



ILLINOIS
NATURAL
HISTORY
SURVEY

INHS PUBLICATIONS LIST for 2006



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Illinois Natural History Survey 2006 Publications in the Context of the Survey's Strategic Plan

This document lists the 165 scientific publications, 100 technical reports, and 87 miscellaneous contributions (newsletter articles, posters, book reviews, etc) published in 2006. 125 restricted technical reports, completed by the Survey's IDOT Wetlands Group, in 59 Illinois counties, are not listed.

PROGRAM 1.–Science in Support of Ecosystem Management and Conservation

Studies in this category include research projects undertaken by Survey scientists related to ecosystem effects of management strategies, restoration ecology, food web studies, development of habitat management plans, and natural resource database development. These studies help us understand the state's natural resources and inform decisions about management strategies and the impacts of those strategies.

Goal 1: Ecosystem Research

Understand the roles of individual species, biotic communities, and habitats in critical ecosystem processes such as nutrient cycling and dynamics, energy flow, and other factors affecting the health and viability of complex, interconnected biological systems, and investigate how rehabilitation of degraded ecosystems can be attained to restore important functional services and wildlife habitat.

Objective 1.1: Ecosystem Function and Community Ecology.–Conduct studies aimed at understanding how ecosystems are structured and function at broad spatial and temporal scales to provide information about the services provided by those ecosystems, and the roles of various species in those systems.

Chick, J.H., M.A. Pegg, and T.M. Koel. 2006. Spatial patterns of fish communities in the Upper Mississippi River system: assessing fragmentation by low-head dams. *River Research and Applications* 22:413–427.

Cooke, S.L., and C.E. Williamson. 2006. Positive effects of UV radiation on a calanoid copepod in a transparent lake: do competition, predation, or food availability play a role? *Journal of Plankton Research* 28:171–179.

Cooke, S.L., C.E. Williamson, B.R. Hargreaves, and D.P. Morris. 2006. Beneficial and detrimental interactive effects of dissolved organic matter and ultraviolet radiation on zooplankton in a transparent lake. *Hydrobiologia* 568:15–28.

Cooke, S.L., C.E. Williamson, and J.E. Saros. 2006. How do temperature, dissolved organic matter, and nutrients influence the response of *Leptodiantomus ashlandi* to UV radiation in a subalpine lake? *Freshwater Biology* 51:1827–1837.

Gillette, D.P., J.S. Tiemann, D.R. Edds, and M.L. Wildhaber. 2006. Habitat use by a midwestern U.S.A. riverine fish assemblage: effects of season, water temperature and river discharge. *Journal of Fish Biology* 68:1494–1512.

Hauer, F.R., and W.R. Hill. 2006. Temperature, light, and oxygen. *In* F.R. Hauer and G.A. Lamberti, eds, *Stream Ecology: Field and Laboratory Exercises*, Second Edition. Academic Press.

Hill, W.R., and R.G. Middleton. 2006. Changes in carbon stable isotope ratios during periphyton development. *Limnology and Oceanography* 51:2360–2369.

McClelland, M.A., M.A. Pegg, and T.W. Spier. 2006. Longitudinal patterns of the Illinois waterway fish community. *Journal of Freshwater Ecology* 21:91–99.

Pegg, M.A., K.S. Irons, and T.M. O'Hara. 2006. Initial response of a floodplain lake fish community to water-level stabilization. *Ecology of Freshwater Fish* 15:40–47.

Robertson, K.R. 2006. Prairies/Prärien. Pages 9–26 in *International Hardy Plant Union Yearbook for 2005*, Windisch, Switzerland.

Sass, G.G., C.M. Gille, J.T. Hinke, and J.F. Kitchell. 2006. Whole-lake influences of littoral structural complexity and prey body morphology on fish predator-prey interactions. *Ecology of Freshwater Fish* 15:301–308.

Sass, G.G., J.F. Kitchell, S.R. Carpenter, T.R. Hrabik, A.E. Marburg, and M.G. Turner. 2006. Fish community and food web responses to a whole-lake removal of coarse woody habitat. *Fisheries* 31(7):321–330.

Spyreas, G., and J.W. Matthews. 2006. Floristic conservation value, nested understory floras, and the development of second-growth forest. *Ecological Applications* 16(4):1351–1366.

Stainbrook, K.M., K.E. Limburg, R.A. Daniels, and R.E. Schimdt. 2006. Long-term changes in ecosystem health of two Hudson Valley watersheds, New York, USA 1936–2001. *Hydrobiologia* 571:313–327.

Objective 1.2: Landscape Ecology.—Conduct studies that relate ecological processes or functions with the shapes and spatial arrangement of habitat patches and the relative abundance of habitat types across large spatial scales.

Diana, M.J., J.D. Allan, and D. Infante. 2006. The influence of physical habitat and land use on stream fish assemblages in southeastern Michigan. Pages 359–374 in R. M. Hughes, L. Wang, and P. W. Seelbach, eds. *Landscape influences on stream habitats and biological assemblages*. American Fisheries Society, Symposium 48, Bethesda, Maryland.

Swaney, D.P., K.E. Limburg, and K.M. Stainbrook. 2006. Some historical changes in the patterns of population and land use in the Hudson River watershed. Page 376 in J. Waldman, K. Limburg, and D. Strayer, eds. *American Fisheries Society Volume on Hudson River Fishes and Their Environment*. American Fisheries Society Symposium 51.

Wenny, D., E. Anderson and R. Nyboer. 2006. An Important bird area: Lost Mound Unit (of the Upper Mississippi River National Wildlife and Fish Refuge). *Meadowlark* 15:51–56.

Technical Reports

DePhilip, M.M., W.M. Larson, T.M. Redder, J.V. DePinto, and L.C. Hinz. 2006. Developing methods to analyze, protect and restore flow regimes in Great Lakes tributaries. The Nature Conservancy, Great Lakes Program. Chicago, IL. 78 pp. + 2 appendices.

Fennema, L., and R.E. DeWalt. 2006. Stream condition in the Saline Branch Drainage of Champaign and Urbana, Illinois. Submitted to the Urbana Park District. Illinois Natural History Survey Technical Report 2006(9): 11 pp.

Miscellaneous

Ellis, J. 2006. Chapter 5. Grasslands in Illinois in R. Kanter, ed., *East Central Illinois Master Naturalist Manual*. University of Illinois Cooperative Extension Service.

Spyreas, G. 2006. The herbaceous layer in forests of eastern North America. Book review. *Natural Areas Journal* 26(4).

Stafford, J.D., M.W. Bowyer, A.P. Yetter, C.S. Hine, M.M. Horath, S.P. Havera, and M.D. Sprenger. 2006. Moist-soil plant seed production for waterfowl at Chautauqua National Wildlife Refuge, Illinois. Poster. USFWS Region 3 Biological Workshop. La Crosse, Wisconsin, February 7–9.

Technical Reports

Yetter, A.P., M.M. Horath, J.D. Stafford, C.S. Hine, R.V. Smith. 2006. Historical and contemporary characteristics of Illinois River valley wetlands: a geospatial database for planning and evaluation. Annual Report. Upper Mississippi River & Great Lakes Region Joint Venture. U.S. Fish and Wildlife Service. October. 21 pp.

Objective 1.3: Surveys and Monitoring.—Conduct short-term and long-term enumeration of biotic communities (including representative species abundances, ecological relationships with habitats, spatial and temporal shifts, mapping, etc.) for assessing their status and trends.

Carroll, C., J. Ellis, and G. Spyreas. 2006. Natural vegetation communities of the Shawnee Assessment Area. Pages 31–80 in Susan Post, ed., Volume 3: Living Resources. IL. Dept. of Natural Resources, Springfield, IL.

Ebinger, J.E., L.R. Phillippe, R.W. Nyboer, W.E. McClain, D.T. Busemeyer, K.E. Robertson, and G.A. Levin. 2006. Vegetation and flora of the sand deposits of the Mississippi River valley in northwestern Illinois. Illinois Natural History Survey Bulletin 37:191–238.

Phillippe, L.R., D.T. Busemeyer, P.B. Marcum, J.L. Ellis, M.A. Feist, R.L. Larimore, and J.E. Ebinger. 2006. Vegetation Inventory of the Emiquon Preserve, Fulton County, Illinois. *Erigenia* 21:10–21.

Tiemann, J.S. 2006. Freshwater mussel (Bivalvia: Unionidae) survey of the Wakarusa River basin. *Transactions of the Kansas Academy of Science* 109:221–230.

Technical Reports

Bartels, A., M.C. Bowler, S. DeLain, E. Gittinger, D. Herzog, K. Irons, K. Mauel, T.M. O'Hara, E. Ratcliff, and J. Ridings. 2006. 2005 Annual Status Report: a summary of fish data in six reaches of the Upper Mississippi River System. U.S. Geological Survey, Upper Midwest Environmental Sciences Center, La Crosse, Wisconsin. Web-based report LTRMP 2006-W002 available on-line at http://www.umesc.usgs.gov/report_publications/ltrmp/fish/2005/fish-srs.html (Accessed October 2006.)

Creque, S.M., and S.J. Czesny. 2006. Growth and survival of nearshore fishes in Lake Michigan. Annual Report to Illinois Department of Natural Resources. Ecology and Conservation Science Technical Report 2006/8. 49 pp.

Cummings, K.S., J.S. Tiemann, and M.J. Wetzel. 2006. Surveys for freshwater mussels in the Sangamon River at the Illinois Route 47 (IDOT FAS 326) bridge, 3 mi NE Foosland, Champaign County, Illinois. IDOT Job No. Job No: P-95-017-03 (Seq. No: 12248); Section: (129BR-3)BR; Contract No. 70344. 15 September. 5 pp.

Cummings, K.S., J.S. Tiemann, and M.J. Wetzel. 2006. Surveys for freshwater mussels in Piscasaw Creek at the Illinois Route 173 (IDOT FAS 303 / 2003-067-I) bridge, 0.5 mi W Chemung, McHenry County, Illinois. IDOT Job No: P-91-414-06 (Seq. No: 13372); Structure Nos. 056-0027, 056-0028. Contract No. 62635. 25 September. 5 pp

Cummings, K.S., J.S. Tiemann, and M.J. Wetzel. 2006. Surveys for freshwater mussels in Salt Creek at the Business Interstate 55 (IDOT FAU 7706) bridge, 1 mi SW Lincoln, Logan County, Illinois. IDOT Job No. D-96-521-03 (Seq. No: 13150); Structure No. 054-0005. Contract No. 72789. 5 October. 4 pp.

Dolan, C.R. Swan Lake aquatic vegetation study. 2006. U.S. Fish and Wildlife Service-Two Rivers National Wildlife Refuge, Calhoun Division. Challenge Cost-Share Grant Accomplishment Report.

Dolan, C.R. Swan Lake progress report (8: January 1–March 31). 2006. U.S. Fish and Wildlife Service, Two Rivers National Wildlife Refuge, Calhoun Division. Quarterly report.

Dreslik, M.J., W.J. Banning, and C.A. Phillips. 2006. Turtle captures and radio-telemetry at Lockport Prairie Nature Preserve in 2004. Report to: Illinois Nature Preserves Commission. 113 pp.

Ickes, B.J. Sauer, A. Bartels, E. Kramer, M.C. Bowler, E. Ratcliff, S. Delain, D.P. Herzog, T.M. O'Hara and K.S. Irons. 2006. 2005 Annual status report: a summary of fish data in six reaches of the Upper Mississippi River system. US Geological Survey, Environmental Management Technical Center, LTRMP web-based

Irons, K.S., and M.A. Pegg. 2006. Assessing the ability of a long-term fish-monitoring program to detect effects of dredged material placement within the Upper Mississippi River System. Illinois Natural History Survey, Center for Aquatic Ecology and Conservation Technical Report 2006/01. 65 pp.

McClelland, M.A., and T.R. Cook. 2006. The Illinois River Fish Population Monitoring Program. Illinois Natural History Survey, Aquatic Ecology Technical Report 06/3. 54 pp.

Tiemann, J.S. 2006. Freshwater mussel (Bivalvia: Unionidae) survey of four river basins in the Wisconsin Driftless Area of Wisconsin and Illinois. Illinois Natural History Survey Technical Report 2006(7). Final report submitted to the Illinois Department of Natural Resources. 38 pp. + appendices.

Objective 1.4: Restoration Ecology—Conduct studies related to returning damaged ecosystems to conditions that are similar in content, structure, and function to their undamaged state.

Adams, S.M., W.R. Hill, M.G. Ryon, and J.G. Smith. 2006. Recovery in diversity of fish and invertebrate communities following remediation of a polluted stream: Investigating causal relationships. *Hydrobiologia* 553:367–367.

Schneider, D.W. 2006. Process control as ecosystem management: Using the history of sewage treatment plants to analyze ecosystem management practices. *Ecosystems* 9:1156–1169.

Taft, J.B., C. Hauser, and K.R. Robertson. 2006. Estimating floristic integrity in tallgrass prairie. *Biological Conservation* 131:42–51.

Technical Reports

Handel, W.C. 2006. Prairie recovery monitoring, Maxheimer and Jett Road Prairie reconstruction sites IL-29. Department of Transportation. Technical report prepared for the Illinois Department of Transportation, Bureau of Design and Environment, Springfield. Division of Biodiversity and Ecological Entomology, Section of Biotic Surveys and Monitoring. Technical Report 2006 (5), Illinois Natural History Survey, Champaign 11 pp. + Appendices.

Phillippe, L.R., B. Molano-Flores, C. Carroll-Cunningham, J. Ellis, M.J.C. Murphy, D.T. Busemeyer, P.B. Marcum, and J.E. Ebinger. 2006. A floristic inventory plus vegetation survey of Blodgett Road Dolomite Prairie Natural Area, Grant Creek Natural Area, Midwin National Tallgrass Prairie South Patrol Road Restoration Area, and vegetation survey of the Midwin National Tallgrass Prairie Route 66 Restoration Area, Will County, Illinois. Prepared for the Nature Conservancy, Illinois Chapter. Issue

Miscellaneous

Yin, Y., H. Langrehr, T. Shay, T. Cook, R. Cosgriff, and M. Moore. 2006. Vegetation sampling in the Upper Mississippi River system: annual update. U.S. Geological Survey, Upper Midwest Environmental Sciences Center, La Crosse, Wisconsin. An LTRMP Web-based report available on-line at http://www.umesc.usgs.gov/reports_publications/ltrmp/vegetation.html.

date: December 31, 2006.. Project Completion Report, field work completed September 2005 to November 2006. Available in INHS Library.

Taft, J.B. 2006. Floristic survey and assessment of the Illinois Department of Transportation North Chicago Wetland Mitigation Site, Lake County, Illinois. Center for Wildlife and Plant Ecology. Illinois Natural History Survey Technical Report. Submitted to the Illinois Department of Transportation, Bureau of Location and Environment, 28 September 2006.

Taft, J.B. 2006. Fire effects on vegetation structure, composition, and species richness in oak woodland habitats at Beaver Dam State Park and Chip-O-Will woods. Illinois Natural History Survey Center for Wildlife and Plant Ecology Technical Report 2006(3). Submitted to Illinois Department of Natural Resources, One Natural Resources Way, Springfield, Illinois. 40 pp. + 38 figures, 15 tables, and 4 appendices. 8 May 2006.

Taft, J.B. 2006. Board of Natural Resources: report on fire effects research in oak woodlands.

Taft, J.B. 2006. North Chicago wetland mitigation site preliminary survey. Memorandum submitted to the Illinois Department of Transportation on 22 May 2006.

Miscellaneous

Dolan, C.R., J.T. Lamer, and J.H. Chick. 2006. The Swan Lake habitat rehabilitation and enhancement project: post-project biological and physical response monitoring. Poster. The USFWS Region 3 Refuge Biological Workshop, La Crosse, Wisconsin.

Hoover, J.P. 2006. INHS research assists restoration efforts in the Cache River watershed. Illinois Natural History Survey Report 389:2.

Voegtlin, D., C. Dietrich, E. DeWalt, and D. Lagos. 2006. Insects of Brownfields in the Calumet Region of Chicago. Poster. Annual Entomological Society of America meeting. Indianapolis, December, 2006.

Objective 1.5: Biological Indicators.—Conduct studies of the distributions and functions of species that are indicators for the condition of their ecosystems.

Technical Reports

Bol, L, A.M. Holtrop, L.C. Hinz, Jr., and J. Epifanio. 2006. Evaluating streams in Illinois based on aquatic biodiversity. INHS Technical Report 2006/11. Annual Segment Report to the Illinois Department of Natural Resources.

Hinz Jr., L.C., A.M. Holtrop, and J. Epifanio. 2006. Evaluating water temperature, habitat and fish communities in candidate coolwater streams in Illinois (T-13-P-001). INHS Technical Report 2006/10. Annual Segment Report to the Illinois Department of Natural Resources.

Holtrop, A.M., L.C. Hinz, Jr, and J. Epifanio. 2006. Ecological classification of rivers for environmental assessment and management: model development and risk assessment (T-02-P-001). INHS Technical Report 2006/12. Project Completion Report to the Illinois Department of Natural Resources.

Objective 1.6: New Technology Development.—Develop and apply the latest technology to wildlife and other natural resource conservation issues, including new technologies for gathering data, radar and radio tracking of animals, and remote sensing.

Technical Reports

Enstrom, D.A., and M.P. Ward. 2006. New developments in radio telemetry. Report to the Board of Natural Resources.

Larkin, P.R., and B. Kamen. 2006. Vermont bird migration study: Phase 1 of 2; feasibility of using WSR-88D radar data to characterize bird migration in the mountainous landscape of Vermont. Final report to US Fish and Wildlife Service Region 5, Hadley, MA.

Objective 1.7: Illinois Wildlife Action Plan.—Conduct research in support of goals set by the Illinois Wildlife Action Plan.

Rahn, M.E., H.D. Doremus, and J.E. Diffendorfer. 2006. Choosing species for coverage in habitat conservation plans: where's the science? *Bioscience* 56:613–619.

Development and expansion of the Natural Resource Data and Information Systems in support of the Illinois Comprehensive Wildlife Conservation Plan. Project T-02-P-001; Amendment #2-Annual Segment Report 2006. INHS Technical Report 06/02, March 2006.

Technical Reports

Cordle, L., K. Cummings, L. Hinz, A. Holtrop, C. Phillips, J. Walk, and J. Epifanio. 2006. Development and expansion of the Natural Resource Data and Information Systems in support of the Illinois Comprehensive Wildlife Conservation Plan. Project T-03-P-001. Annual Segment Report. INHS Technical Report 06/01.

Walk, J., C. Phillips, L. Hinz, T. Tweddale, D. Szafoni, L. Cordle, A. Holtrop, L.P. Brown, E. Heske, D. Thomas, and J. Epifanio. 2006. Development and expansion of the natural resource data and information systems in support of the Illinois Comprehensive Wildlife Conservation Plan (T-02-P-001). INHS Technical Report 2006/05. Project Completion Report to the Illinois Department of Natural Resources.

Cordle, L. L. Hinz, A. Holtrop, C. Phillips, J. Walk, Ed Heske, and J. Epifanio, eds. 2006.

PROGRAM 2.–Science in Support of Understanding Biodiversity and Systematics

Studies in this program are aimed at understanding biological diversity at the species level, including the evolutionary relationships, distribution, and identification of the full range of organisms that are relevant to Illinois biota and other areas.

Goal 1: Biological Diversity

Provide information on species-level diversity and evolutionary relationships of organisms.

Objective 1.1: Systematics.–Conduct studies on the taxonomy, classification, distribution, and evolutionary biology of plants, animals, fungi, and microorganisms of relevance to Illinois and other geographical areas. Provide tools that facilitate the identification of species and access to information on species distributions and ecological associations. Provide revised classifications that reflect phylogenetic relationships among taxa and facilitate research on the historical processes that have driven species diversification.

Microsporidia

Hylis M., D.K. Pilarska, M. Oborník, J. Vávra, L.F. Solter, J. Weiser, A. Linde, and M.L. McManus. 2006. *Nosema chrysorrhoeae* n. sp. (Microsporidia), isolated from browntail moth (*Euproctis chrysorrhoea* L.) (Lepidoptera, Lymantriidae) in Bulgaria: Characterization and phylogenetic relationships. *J. Invertebr. Pathol.* 91:105–114.

Vavra, J., M. Hylis, C.R. Vossbrinck, D.K. Pilarska, A. Linde, J. Weiser, M.L. McManus, G. Hoch, and L.F. Solter. 2006. *Vairimorpha disparis* n.comb. (Microsporidia : Burenellidae): a redescription of the *Lymantria dispar* (L.) (Lepidoptera : Lymantriidae) microsporidium, *Thelohania disparis* Timofejeva 1956. *J. Eukaryotic Microbiol.* 53(4):292–304.

Fungi

Fernández, F.A., A.N. Miller, S.M. Huhndorf, F.M. Lutzoni, and S. Zoller. 2006. Systematics of the genus *Chaetosphaeria* and its allied genera: morphological and phylogenetic diversity in north temperate and Neotropical taxa. *Mycologia* 98(1):121–130.

Miller, A.N., M. Bartolata, C.A. Shearer, and S.M. Huhndorf. 2006. *Cuspidatospora xiphiago* gen. et sp. nov. from eastern North American freshwater streams. *Mycoscience* 47(4):218–223.

Spatafora, J.W., G.-H. Sung, D. Johnson, B.O'Rourke, M. Serdani, R. Spotts, F. Lutzoni, V.

Hofstetter, J. Miadlikowska, V. Reeb, C. Gueidan, E. Fraker, T. Lumbsch, R. Lücking, I. Schmitt, K. Hosaka, A. Aptroot, C. Roux, A. Miller, D. Geiser, J. Hafellner, G. Hestmark, A.E. Arnold, B. Büdel, A. Rauhut, D. Hewitt, W.A. Untereiner, M.S. Cole, C. Scheidegger, M. Schultz, H. Sipman, and C. Schoch. 2006. A five-gene phylogeny of Pezizomycotina. *Mycologia* 98(6):1018–1028.

Stchigel, A.M., J. Cano, A.N. Miller, M. Caldach, and J. Guarro. 2006. *Corylomyces*: a new genus of Sordariales from plant debris in France. *Mycological Research* 110(11):1361–1368.

Zhang, N., L.A. Castlebury, A.N. Miller, S.M. Huhndorf, C. Schoch, K.A. Seifert, A.Y. Rossman, J.D. Rogers, J. Kohlmeyer, B. Volkmann-Kohlmeyer, and G.-H. Sung. 2006. An overview of the systematics of the Sordariomycetes based on a four-gene phylogeny. *Mycologia* 98(6):1076–1087.

Miscellaneous

Cox, D.E., A.N. Miller, and J. McFarland. 2006. Edible puffballs of Illinois. *Outdoor Illinois* 14(8):18–19.

Botany

Phillippe, L.R., D.T. Busemeyer, and J.E. Ebinger. 2006. The black snakeroot species (*Sanicula* L., Apiaceae) of Illinois. *Erigenia* 21:32–39.

Sagun, V.G., G.A. Levin, and R.Q.W.J.M. van der Ham. 2006. Pollen morphology and ultrastructure of *Acalypha* (Euphorbiaceae). Review of Paleobotany and Palynology 140:123–143.

Sun, F.-J., G.A. Levin, and S.R. Downie. 2006. A multivariate analysis of *Pseudocymopterus* (Apiaceae). Journal of the Torrey Botanical Society 133:499–512.

Trucco, F., T. Tatum, K.R. Robertson, A.L. Rayburn, and P.J. Tranel. 2006. Characterization of waterhemp (*Amaranthus tuberculatus*) x smooth pigweed (*A. hybridus*) F₁ hybrids. Weed Technology 20:14–22.

Annelids

Wetzel, M.J. 2006. Annelida, including Aphanoneura / Aeolosomatida, Branchiobdellida, Oligochaeta, Polychaeta, and Miscellaneous Annelida. in D.W. Webb, ed. Current and selected bibliographies on benthic biology—2005. North American Benthological Soc., Springfield, IL. Now available on-line via the NABS Web site (access available for current members only).

Wetzel, M.J., S.V. Fend, K.A. Coates, R.D. Kathman, and S.R. Gelder. 2006. Taxonomy, systematics, and ecology of the aquatic Oligochaeta and Branchiobdellidae (Annelida, Clitellata) of North America, with emphasis on the fauna occurring in Florida. A workbook prepared for a workshop underwritten by and convened at the Florida Department of Environmental Protection Bureau of Laboratories Facility, Tallahassee, 21–23 February 2006. vi + 269 pp. + color plates.

Mollusks

Cummings, K.S., and A.E. Bogan. 2006. Chapter 25. Unionoida: Freshwater Mussels. In C.F. Sturm, T.A. Pearce, and A. Valdes, eds., The Mollusks: A Guide to Their Study, Collection, and Preservation. American Malacological Society, Pittsburgh, PA, USA pp. 313–325. Universal Publishers, Boca Raton, Florida.

Graf, D.L., and K.S. Cummings. 2006. Freshwater mussels (Mollusca: Bivalvia: Unionoida) of Angola with description of a new species, *Mutela wistermorrisi*. Proceedings of the Academy of Natural Sciences of Philadelphia 155:163–194.

Graf, D.L., and K.S. Cummings. 2006. Palaeoheterodont diversity (Trigonoida + Unionoida): what we know and what we wish we knew about freshwater mussel evolution. Zoological Journal of the Linnean Society 148(3):343–394.

Sturm, C.F., R. Petit, T.A. Pearce, K.S. Cummings, E. Schwabe, and A. Wanniger. 2006. Chapter 9. The Molluscan Literature: Geographic and Taxonomic Works. in C.F. Sturm, T.A. Pearce, and A. Valdes, eds., The Mollusks: A Guide to Their Study, Collection, and Preservation. American Malacological Society, Pittsburgh, PA, USA pp. 111–146. Universal Publishers, Boca Raton, Florida.

Miscellaneous

Cummings, K.S. 2006. Mollusca. Pages 70–80 in D.W. Webb, ed. Current and selected bibliographies on benthic biology. North American Benthological Society Bibliography 2005.

Tucker, J.K. 2006. A bibliography of cone shells described after 1999. The Cone Collector 1:6–8.

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PROGRAM 3.–Science in Support of Public and Environmental Health

Studies in this program include ecotoxicology studies, diseases of fish and wildlife, West Nile virus and other arthropod borne diseases, contaminant transfer through the food chain, and water and air quality impacts on ecosystems.

Goal 1: Research and Information Dissemination

Provide surveillance, intervention and management strategies, and information that support public and environmental health.

Objective 1.1: Medical Entomology.–Conduct studies of the biology and management of insects, invertebrates, and associated pathogens that affect the health and well-being of humans, wildlife, and other animals in natural and urban ecosystems.

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Sanogo Y.O., S.L. Dobson, S.R. Bordenstein, and R.J. Novak. 2006. Disruption of the Wolbachia surface protein gene *wspB* by a transposable element in mosquitoes of the *Culex pipiens* complex (Diptera, Culicidae). Poster. The 5th International Symposium on Molecular Insect Science, Tucson, Arizona, May 20–24.

Objective 1.2: Wildlife Diseases.—Conduct epidemiological studies of diseases in wildlife populations at the interface of human, livestock, and wildlife health. This includes studies of the frequency, distribution, mode of transmission, and maintenance of infectious organisms and determinants of health and disease.

Allender, M.C., M.A. Mitchell, C.A. Phillips, K. Gruszynski, and V.R. Beasley. 2006. Hematology, plasma biochemistry, and antibodies to select viruses in wild-caught eastern massasauga rattlesnakes (*Sistrurus catenatus catenatus*) from Illinois. *Journal of Wildlife Diseases* 42(1):107–114.

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Inendino, K.R., E.C. Grant, D.P. Philipp, and T.L. Goldberg. 2006. Effects of factors related to water quality and population density on the sensitivity of juvenile largemouth bass to mortality induced by viral infection. *Journal of Aquatic Animal Health* 17:304–314.

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Mateus-Pinilla, N.E., J.E. Novakofski, J. Diffendorfer, and J. Killefer. 2006. Genetic relatedness and gene flow of white-tailed deer (*Odocoileus virginianus*) in the Chronic Wasting Disease-prevalent region of Illinois. Illinois Department of Natural Resources and International Association of Fish and Wildlife Agencies (IAFWA).

Mateus-Pinilla, N.E., M. Pinkerton, J. Andrews, J.K. Whittington, J.E. Novakofski, J. Killefer, J. Diffendorfer, E. Jewell, A. Kelly, and J. Thornhill. 2006. W-146-R-01 Annual Federal Aid Performance Report. Wildlife and Chronic Wasting Disease Surveillance. Illinois Department of Natural Resources. January 2006.

Objective 1.3: Effects of Environmental Degradation and Contaminants.—Conduct studies on plants and wildlife in degraded and contaminated habitats (e.g., Lake Calumet) to assess the consequences of anthropogenic chemical and physical stressors on native aquatic and terrestrial organisms, communities, and ecosystems, including food-chain effects of various contaminants in the environment.

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Soucek D.J. 2006. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Final Report to the United States Environmental Protection Agency, Region 5, Chicago, IL. June 20, 2006.

Soucek, D.J., J.M. Levensgood, S. Gallo, W.R. Hill, J.L. Talbott, and G.O. Bordson. 2006. Risks to insectivorous birds in the Calumet Region from transfer of contaminants from sediments to emergent aquatic insects. Tenth Quarterly Progress Report submitted to Illinois Waste Management and Research Center. March 31, 2006.

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PROGRAM 4.–Science in Support of Threatened and Endangered Species

This program includes studies on the basic biology and ecology of threatened or endangered species with the intent to provide data for proper conservation management.

Goal 1: Research and Information Dissemination

Conduct studies of species with official designation as threatened or endangered and their habitats, or species considered to be candidates for these designations.

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Mendelson, J.R., K.R. Lips, R.W. Gagliardo, G.B. Rabb, J.P. Collins, J.E. Diffendorfer, P.D. Dasza, R. Ibáñez, K.C. Zippel, D.P. Lawson, K.M. Wright, S.N. Stuart, C. Gascon, H.R. da Silva, P.A. Burrowes, R.L. Joglar, E. La Marca, S. Lötters, L.H. du Preez, C. Weldon, A. Hyatt, J.V. Rodriguez-Mahecha, S. Hunt, H. Robertson, B. Lock, C.J. Raxworthy, D.R. Frost, R.C. Lacy, R.A. Alford, J.A. Campbell, G. Parra-Olea, F. Bolaños, J.J.C. Domingo, T. Halliday, J.B. Murphy, M.H. Wake, L.A. Coloma, S.L. Kuzmin, M.S. Price, K.M. Howell, M. Lau, R. Pethiyagoda, M. Boone, M.J. Lannoo, A.R.

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Panno, S.V., K.C. Hackley, W.R. Kelly, H.H. Hwang, F.M. Wilhelm, S.J. Taylor, and B.J. Stiff. 2006. Potential effects of recurrent low oxygen conditions on the Illinois cave amphipod. *Journal of Cave and Karst Studies* 68(2):55–63.

Wenny, D., L. Anderson, D. Kirk, J. Bergstrom, D. Enstrom, and K. Paige. 2006. Ecology and genetics of an isolated population of Swainson's hawk in Illinois. *Journal of Raptor Research* 40:270–276.

Wilhelm, F.M., S.J. Taylor and G.L. Adams. 2006. Comparison of routine metabolic rates of the troglobite, *Gammarus acherondytes* (Amphipoda: Gammaridae), and the troglophile, *Gammarus troglophilus*. *Freshwater Biology* 51:1162–1174.

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Anderson, W.L., and L.K. Campbell. 2006. Results of the 2006 Illinois Conservation Order Snow Goose Survey. Illinois Department of Natural Resources, Federal Aid in Wildlife Restoration W-112-R-15. Human Dimensions Program Report HR-06-06. Illinois Natural History Survey, Champaign, IL. 17pp.

Banning, W.J., M.J. Dreslik, and C.A. Phillips. 2006. Continued study of the ecology of the freshwater turtle community at Lockport Prairie Nature Preserve: with special emphasis on the Blanding's Turtle (*Emydoidea blandingii*). Illinois Natural History Survey, Center for Biodiversity, Technical report 2006(4):1–259 + iv.

Dreslik, M.J. 2006. Report on activities concerning threatened and endangered amphibians and reptiles. Report to: Illinois Department of Natural Resources. 85 pp.

Dreslik, M.J., S.J. Baker, and C.A. Phillips. Survey for the state endangered eastern massasauga rattlesnake (*Sistrurus catenatus*) in the Chicagoland Region: field surveys from 2005–2006 and historical occurrence. Illinois Natural History Survey, Center for Biodiversity, Technical report 2006(10):1–73 + ii.

Dreslik, M.J., and C.A. Phillips. 2006. Monitoring results for the threatened Blanding's turtle (*Emydoidea blandingii*) in the Interstate I-355 south extension (FAP 340) corridor. Illinois Natural History Survey, Center for Biodiversity, Technical report 2006(1):1–31. [ACCESS RESTRICTED]

Enstrom, D.A. 2006. Ecology of Swainson's Hawk, McHenry and Kane Counties, IL. Report to the Illinois Department of Transportation.

Hill, S.R. 2006. Conservation assessment for the New York fern (*Thelypteris noveboracensis* (L.) Nieuwl.). Illinois Natural History Survey, Center for Wildlife and Plant Ecology Technical Report 2006 (4). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 28 April 2006. 35 pp.

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Hill, S.R. 2006. Conservation assessment for the fibrous-rooted sedge (*Carex communis* L.H. Bailey var. *communis*). Illinois Natural History Survey, Center for Wildlife and Plant Ecology Technical Report 2006 (7). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 30 June 2006. 34 pp.

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Hill, S.R. 2006. Conservation assessment for the sharpscale sedge (*Carex oxylepis* Torr. & Hook.). Illinois Natural History Survey, Center for Wildlife and Plant Ecology Technical Report 2006 (12). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 9 August 2006. 38 pp.

Hill, S.R. 2006. Conservation assessment for the social sedge (*Carex socialis* Mohlenbr. & Schwegman). Illinois Natural History Survey, Center for Wildlife and Plant Ecology Technical Report 2006 (13). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 17 August 2006. 34 pp.

- Hill, S.R. 2006. Conservation assessment for the clustered beak-rush (*Rhynchospora glomerata* (L.) Vahl). Illinois Natural History Survey, Center for Wildlife and Plant Ecology Technical Report 2006 (14). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 8 September 2006. 35 pp.
- Hill, S.R. 2006. Conservation assessment for the weak-stalk bulrush (*Schoenoplectus purshianus* (Fernald) M.T.Strong). Illinois Natural History Survey, Center for Wildlife and Plant Ecology Technical Report 2006 (15). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 15 September 2006. 36 pp.
- Hill, S.R. 2006. Conservation assessment for the fairy-wand (*Chamaelirium luteum* (L.) A.Gray). Illinois Natural History Survey, Illinois Natural History Survey Technical Report 2006 (5). Prepared for the U.S.D.A. Forest Service, Shawnee and Hoosier National Forests. 7 November 2006. 42 pp.
- Kuhns, A.R., C.D. Benda, M.J. Dreslik, and C.A. Phillips. 2006. Annual report 2005: status of Blanding's turtles in Lake County Forest Preserve District and feasibility of initiating a head-starting program at Rollins Savanna. Illinois Natural History Survey Center for Biodiversity Technical Report 2006(3):1-55. [ACCESS RESTRICTED]
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- Mengelkoch, J.M. 2006. Franklin's ground squirrel survey on Interstate 90 from Interstate 294 to Sandwald Road: summer 2006. Illinois Natural History Survey Technical Report 2006 (8). Submitted to the Illinois State Toll Highway Authority, Downer's Grove, IL. 16 pp.
- Murphy, M.J.C. 2006. Survey and assessment of *Boltonia decurrens* (Torrey & Gray) wood population at the McClugage Bridge recovery site, Peoria County, Illinois. INHS Technical Report 2006(15). 24 pp. [ACCESS RESTRICTED]
- Nyboer, R., and D. Wenny. 2006. Historic endangered and threatened plant species occurrence updates for Illinois natural resources region 1. INHS Technical Report 2006(6) 10 pp.
- Phillippe, L.R., B. Molano-Flores, M.J.C. Murphy, and J.E. Ebinger. 2006. Development of a recovery strategy for endangered plant species through habitat recovery, preservation, and management. Center for Biodiversity Technical Report 2006(5) Prepared for the Illinois Endangered and Threatened Species Protection Board. 524 pp.
- Taft, J.B. 2006. Memorandum reporting botanical survey results with emphasis on the state-endangered speckled alder (*Alnus incana*) at FAP 303 (IL Route 173) over Piscasaw Creek and Piscasaw Creek Overflow, McHenry County, IL. Memorandum submitted to IDOT on 2 October 2006.
- Taft, J.B. 2006. *Viburnum molle* transplantation monitoring results for 2006. Memorandum submitted to IDOT on 19 October 2006.
- Taft, J.B. 2006. Survey for *Boltonia decurrens* along IL. Route 100 in Schuyler County. Memorandum submitted to IDOT on 26 October 2006.
- Taft, J.B. 2006. 2006 transplantation monitoring results for *Carex viridula* and *Juncus alpinus* at The Hollows, McHenry County. Memorandum submitted to the IDOT on 9 November 2006.
- Taft, J.B., M. McNicoll, and V. Sivicek. 2006. Monitoring results for threatened and endangered plant species in the Interstate 355 south extension crossing of the Des Plaines River valley. Illinois Natural History Survey Technical Report. Division of Biodiversity and Ecological Entomology, Section of Biotic Surveys and Monitoring. Submitted to Illinois State Toll Highway Authority, Downers Grove, Illinois, 7 December 2006.
- Taylor, S.J., and J.K. Krjeca. 2006. A biological assessment of caves in Lava Beds National Monument. Illinois Natural History Survey, Center for Biodiversity Technical Report 2006(6):1-107.
- Taylor, S.J., C.A. Phillips, J.K. Krejca and M.J. Dreslik. 2006. Population estimates and age class structure of the salamander *Plethodon albagula* (Plethodontidae) at Fort Hood, Texas. Illinois Natural History Survey Technical Report 2006(1):1-52.

Taylor, S.J., M.E. Slay, and W.C. Handel. 2006. Cave fauna survey and monitoring at Fort Leonard Wood, Missouri. Illinois Natural History Center for Biodiversity Technical Report 2006(7). xi + 245 pp.

Miscellaneous

Taylor, S.J. 2006. Cave bioinventory: new discoveries and ongoing research. The Midden (The Resource Management Newsletter of Great Basin National Park) 6(2):1.

Cummings, K.S. 2006. Mollusca. in C.A. Mayer (ed.). *Ellipsaria*. The Newsletter of the Freshwater Mollusk Conservation Society. 8(2):15–28.

Tucker, J.K. 2006. Slider turtles, climatic change, and conservation in the Mississippi and Illinois River corridors in west central Illinois. National Great Rivers Research and Education Center. 7 pp.

PROGRAM 5.–Science in Support of Invasive Species Prevention, Management, and Control

This program is designed to elucidate the biology of invasive and potentially invasive species, explore various strategies to prevent invasions, and control and manage invasive species that have become established.

Goal 1: Prevention

Develop methods and projects to prevent establishment of invasive species.

Objective 1.1: Early Detection of Invasive Species.–Help develop and expand the program to conduct focused surveys to detect the early presence of new invasive species, allowing rapid response to prevent establishment or spread.

Irons, K.S., M.A. McClelland, and M.A. Pegg. 2006. Expansion of the round goby in the Illinois waterway. *American Midland Naturalist* 156:198–200.

Objective 1.2: Studies of Aquatic Barriers.–Continue work on electric and other barriers to prevent Asian carp from reaching the Great Lakes.

Miscellaneous

Pegg, M.A., and J.H. Chick. 2006. Use of a bioacoustic fish fence to prevent the spread of Asian carp to the Great Lakes: importance of acoustic signal specificity. Poster. The Invasive Asian Carps in North America: A Forum to Understand the Biology and Manage the Problem. Peoria, Illinois.

Objective 1.3: Information Dissemination.–Produce fact sheets and other information designed to inform the public and prevent establishment and spread of invasive species.

Miscellaneous

Appleby, J.E., P. Nixon, K. Cook, S. Knight, M. Cinnamon, and E. Makra. 2006. Firewood warning poster for emerald ash borer awareness. University of Illinois.

Charlebois, P.M. and K.M. TePas. 2006. Got aquatic pets and plants? Get Habitattitude. *Outdoor Illinois* 14(3):26–27.

Charlebois, P.M., and K.M. TePas. 2006. Illinois aquatic invasive species updates. Newsletter. Illinois-Indiana Sea Grant College Program.

Charlebois, P.M., K.M. TePas, and S. White. 2006. Don't dump bait. Sticker (revised). Illinois-Indiana Sea Grant College Program.

Irons, K.S. 2006. Illinois River Asian carp continue to gather national media attention. The Illinois Chapter of the American Fisheries Society Newsletter 19(3):January.

Lamer, J.T., C.R. Dolan, J.H. Chick, and J.M. Epifanio. 2006. Hybridization between silver and bighead carp in the Mississippi and Illinois rivers. Poster. The Invasive Asian Carps in North America: A Forum to Understand the Biology and Manage the Problem. Peoria, Illinois.

Molano-Flores, B.F., and J.M. Mengelkoch. 2006. Water hyacinth in Illinois and the law. Grand Prairie Friend's Newsletter 8(4):Fall.

O'Connell, M.T., A.M. Uzee O'Connell, V.A. Barko, and J.H. Chick. 2006. Silver carp (*Hypthalmichthys molitrix*) and bighead carp (*H.*

nobilis) in the Mississippi River basin: occurrence data and dispersal patterns. Poster. The Invasive Asian Carps in North America: A Forum to Understand the Biology and Manage the Problem. Peoria, Illinois.

Raghu, S. Post, R. Wiedenmann, and M. Jeffords. 2006. Invasive, exotic plants in Illinois. Outdoor Illinois 14(5):2-5.

TePas, K.M., and P.M. Charlebois. 2006. Stop aquatic hitchhikers! Sticker (revised). Illinois-Indiana Sea Grant College Program.

TePas, K.M., P.M. Charlebois, and S. White. 2006. Aquatic nuisance species in 2007 Illinois Fishing Information Guide. Illinois Department of Natural Resources.

Objective 1.4: Diagnostics and Prediction.—Develop tools for accurately identifying invasive species and distinguishing them from their native relatives. Develop revised phylogenetically based classifications that facilitate identification of species and lineages likely to become invasive and aid identifying and assessing the efficacy of potential biological control agents.

Goal 2: Biology of Invasive Species

Conduct theoretical and empirical research on the biological basis of invasiveness of indigenous and exotic species to inform management of these species.

Objective 2.1: Population Ecology of Invasive Species.—Study the demography of invasive plants to identify key life history characteristics that permit invasiveness.

Dorji, C., A.R. Clarke, R.A.I. Drew, B.S. Fletcher, P. Loday, K. Mahat, S. Raghu, and M.C. Romig. 2006. Seasonal phenology of *Bactrocera minax* (Diptera: Tephritidae) in western Bhutan. Bulletin of Entomological Research 96:531-538.

Objective 2.2: Ecological Interactions of Invasive Species.—Investigate the interactions of invasive species with the biotic and abiotic components of invaded habitats.

Fallon, D.J., L.F. Solter, L.S. Bauer, D.L. Miller, J.R. Cate, and M.L. McManus. 2006. Effect of entomopathogenic nematodes on *Plectrodera scalator* (Fabricius) (Coleoptera: Cerambycidae). J. Invertebr. Pathol. 92:55-57.

Madenjian C.P., S.A. Pothoven, J.M. Dettmers, and J.D. Holuszko. 2006. Changes in seasonal energy dynamics of alewife (*Alosa pseudoharengus*) in Lake Michigan after invasion of dreissenid mussels. Canadian Journal of Fisheries and Aquatic Sciences 63:891-902.

Nannini, M.A., and M.C. Belk. 2006. Antipredator responses of two native stream fishes to an introduced predator: does similarity in morphology predict similarity in behavioural response? *Ecology of Freshwater Fish* 15:453–463.

Raghu, S., K. Dhileepan, and M. Treviño. 2006. Response of an invasive liana to simulated herbivory: Implications for its biological control. *Acta Oecologica* 29:335–345.

Objective 2.3: Risk Analysis of Exotic Species.—Conduct studies to evaluate the ecological risks of exotic species that may become established in Illinois.

Raghu, S., R.C. Anderson, C.C. Daehler, A.S. Davis, R.N. Wiedenmann, D. Simberloff, and R.N. Mack. 2006. Adding biofuels to the invasive species fire? *Science* 313:1742.

Miscellaneous

Raghu, S. Dhileepan, K. and Scanlan, J. 2006. Predicting risk and benefit of biological control agents for invasive plant species *a priori*: a systems modeling approach. *Poster*. Ecological Society of America, Memphis, Tennessee, August 6–11.

Goal 3: Managing Invasive Species

Develop methods of management for key invasive species.

Objective 3.1: Biological Control of Invasive Species.—Develop appropriate methods of controlling invasive species using biological control agents.

Bartelt, R., A. Cossé, B. Zilkowski, D. Weisleder, S. Grode, R. Wiedenmann, and S. Post. 2006. Pheromonallyactive dimethylfuran lactone from males of *Galerucella calmariensis* and *G. pusilla* (Coleoptera: Chrysomelidae). *Journal of Chemical Ecology* 32:693–712.

Raghu, S., and R.D. van Klinken. 2006. Refining the ecological basis for agent selection in weed biological control. *Australian Journal of Entomology* 45:251–252.

Dhileepan, K., K.A.D.W. Senaratne, and S. Raghu. 2006. A systematic approach to biological control agent exploration and prioritisation for prickly acacia (*Acacia nilotica* ssp. *indica*). *Australian Journal of Entomology* 45:303–307.

Schwab, L.K., and S. Raghu. 2006. Nutrient composition of soil and plant may predict the distribution and abundance of specialist insect herbivores: implications for agent selection in weed biological control. *Australian Journal of Entomology* 45:345–348.

Dhileepan, K., M. Treviño, and S. Raghu. 2006. Temporal patterns in incidence and abundance of *Aconophora compressa* (Hemiptera: Membracidae), a biological control agent for *Lantana camara*, on target and nontarget plants. *Environmental Entomology* 35:1001–1012.
Pilarska, D.K., L.F. Solter, M. Kereselidze, A. Linde, and G. Hoch. 2006. Microsporidian infections in *Lymantria dispar* larvae: interactions and effects of multiple species infections on pathogen horizontal transmission. *J. Invertebr. Pathol.* 93:105–113.

Solter, L.F. 2006. Transmission as a predictor of ecological host specificity with a focus on vertical transmission of microsporidia. *J. Invertebr. Pathol.* 92:132–140.

Miscellaneous

Schwab, L.K., R. Wiedenmann, and S. Raghu. 2006. Correlations between plant nutrients and insect herbivore community composition: implications for biological control of leafy spurge, (*Euphorbia esula*). *Poster*. Ecology in an Era of Globalization: Challenges and Opportunities for Environmental Scientists in the Americas, an International Conference of the Ecological Society of America. Merida, Mexico, January 8–12.

Raghu, S., K. Dhileepan, and J. Wilson. 2006. Refining the process of agent selection through understanding plant demography and plant response to herbivory. *Australian Journal of Entomology* 45: 308–316.

Objective 3.2: Integrated Management.—Identify and evaluate methods to integrate strategies to control and manage invasive species.

Parkos, J.J. III, V.J. Santucci, Jr., and D.H. Wahl. 2006. Effectiveness of a plastic mesh substrate cover for mitigating the effects of common carp on aquatic ecosystems. *North American Journal of Fisheries Management* 26:861–866.

PROGRAM 6.—Science in Support of State Fish, Wildlife, and Outdoor Recreational Programs

Studies in this program include investigations of sport fish and game animals, habitat management of game animals, human dimensions research, creel surveys, and database development for sport fish and wildlife. These studies directly support Illinois Department of Natural Resources fish, wildlife, and land managers.

Goal 1: Fish and Wildlife Conservation

Provide information from studies of fish and wildlife game populations, communities, and environments with a focus on providing scientific input to inform management decisions.

Objective 1.1: Fisheries Science.—Conduct studies of fisheries and aquatic populations with exploited, recreational, aesthetic, or aquacultural value.

Aday, D.D., D.P. Philipp, and D.H. Wahl. 2006. Sex-specific life history patterns in bluegill (*Lepomis macrochirus*): interacting mechanisms influence individual body size. *Oecologia* 147:31–38.

Cooke, S.J., and D.P. Philipp. 2006. Hybridization among divergent stocks of largemouth bass (*Micropterus salmoides*) results in altered cardiovascular performance: the influence of genetic and geographic distance. *Physiological and Biochemical Zoology* 79:400–410.

Creque, S.M., M.J. Raffenberg, W.A. Brofka, and J.M. Dettmers. 2006. If you build it will they come? Fish and angler use at a freshwater artificial reef. *North American Journal of Fisheries Management* 26:702–713.

Fulford, R.S., J.A. Rice, T.J. Miller, F.P. Binkowski, J.M. Dettmers, and B. Belonger. 2006. Foraging selectivity by larval yellow perch (*Perca flavescens*): implications for understanding recruitment in small and large lakes. *Canadian Journal of Fisheries and Aquatic Sciences* 63:28–42.

Galarowicz, T.L., J.A. Adams, and D.H. Wahl. 2006. The influences of prey availability on multiple ontogenetic diet shifts and growth of a juvenile piscivore. *Canadian Journal of Fisheries and Aquatic Sciences* 63(8):1722–1733.

Graeb, B.D.S., M.T. Mangan, J.C. Jolley, D.H. Wahl, and J.M. Dettmers. 2006. Ontogenetic changes in prey preference and foraging ability of yellow perch: insights based on relative energetic return of prey. *Transactions of the American Fisheries Society* 135:1493–1498.

Grant, E.C., Inendino, K.R., W.J. Love, D.P. Philipp, and T.L. Goldberg. 2006. Effects of practices related to catch-and-release angling on mortality and viral transmission of juvenile largemouth bass infected with largemouth bass virus. *Journal of Aquatic Animal Health* 17:315–322.

Hoxmeier, R.J.H., D.H. Wahl, R.C. Brooks, and R.C. Heidinger. 2006. Growth and survival of age-0 walleye: interactions among walleye size, prey availability, predation, and abiotic factors. *Canadian Journal of Fisheries and Aquatic Sciences* 63: 2173–2182.

Killen, S.S., C.D. Suski, S.J. Cooke, D.P. Philipp, and B.L. Tufts. 2006. Factors contributing to the physiological disturbance of walleyes during live-release angling tournaments. *Transactions of the American Fisheries Society* 135: 557–569.

Li, L., H.P. Wang, C. Givens, S. Czesny, and B. Brown. 2006. Isolation and characterization of microsatellites in yellow perch (*Perca flavescens*). *Molecular Ecology Notes*, (no volume, pages yet) on-line only.

Lischka, S.A., and J.J. Magnuson. 2006. Timing and site selection of spawning in a landlocked population of rainbow smelt. *Environmental Biology of Fishes* 76:413–418.

Siepkner, M.J., K.G. Ostrand, D.P. Philipp, and D.H. Wahl. 2006. Evidence of reduced reproductive success of nesting largemouth bass sampled with standard electrofishing procedures. *North American Journal of Fisheries Management* 26:631–635.

Siepkner, M.J., K.G. Ostrand, and D.H. Wahl. 2006. Effects of angling on feeding by largemouth bass. *Journal of Fish Biology* 69:783–793.

Wagner, C.P., and D.H. Wahl. 2006. Evaluation of temperature-selection differences among juvenile muskellunge originating from different latitudes. *Environmental Biology of Fishes* 79:85–98.

Technical Reports

Brofka, W.A., and J.M. Dettmers. 2006. A survey of sport fishing in the Illinois portion of Lake Michigan March through September, 2005. Aquatic Ecology Technical Report 06/04. Illinois Natural History Survey, Champaign, Illinois, 58 pp.

Diana, M.J., J.J. Parkos, III, J.E. Claussen, D.P. Philipp, and D.H. Wahl. 2006. Factors influencing largemouth bass recruitment: implications for the Illinois Management and Stocking Program. INHS Technical Report submitted to the Illinois Department of Natural Resources, Division of

Fisheries. Issued August 2006. INHS Center for Aquatic Ecology and Conservation 2006 (06). Available in INHS Library.

Diana, M.J., J.A. Stein, R.W. Oplinger, D.P. Philipp, and D.H. Wahl. 2006. Quality management of bluegill: factors affecting population size structure. Annual Progress Report October 1, 2005 through September 30, 2006. Project name: Quality Management of Bluegill. INHS Technical Report submitted to Illinois Department of Natural Resources, Division of Fisheries. Issued November 2006. INHS Center for Aquatic Ecology and Conservation 2006 (09). Available in INHS Library.

Parkos, J.J., M.J. Diana, K.G. Ostrand,, M.J. Siepkner, S.J. Cooke, D.P. Philipp, and D.H. Wahl. 2002, 2003, 2004, 2005, 2006. Factors influencing largemouth bass recruitment: implications for the Illinois management and stocking program. Annual Report. Illinois Department of Natural Resources, Federal Aid in Fish Restoration Project F-135-R, Springfield, Illinois.

Redman, R.A., S.J. Czesny, D.C. Glover, S.M. Miehl, and J.M. Dettmers. 2006. Yellow perch population assessment in southwestern Lake Michigan, including evaluation of sampling techniques and identification of the factors that determine yellow perch year-class strength. Annual Report to the Illinois Department of Natural Resources. Illinois Natural History Survey Technical Report 06/05. 45 pp.

Wagner, C.P., M.J. Diana, and D.H. Wahl. 2003, 2004, 2005, 2006. Evaluation of growth and survival of different genetic stocks of muskellunge: implications for stocking programs in Illinois and the Midwest. Annual Report. Illinois Department of Natural Resources, Federal Aid in Fish Restoration Project F-151-R, Springfield, Illinois.

Miscellaneous

Creque, S.M., and J.M. Dettmers. 2006. A matter of degrees: water temperatures can determine whether angling success is hot or cold on Lake Michigan. *Outdoor Illinois* 14(4):5–7.

Objective 1.2: Wildlife Science.—Conduct studies of terrestrial wildlife populations with exploited, recreational, aesthetic, or agricultural value.

Stafford, J.D., R.M. Kaminski, and K.J. Reinecke. 2006. Waste rice for waterfowl in the Mississippi Alluvial Valley. *Journal of Wildlife Management* 70:61–69.

Stafford, J.D., K.J. Reinecke, R.M. Kaminski, and P.D. Gerard. 2006. Multi-stage sampling for large scale natural resource surveys: a case study of rice and waterfowl. *Journal of Environmental Management* 78:353–361.

Technical Report

Lischka, S.A., and S.J. Riley. 2006. Enabling impact-based management of acceptance capacity for white-tailed deer in southern Michigan. Final Report to Wildlife Division, Michigan Department of Natural Resources. Department of Fisheries and Wildlife, Michigan State University, East Lansing, MI.

Miscellaneous

Dolan, C.R. 2003. Basic statistical terminology used in wildlife and fisheries management. *Watershed Management Briefs* 4(2):4-5.

Stafford, J.D. 2006. Waterfowl hunting outlook: United States. *The Traveling Wingshooter*. Fall 2006.

Stafford, J.D. The Northern Pintail. *The Retriever Journal*. October/November 2006.

Stafford, J.D. The Green-winged Teal. *The Retriever Journal*. August/September 2006.

Stafford, J.D. The mechanics of adaptive harvest management for waterfowl. *The Retriever Journal*. June/July 2006.

Stafford, J.D. 2006. Avian influenza: what does it mean to waterfowl and waterfowl hunters in North America? *The Retriever Journal Online*. <http://www.retrieverjournal.com/birdflu.php>.

Stafford, J.D., C.S. Hine, M.M. Horath, and A.P. Yetter. 2006. Why are some seasons better than others?: factors influencing duck hunter success on public lands in Illinois. *Proceedings of the 4th North American Duck Symposium and Workshop*. Pages 92–93.

Goal 2: Human Dimension Aspects of Fish and Wildlife Management

Provide human dimensions information with emphasis on improving management decisions for fish and wildlife resources, their environments, and their stakeholders.

Objective 2.1: Fisher and Hunter/Trapper Activities, Harvests, and Attitudes Toward Fish and Wildlife Resources.—Conduct studies of fish and wildlife harvests; fisher/hunter/trapper activities; and characteristics, attitudes, and opinions of stakeholder groups.

Edison, T.W., D.H. Wahl, M.J. Diana, D.P. Philipp, and D. J. Austen. 2006. Angler opinion of potential bluegill regulations on Illinois lakes: Effects of angler demographics and bluegill population size structure. *North American Journal of Fisheries Management* 26:800–811.

Technical Reports

Horath, M.M., A.P. Yetter, J.D. Stafford, and C.S. Hine. 2006. Illinois waterfowl surveys and investigations. Annual Report. Federal Aid in Wildlife Restoration Act, Illinois. W-43-R-53. August. 58 pp.

Lischka, S.A., W.L. Anderson, and L.K. Campbell. 2006. Results of the 2005–2006 Illinois Hunter Harvest Survey. Job Completion

Report, Federal Aid in Wildlife Restoration W-112-R-15. Human Dimensions Program Report HR-06-01. Illinois Natural History Survey, Champaign, IL. 55 pp.

Lischka, S.A., W.L. Anderson, and L.K. Campbell. 2006. Results of the 2005–2006 Illinois Trapper Survey. Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-15. Human Dimensions Program Report HR-06-02. Illinois Natural History Survey, Champaign, IL. 34 pp.

Lischka, S.A., W.L. Anderson, and L.K. Campbell. 2006. Results of the 2005–2006 Illinois Deer Hunter Survey. Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-15. Human Dimensions Program Report HR-06-05. Illinois Natural History Survey, Champaign, IL. 29 pp.

Miller, C.A., W.L. Anderson, L.K. Campbell, and P.D. Leiter. 2006. An assessment of hunters' perceptions of Chronic Wasting Disease in Illinois' deer herd: impacts of hunter participation in 2002–2003 and 2003–2004. Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-13. Human Dimensions Program Report HR-03-05. Illinois Natural History Survey. Champaign IL. 42 pp.

Miller, C.A., W.L. Anderson, L.K. Campbell, and P.D. Leiter. 2006. Results of the 2003–2004 Illinois Hunter Access Survey. Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-13. Human Dimensions Program Report HR-04-04. Illinois Natural History Survey. Champaign IL. 13 pp.

Miller, C.A., W.L. Anderson, L.K. Campbell, and P.D. Leiter. 2006. Results of the Wildlife and Conservation in Illinois Survey (2004). Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-13. Human Dimensions Program Report HR-04-07. Illinois Natural History Survey. Champaign IL. 38 pp.

Miller, C.A., W.L. Anderson, L.K. Campbell, and P.D. Leiter. 2006. Results of the 2003–2004 Illinois Youth Hunter Survey. Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-13. Human Dimensions Program Report HR-04-08. Illinois Natural History Survey. Champaign IL. 26 pp.

Objective 2.2: Creel Census of Fish Populations.—Conduct studies to monitor fish populations that support sustainable recreational fisheries, and provide resulting information to resource managers.

Objective 2.3: Fisheries Analysis System (FAS).—Manage, maintain, and disseminate historical and current fish population sampling data for Illinois lakes and streams.

Technical Report

Stein, J.A, R.F. Illyes, L. Miller-Ishmael, T. McNamara, B. Carroll, J. Claussen, J. Epifanio, and D.P. Philipp. Database management and analysis of fisheries in Illinois. Segment 19. Center for Aquatic Ecology and Conservation Technical Report 06/02. Annual Segment Report to the Illinois Department of Natural Resources.

PROGRAM 7.—Science in Support of Agriculture

Projects in this program include organic farming research, the biology and management of crop pests, inventories and monitoring of crop pests, and other research related to protecting farmlands and agricultural production.

Goal 1: Research and Information Dissemination

Conduct research and provide biological and ecosystem information aimed at developing effective management strategies for insect and other pest species in agricultural systems.

Objective 1.1: Agricultural Entomology.—Conduct studies of the relationships among agricultural systems, insect pests, other plant and animal species, and natural ecosystems.

Dhileepan, K., B.J. Croft, A. Ridley, A.P. James, and S. Raghu. 2006. Susceptibility of source plants to Sugarcane Fiji Disease virus influences the acquisition and transmission of the virus by the planthopper vector *Perkinsiella saccharicida*. Journal of Applied Entomology 130:67–71.

Technical Reports

Spencer, J.L. 2006. Illinois State Report: synopsis of activities in 2005–2006. Report to NCR-148: Migration and Dispersal of Insects and Other Biota: 4 pp.

Spencer, J., E. Levine, D. Onstad, M. Gray, and K. Steffey, and S. Ratcliffe. 2006. Illinois corn rootworm research. Report to the NCR-46 Corn Rootworm Technical Committee, USDA. Project Report. 8 pp.

Objective 1.2: Ecology and Biological Control.—Conduct studies of the natural history of pest species, their relationships to their natural enemies, and experimental manipulation of natural enemies to limit the ecological and economic impacts of pest species.

Cloyd, R.A., and A. Dickinson. 2006. Effect of *Bacillus thuringiensis* subsp. *israelensis* and neonicotinoid insecticides on the fungus gnat *Bradysia* sp. nr. *coprophila* (Lintner) (Diptera: Sciaridae). *Pest Management Science* 62(2):171–177.

Knolhoff, L., D. Onstad, J. Spencer, and E. Levine. 2006. Behavioral differences between rotation-resistant and wild-type *Diabrotica virgifera virgifera* (Coleoptera: Chrysomelidae). *Environmental Entomology* 35(4):1049–1057.

van Klinken, R.D., and S. Raghu. 2006. A scientific approach to agent selection. *Australian Journal of Entomology* 45:253–258.

Technical Reports

Solter, L.F. 2006. Annual Report, NCR-125 North Central Regional Project on Biological Control of Arthropod Pests. 1 p.

Objective 1.3: Integrated Pest Management and Insect Resistance Management.—Conduct research that measures the effects of conventional and alternative pest management practices on crop protection and susceptibility of pest species.

Miscellaneous

Cook, K.A., and M.P. Montgomery. 2006. Utilizing insecticide mode of action to combat insect resistance to insecticides. University of Illinois. College of Agricultural, Consumer, and Environmental Sciences. Brochure 4M122006.

Solter, L.F. 2006. Final Report: No. USDA-ARS #6406-22000-024-02S. Suppression of Eastern Tent Caterpillar Populations with Insect Pathogens in Central Kentucky. 2 pp.

Solter, L.F. 2006. Annual Report on S-301 Development, evaluation and safety of entomopathogens for control of arthropod pests. ILLU-875-344. 2 pp.

Miscellaneous

Lagos, D. and D. J. Voegtlin. 2006. Seasonal abundance of pest aphid species in Illinois collected in suction traps. Poster. NCB meeting of the ESA, Bloomington, Illinois, March 2006.

Spencer, J.L. 2006. Tracking movement of mate-seeking WCR males between refuges and transgenic corn. *Illinois Natural History Survey Reports* 388:1.

Cook, K.A., Steffey, K.L., and M.E. Gray. 2006. Chapter 1, Insect management in field and forage crops in R. Kanter, ed., 2006 *Illinois Agricultural Pest Management Handbook*. University of Illinois Cooperative Extension Service.

Objective 1.4: Organic Farming.—Work in partnership with University of Illinois researchers and organic growers to develop an interdisciplinary, cross-institutional organic farming systems research and education program that seeks to elucidate and provide sound scientific information on fundamental ecological and agronomic mechanisms for productivity and long-term sustainability of organic farming systems; improve the performance of these systems; and enhance the ability of midwestern producers to meet the growing demand for organic produce.

Lundgren, J.G., J.T. Shaw, E.R. Zaborski, and C.E. Eastman. 2006. The influence of organic transition systems on beneficial ground-dwelling arthropods and predation of insects and weed seeds. *Renewable Agriculture & Food Systems* 21:227–237.

Eastman, C., E. Zaborski, J. Masiunas, M. Wander, D. Eastburn, L. Cooperband, D. Cavanaugh-Grant, D. Anderson, and J. Lundgren. 2006. Transitioning to organic farming: impact on soil fertility and pest management. One-page report to the Board of Energy and Natural Resources of the Illinois Natural History Survey.

Technical Reports

Eastman, C., E. Zaborski, M. Wander, D. Eastburn, J. Masiunas, J. Lundgren, L. Cooperband, D. Cavanaugh-Grant, and D. Anderson. 2006. Cropping intensity and organic amendments in transitional farming systems: Effects on soil fertility, weeds, diseases and insects. Annual Report for October 1, 2005–September 30, 2006. USDA-CSREES IPM Organic Transitions Program. 5 pp.

Miscellaneous

Eastman, C., E. Zaborski, J. Lundgren, M. Wander, D. Eastburn, J. Masiunas, L. Cooperband, D. Cavanaugh-Grant, D. Anderson, C. Ugarte, S.-Y. Lee, and I. Rosas. 2006. Agricultural research site in transition to organic production: what will the fourth season (end of transition) tell us? On-line. The New-Ag Network. Vol 3, No. 11. URL: <http://www.ipm.msu.edu/new-ag.htm> (posted September 13, 2006)

Objective 1.5: Pest Diagnostics and Prediction.—Develop tools for accurately identifying noxious and beneficial insects and other species of agricultural importance. Develop revised phylogenetically based classifications that facilitate prediction of the emergence of new pests/invasive species and aid identifying and assessing the efficacy of potential biological control agents.

PROGRAM 8.—Science in Support of Environmental Regulation

Studies in this program address issues related to the environmental impacts of transportation projects (e.g., roads and barges), energy production facilities, and fish and wildlife harvesting. They, therefore, provide the science needed to develop and enforce environmental regulations.

Goal 1: Research and Monitoring

Provide research, surveys, and monitoring to enhance assessment and mitigation of impacts of infrastructure development or improvement projects, to guide future growth and development in environmentally friendly directions.

Objective 1.1: Surveys and Mitigation.—Conduct surveys for threatened or endangered species, as well as other species or habitats of conservation concern (e.g., wetlands), that might be affected by infrastructure development or improvement, and investigate methods for and the effectiveness of mitigation procedures.

Technical Reports

Edwards, A., ed., S. Hill, J. Taft, D. Busemeyer, S. Wiesbrook, B. Zercher, A. Plocher, J. Hofmann, J. Mengelkoch, J. Petzing, D. Enstrom, C. Phillips, S. Taylor, C. Taylor, K. Cummings, S. Amundsen, J. Tiemann, M. Wetzel, K. Moss, L. Cordle, and F. Hutto. 2006. An assessment of the biological resources associated with the Illinois Prairie Parkway Project corridor, Grundy, Kane and Kendall counties, Illinois. Illinois Natural History Survey Center for Wildlife and Plant Ecology Technical Report 2006 (1). xxi + 461 pp. + appendices + figures. Prepared for the Illinois Department of Transportation, Bureau of Design and Environment, Springfield, IL. 10 February.

Edwards, A.L., ed., S.B. Amundsen, D.A. Enstrom, W.C. Handel, S.R. Hill, J.E. Hofmann, R.L. Larimore. 2006. An assessment of the biological resources associated with the Illinois Prairie Parkway Project corridor, (Grundy, Kane, and Kendall counties). INHS Technical Report prepared for Illinois Department of Transportation, Bureau of Design and Environment. Issued 10 July 2006. Cross Center: INHS Center for Biodiversity, INHS Center for Wildlife Ecology, and INHS Center for Aquatic Ecology and Conservation 2006 (8). [Access to this report is restricted.]

Feist, M., ed., S. Amundsen, D. Busemeyer, K. Cummings, C. Grigg, W. Handel, K. Johnson, D. Keene, R. Larimore, P. Marcum, K. Moss, J. Petzing, C. Phillips, A. Plocher, J. Sandberger, J. Taft, C. Taylor, S. Taylor, J. Tiemann, M. Wetzel, L. Cordle, and F. Hutto. 2006. An assessment of biological resources associated with the 2005 Illinois 336 Project corridor, Peoria, Fulton, and McDonough counties, Illinois. Illinois Natural History Survey Center for Wildlife and Plant Ecology Technical Report 2006(2). XIII + 50 PP. + appendices, maps, and figures. Prepared For Illinois Department of Transportation Bureau of Design and Environment, 2300 Dirksen Parkway, Springfield, Illinois 62764. 6 March.

Objective 1.2: Water Quality.—Conduct research to support development of water quality regulations where appropriate.

Objective 1.3: Impact of New Technologies.—Conduct studies to investigate potential impacts to plants and wildlife of new technologies (e.g. wind turbines).

Miscellaneous

Larkin, R.P. 2006. Migrating bats interacting with wind turbines: what birds can tell us. Bat Research News 47:23–32.

Handel, W.C. 2006. The noteworthy vegetation within the Old Madison Road Corridor. Department of Transportation. Technical report prepared for the Illinois Department of Transportation, Bureau of Design and Environment, Springfield. Division of Biodiversity and Ecological Entomology, Section of Biotic Surveys and Monitoring. Technical Report 2006 (4), Illinois Natural History Survey, Champaign 6 pp.

Hill, S.R. 2006. Botanical findings for FS 361, Addendum to U.S. Rt. 67 (FAP 310), Section (69, 9, 85, 55), Job No. P-96-006-93 (Seq. No.: 24E), South of Beardstown; Cass County, Illinois. Illinois Natural History Survey Technical Report 2006 (2). Illinois Natural History Survey, Champaign. Prepared for Illinois Department of Transportation, Springfield. 30 October 2006. 63 pp.

Hofmann, J.E., J.F. Merritt, and J.M. Mengelkoch. 2006. Indiana bat survey, Village of Lemont Bike Path, Sequence No. 12151, DuPage County, IL. Memorandum to Illinois Department of Transportation. 6pp.

Murphy, M.J.C. 2006. Botanical survey and assessment of the Green Bay Trail Bike Path alignment corridor. INHS Technical Report 2006(16). 68 pp. [ACCESS RESTRICTED]

Murphy, M.J.C. 2006. Botanical survey and assessment of the Illinois Interstate-90 Tollway improvement corridor in Cook and Kane counties. INHS Technical Report 2006(14). 36 pp. [ACCESS RESTRICTED]

NOTE: 125 restricted technical reports, completed by the Survey's IDOT Wetlands Group, in 59 Illinois counties, are not listed.

PROGRAM 9.–Science in Support of Understanding Ecology and Life Histories of Organisms not associated with other Research Projects

This program includes projects on the life history, ecology, and behavior of organisms not obviously associated with other research programs, e.g., invasive species, insects associated with health issues, etc.

Goal 1: Life History, Ecological, and Behavioral Studies

Provide information on the natural history of plants, animals, and other organisms, thus providing for improved conservation and management.

Objective 1.1: Biological Studies.–Conduct studies on the behavior, population biology, ecology, and life histories of organisms not obviously associated with other research programs.

Insects

McPherson, J.E., and S.J. Taylor. 2006. Notes on the field life history of *Steinovelina stagnalis* (Hemiptera: Veliidae) with a survey of the biological literature. *Entomological News* 117(4):399–405.

Amphibians & Reptiles

Owen, P.C., and J.K. Tucker. 2006. Courtship calls and behavior in two species of chorus frogs, genus *Pseudacris* (Anura: Hylidae). *Copeia* 2006(1):137–144.

Rowe, J.W., D.L. Clark, C. Ryan, and J.K. Tucker. 2006. The effect of substrate color on pigmentation in midland painted turtles (*Chrysemys picta marginata*) and red-eared slider turtles (*Trachemys scripta elegans*). *Journal of Herpetology* 40(3):358–364.

Steen, D.A., M.J. Aresco, S.G. Beilke, B.W. Compton, E.P. Condon, C. K. Dodd, Jr., H. Forrester, J. W. Gibbons, J.L. Greene, G. Johnson, T.A. Langan, M.J. Oldham, D.N. Oxier, R.A. Saumure, F.W. Schueler, J. Sleeman, L.L. Smith, J.K. Tucker, and J.P. Gibbs. 2006. Relative vulnerability of female turtles to road mortality. *Animal Conservation* 9(3):269–273.

Warner, D.A., J.K. Tucker, N.I. Filoramo, and J.B. Towey. 2006. Claw function of hatchling and adult red-eared slider turtles (*Trachemys scripta elegans*). *Chelonian Conservation and Biology* 5(2):317–320.

Fishes

Cooke, S.J., D.P. Philipp, D.H. Wahl, and P.J. Weatherhead. 2006. Energetics of parental care in six syntopic centrarchid fishes. *Oecologia* 148:235–249.

Miscellaneous

Tiemann, J.S. 2006. Reproductive behavior of *Pimephales*. Poster. North American Native Fishes Association Annual Convention. Cape Girardeau, Missouri.

Birds

Hamer, G.L., E.J. Heske, J.D. Brawn, and P.W. Brown. 2006. Migrant shorebird predation on benthic invertebrates along the Illinois River, Illinois. *Wilson Bulletin of Ornithology* 118:152–163.

Hoover, J.P., and M.J. Reetz. 2006. Brood parasitism increases provisioning rate, and reduces offspring recruitment and adult return rates, in a cowbird host. *Oecologia* 149:165–173.

Hoover, J.P., T.H. Tear, and M. Baltz. 2006. Edge effects reduce the nesting success of Acadian Flycatchers in a moderately fragmented forest. *Journal of Field Ornithology* 77:425–436.

Hoover, J.P., K. Yasukawa, and M.E. Hauber. 2006. Spatially and temporally structured avian brood parasitism affects the fitness benefits of hosts' rejection strategies. *Animal Behaviour* 72:881–890.

Miscellaneous

Bailey, S.D. 2006. Invasion of the doves: Illinois and regional patterns in a national context. *Meadowlark* 15(2):43–47.

Mammals

Carfagno, G.L.F., E.J. Heske, and P.J. Weatherhead. 2006. Does mammalian prey abundance explain forest-edge use by snakes? *EcoScience* 13:293–297.

Getz, L.L., J.E. Hofmann, L. Simms, and B. McGuire. 2006. Efficacy of monthly and semimonthly trapping of small mammal populations. *Am. Midl. Nat.* 155:422–427.

Getz, L.L., M.K. Oli, J.E. Hofmann, and B. McGuire. 2006. Vole population fluctuations: factors that initiate and determine intervals between them in *Microtus ochrogaster*. *J. Mamm.* 87:387–393.

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Rowe, K.C., E.J. Heske, and K.N. Paige. 2006. Comparative phylogeography of eastern chipmunks and white-footed mice in relation to the individualistic nature of species. *Molecular Ecology* 15:4003–4020.

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Hofmann, J.E., J.F. Merritt, J.M. Mengelkoch, and S.K. Carpenter. 2006. A mist-netting survey for bats in northeastern Illinois: 2006 field season. Illinois Natural History Survey Technical Report 2006(6). Submitted to Bureau of Design and Environment, Illinois Department of Transportation; Illinois State Toll Highway Authority; and U.S. Fish and Wildlife Service, Chicago office. 18 pp. + appendix.

Hofmann, J.E., and J.M. Mengelkoch. 2006. Indiana bat survey, FAP 326, U.S. 6 over Pecumsaugan Creek, Sequence No. 13050, LaSalle County, IL. Memorandum to Illinois Department of Transportation. 8 pp.

Miscellaneous

Hoover, J.P. 2006. Warblers provide link between behavioral ecology and conservation biology. Illinois Natural History Survey Report 389:3.

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Levin, G.A., and D.L. Thomas. 2006. Chicago Wilderness celebrates 10 years of cooperative conservation. Illinois Natural History Survey Reports 387:1, 8.

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