

# David E. Harry

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## Education

B.S., University of Washington, 1974. Forest Science (*Summa cum laude*)  
M.S., University of California, Berkeley, 1978. Wildland Resource Science  
Ph.D., University of California, Berkeley, 1984. Genetics

## Research and Professional Experience

2007-present, Courtesy Faculty Member, Genetics Program, Oregon State University Graduate School.

2006-present, Associate Director, Outreach in Biotechnology, Oregon State University

2005-2006, Affiliate Faculty, Dept. of Forest Science, Oregon State University

2003-present, President and Founder, Genetic Foundations, Philomath, Oregon

1998-2003, Molecular Geneticist, Aviagen Group (Scotland and North America) and Nicholas Turkey Breeding Farms, California

1995-1998, Molecular Geneticist, Nicholas Turkey Breeding Farms, Sonoma, California

1994-1995, Senior Scientist and Director of Animal and Plant Genetics, DataGenetics Corporation, San Leandro, California

1992-1994, Research Plant Molecular Geneticist, Institute of Forest Genetics, USDA Forest Service, Pacific Southwest Research Station, Berkeley, California

1987-1992, Assistant Professor of Forest Genetics, Department of Forestry, University of Illinois, Urbana, Illinois

1987, Research Plant Molecular Geneticist, Institute of Forest Genetics, USDA Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley, California

1984-1986, Visiting Assistant Research Geneticist (Post-doctoral, Laboratory of Dr. Michael Freeling), Department of Genetics, University of California, Berkeley, California

1976-1983, Graduate Research Assistant, Departments of Forestry and Genetics, University of California, Berkeley, California

1977, Western Forest Genetics Association Scholar, U.S. Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley, California

1974-1976, Tree Improvement Specialist, Weyerhaeuser Company; Malin, Oregon, and Centralia, Washington

## **Professional and Community Activities**

### *Committees and Offices:*

USDA NRI Competitive Grants Research Office.  
Panel Manager, Animal Genome (2006, 2007)  
Panel Member, Animal Genome (1997, 2001, 2004, 2005)  
Panel Member, Plant Genome (1991)  
Panel Member, Forest Biology (1988)  
Poultry Breeders of America, Breeders Roundtable, Session Chair (2003, 2004)  
Poultry Science Association, Genetics Section Chair (2002) and Session Chair (2003)  
Member, ADH Working Group, International Society for Plant Molecular Biology,  
Commission on Plant Gene Nomenclature (1998 to 2003)  
Secretary, North-Central Regional Research Tree Improvement Committee (1990-1991)  
Executive Committee, North-Central Tree Improvement Association (1989-1992)  
Auditing Committee, Society of American Foresters, Illinois Chapter (1988-1992)

### *Memberships:*

Biosphere Genetics, Inc., Science and Technology Advisory Board (1995-2005)  
International Society of Animal Genetics, California Native Plant Society, American  
Association for the Advancement of Science

### *Community Service and Activities:*

Member, Board of Directors, Marys River Estates Property Owners Association,  
Philomath, OR. 2008-2011.  
Bay Area Sea Kayakers, Skills Clinic Coordinator, 2004-2005. (Instructor, 2002-2003)  
American Canoe Association Certified Coastal Kayak Instructor, 2004.  
President (1996-1997) and Vice-president (1995-1996), Dads Club of Kensington  
Elementary School.

## **External Research Support**

Conifer Translational Genomics Network. \$5,900,000. Co-PI with D.B. Neale, G.T. Howe,  
N.C. Wheeler, T. Byram, S. McKeand, D. Huber, J.B. St.Clair, and C.D. Nelson. USDA  
NRI Coordinated Agricultural Projects. 2007-2011.  
Rapid Threat Assessment: Genetically Modified Plants in Wildland Ecosystems. \$44,516. PI  
with S.H. Strauss and R. Cronn. US Forest Service Western Wildland Environmental  
Threat Assessment Center (as JVA through PNW Research Station). 2007-2008.  
Presenting the Food for Thought Lecture Series via Web-based Streaming Video. \$10,500. Co-  
PI with S.H. Strauss and K. Carroll. American Society of Plant Biologists. 2006-2008.  
Comparative Mapping in the Genus *Pinus*. \$230,000. USDA NRI Plant Genome, 9500734.  
Co-PI with M.M. Sewell, and D.B. Neale. 1995-1998.  
Codominant PCR-Based Markers for Pines and Other Conifers, \$200,000. USDA NRI Plant  
Genome, 93-7300-8785. PI with D.B. Neale (U.S. Forest Service, Berkeley),

1993-1997.

Genetic Diversity in Nursery and Seed Orchard Populations of Black Walnut and Red Oak, \$40,000. USDA Forest Service, State and Private Forestry, 1992-1994.

Genetic Dissection of a Complex Gene Family in Loblolly Pine, \$9950. USDA Forest Service, PSW Internal Competitive Grants Program, 1992-1993.

Alcohol Dehydrogenase Gene Family in Loblolly Pine, \$6,000, University of Illinois Campus Research Board. 1991-1992.

Physiology and Genetics of Alcohol Dehydrogenase in *Populus*, \$171,090, USDA Forest Biology, CRGO 90-37290-5680, 1990-1992, co-PI with T.W. Kimmerer (University of Kentucky, Lexington).

Alcohol Dehydrogenase Genes in Pines, \$97,000, USDA Forest Biology, 86-FSTY-9-0190, 1986-1989. PI with C.S. Kinlaw (U.S. Forest Service, Berkeley) and R.R. Sederoff (NC State University, Raleigh) co-PIs.

## Honors and Awards

Illini Foresters Outstanding Teacher Achievement Award, 1992.

Illini Foresters Outstanding Academic Advisor Achievement Award, 1991.

NATO Postdoctoral Fellowship in Science, 1984 (declined).

Distinguished Teaching Assistant Citation, 1981-82, and 1983-84. Committee on Teaching, Berkeley Academic Senate, for courses in Genetics.

Western Forest Genetics Association Scholarship, 1977.

Bidwell Research Fellowship in Forestry, University of California, 1976-1977. Univ. Washington, Graduated *Summa cum laude*, with College Honors, 1974.

Homelite Scholarship, University of Washington, 1973-1974.

University of Washington, Certificate of High Scholarship, 1973.

American Association of University Professors Scholarship, Clark College, 1972.

## Publications

### *Refereed or Invited*

- McElroy, J.P. , J.-J. Kim, **D.E. Harry**, S. Brown, J.C.M. Dekkers, and S.J. Lamont. 2006. Identification of trait loci affecting white meat percent and other growth and carcass traits in commercial broiler chickens. *Poultry Science* 85: 593-605.
- Reed, K.M., L.D. Chaves, M.K. Hall, T.P. Knutson, and **D.E. Harry**. 2005. A comparative genetic map of the turkey genome. *Cytogenet. Genome Res.* 111(2): 118-127.
- Reed, K.M., L.D. Chaves, J.R. Garbe, Y. Da, and **D.E. Harry**. 2003. Allelic variation and genetic linkage of avian microsatellites in a new turkey population for genetic mapping. *Cytogenet. Genome Res.* 102: 331-339.
- Harry, D.E.**, D. Zaitlin, P.J. Marini, and K.M. Reed. 2003. A first-generation map of the turkey genome. *Genome* 46(5): 879-889.
- Temesgen, B., G.R. Brown, **D.E. Harry**, C.S. Kinlaw, M.M. Sewell, and D.B. Neale. 2001. Genetic mapping of expressed sequence tag polymorphism (ESTP) markers in loblolly pine (*Pinus taeda* L.). *Theor. Appl. Genet.* 102: 664-675.
- Pisenti, J.M., M.E. Delany, R.L. Taylor, Jr., U.K. Abbott, H. Abplanalp, J.A. Aurthur, M.R. Bakst, C. Baxter-Jones, J.J. Bitgood, F. Bradley, K.M. Cheng, R.R. Dietert, J.B. Dodgson, A. Donoghue, A.E. Emsley, R. Etches, R.R. Frahm, R.J. Gerrits, P.F. Goetinck, A.a. Grunder, **D.E. Harry**, S.J. Lamont, G.R. Martin, P.E. McGuire, G.P. Moberg, L.J. Pierro, C.O. Qualset, M. Qureshi, F. Schultz, and B.W. Wilson. 2001. Avian Genetic Resources at Risk: An assessment and proposal for conservation of genetic stocks in the USA and Canada. *Poultry and Avian Biology Reviews* 12(1/2): 1-102.
- King, L.M., J.D. Kirby, D.P. Froman, T.S. Sonstegard, **D.E. Harry**, J.R. Darden, P.J. Marini, R.M. Walker, M.L. Rhoads, and A.M. Donoghue. 2000. Efficacy of sperm mobility assessment in commercial flocks and the relationships of sperm mobility and insemination dose with fertility in turkeys. *Poultry Sci.* 79(12): 1797-1802.
- Temesgen, B., D.B. Neale, and **D.E. Harry**. 2000. Haploid mixtures and heteroduplexes enhance polymorphisms revealed by denaturing gradient gel electrophoresis. *BioTechniques* 28(1):114-117..
- Harry, D.E.**, B. Temesgen, and D.B. Neale. 1998. Codominant PCR-based markers for *Pinus taeda* developed from mapped cDNA clones. *Theor. Appl. Genet.* 97(3): 327-336.
- C.S. Kinlaw, T. Ho, S.M. Gertulla, E. Gladstone, E., **D.E. Harry**, L. Quintana, and C. Baysdorfer. 1996. Gene discovery in loblolly pine through cDNA sequencing in somatic cell genetics and molecular genetics of trees. pp. 175-182 in M.R. Ahuja, W. Boerjan and D.B. Neale (eds), Kluwer Academic Publishers, Boston.
- Neale, D.B., and **D.E. Harry**. 1994. Genetic mapping in forest trees: RFLPs, RAPDs, and Beyond. *AgBiotech News and Information* 6(5): 107N-114N
- Rogers, D.L., **D.E. Harry**, and W.J. Libby. 1994. Genetic variation in incense-cedar (*Calocedrus decurrens*): A decade of performance in seedling and clonal plantations. *Western Journal of Applied Forestry* 9(4): 113-117.
- Yokoyama, S., and **D.E. Harry**. 1993. Molecular phylogeny and evolutionary rates of alcohol dehydrogenases in vertebrates and plants. *Molec. Biol. Evol.* 10(6): 1215- 1226.

- Skirvin, R.M., H. Abu-Qaoud, S. Sriskandarajah, and **D.E. Harry**. 1993. Genetics of micropropagated woody plants. pp. 121-152 in M.R. Ahuja (ed) Micropropagation of Woody Plants. Kluwer Academic Publishers, Netherlands.
- Carelli, M.L.D., R.M. Skirvin, and **D.E. Harry**. 1992. Transformation and regeneration studies of 'Jewel' sweetpotato. pp. 52-60 in W.A. Hill, C.K. Bonsi, and P.A. Loretan (eds) Sweetpotato Technology for the 21st Century, Tuskegee University, Tuskegee, AL.
- Harry, D.E.**, and T.W. Kimmerer. 1991. Molecular genetics and physiology of alcohol dehydrogenase in woody plants. Forest Ecology and Management, 43: 251-272.
- Harry, D.E.**, D.C. Yang, and J.O. Dawson. 1991. Nucleotide sequence and diversity in 16S ribosomal RNA from *Frankia*. Plant Soil 131: 143-146.
- Neale, D.B., K.A. Marshall, and **D.E. Harry**. 1991. Paternal inheritance of chloroplast and mitochondrial DNA in incense-cedar (*Calocedrus decurrens* [Torr.] Florin). Can. J. For. Res. 21(5): 717-720.
- Ali, N., R.M. Skirvin, W.E. Splittstoesser, **D.E. Harry**, and W.L. George. 1991. Genetic factors and in vitro manipulations influence seed dormancy in cucumber. HortScience 26(8): 1076-1077
- Yokoyama, S., R. Yokoyama, C.S. Kinlaw, and **D.E. Harry**. 1990. Molecular evolution of the zinc-containing long-chain alcohol dehydrogenase genes. Molec. Biol. Evol. 7(2):143-154.
- Kinlaw, C.S., **D.E. Harry**, and R.R. Sederoff. 1990. Isolation and characterization of ADH cDNAs from *Pinus radiata*. Can. J. For. Res. 20: 1343-1350.
- Harry, D.E.**, C.S. Kinlaw, and R.R. Sederoff. 1988. The anaerobic stress response and its use for studying gene expression in conifers. pp. 275-290 in J.W. Hanover and D.E. Keathley (eds.) Genetic Manipulation of Woody Plants, Plenum Press, New York (invited).
- Kinlaw, C.S., **D.E. Harry**, D.D. Sleeter, and R.R. Sederoff. 1988. Use of heterologous probes to isolate and characterize conifer genes. pp. 9-18 in W.M. Cheliak and A.C. Yapa (eds) Molecular Genetics of Forest Trees. Proc. 2nd IUFRO Working Party on Molecular Genetics. Petawawa National Forestry Institute, Chalk River, Ontario, Canada, June 15-18, 1987 (invited).
- Harry, D.E.** 1987. Shoot elongation and growth plasticity in incense-cedar. Can. J. For. Res. 17: 484-489.
- Harry, D.E.** 1986. Inheritance and linkage of isozyme variants in incense-cedar. J. Heredity 77(4): 261-266.
- Harry, D.E.**, 1984. Genetic structure of incense-cedar (*Calocedrus decurrens*) populations. Ph.D. Dissertation, University of California, Berkeley, 163 p.
- Harry, D.E.** 1983. Identification of a locus modifying the electrophoretic mobility of malate dehydrogenase isozymes in incense-cedar (*Calocedrus decurrens*), and its implications for population studies. Biochem. Genet. 21: 417-434.
- Harry, D.E.**, J.L. Jenkinson, and B.B. Kinloch 1983. Early growth of sugar pine from an elevational transect. Forest Science 29: 660-669.

*Non-refereed Technical Papers, Reports, Abstracts, and Presentations*

- Harry, D.E.** 2007. Forest Biotechnology: Grappling with Opportunities and Challenges. Seminar, OSU Department of Forest Science, April 18, 2007.
- Harry, D.E.** 2006. Making Cents of A, T, C & G's: Industry Perspective on the Chicken Genome Sequence. (*Invited presentation*). Poultry Science Association, Ancillary Scientists Symposium; Building the Bridge between Genome and Phenome. Edmonton, Alberta, Canada. July 16, 2006.
- Marini, P.J., and **D.E. Harry**. 2005. Back to the wild. Proceedings of the 26<sup>th</sup> Technical Turkey Conference, April, 2005.
- Harry, D.E.** 2005. Just say know to GMO: Scientific potential vs. marketplace reality, (*Invited presentation*). Poultry Breeders Roundtable, Poultry Breeders of America, St. Louis, MO. May 5-6, 2005.
- Harry, D.E.** 2004. DNA-based methods for animal traceability and pathogen detection, (*Invited presentation*). Poultry Science Association, Ancillary Scientists Symposium; Agricultural Biosecurity: Emerging Issues in Homeland Security and Food Safety. St. Louis, MO. July 25, 2004.
- Harry, D.E.** 2003. If only genes could talk... National Turkey Federation Annual Meeting, February, 2003.
- Chaves, L.D., J.A. Rowe, **D.E. Harry**, and K.M. Reed, 2003. Avian microsatellite locus variation in a new turkey population designed for genetic mapping. Plant and Animal Genome XI, San Diego.
- Harry, D.E.** 2001. GMOs and agriculture: facts, fears, and foods. pp. 39-42 in Proceedings of the 24<sup>th</sup> Technical Turkey Conference, April 2001.
- Harry, D.E.**, P.J. Marini, and K.M. Reed. 2001. A primary linkage map of the turkey genome. Abstract, Plant and Animal Genome X, San Diego.
- King, L.M., J.D. Kirby, D.P. Froman, **D.E. Harry**, J.R. Darden, P.J. Marini, R.M. Walker, M.L. Rhoads, and A.M. Donoghue 1999. Efficacy of a sperm mobility test on-farm in pedigreed toms and effects of sperm mobility and insemination dose on duration of fertility in turkeys. Poultry Science, *supplement*.
- Temesgen, B., G.R. Brown, C.S. Kinlaw, **D.E. Harry**, and D.B. Neale. 1999. Genetic mapping of expressed sequence tag polymorphism (ESTP) markers developed from loblolly pine (*Pinus taeda* L.) and their use for pine comparative mapping. Plant and Animal Genome VII, San Diego.
- Harry, D.E.** and P.J. Marini 1998. Advances in molecular genetics. Technical Turkeys Conference, Proceedings, April, 1998.
- Temesgen, B., D.B. Neale, and **D.E. Harry**. 1998. Sequence-tagged site markers for loblolly pine (*Pinus taeda* L.) revealed by denaturing gradient gel electrophoresis. Plant and Animal Genome VI, San Diego.
- Harry, D.E.** 1997. Molecular genetics and agriculture: Changes for the 21<sup>st</sup> century. National Turkey Federation Annual Meeting, January, 1997.
- Harry, D.E.** 1997. Molecular genetics and agriculture: Tomorrow is now. Nicholas Turkey News 40(6) Nov-Dec 1997 pp. 1-3. Published by Nicholas Turkey Breeding Farms.
- Temesgen, B., D.B. Neale, M. Raj Ahuja, and **D.E. Harry**. 1997. Developing codominant PCR-

- based markers for pines and other conifers. Plant and Animal Genome V, San Diego.
- Bakst, M., V. Akuffo, **D. Harry**, and P. Marini 1997. True fertility and early embryonic mortality in turkeys at onset and after 24 wk of egg production. Southern Poultry Science Society, 18th Annual Mtg. Atlanta, Georgia.
- Harry, D.E.** 1996. Genetic Mapping: Where do we go from here? Nicholas Turkey News 39(4) July-August 1996 pp 1-4. Published by Nicholas Turkey Breeding Farms.
- Harry, D.E.** 1996. Molecular Genetics at NTBF: Where do we go from here? National Turkey Federation Annual Meeting, February, 1996.
- Kinlaw, C.S., S.M. McElroy, T. Ho, B. Sherman, M. Nag, S. Zue, **D. Harry**, and C. Baysdorfer, 1996. Complex gene families in pine genomes: Sequencing of cDNAs and characterization of retrotransposable elements. Plant Genome IV.
- Kinlaw, C.S., C.Baysdorfer, E. Gladstone, **D.E. Harry**, M.M. Sewell, and D.B. Neale. 1995. Loblolly pine cDNA sequence analysis. Plant Genome III, San Diego.
- Neale, D.B., C.S. Kinlaw, and **D.E. Harry**. 1995. Mapping and sequencing of the pine genome. Plant Genome III, San Diego.
- Riggs, L.A., R.K. Zebell, and **D.E. Harry**. 1995. Assessing genetic diversity in red oak populations using DNA markers. Final Report. Prepared for the North Central Fine Hardwoods Tree Improvement Cooperative.
- Harry, D.E.**, and D.B. Neale. 1994. PCR-based genetic markers for loblolly pine developed from cloned cDNAs. Plant Genome II, San Diego.
- Kinlaw, C.S., C. Baysdorfer, **D.E. Harry**, S.M. Gerttula, A.T. Groover, J.M. Lee, M.E. Devey, and D.B. Neale. 1994. Partial sequence analysis of loblolly pine cDNAs and identification of mapped pine genes. Plant Genome II, San Diego.
- Kinlaw, C.S., and **D.E. Harry**. 1994. Recent advances in the molecular genetics of tree species: Sixth International Meeting, Molecular Genetics Working Party of the International Union of Forestry Research Organization. Plant Molecular Biology Reporter 12(3): 279-284.
- Kinlaw, C.S. and **D.E. Harry**. 1994. Recent Advances in Molecular Genetics Tree Species. Dendrome, Forest Tree Genome Research Update. 1: 8-13.
- Kinlaw, C.S. and **D.E. Harry**. 1994. Distinctive Biology of Forest Trees. Probe 4: 37-39
- Harry, D.E.** and D.B. Neale. 1993. Developing codominant PCR markers in pines. pp. 249- 256 in Proc. 22nd Southern Forest Tree Improvement Conference, June 14-17, 1993, Atlanta, GA. Sponsored Publ. No. 44 of the Southern Forest Tree Improvement Committee. Available from The National Technical Information Service, Springfield, VA 22161.
- Colby, S.M., A.T. Groover, C.S. Kinlaw, **D.E. Harry**, and D.B. Neale. 1993. Advancing toward a transcriptional map of the loblolly pine genome. pp. 232-240 in Proc. 22nd Southern Forest Tree Improvement Conference, June 14-17, 1993, Atlanta, GA. Sponsored Publ. No. 44 of the Southern Forest Tree Improvement Committee. Available from The National Technical Information Service, Springfield, VA 22161.
- Harry, D.E.**, S.H. Strauss, and R.R. Sederoff. 1991. Molecular Forest Genetics Comes of Age: Fourth Meeting, Molecular Genetics Working Party, International Union of Forestry Research Organizations. Plant Molec. Biol. Rep. 9(2): 169-174.

- Harry, D.E.**, J.O. Dawson, and R.M. Skirvin. 1991. Biotechnology in Forestry. Illinois Research 33( ): 28-29.
- Strauss, S.H., and **D.E. Harry**. 1991. Molecular Identification of Logs: Tracing Log Origins with DNA and Secondary Compound Fingerprinting. Report prepared for USDA Forest Service, Pacific Northwest Forest and Range Experiment Station, 26 pp.
- Harry, D.E.**, K.S. Mordecai, C.S. Kinlaw, C.A. Loopstra, and R.R. Sederoff. 1989. DNA sequence diversity in alcohol dehydrogenase genes from pines. pp. 373-380 in Proc. 20th Southern Forest Tree Improvement Conference, June 26-30, 1989, Charleston, SC. Sponsored Publ. No. 42 of the Southern Forest Tree Improvement Committee.
- Harry, D.E.**, and R.R. Sederoff. 1989. Biotechnology in biomass crop production: The relationship of biomass production and plant genetic engineering. Environ. Sci. Div. Publ. 3411, Oak Ridge Natl. Lab., U.S. Dept. Energy, 47 pp.
- Harry, D.E.** 1979. Comments on a new type of pollination bag and associated rates of conelet abortion. pp. 13-15 in Breeding Pinus Radiata, IUFRO Working Party S2.03.09 Newsletter No. 3.
- Harry, D.E.**, and S.C. Cade 1976. Date of grafting and rootstock vigor effects on white fir grafting success. Weyerhaeuser Co., For. Res. Tech. Rep. No. 10.