylvania, United States 18015 USA

Keynote address *(Ben Franklin Dining Room 4)*

98 **Integrating science and policy: What we can do**
POUYAT, R. V. *President of Mid-Atlantic Chapter of ESA and Forest Ecologist, USDA Forest Service* Baltimore Ecosystem Study, Room 134, Technology Research Center Building, 5200 Westland Boulevard, University of Maryland, Baltimore County, Baltimore, MD 21227 USA

AUTHOR INDEX

Presentation numbers in boldface for presenting authors

DRIVING DIRECTIONS TO FRANKLIN AND MARSHALL COLLEGE

From Baltimore/Washington and South

From **Baltimore Beltway (Rt. 695)**, exit onto **Rt. 83 north**. Follow Rt. 83 north to York, PA. Take exit 19A (462 east, Market Street). Cross over Rt. 462 as you proceed through two lights and come to your third at Rt. 30. Turn right on to **Rt. 30 east** to Lancaster (approximately 20 miles.) Take the exit for **Harrisburg Pike**. Turn right at the light at the top of the exit ramp and proceed toward Lancaster City. Franklin & Marshall is about 1.5 miles and several traffic lights ahead on your right.

From Delaware

Follow **Rt. 41** north from Hockessin, DE to **Rt. 30** junction in Gap, PA. Turn left at the light at the 41/30 junction onto **Rt. 30 west** toward Lancaster. Follow **Rt. 30 west** for approximately 20 minutes. You will pass the shopping outlets and continue to follow 30 west until it becomes a 2 lane highway.

For a tour of downtown Lancaster: Look for **Rt. 23 west (Walnut Street)** exit. Continue west on Walnut Street for approximately 2.5 miles/12 traffic lights to the intersection of West Walnut and College Avenue. Turn right onto **College Avenue** and proceed for approximately 0.25 mile. The main campus will be on your left.

For a more direct approach: Continue to follow signs for **Rt. 30 west (York).** Pass Oregon, Lititz and Fruitville Pikes. Just beyond Fruitville Pike, exit to **continue** on 30 west (York). Take first exit for **Harrisburg Pike** (The Park City Mall will be on right). At the top of the exit ramp, turn left onto **Harrisburg Pike.** Proceed 1.5 miles through several traffic lights until you reach the overhead pedestrian bridge connecting College Square to the main campus of Franklin & Marshall on your right.

From Harrisburg and Central Pennsylvania

From north of Harrisburg, take **Rt. 15 south** to **Rt. 322 east**. Cross the Susquehanna River and follow to **Rts. 81 north/322 east**. From Rts. 81 north/322 east, take **Rt. 83 south** to **Rt. 283 south**. From **Rt. 283 south**, exit onto **Rt. 283 east (to Lancaster)**. Take **Rt. 283 east** to **Rt. 30 west** towards York. Take the first exit for **Harrisburg Pike** (The Park City Mall will be on right). At the top of the exit ramp, turn left onto **Harrisburg Pike.** Proceed 1.5 miles through several traffic lights until you reach the overhead pedestrian bridge connecting College Square to the main campus of Franklin & Marshall on your right.

From Northeastern Pennsylvania/Upstate New York

Follow **Rt. 81 south** and take exit 90 **(Rt. 72 south)**. Follow Rt. 72 south to Lancaster area. Approximately 2-3 miles from the Rt. 30/Rt. 72 junction, turn right at traffic light onto **Dillerville Road.** At next light, turn left onto **Harrisburg Pike.** Franklin & Marshall is 0.5 mile ahead on your right.

From Western Pennsylvania

Take **Pennsylvania Turnpike** to **exit 247/old exit 19 (Harrisburg East).** Take first exit to your right immediately out of toll booth to get onto **Rt. 283 East**. Take **Rt. 283 east** to **Rt. 30 west** towards York. Take the first exit for **Harrisburg Pike** (The Park City Mall will be on right). At the top of the exit ramp, turn left onto **Harrisburg Pike.** Proceed 1.5 miles through several traffic lights until you reach the overhead pedestrian bridge connecting College Square to the main campus of Franklin & Marshall on your right.

From Philadelphia

Take the **Pennsylvania Turnpike west** to **exit 286/old exit 21 (Lancaster/Reading/Rt. 222 south).** Follow Rt. 222 south approximately 14 miles to the Lancaster area.

For a tour of downtown Lancaster: Stay to the left and exit onto **Rt. 30 east (Coatesville)**. Proceed less than one mile and exit onto **Rt. 23 west (Walnut Street).** Continue west on Walnut Street for approximately 2.5 miles/12 traffic lights to the intersection of West Walnut and College Avenue. Turn right onto **College Avenue** and proceed for approximately 0.25 mile. The main campus will be on your left.

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From New Jersey/Eastern New York/New England

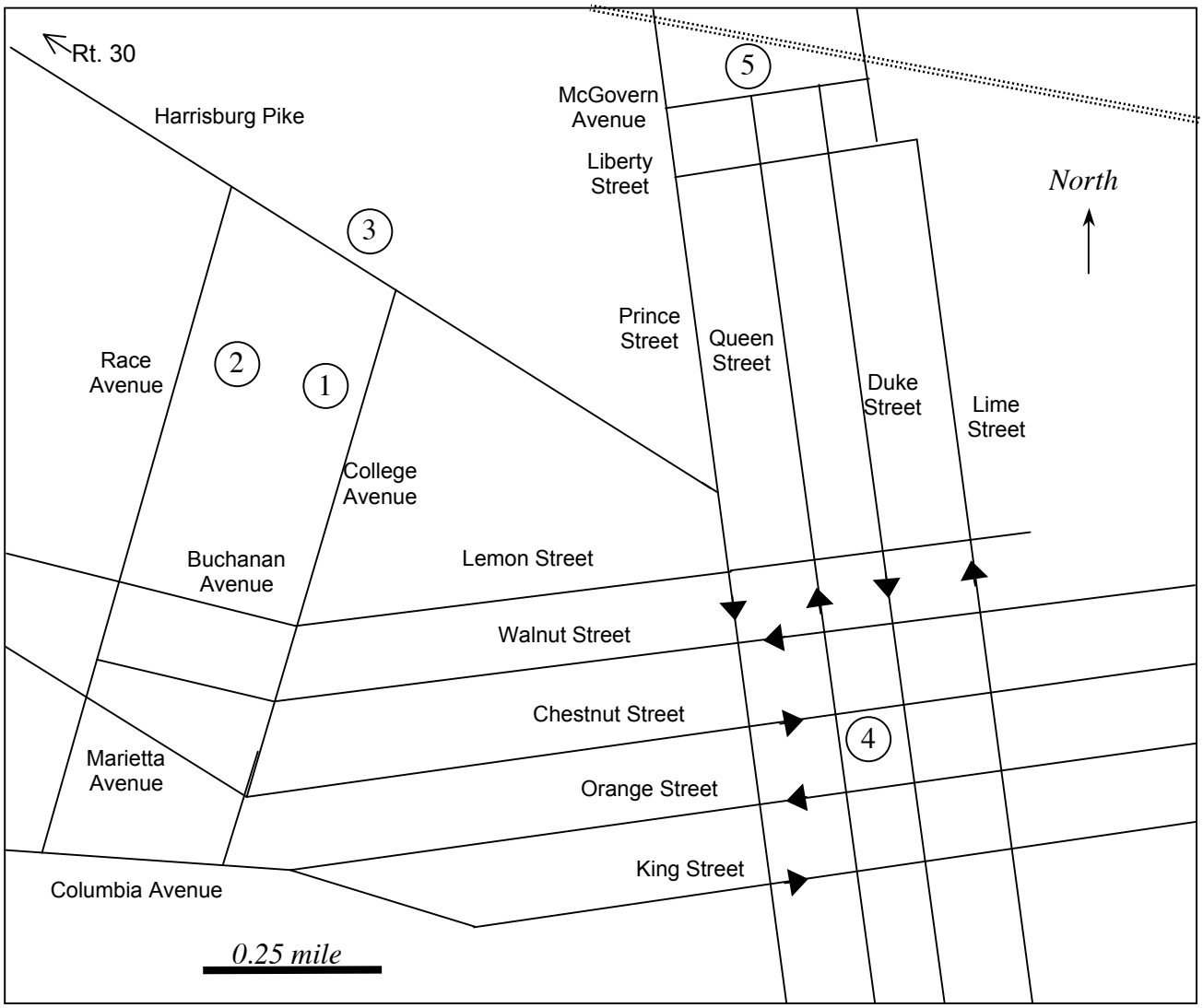
Take the **New Jersey Turnpike** to **exit 6 (Pennsylvania Turnpike west).** Take the PA Turnpike west to **exit 286/old exit 21 (Lancaster/Reading/Rt. 222 south).** Take **Rt. 222** south approximately 14 miles to the Lancaster area.

For a tour of downtown Lancaster: Stay to the left and exit onto **Rt. 30 east (Coatesville)**. Proceed less than one mile and exit onto **Rt. 23 west (Walnut Street).** Continue west on Walnut Street for approximately 2.5 miles/12 traffic lights to the intersection of West Walnut and College Avenue. Turn right onto **College Avenue** and proceed for approximately 0.25 mile. The Admission Office is on the right; the Admission parking lot is on the left.

For a more direct approach: Stay to the right and follow signs for **Rt. 30 west (York).** Pass Oregon, Lititz and Fruitville Pikes. Just beyond Fruitville Pike, exit to **continue** on 30 west (York). Take first exit for **Harrisburg Pike** (The Park City Mall will be on right). At the top of the exit ramp, turn left onto **Harrisburg Pike.** Proceed 1.5 miles through several traffic lights until you reach the overhead pedestrian bridge connecting College Square to the main campus of Franklin & Marshall on your right.

MAPS

Lancaster Downtown (main streets only, one way directions indicated with arrow heads)



(1) Steinman College Center at Franklin and Marshall College – main conference site

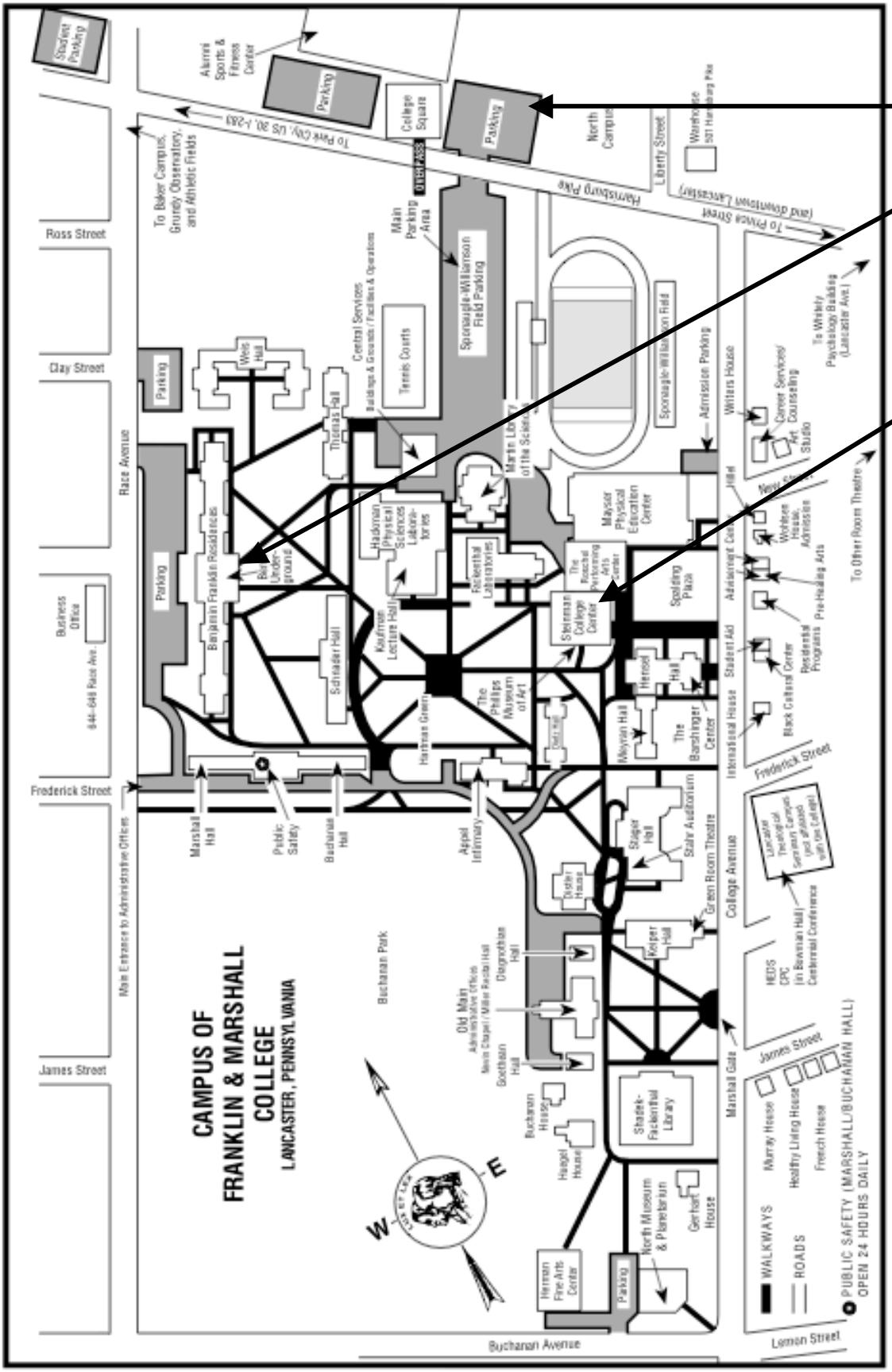
(2) Dining Hall – evening banquet and keynote address

(3) Parking

(4) Ramada Brunswick Hotel (1.4 miles from campus)

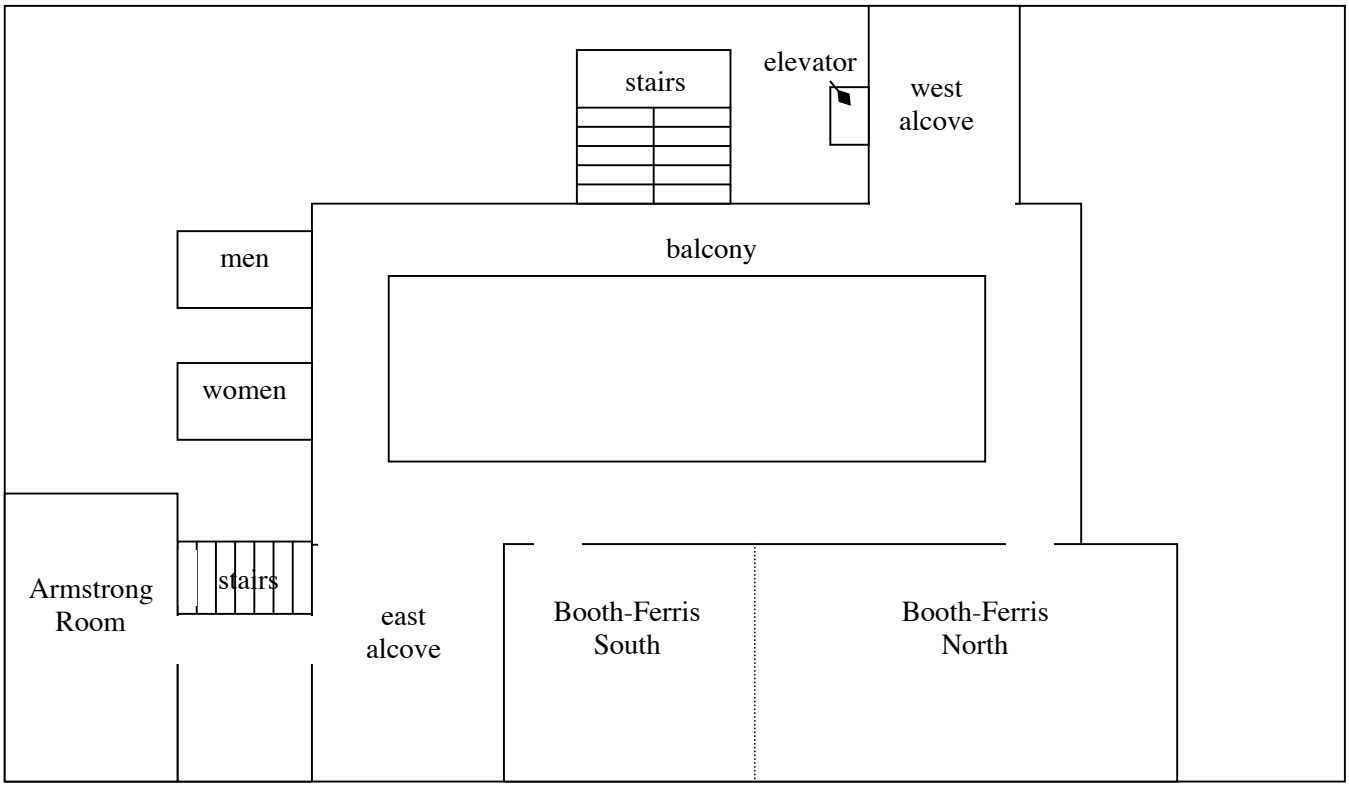
(5) Amtrak Station

Franklin and Marshall College Campus



Steinman College Center – Main Conference Site

UPPER LEVEL



MAIN LEVEL