

CURRICULUM VITAE

John M. Pleasants
EEOB (Ecology, Evolution and Organismal Biology) Department
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Personal:

Born: 15 April 1949, Mishawaka, Indiana
Married to Barbara Yohai Pleasants, Dec. 1972
Children: Rachel (b. May 1979), Nathaniel (b. Dec. 1981), Jacob (b. Feb 1989)

Education:

Ph.D. 1977. Univ. of Calif. at Los Angeles. Advisor: Martin L. Cody
B.S.(cum laude) 1971. Univ. of Notre Dame, Indiana.

Positions Held:

2020-present	Adjunct Associate Professor, EEOB Dept. ISU
2004-2020	Adjunct Assistant Professor, EEOB Dept., ISU.
2003-2004	Lecturer, EEOB Dept. ISU
2002 –2003	Lecturer, Dept. of Zoology and Genetics, ISU
1994-2002	Temporary Assistant Professor, Dept. of Zoology and Genetics, ISU
1992-1994	Affiliate Assistant Professor, Entomology Dept., Iowa State Univ.
1992-93	Instructor, Des Moines Area Community College
1984-1991	Assistant Professor, Botany Dept., Iowa State Univ.
1979-1984	Temp. Assistant Professor, Botany Dept., Iowa State Univ.
1979	Adjunct Assistant Professor, Biology Dept., Univ. of Missouri, St. Louis
1978-1979	Research Associate, Washington Univ.
1976-1978	Guest Assistant Professor, Biology Dept., Washington Univ.

Awards and Fellowships:

ISU College of Agriculture and Life Sciences “Distance Education Teaching” Award 2011
Stephen A. Vavra endowment for the Botanical Sciences, UCLA, two summers, 3 quarters
Teaching Assistantship, UCLA, 10 quarters
Dean's Honor List, Univ. of Notre Dame 1967-1971
National Merit Scholarship, 1967-1971 Univ. of Notre Dame

Professional Societies:

Botanical Society of America
Ecological Society of America
Iowa Academy of Science
Society for the Study of Evolution
Rocky Mountain Biological Laboratory

Professional Service:

Ames Pollinator Task Force, 2022-3

Trinational Monarch Science Partnership meeting. Mexico City, Mexico Jan 29-Feb 1, 2019.

Monarch Conservation Partners meeting, Nebraska City, Nebraska, Nov. 29-30, 2018

Trinational Monarch Science Partnership meeting. Montreal, Canada, Feb 5-9, 2018.

Monarch Conservation Partnership meeting. Fort Collins, Jan 10-12, 2017.

Monarch monitoring working group. St. Paul, Mn. Oct. 12-13, 2016

Keystone Monarch Conservation working group. St. Louis, Mo., Aug 11-12, 2016

Monarch monitoring working group. St. Paul, Mn. March 29-31, 2016

Trinational Monarch Science Partnership meeting. Mexico City, Mexico, Feb 16-22, 2016.

Keystone Monarch Conservation working group. St. Paul MN, April 6-7, 2015

USGS Monarch Butterfly Recovery working group. Ft. Collins, Colorado. March 30-April 1, 2015

Monarch Butterfly Recovery workshop. John Wesley Powell Center, USGS, Fort Collins, Colorado October 2014

Served on grant proposal panel for the Biotechnology Risk Assessment Grants program. June 2008, May 2009

Science Advisory Panel EPA for reregistration of Bt corn, cotton and potatoes. Oct 19, 2000

Reviewer for NSF and USDA (grant proposals) and scientific journals (*American Journal of Botany*, *American Naturalist*, *American Midland Naturalist*, *Ecology*, *Oikos*); 5-10 manuscripts and grant proposals per year

Session Chairman: AIBS meetings 1988, 1985, 1993

Murray Buell Judge for best student papers: AIBS meetings, 1989, 1987

Teaching Experience:

Environmental Biology, ISU 1997-present

General Biology (non-majors), ISU, 1989,1990, 1992, 1994-present

General Biology (majors), ISU, 1986, 1999-present

“Save Planet Earth” Learning Community, 2012-present

Ethical Eating Seminar, ISU, 2006-present

Introduction to Environmental Issues, ISU, 2003-2005

Evolution, ISU, 1984-1991, 1993 –2001

Environmental Science, Grandview College 1997, 1999, 2001, 2004

Field Ecology, Grandview College, 1995, 1997

Environmental Conservation, Des Moines Area Community College, 1993

"Problem Solving Through Innovative Thinking" an environmental biology enrichment course for talented high school students. Funded by the Department of Energy through the Ames Lab, 1992-3

Human Biology, Des Moines Area Community College, 1992-93

Plant Population Biology, ISU, 1985, 1987

Field Techniques in Plant Ecology, ISU, 1985-1987

Field Plant Ecology, ISU, 1983

Field Botany, ISU, 1982-1984

Plant Ecology, ISU, 1982

Plant Community Ecology, ISU, 1982
Vegetation Management, ISU, 1981
General Biology, ISU, 1979-1983
Ecology, ISU, 1979-1981, 1983
Field Natural History, St. Louis Univ., 1979
Community Ecology, Southern Methodist Univ. field station, 1979
Entomology, Southern Methodist Univ. field station, 1979
Biology for Non-Majors, Univ. of Missouri-St. Louis, 1979
Advanced Ecology, Washington Univ., 1976-77
Sierra Nevada Flora, UCLA Extension, 1976 (summer)

I have also developed 3 courses for the World Wide Web, General Biology for majors and non-majors and Environmental Biology. These courses include text, images and audio lectures.

Grants and Contracts:

Iowa State, LAS College Research Incubator Grant. 2018-2020. Transforming undergraduate STEM education: Improving student persistence and motivation in large undergraduate courses through game-based learning. \$142,594. (Larysa Nadolny, Peter Clark, Elgin Johnston, Thomas Holme, John Pleasants)

USDA, AFRI, Factors Influencing Spatially -Explicit Monarch Population Responses in Midwest Agroecosystems. 2018-2021. \$670,330. (S. Bradbury, Project Director, J. Adelman, J. Coats, R. Hartzler, R. Hellmich, J. Pleasants, T. Sappington, T. Grant)

USDA. NRCS, Iowa CIG Grant. Integrating Nutrient Reduction and Monarch Conservation. 2015-2016. \$74,451 (S. Blodgett, S. Bradbury, D. M. Debinski, T. Isenhardt, J. Pleasants, R. Schultz, and R. Hartzler)

USDA. NRCS, CIG. Enhancing Monarch Butterfly Conservation in Iowa. 2016-2019 \$760,897. (S. Blodgett, S. Bradbury, D. M. Debinski, R. Hartzler and J. Pleasants)

US AID - Biotechnology and Biodiversity Interface (BBI), \$327,878, “Baseline Biodiversity Impact Studies of Transgenic Bt Cotton on Wild Ecosystems in the East African Region”, collaborator, 2007-2010

ISU, College of Agriculture, Brenton Center. “Development of an on-line course dealing with the Southern Iraqi marshlands”, \$9,000, 2005-2006

ISU, College of Agriculture. “Comparison of student performance in an on-line and a classroom section of General Biology.”, \$1,300, 2004-2005

ISU, LAS Small Grants. “Analysis of nitrogen isotope ratios to detect the habitat in which larval monarch butterflies were raised” \$750, 2004

EPA. Assessment of the potential for gene flow between transgenic cotton and the endemic Hawaiian cotton, *Gossypium tomentosum*. \$17,228, 2002-2004. co-PI Jonathan Wendel

USDA-ARS Iowa State University. “The Relative usage by Monarch butterflies of milkweed plants in agricultural fields and in other habitats”. \$35,000, 2001-2003.

USDA. “The relative usage by Monarch butterflies of milkweed plants in and near cornfields and in other habitats”. \$14,100, 2000-2001. co-PI Richard Hellmich.

Center for the Health Effects of Environmental Contamination. "An investigation of the potential use of tree-ring chemistry to record the history of contamination at a site". \$15,000, 1996-1997. co-PI Martin Edelson.

Department of Transportation. "The effect of native roadside vegetation on the activity of corn borers and their parasites" \$15,000, 1995-1996

ISU Research Initiation Grant. \$7,500. "The use of tree-ring chemistry to document historical contamination events", co-PI with M. Edelson, Ames Lab., 1996.

Ames Laboratory. "Retrospective waste site performance evaluation by tree ring analysis" \$39,000, 1995 co-PIs Martin Edelson, Stephan Weeks

Leopold Center (subcontract from Bruce Menzel and Richard Shultz), "Assessment of the role of vegetation as a buffer for farmland run-off". \$6,000, 1993-94

Iowa Department of Natural Resources, \$6,000, 1993, "Plant communities of White Pine Hollow".

North Dakota Parks and Tourism Department, \$21,965, 1991-93, "Pollination biology of the western prairie fringed orchid."

Leopold Center Grants Program, \$45,563, 1992-1994, "Influence of native roadside plants on biological control of Iowa crop pests."

Iowa Department of Natural Resources, \$11,580, 1991-1994, "Response of the western prairie fringed orchid to spring prairie burns."

Fish and Wildlife Service, \$14,955, 1991-1994, "Within-species patterns of genetic diversity and the phylogenetic relationship of two threatened orchid species: *Platanthera leucophaea* and *Platanthera praeclara*." (with K. Klier, Univ. of N. Iowa)

National Forest Service, \$16,019, 1991-1994, "Genetic variation among and within populations of Mead's milkweed, *Asclepias meadii*." (with K. Klier, Univ. of N. Iowa)

The Nature Conservancy (Minnesota), \$1,500, 1991-1992, "Establishment of a seed and seedling reservoir for the dwarf trout lily, *Erythronium propullans*." (with K. Shea, St. Olaf College)

Iowa Cooperative Fish and Wildlife Unit, \$6,000, 1991, "Botanical inventory of Walnut Creek National Wildlife Refuge."

Fish and Wildlife Service, \$24,444, 1990-1992, "Genetic distinctness of *Chrysosplenium iowense* in the Paleozoic Plateau region." (with J. Wendel)

The Minnesota Nature Conservancy, \$1,500, 1990-1991, "An investigation of the factors affecting pollination success in *Erythronium propullans*." (with K. Shea, St. Olaf College)

University Research Grant, \$2,500, 1989-1990, "Tracking pollen dispersal using ^{14}C labeled pollen."

The Minnesota Nature Conservancy, \$3,000, 1989-1990, "Genetic variation, hybridization, and seed production in *Erythronium propullans*." (with J. Wendel)

The Minnesota Nature Conservancy, \$3,000, 1988-1989, "Genetic variation in *Erythronium propullans*, a narrow endemic and sympatric populations of *E. albidum*." (with J. Wendel)

Iowa Science Foundation Grant \$2,000, 1986-87, "Demography of compass plant (*Silphium laciniatum* - Asteraceae)."

University Research Grant \$2,500, 1986-87, "Demography and genetic structure of populations of compass plant (*Silphium laciniatum* - Asteraceae)."

Iowa Science Foundation Grant \$2,400, 1985-86, "Demography and population biology of compass plant (*Silphium laciniatum* - Asteraceae)."

University Research Grant \$2,500, 1985-86, Nectar production: "Within plant compartmentalization and fitness correlates."

University Mini Grant \$500, 1985, "Computer modeling of bumblebee foraging."

NSF Grant DEB #8111027, \$35,640, 1981-83, "Foraging by bumblebees: A test of optimal foraging theory."

Iowa State Univ. Minigrant, \$500, 1981, "Nectar production and seed set."

Sigma Xi Research Grant, \$250, 1980, "Factors affecting nectar production."

Sigma Xi Research Grant, \$600, 1974, "Competition for pollinators."

Manuscripts

Taylor, O.R., Pleasants, J.M., Grundel, R., Pecoraro, S.D, Lovett, J.P, and Ryan, A
"Geographic and Temporal Variation in Monarch Butterfly Migration Success."

Taylor, O.R., Pleasants, J.M., Grundel, R., Pecoraro, S.D, Lovett, J.P, and Ryan, A.
"Comparison of Migration Success of Wild-caught and Raised Monarch Butterflies."

N.L. Shryock, J.M Pleasants, and R.L Hellmich "Establishing patches of common milkweed, *Asclepias syriaca*, in vegetation dominated by brome grass, *Bromus inermis*."

Publications:

Pleasants, J. (2023) Differences in $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values for monarch butterflies raised on milkweeds from within and outside of crop fields: implications for inferences about natal origins, *Isotopes in Environmental and Health Studies*, DOI: [10.1080/10256016.2023.2257370](https://doi.org/10.1080/10256016.2023.2257370)

- Pleasants, J., Thogmartin, W.E., Oberhauser, K.S., Taylor, O.R. & Stenoien, C. (2023) A comparison of summer, fall and winter estimates of monarch population size before and after milkweed eradication from crop fields in North America. *Insect Conservation and Diversity*, 1–14. Available from: <https://doi.org/10.1111/icad.12687>
- Grant, T.J., Fisher, K.E., Krishnan, N., Mullins, A.N., Hellmich, R.L., Sappington, T.W., Adelman, J.S., Coats, J.R., Hartzler, R.G., Pleasants, J.M., Bradbury, S.P (2022) Monarch Butterfly Ecology, Behavior, and Vulnerabilities in North Central United States Agricultural Landscapes *BioScience*, 72(12) 1176–1203. <https://doi.org/10.1093/biosci/biac094>
- Pleasants, J., Pleasants, J. M., & Pleasants B. P. (2021). Cheating on unproctored online exams: Prevalence, mitigation measures, and effects on exam performance. *Online Learning*, 26(1), 268-284. DOI: 10.24059/olj.v26i1.2620
- Taylor, O.R., Pleasants, J.M., Grundel, R., Pecoraro, S.D, Lovett, J.P, and Ryan, A. (2020) Evaluating the migration mortality hypothesis using monarch tagging data. *Front. Ecol. Evol.* | doi: 10.3389/fevo.2020.00264
- Stein, D. S., Debinski, D. M., Pleasants J.M., and A. L. Toth. (2020). Evaluating Native Bee Communities and Nutrition in Managed Grasslands. *Environmental Entomology*, doi: 10.1093/ee/nvaa009
- Taylor, O.R., Lovett, J.P, Gibo, D.L., Weiser, E.L., Thogmartin, W.E., Semmens, D.J., Diffendorfer, J.E., Pleasants, J.M., Pecoraro, S.D., and Grundel, R. (2019). Is the timing, pace and success of the monarch migration associated with sun angle? *Frontiers Ecology Evolution*. Published: 10 December 2019 doi: 10.3389/fevo.2019.00442
- Pocius, V.M, J. M. Pleasants, D. M. Debinski, K. G. Bidne, R. L. Hellmich, S.P. Bradbury, and S.L. Blodgett. (2018). Monarch butterflies show differential utilization of nine Midwestern milkweed species. *Front. Ecol. Evol.*, <https://doi.org/10.3389/fevo.2018.00169>
- Pocius, V. M., D. M. Debinski, J. M. Pleasants, K. G. Bidne, and R. L. Hellmich. (2018). Monarch butterflies do not place all of their eggs in one basket: oviposition on nine Midwestern milkweed species. *Ecosphere* 9(1):e02064. 10.1002/ecs2.2064
- Thogmartin, W.E., Wiederholt R., Oberhauser, K., Drum, R., Diffendorfer, J.E., Libby K., Altizer, S., Taylor, O.R., Pleasants, J., Semmens, D., Semmens, B., Erickson, J., Lopez-Hoffman L. (2017) “Threats Associated with the Decline of Monarch Butterfly”. *Royal Society Open Science* 4: 170760. <http://dx.doi.org/10.1098/rsos.170760>
- Pocius V.M., Debinski, D.D, Pleasants, J.M., Bidne, K.G, R.L. Hellmich, and L.P Brower. (2017). "Milkweed Matters: Monarch butterfly (Lepidoptera: Nymphalidae) survival and development on nine Midwestern milkweed species". *Journal of Environmental Entomology*. 1–8, doi: 10.1093/ee/nvx137
- Thogmartin W.E., López-Hoffman L., Rohweder J., Diffendorfer J., Drum R., Semmens D., Black S., Caldwell I, Cotter D., Drobney P., Jackson L.L, Gale M., Helmers D., Hilburger S., Howard E., Oberhauser K., Pleasants J., Semmens B., Taylor O., Ward P., Weltzin J.F., and R. Wiederholt. (2017) “Restoring Monarch Butterfly Habitat in the Midwestern U.S.: ‘All Hands on Deck’”. *Environmental Research Letters* <https://doi.org/10.1088/1748-9326/aa7637>
- Pleasants J.M, Zalucki M.P., Oberhauser K.S, Brower L.P, Taylor O.R, and W.E. Thogmartin. (2017). “Interpreting measures of the size of the monarch butterfly

population: pitfalls and prospects.” PLoS ONE 12(7): e0181245.
<https://doi.org/10.1371/journal.pone.0181245>

- Thogmartin, W.E., Diffendorfer, J.E., López-Hoffman, L., Oberhauser, K., Pleasants, J., Semmens, B.X., Semmens, D., Taylor, O.R., and R. Wiederholt. (2017) “Density estimates of monarch butterflies overwintering in central Mexico”. PeerJ DOI 10.7717/peerj.3221
- Pleasants, J.M. (2017). “Milkweed restoration in the Midwest for monarch butterfly recovery: estimates of milkweeds lost, milkweeds remaining and milkweeds that must be added to increase the monarch population.” *Insect Conservation and Diversity* 10: 42-53. doi: 10.1111/icad. 12198
- Semmens B., Semmens D., Thogmartin W., Wiederholt R., Lopez-Hoffman L, Diffendorfer J., Pleasants J., Oberhauser K, and O. Taylor. (2016). "Extinction risk and population targets for the Eastern, migratory population of monarch butterflies (*Danaus plexippus*)". *Scientific Reports*. **6**, Article number: 23265 doi:10.1038/srep23265
- Pleasants, J.M.; Ernest H. Williams; Lincoln P. Brower; Karen S. Oberhauser; Orley R. Taylor (2016). “Conclusion of No Decline in Summer Monarch Population Not Supported” *Annals of the Entomological Society of America*; doi:10.1093/aesa/sav115
- Pleasants, J.M, (2015). Monarch butterflies and agriculture. *in* Monarchs in a changing world: Biology and conservation of an iconic insect. K Oberhauser, S. Altizer and K. Nail eds. pp 169-178 Cornell University Press
- Pleasants, J.M. and K. S. Oberhauser. (2013). Milkweed loss in agricultural fields because of herbicide use: effect on the Monarch butterfly population. *Insect Conservation and Diversity*. 6(2):153-144, first pub. on-line 12 March 2012, doi: 10.1111/j.1752-4598.2012.00196.x
- Pleasants, J.M. and J.F. Wendel. (2010). Reproductive and pollination biology of the endemic Hawaiian cotton, *Gossypium tomentosum* (Malvaceae). *Pacific Science* 64(1): 45-55
- Pleasants, J.M. and J.F. Wendel. (2005). Assessment of potential for gene flow between transgenic cotton and the endemic Hawaiian cotton. Report to EPA
- J.S. Hawkins, J. Pleasants, and J.F. Wendel. (2005). Identification of AFLP markers that discriminate between cultivated cotton and the Hawaiian island endemic, *Gossypium tomentosum* Nuttall ex Seeman. *Genetic Resources and Crop Evolution* 52:1069-1078
- Pleasants, J.M., R.L. Hellmich, G.P. Dively, M.K. Sears, D.E. Stanley-Horn, H.R. Mattila, J.E. Foster, P. Clark, and G.D. Jones. (2001). Corn pollen deposition on milkweeds in and near cornfields. *PNAS* 98:11919-11924
- Sears, M.K., R. L. Hellmich, D.E. Stanley-Horn, K.S. Oberhauser, J.M. Pleasants, H. R. Mattila, B.D. Siegfried, and G.P. Dively. 2001. Impact of Bt corn pollen on Monarch butterfly populations: A risk assessment. *PNAS* 98:11937-11942
- Oberhauser, K.S., M.D. Prysby, H.R. Mattila, D.E. Stanley-Horn, M.K. Sears, G.P. Dively, E. Olson, J.M. Pleasants, W.F. Lam, and R.L. Hellmich. (2001). Temporal and spatial overlap between Monarch larvae and corn pollen. *PNAS* 98:11913-11918
- Pleasants, J.M. and R.J. Bitzer. (1999). Aggregation sites for adult European corn borers (Lepidoptera: Crambidae): A comparison of prairie and non-native vegetation. *Environmental Entomology* 28: 608-617.

- Orr, D.B and J.M. Pleasants. (1996). The potential of native prairie species to enhance the effectiveness of the *Ostrinia nubilalis* parasitoid *Macrocentrus grandii*. *Journal of the Kansas Entomological Society* 62: 133-143.
- Pleasants, J.M. (1995). The effects of Spring prairie burns on the western prairie fringed orchid, *Platanthera praeclara*. In *Proceedings of the 14th North American Prairie Conference*, D.C. Hartnett ed., Kansas State Univ. Press, pp67-73
- Pleasants, J.M. (1994). A comparison of test statistics used to detect competitive displacement in body size. *Ecology* 75: 847-850.
- Pleasants, J.M. and S.D. Moe. (1993). Floral display size and pollination of the western prairie fringed orchid, *Platanthera praeclara*. *Lindleyana* 8: 32-38.
- Pleasants, J.M. and T.W. Jurik. (1992). Dispersion of seedlings of the prairie compass plant, *Silphium laciniatum* (Asteraceae). *American Journal of Botany* 79: 133-137.
- Zhang, H., J.M. Pleasants, and T.W. Jurik. (1991). The development of leaf orientation in the compass plant, *Silphium laciniatum*. *Bull. Torrey Bot. Club* 118: 33-42.
- Pleasants, J.M. (1991). Evidence for short-distance pollen dispersal in *Asclepias syriaca*. *Functional Ecology* 5: 75-82.
- Pleasants, J.M. and M. Zimmerman. (1990). The effect of inflorescence size on pollinator visitation of *Delphinium nelsonii* and *Aconitum columbianum*. *Collectanea Botanica* 19: 21-39.
- Pleasants, J.M., H.T. Horner, G.M.Y. Ng. (1990). A technique for labeling milkweed pollinia with ¹⁴C for tracking pollen dispersal. *Functional Ecology* 4: 823-827.
- Jurik, T.W. and J.M. Pleasants. (1990). The effects of light and plant size on fate of seedlings of the prairie compass plant (*Silphium laciniatum*). *Functional Ecology* 4: 661-665.
- Pleasants, J.M. (1990). Null models for competitive displacement: the fallacy of not focusing on the whole community. *Ecology* 71: 1078-1084.
- Jurik, T.W., H. Zhang, and J.M. Pleasants. (1990). Ecophysiological consequences of non-random leaf orientation in the prairie compass plant, *Silphium laciniatum*. *Oecologia* 82: 180-186.
- Pleasants, J.M. and B.Y. Pleasants. (1989). Reversed size dimorphism in raptors: Can we tell which sex changed size? *Oikos* 56: 287-288.
- Pleasants, J.M., and J.F. Wendel. (1989). Genetic diversity in a clonal narrow endemic, *Erythronium propullans*, and its widespread progenitor, *Erythronium albidum*. *Amer. J. Bot.* 76: 1136-1151.
- Pleasants, J.M. (1989). Optimal foraging in nectarivores: A test of the marginal value theorem. *American Naturalist* 134:51-71.
- Pleasants, J.M., and B.Y. Pleasants. (1988). Reversed size dimorphism in raptors: evidence for how it evolved. *Oikos* 52:129-135.
- Pleasants, J.M., and N. Waser. (1985). Bumblebee foraging at a "hummingbird" flower: reward economics and floral choice. *American Midland Naturalist* 114:283-291.

- Pleasants, J.M. (1983). Nectar production patterns in *Ipomopsis aggregata* (Polemoniaceae). *American Journal of Botany* 70(10):1468-1475.
- Pleasants, J.M., and S. Chaplin. (1983). Nectar production rates of *Asclepias quadrifolia*: causes and consequences of individual variation. *Oecologia* 59:232-238.
- Pleasants, J.M., and M. Zimmerman. (1983). The distribution of standing crop of nectar: what does it really tell us? *Oecologia* 57:412-414.
- Zimmerman, M., and J.M. Pleasants. (1982). Competition among pollinators: Quantification of available resources. *Oikos* 38:381-383.
- Pleasants, J.M. (1982). Structure of plant and pollinator communities. **In** *Handbook of Experimental Pollination Biology*. C. E. Jones and R. J. Little eds. Van Nostrand Reinhold, pp. 375-393.
- Pleasants, J.M. (1981). Bumblebee response to variation in nectar availability. *Ecology* 62:1648-1661.
- Pleasants, J.M. (1980). Competition for pollinators in Rocky Mountain Plant communities. *Ecology* 61:1446-1459.
- Pleasants, J.M., and B.. Pleasants. (1979). The super-territory hypothesis: a critique. Why there are so few bullies. *American Naturalist* 114:609-613.
- Pleasants, J.M., and M. Zimmerman. (1979). Patchiness in the dispersion of nectar resources: Evidence for hot and cold spots. *Oecologia* 41:283-288.
- Pleasants, J.M. (1977). Competition in a plant-pollinator system: An analysis of meadow communities in the Colorado Rocky Mountains. Ph.D. Dissertation, UCLA.

Papers Presented:

- Monarch Joint Venture (MJV) meeting Phoenix, AZ, Nov 13, 2019. What tagging can tell us about monarch population dynamics and migration success.
- Monarch Conservation Partners meeting, Nebraska City, Nebraska, Nov. 29-30, 2018
“Monarch female oviposition preference on nine milkweed species”
- North American Congress for Conservation Biology, Society for Conservation Biology, Madison, Wisconsin July 18, 2016 Symposium: Agriculture and Monarchs: Communication challenges and successes, “Estimates of milkweeds lost and remaining in the Midwest and implications for monarch recovery”
- Pleasants J.M. and K. Oberhauser. 2011. Loss of milkweeds in corn and soybean fields due to glyphosate herbicide use: potential effect on the monarch butterfly population. Iowa Academy of Sciences
- Pleasants, J.M and K. Shea. 1997. Morphological and genotypic diversity in the Minnesota dwarf trout lily, *Erythronium propullans*. Ecological Society of America
- Pleasants, J.M. 1995. Status of white pine populations and plant communities at White Pine Hollow. Iowa Academy of Sciences
- Pleasants, J.M. 1995. Genetic variation in 3 endangered plant species. Department of Zoology and Genetics, Iowa State University

- Pleasants, J.M. 1994. The effects of spring prairie burns on the western prairie fringed orchid, *Platanthera praeclara*. 14th North American Prairie Conference
- Pleasants, J.M. 1993. Male and female function and inflorescence size in the western prairie fringed orchid, *Platanthera praeclara*. AIBS - Botanical Society
- Pleasants, J.M. and S. Moe. 1991. Factors affecting male and female function in *Aconitum columbianum*. AIBS - Botanical Society.
- Pleasants, J.M. and T. Schierer. 1990. Student opinions about evolution and creationism at Iowa State University. Iowa Academy of Sciences
- Pleasants, J.M. and J.F. Wendel. 1989. Genetic diversity in a clonal narrow endemic, *Erythronium propullans*, and in its widespread progenitor, *Erythronium albidum*. AIBS - Ecological Society
- Pleasants, J.M. 1989. Phenotypic and functional gender of a hermaphroditic, protandrous plant species: role of inflorescence size. AIBS - Botanical Society.
- Jurik, T.W., H. Zhang, and J.M. Pleasants. 1989. Physiological consequences of non-random leaf orientation in *Silphium laciniatum*, the prairie Compass Plant. AIBS - Ecological Society
- Pleasants, J.M. and B.Y. Pleasants. 1988. Reversed size dimorphism in raptors: Evidence for how it evolved. Raptor Research Foundation Meetings
- Pleasants, J.M. and G. Ng. 1988. The relationship between inflorescence size and self-pollination in the milkweed, *Asclepias syriaca*. AIBS - Ecological Society
- Pleasants, J.M., G. Ng, and H.T. Horner. 1988. Use of radioisotope labeling technique to study pollination and microsporogenesis in milkweeds (Asclepiadaceae). AIBS - Botanical Society
- Pleasants, J.M. 1988. Reproductive patterns in compass plant (*Silphium laciniatum*). Eleventh North American Prairie Conf.
- Zhang, H. and J.M. Pleasants. 1988. Leaf orientation of compass plant (*Silphium laciniatum*) and its physiological consequences. Eleventh North American Prairie Conf.
- Pleasants, J.M. and G. Ng. 1988. The relationship between inflorescence size and self-pollination in the milkweed, *Asclepias syriaca*. Iowa Academy of Science
- Ng, G., J.M. Pleasants, and H.T. Horner. 1988. Use of radioisotope labeling technique to study pollination and microsporogenesis. Iowa Academy of Science
- Pleasants, J.M. 1987. Reproductive patterns in compass plant, *Silphium laciniatum*. AIBS - Ecological Society
- Pleasants, J.M. and H. Zhang. 1987. Leaf orientation in *Silphium laciniatum*, a compass plant. Iowa Academy of Science
- Pleasants, J.M. 1986. Demography of compass plant, *Silphium laciniatum*. Iowa Academy of Science
- Pleasants, J.M. 1985. A test of optimal foraging in bumblebees. Ecological Society of America

Pleasants, J.M. 1984. Causes of individual variation in nectar production and fitness consequences in *Ipomopsis aggregata*. AIBS - Ecological Society

Iowa Academy of Science, 1984
Prairie States Ecology Conclave, 1983
AIBS - Ecological Society, 1982
Iowa Academy of Science, 1982
Prairie States Ecology Conclave, 1982
Midwest Regional Animal Behavior Meetings, 1981
Prairie States Ecology Conclave, 1980
Guild of Rocky Mountain Population Biologists, 1978
Guild of Rocky Mountain Population Biologists, 1977
AIBS - Ecological Society, 1977

Invited Talks and workshops:

International Union for the Conservation of Nature (IUCN) workshop on monarch population dynamics, Dec. 15, 2022

Story County Master Gardeners, Nov. 21 2022

Ames Kiwanis June 9, 2022

Iowa State Retirees, March 24 2022

Penn State, Oct 18, 2019 What tagging can tell us about monarch population dynamics and migration success.

Trinational Monarch Science Partnership meeting. Mexico City, Mexico Jan 29-Feb 1, 2019. "Monarch female oviposition preference on nine milkweed species"

5th Symposium on Monarch Butterfly Conservation. Morelia, Mexico. March 7-8, 2018. "Monarch butterfly population decline: causes and prospects for recovery"

Iowa State University, Horticulture Dept. "Monarch butterfly population decline: causes and prospects for recovery", Oct, 2017

University of Northern Iowa, "Monarch butterfly population decline: causes and prospects for recovery", October 2017

Big Bluestem Audubon Society, "Why are there so few monarch butterflies" Ames, Iowa, Jan 19, 2017

Monarch Conservation Partnership meeting. Fort Collins, Jan 10-12, 2017.

Monarch monitoring working group. St. Paul, Mn. Oct. 12-13, 2016

Keystone Monarch Conservation working group. St. Louis, Mo., Aug 11-12, 2016

Monarch monitoring working group. St. Paul, Mn. March 29-31, 2016

Trinational Monarch Science Partnership meeting. Mexico City, Mexico, Feb 16-22, 2016.

Keystone Monarch Conservation working group. St. Paul MN, April 6-7, 2015

USGS Monarch Butterfly Recovery working group. Ft. Collins, Colorado. March 30-April 1, 2015

Entomological Society of America, Monarch butterfly symposium. Portland, Ore. "The role of Roundup Ready crops in the monarch butterfly decline" November 19, 2014

Tallgrass Prairie Center, University of Northern Iowa "Why has the monarch butterfly population declined and what can we do about it. October 29, 2014

USGS Monarch Butterfly Recovery working group. Ft. Collins, Colorado. Oct 15-17, 2014

Keystone Monarch Conservation working group. Ames, Iowa July 28-29, 2014

Keystone Monarch Conservation working group. St. Louis, Mo. March 13-14, 2014

Monarch Biology and Conservation Conference, Minneapolis, MN, "Loss of milkweeds in agricultural fields:Effect on the monarch population". June 2012

Graham Pyke Symposium, Rocky Mountain Biological Laboratory "The effect of genetically modified corn and soybeans on monarch butterflies". June 2009

Iowa Living Roadway Trust Fund meeting. "The effect of roadside vegetation on pests (European corn borers) and non-pests (monarch butterflies). July 2008

Symposium on "Gene flow and the occurrence and consequences of introgression between crops and their sexually compatible wild relatives", Kansas City, Mo. Dec. 14, 2005

USDA/APHIS BRS workshop on "Confinement of Genetically Engineered Crops During Field Testing" Sept. 13-15, 2004

EPA sponsored workshop on "The Monarch butterfly, milkweeds, and tropospheric ozone air pollution: A study of the potential for negative consequences" . Raleigh, North Carolina December 2001

USDA-ARS: "Monarch butterflies in agricultural fields: causes and consequences." Iowa State University, November 2001

Monarch population dynamics meeting. "Monarch usage of milkweeds in corn and soybean fields: possible reasons for oviposition preference." Lawrence, KS, May 2001

Entomological Society of America: Symposium on "Effects of transgenic corn on Monarch butterflies", "A comparison of monarch usage of milkweeds in cornfields and in other habitats." Montreal, Canada, December 2000.

EPA Science Advisory Panel meeting on "Bt plant-pesticides risk and benefit assessments". Washington D.C., October 2000.

National Academy of Sciences: Workshop on "Ecological monitoring of genetically modified crops", "Monitoring for direct effects on non-target species" Washington D.C. July 2000

Monarch butterfly workshop. USDA "Pollen deposition on milkweed plants" Kansas City, Kansas, February 2000

Monarch butterfly research symposium. USDA "Deposition of pollen on milkweeds and exposure risk to monarch larvae" Chicago, Ill., November 1999

Integrated Roadside Vegetation Management's 13th Annual Roadside conference. "Effects of roadside vegetation on European corn borer populations" September 1999

Workshop on the development of web-based materials for Biology courses for Arab University Biology faculty. Ismailia, Egypt, April, Nov, 1999

Project Reports for Iowa Department of Transportation Projects (Living Roadway Trust Fund). "Effects of native roadside vegetation on European corn borers" February, 1998

Workshop for the recovery of the endangered Western Prairie Fringed Orchid. "Demography and genetics of the Western Prairie Fringed Orchid" April, 1997

Iowa Nature Conservancy Annual Meeting. "Pollination and fire effects in the western prairie fringed orchid", October 1994

Western Prairie Fringed Orchid Workshop, Crookston, MN. "Effects of spring burns on the western prairie fringed orchid", June 1994

Spandau, Germany, Workshop on pollination biology in honor of the 200th anniversary of the publication of C. Sprengel's classic book on pollination biology. "Optimal foraging in bumblebees", Nov 11-14, 1993

Iowa Preserves Board Annual Meeting. "Status of white pine populations and plant communities at White Pine Hollow", October 1993

Bradley University, Peoria, Illinois, 1992

Westchester State University, Westchester, Pennsylvania, 1992

Montclair State College, Montclair, New Jersey, 1992

Minnesota Horticultural Society, 1991. "Native prairie plants."

American Rock Garden Society, Minnesota Chapter, 1991. "Rocky Mountain plant pollination."

Eastern Michigan University, 1991. "Population biology and leaf orientation in compass plant, *Silphium laciniatum*."

The Nature Conservancy (Minn.), 1988. "What genes tell us about the origin and status of the Dwarf Trout Lily."

Iowa State Univ. (Bot. Dept.), 1988. "Population biology and leaf orientation in the prairie compass plant, *Silphium laciniatum*."

Iowa State Univ. (Animal Ecol. Dept.), 1987. "Reversed size dimorphism in predatory birds".

Univ. of Kansas, 1984. "Bumblebee foraging and nectar production patterns: consequences for plant fitness."

Iowa State Univ., 1984

St. Olaf College, 1984

Howard Univ., 1982

Iowa State Univ., 1982

Rocky Mountain Biological Laboratory, 1981

AIBS - Ecological Society Symposium, 1980

Iowa State Univ., 1980

San Diego Univ., 1980

Western Maryland College, 1979

St. Louis Univ., 1977
Univ. of Missouri, 1977
Washington Univ., 1977

Graduate Students:

Nancy Shryock, MS 2021 (with Brian Wilsey) “Investigating intraspecific predation between monarch larvae, female monarch oviposition milkweed patch preferences, and best practices for establishing common milkweed in smooth brome grass.”

Victoria Pocius, PhD 2018 (with Diane Debinski) “Monarch butterfly preference and use of nine Midwestern milkweed species.”

David Stein. MS 2017 (with Diane Debinski). “Bee diversity in grassland habitats with different management.”

Stephen Moe. MS 1993. "The effect of inflorescence size and plant status on gender in *Aconitum columbianum*."

Hanzhong Zhang. MS 1988. "The development and ecophysiological consequences of the leaf orientation of Compass Plant, *Silphium laciniatum*."

Grace Ng. MS 1987. "The effect of umbel size on self-pollination in *Asclepias syriaca*."

Graduate Student Committees:

I have served on the graduate committees of over 20 Masters or Ph.D students in various departments (Statistics, Agronomy, Animal Ecology, Zoology and Botany).

Undergraduate Honors Theses:

Bill Hoffman. 1990. "A comparison of tree composition in several forest types on Barro Colorado Island."

Ted Schierer. 1988. "Student opinions about evolution and creationism at Iowa State University."

Mark Dixon. 1986. "Habitat selection differences of several wood warbler species (Parulidae) in central Iowa."

Mark Pelham. 1985. "Factors affecting visitation and seed set in *Aconitum columbianum*."

Alissa Nelson 2017 “Relative Greenhouse Gas Emissions of American Traditional, Vegetarian, and Vegan Diets”

Undergraduate advising:

I advise 5-10 biology majors per year.

University Service:

I served many years on the College of Agriculture and Life Sciences Curriculum Committee

I am on the executive committee of the ISU chapter of the AAUP

I served on the executive committee of the EEOB Dept.

I served on the Faculty Senate for a number of years

I served on the College of Agriculture Academic Affairs Committee

I served 4 years as the Botany Department representative to the College Representative Assembly

I served 5 years on the Botany Department Curriculum Committee

I was Convener of the Biology Program Faculty for 3 years

I helped develop and participate in the Ecology and Evolutionary Biology interdepartmental graduate major