

CURRICULUM VITA
Christopher W. Theodorakis

ADDRESS:

Work: Southern Illinois University Edwardsville
Department of Biological Sciences and Environmental Sciences Program
PO Box 1651
Edwardsville, IL 62026
USA

Home: 519 W. Lake Dr.
Edwardsville, IL 62025

phone: 618-650-5235
fax: 806-650-3174

e-mail: ctheodo@siue.edu

website : www.siue.edu/~ctheodo/

Languages spoken: English, Spanish (beginning level), German (intermediate level)

EDUCATION

1989-1994	University of Tennessee <u>Degree:</u> Doctor of Philosophy <u>Major:</u> Life Sciences (Environmental Toxicology Graduate Program)
1984-1988	Ohio State University <u>Degree:</u> Master of Science <u>Major:</u> Zoology (Behavioral Ecology concentration)
1980-1984	University of Illinois <u>Degree:</u> Bachelor of Science <u>Major:</u> Ecology and Ethology

PROFESSIONAL EXPERIENCE

2005-present	Southern Illinois University Edwardsville Department of Biological Sciences and Environmental Sciences Program Edwardsville, IL 62026 <u>Positions:</u> Assistant professor (August 1, 2005 – June 31, 2009), Associate professor (July 1, 2009 – June 31, 2015); Professor (July 1, 2015 – present)
1999-2005	Texas Tech University The Institute of Environmental and Human Health Lubbock Texas <u>Position:</u> Assistant professor, assistant section leader, Aquatic Toxicology Section
1998-1999	Battelle Memorial Institute Battelle Albuquerque Office Albuquerque, NM <u>Position:</u> Ecological Risk Consultant
1997-1999	Texas A&M University College Station, TX

Position: Postdoctoral Fellow

1994-1996	Oak Ridge Associated Universities Oak Ridge, TN <u>Position:</u> Postdoctoral Fellow
1989-1994	University of Tennessee Knoxville, TN <u>Position:</u> Graduate Research Associate.
1988-1989	Ohio State University Lima, OH <u>Position:</u> Instructor
1988	Ohio Environmental Protection Agency Columbus, OH <u>Position:</u> Intern
1984-1988	Ohio State University Columbus, OH <u>Position:</u> Graduate Teaching Associate

PROFESSIONAL ACTIVITIES

Member, Society of Environmental Toxicology and Chemistry
Associate Editor, Ecotoxicology
Associate Editor, Journal of Aquatic Ecosystem Stress and Recovery (journal no longer in press)

FUNDED RESEARCH PROJECTS

C.W. Theodorakis V. McCracken (Co-PI. Toxicity of Nanoparticles in Bacteria, Southern Illinois University Edwardsville, \$15,903. (2014- 2015).

E.M. Walton, J.A. Reh, K.E. Schulz, C.W Theodorakis. Water Quality in the Watershed Nature Center, The Meridian Society, \$2,675.00. (2012-2013).

C.W. Theodorakis. Enhanced Methods to Determine Effects of Thyroid Hormone Modulation of Oxidative Stress, Southern Illinois University Edwardsville, Southern Illinois University Edwardsville, \$5,995.00. (2011- 2012).

C.W. Theodorakis. Spatially-Explicit Assessments of Genetic Biodiversity and Dispersal in Gopher Tortoises and Gopher Frogs for Evaluation of Habitat Fragmentation at DoD Sites. Strategic Environmental Research and Development Program (SERDP). \$100,000. (2006-2008)

C.W. Theodorakis, G.P. Cobb, E. Caraway. Acute and Developmental Toxicity of Metal Oxide Nanoparticles in Fish and Frogs. U.S. Environmental Protection Agency. \$374,999. (2006-2009)

S. Marshall Adams, C.W. Theodorakis et al. Development and application of a physiological-based framework for assessing the biological significance of military activities on threatened and endangered animal species. SERDP \$32,000. (2006-2007)

C.W. Theodorakis. Effect of thyroid endocrine disruptors on gene expression, thyroid homeostasis, and reproduction in amphibians and fish. National Science Foundation. \$16,000. (2001-2003)

S. McMurry, W. P. Dayawansa , L. Smith, D. Willis, C. Martin, K. Dixon, C. Theodorakis. Interactions among climate, humans, and playa wetlands on the Southern Great Plains. Environmental Protection Agency. \$899,995. (2002-2005)

S. Diamond and C.W. Theodorakis. A new, non-invasive technique to investigate contaminant levels in Stellar sea lions. Texas Tech University. \$20,000. (2001-2002)

R.J. Kendall, P.N. Smith, T.A. Anderson, S. McMurry, K. Dixon, M. Hooper, G. Cobb, C. Theodorakis, A. Jackson, and E. Smith. Risk Based Approaches for Improved Toxic Chemical Management for Integrated Environmental and Human Health Issues in the Department of Defense: Aquatic Toxicology. Department of Defense, \$124,000 (2001-2004)

T. Anderson, P. Smith, S. McMurry, K. Dixon, A. Jackson, C. Theodorakis, and J. Carr. Bosque and Leon River Watershed Study, Aquatic Toxicology. Texas Brazos River Authority, \$257,062. (2001-2004)

GRADUATE STUDENTS COMPLETED

<u>Institution</u>	<u>Name</u>	<u>Degree</u>	<u>Status</u>
Texas Tech University	Carrie Bradford	M.S.	Graduated May 2002
	June-Woo Park	M.S.	Graduated May 2003
	Leslie McDaniel	M.S.	Graduated May 2004
	Fujun Liu	PhD	Graduated May 2006
Southern Illinois University Edwardsville	Nancy Villoti	M.S.	Graduated August 2009
	Lauren Cook	PSM ^a	Graduated December 2010
	Joshua Williams	M.S.	Graduated December 2010
	Chinomso Ibe	PSM	Graduated December 2011
	Casualen Fale	PSM	Graduated May 2012
	Britany Hrgich	PSM	Graduated December 2012
	Jeremy Roundcount ^b	PSM	Defended December 2012
	Rebecca Bright	M.S.	Graduated May 2013
	Elisia Musumeci	PSM	Graduated May 2013
	Satya Nagam	M.S.	Graduated August 2013
	Mohammed Nadeem	M.S.	Graduated August 2013
	Michael Strobe	PSM	Graduated August 2013
	Clifford Rush	PSM	Graduated December 2013
	Mary Ann Meyer	M.S.	Graduated May 2014
	Uma Bahanathoola	M.S.	Graduated August 2014
	April Sage ^b	PSM	Graduated December 2014
	Katherine Sowders	M.S.	Graduated May 2015
	Alisa Hasan	M.S.	Projected defense December 2015

^aProfessional Science Masters

^bAlthough this is a PSM student, they have completed a research thesis (unusual among PSM students).

OTHER RELEVANT EXPERIENCE

- Four years experience conducting research projects under strict quality assurance/quality control guidelines following Good Laboratory Practice regulations.
- Computer programming in the language BASIC
- Proficiency in the use of Microsoft Word, Excel, Powerpoint, and Publisher, Adobe Acrobat and Photoshop.

PUBLICATIONS

- Nadeem, M.A., S.M.B. Nagam, and C.W. Theodorakis. Expression of anti-oxidant genes in zebrafish exposed to arsenic and chemicals that alter thyroid hormone status (in preparation).
- Theodorakis, C.W., N. Villoti, S.M. Adams, J. Rotter, A. Hay, and C. Smith. Evolutionary toxicology and conservation genetics of gopher tortoises on a U.S. Army base. (in preparation).
- Liu, F., J-S. Wang, M.J. Hooper, and C.W. Theodorakis. Effects of sodium perchlorate, a thyroid endocrine disruptor, on sodium arsenate-induced oxidative stress in zebrafish *Danio rerio*. (in preparation).
- Theodorakis, C.W., G.A. Chavez, and G.P. Cobb. Acute toxicity of Cu, CuO, Fe₂O₃, TiO₂, and ZnO nanoparticles to fathead minnows (*Pimephales promelas*). Ecotoxicology and Environmental Safety (submitted)
- Theodorakis, C.W., S.M. Adams, C. Smith, J. Rotter, and A. Hay. 2015. Effects of military activity and habitat quality on DNA damage and oxidative stress in gopher tortoises on an Army training facility. Ecotoxicology (in revision).
- Nations, S, M Wages, JE Cañas, J Maul, C Theodorakis, and GP Cobb. 2015. Subchronic and chronic developmental effects of copper oxide (CuO) nanoparticles on *Xenopus laevis*. Chemosphere 135: 166–174.
- Theodorakis, C.W., J.W. Bickham, K.C. Donnelly, T.J. McDonald, and P.W. Willink. 2012. DNA damage in cich Assess suitability of manuscripts for journal, assign reviewers, make decision on disposition of manuscripts, suggest editorial board members lids from an oil production facility in Guatemala. Ecotoxicology 21: 496–511
- Richter, S.C., J.A. Jackson, M. Hinderliter, D. Epperson, C.W. Theodorakis, and S.M. Adams. 2011. Conservation genetics of the largest cluster of federally threatened gopher tortoise (*Gopherus polyphemus*) colonies with implications for species management. Herpetologica. 67: 406–419.
- Nations, S, M Wages, JE Cañas, J Maul, C Theodorakis, and GP Cobb. 2011. Acute effects of Fe₂O₃, TiO₂, ZnO and CuO nanoparticles on *Xenopus*. Chemosphere. 83: 1053–1061.
- Theodorakis, C.W. 2011. Ecotoxicology. In Encyclopedia of Life Sciences. Wiley-Blackwell, NY.
- Nations, S, M Long, M Wages, JE Cañas, J Maul, C Theodorakis, and GP Cobb. 2011. Effects of ZnO nanomaterials on *Xenopus laevis* growth and development. Ecotoxicology and Environmental Safety 74: 203–210.
- Shugart, L.R., C.W. Theodorakis, and J.W. Bickham. 2010. Evolutionary Toxicology. In J.A. DeWoody, J.W. Bickham, C. Michler, K. Nichols, G. Rhodes, K. Woeste (eds.). Molecular Approaches in Natural Resource Conservation and Management, Cambridge University Press, NY. Pp 320–362.
- Neuparth, T., Costa, F.O., Theodorakis, C.W., Costa, M.H., Bickham, J.W. 2009. Assessment of DNA damage in blood cells of *Sparus aurata* L. exposed to benzo[a]pyrene using three distinct genotoxicity assays. Fresenius Environ. Bull 18: 461–467.
- Theodorakis, CW 2008. Mutagenesis. In: Jørgensen, SE (ed.) Encyclopedia of Ecology, Elsevier, Amsterdam, pp 2475–2484.
- Liu, F., A. Gentles, and C.W. Theodorakis. 2008. Arsenate and perchlorate toxicity, growth effects, and thyroid histopathology in hypothyroid zebrafish *Danio rerio*. Chemosphere 71: 1369–1376.
- Park, J-W, C.M. Bradford, J. Rinchard, F. Liu, M. Wages, A. Waters, R.J. Kendall, T.A. Anderson, and C.W. Theodorakis. 2007. Uptake, elimination, and relative distribution of perchlorate in various tissues of channel catfish. Environ. Sci. Technol. 41: 7581–7586.
- Theodorakis, C.W., R. Patiño, E.M. Snyder, and E. Albers. 2006. Perchlorate Effects in Fish. In: R.J. Kendall, P.N. Smith, (eds.). Perchlorate Ecotoxicology. SETAC Press, Pensacola, FL. Pp. 155–184.
- Carr, J.A., and C.W. Theodorakis. 2006. Effects of Perchlorate in Amphibians. In: R.J. Kendall, P.N. Smith, (eds.). Perchlorate Ecotoxicology. SETAC Press, Pensacola, FL. Pp. 127–154.
- Liu, F. G.P. Cobb, T.A. Anderson, Q-Q. Cheng, and C.W. Theodorakis. 2006. Uptake, accumulation and depuration of sodium perchlorate and sodium arsenate in zebrafish (*Danio rerio*). Chemosphere 10:1679–1689.
- McKean C., Tang L, Tang M., Billam M., Wang Z., Theodorakis C.W., Kendall R.J., Wang J.S. 2006. Comparative acute and combinative toxicity of aflatoxin B(1) and fumonisin B(1) in animals and human cells. Food Chem Toxicol. 44: 868–876.
- Liu, F., J-S. Wang, and C.W. Theodorakis. 2006. Thyrotoxicity of sodium arsenate, sodium perchlorate, and their mixture in zebrafish *Danio rerio*. Environ. Sci. Technol. 40: 3429–3436
- Bradford, C. M., J-W. Park, J. Rinchard, T.A. Anderson, F. Liu, R.J. Kendall, and C. Theodorakis. 2006. Uptake and elimination of perchlorate in eastern mosquitofish. Chemosphere 63: 1591–1597.

- McKean, C., L. Tang, M. Billam, M. Tang, C. W. Theodorakis, R. J. Kendall, and J.-S. Wang. 2006. Comparative acute and combinative toxicity of aflatoxin B₁ and T-2 toxin in animals and immortalized human cell lines. *J. Appl. Toxicol.* 26: 139–147.
- Billam, M., L. Tang, Q. Cai, S. Mukhi, H. Guan, P. Wang, C.W. Theodorakis, R.J. Kendall, and J-S. Wang. 2006. Temporal patterns of MCLR in lakes of West Texas. *Environ. Toxicol. Chem.* 25: 349-355.
- Theodorakis, C. W., J. Rinchard, J.-W. Park, L. McDaniel, F. Liu, J.A. Carr, and M. Wages. 2006. Thyroid endocrine disruption in stonerollers and cricket frogs from perchlorate-contaminated streams in east-central Texas. *Ecotoxicology* 15: 31-50
- Park, J-W, J. Rinchard, F. Liu, T.A. Anderson, R.J. Kendall and C.W. Theodorakis. 2006. The thyroid endocrine disruptor perchlorate affects reproduction, growth, and survival of mosquitofish. *Ecotox. Environ. Saf.* 63: 343–352.
- Theodorakis, C.W., K-L Lee, S.M. Adams, and C.B. Law. 2006. Evidence of altered gene flow, mutation rate, and genetic diversity in redbreast sunfish from a pulp mill-contaminated river. *Environ. Sci. Technol.* 40: 377-386
- Neuparth T., Bickham J.W., Theodorakis C.W., Costa F.O., Costa M.H. 2006. Endosulfan-induced genotoxicity detected in the gilthead seabream, *Sparus aurata* L., by means of flow cytometry and micronuclei assays. *Bull. Environ. Toxicol. Chem.* 76: 242-248.
- Theodorakis, C. W., J. Rinchard, T. Anderson, F. Liu, J.-W. Park, F. Costa, L. McDaniel, R. Kendall, and A. Waters. 2006. Perchlorate in fish from a contaminated site in east-central Texas. *Environ. Pollu.* 139: 59-69.
- Bradford, C. M., J. A. Carr, J. Rinchard, and C. Theodorakis. 2005. Perchlorate affects thyroid function in eastern mosquitofish (*Gambusia holbrooki*) at environmentally relevant concentrations. *Environ. Sci. Technol.* 39(14): 5190-5195.
- Fox, G.A., P.A. White, S. Trudeau, C. Theodorakis, L.J. Shult and K.J. Fernie. 2005. DNA strand length and EROD activity in relation to two screening measures of genotoxic exposure in Great Lakes herring gulls. *Ecotoxicology* 14: 527 - 544.
- Liu, F., R.J. Kendall and C.W. Theodorakis. 2005. Joint toxicity of sodium arsenate and sodium perchlorate to zebrafish *Danio rerio* larvae. *Environ. Toxicol. Chem.* 24:1505-1507.
- Theodorakis, C.W. 2005. Biomonitoring. In: P.Wexler (ed.). *Encyclopedia of Toxicology*. Elsevier: Oxford.
- Theodorakis, C.W. 2005. Ecotoxicology. In: P.Wexler (ed.). *Encyclopedia of Toxicology*. Elsevier: Oxford. Pp 117-120.
- Theodorakis, C.W. 2005. Environmental Health. In: P.Wexler (ed.). *Encyclopedia of Toxicology*. Elsevier: Oxford. Pp 202-205.
- Theodorakis, C.W. 2005. Environmental Processes. In: P.Wexler (ed.). *Encyclopedia of Toxicology*. Elsevier: Oxford. Pp 208-210.
- Theodorakis, C.W. 2005. Environmental Toxicology. In: P.Wexler (ed.). *Encyclopedia of Toxicology*. Elsevier: Oxford. Pp 210-212.
- Park JW, Rinchard J, Anderson TA, Liu F, Theodorakis CW. 2005. Food chain transfer of perchlorate in largemouth bass, *Micropterus salmoides*. *Bull. Environ. Toxicol. Chem.* 74: 56-63.
- Capps, T., S. Mukhi, J. Rinchard, C. Theodorakis, V. Blazer and R. Patiño. 2004. Exposure to perchlorate induces the formation of macrophage aggregates in the trunk kidney of zebrafish and mosquitofish. *J. Aquat. Anim. Health.* 6 (3): 145-151
- Costa, F.O., T. Neuparth, C.W. Theodorakis, M.H. Costa, and L.R. Shugart. 2004. RAPD analysis of southern populations of *Gammarus locosta*: comparison with allozyme data and ecological inferences. *Marine Ecology Progress Series* 277: 197-207.
- Theodorakis, C.W. and J.W. Bickham. 2004. Molecular characterization of contaminant-indicative RAPD markers: homology between species and DNA sequence. *Ecotoxicology* 13: 303-309.
- Costa, F.O., M.R. Cunha, T. Neuparth, C.W. Theodorakis, M.H. Costa, and L.R. Shugart. 2004. Application of RAPD DNA fingerprinting in taxonomic identification of amphipods: a case-study with *Gammarus* species (Crustacea: Amphipoda). *J. Mar. Biol. Ass. U.K.* 84: 171-178.
- Liu, Y., L. Tang, M. Lian, C. McKean, H. Wu, H. Liu, C.W. Theodorakis, R.J. Kendall, and J. Wang. 2003. Comparative acute and combinative toxicity of aflatoxin B₁ and fumonisin B₁ in animals and human cells. *Toxicol. Sci.* 72 (Suppl. S): 188
- Theodorakis, C.W. 2003. Establishing causality between population genetic alterations and environmental contamination in aquatic organisms. *Hum. Ecol. Risk Assess.* 9: 37-58.
- Carr, J. A., L. Urquidí, W. L. Goleman, F. Hu, P. N. Smith and C.W. Theodorakis. 2003. Ammonium perchlorate

- disruption of thyroid function in natural amphibian populations: assessment and potential impact. In G. Linder (ed.). Multiple Stressor Effects in Relation to Declining Amphibian Populations, ASTM STP 1443. ASTM International, West Conshohocken, PA.
- Goleman, W.L., Carr, J.A., Urquidi, L.J., Anderson, T.A., Kendall, R.J., Smith, P.N. and Theodorakis, C.W. 2002. Response of larval amphibians to perchlorate contaminated pond water. *Amer. Zoologist.* 41: 1457.
- Bradley, B. and C. Theodorakis. 2002. The post-genomic era and ecotoxicology. *Ecotoxicology* 11: 7-9.
- Costa, F.O., T. Neuparth, M.H. Costa, C. W. Theodorakis and L. R. Shugart. 2002. Detection of DNA strand breakage in a marine amphipod by agarose gel electrophoresis: exposure to X-rays and copper. *Biomarkers* 7: 451-463.
- Shugart, L.R., C.W. Theodorakis, A.M. Bickham and J. Bickham. 2002. Genetic Effects of Contaminant Exposure and Potential Impacts on Animal Populations. In P. Calow (ed.) *Handbook of Ecotoxicology*. Blackwell Science, Inc., Oxford.
- Cooper, L.W., I.L. Larsen, V.G. Egorov, C. Theodorakis, H.P. Kelly and J.R. Lovvorn. 2002. Seasonal variation in water column processes and sedimentation of organic materials in the St. Lawrence Island polynya region, Bering Sea. *Marine Ecology Progress Series* 226: 13-26.
- Theodorakis, C.W. and I. Wirgin. 2002. Genetic responses as population-level biomarkers of stress in aquatic ecosystems. In S.M. Adams (ed.) *Biological Indicators of Aquatic Ecosystem Health*. American Fisheries Society, New York.
- Wirgin, I. and C.W. Theodorakis. 2002. Molecular biomarkers in aquatic organisms: DNA- and RNA-based endpoints. In S.M. Adams (ed.) *Biological Indicators of Aquatic Ecosystem Health*. American Fisheries Society, New York.
- Theodorakis, C.W. 2001. Integration of genotoxic and population genetic endpoints in biomonitoring and risk assessment. *Ecotoxicology* 10: 245-256.
- D'Surney, S. J., L.R. Shugart, and C.W. Theodorakis. 2001 Genetic markers and genotyping methodologies: an overview. *Ecotoxicology* 10: 201-204.
- Kendall, R., T. Anderson, R. Baker, C. Bens, J. Carr, L. Chiodo, G. Cobb, R. Dickerson, L. Frame, M. Hooper, S. McMurtry, R. Patiño, E. Smith and C. Theodorakis. 2001. *Ecotoxicology*. In C.D. Classen (ed.), Casarett and Doull's Toxicology: The Basic Science of Poisons. McGraw-Hill, New York.
- Smith, P.N, C.W. Theodorakis, T. A. Anderson, and R J. Kendall. 2001. Preliminary assessment of perchlorate in ecological receptors at the Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. *Ecotoxicology* 10: 305-313.
- Theodorakis, C.W., J.W. Bickham, T. Lamb, P.A Medica and T.B. Lyne. 2001. Integration of genotoxicity and population genetic analysis in kangaroo rats (*Dipodomys merriami*) exposed to radionuclide contamination. *Environ. Toxicol. Chem.* 20: 317-326.
- Theodorakis CW, Swartz CD, Rogers WJ, Bickham JW, Donnelly KC and Adams SM. 2000. Relationship between genotoxicity, mutagenicity, and fish community structure in a contaminated stream. *Journal of Aquatic Ecosystem Stress and Recovery* 7: 131-143.
- Alonso, LE; Bailey, AC; Barrientos, C; Bestelmeyer, BT; Callisto, M; Castañeda Moya, F; Castillo Villeda, ML; Chernoff, B; García EJ; Herrera, K; Kihn, HA; Lara, O; León, B; Mancilla, M; Morales, J; Ordoñez, J; Ponciano, I; Pérez, SG; Qeral Regil, A; Rodríguez OC; Selvin Pérez, E; Theodorakis, CW; Willink, PW; Zarza, H. 2000. Biological assessment of Laguna del Tigre National Park, Petén Guatemala. *RAP Bulletin of Biological Assessment = Boletín RAP de Evaluación Biológica*. 16. Washington, D. C., Conservation International Center for Applied Biodiversity Science.
- Ritter, J. Branly, R. Theodorakis, C. Bickham, C. Swartz, C. Friedfeld, R. Ackerman, E. Carruthers, C. DiGirolamo, A. Faranda, J. 1999. A Novel Technique for Performing Space Based Radiation Dosimetry Using DNA: Results From Gradex-I and the Design of Gradex-II. *NASA Conference Publication* 1999, Issue 209476, pages 175-182.
- Ritter J.M., Branly R, Theodorakis C., Bickham J., Swartz C., Friedfeld R., Ackerman E. .1999. Passive orbital radiation dosimetry on STS-91 using DNA: initial results from ASPR-GRaDex-I. *Proceedings of the 36th Annual Space Congress*.
- Theodorakis, C.W., T. Elbl and L.R. Shugart. 1999. Genetic ecotoxicology IV: Survival and DNA strand breakage is dependent on genotype in radionuclide-exposed mosquitofish. *Aquat. Toxicol.* 45: 279-291.
- Theodorakis, C.W. and L.R. Shugart. 1998. Natural selection in contaminated habitats: A case study using RAPD genotypes. In V.E. Forbes (ed.). *Genetics and Ecotoxicology*. Philadelphia: Taylor & Francis. pp. 123-150.

- Bickham, J.W., W.J. Rogers and C.W. Theodorakis. 1998. Transgenerational genetic effects of environmental contamination: implications for risk assessment. In T.G. Halverson, R.H. Webb and M.G. White (eds), Topical Meeting on Risk-Based Performance Assessment and Decision Making. LeGrange Park, IL: American Nuclear Society. pp. 187-194
- Shugart L. and C. Theodorakis. 1998. New trends in biological monitoring: application of biomarkers to genetic ecotoxicology. *Biotherapy* 11: 119-127.
- Theodorakis, C.W., J.W. Bickham, T. Elbl, L.R. Shugart and R.K. Chesser. 1998. Genetics of radionuclide-contaminated mosquitofish populations and homology between *Gambusia affinis* and *G. holbrooki*. *Environ. Toxicol. Chem.* 10: 1992-1998.
- Theodorakis, C.W. and L.R. Shugart. 1998. Genetic ecotoxicology III: The relationship between DNA strand breaks and genotype in mosquitofish exposed to radiation. *Ecotoxicology* 7: 227-236.
- Theodorakis, C.W. and L.R. Shugart. 1997. Genetic ecotoxicology: II. Population genetic structure in radionuclide-contaminated mosquitofish (*Gambusia affinis*). *Ecotoxicology* 6: 335-354.
- Theodorakis, C.W., B.G. Blaylock and L.R. Shugart. 1997. Genetic ecotoxicology I.: DNA integrity and reproduction in mosquitofish exposed in situ to radionuclides. *Ecotoxicology* 6: 205-218.
- Blaylock, B. G., Theodorakis, C.W., Shugart, L.R. 1996. Biological effects of ionizing radiation. In: Amiro, B.; Avadhanula, R.; Johansson, G.; Larsson, C-M; Luning, M. Protection of the Natural Environment, Vol. 1. Edsbruk, Sweden: Swedish Radiation Protection Institute; Atomic Energy Control Board of Canada.
- Shugart, L.R. and C.W. Theodorakis. 1996. Genetic ecotoxicology: The genotypic diversity approach. *Comp. Biochem. Physiol.* 113C: 273-276.
- Shugart, L.R. and C.W. Theodorakis. 1994. Environmental genotoxicity: Probing the underlying mechanisms. *Environ. Health Perspect.* 102(Suppl 12): 13-17.
- Theodorakis, C.W. and L.R. Shugart. 1994. Detection of genotoxic insult as DNA strand breaks in fish blood cells by agarose gel electrophoresis. *Environ. Toxicol. Chem.* 13: 1023-1031.
- Theodorakis, C.W., S.J. D'Surney, J.W. Bickham, T.B. Lyne, B.P. Bradley, W.E. Hawkins, W.L. Farkas, J.F. McCarthy and L.R. Shugart. 1992. Sequential expression of biomarkers in bluegill sunfish exposed to contaminated sediment. *Ecotoxicology* 1: 45-73.
- Theodorakis, C.W. 1989. Size segregation and the effects of oddity on predation risk in minnow schools. *Anim. Behav.* 24: 146-156.

PRESENTATIONS

- N.K. Horn, M. Rakers, C.W. Theodorakis, and A. Hubert. 2015. Evaluating the effects of silver nanoparticles on planarians. 3rd Annual North American Planarian Meeting, Chicago, IL, September 18-20, 2015.
- A. Paige, V. McCracken, C.W. Theodorakis, and Z. Lin. 2015. Microbial accumulation and transformation of nanoscale elemental selenium particles. 21st International Conference on Environmental Indicators, Windsor, Ontario, August 2-5, 2015.
- S. Matthew and C.W. Theodorakis. 2015. The relationship between sediment genotoxicity and oxidative stress responses in blue gill sunfish (*Lepomis macrochirus*) and mosquitofish (*Gambusia affinis*). Annual Meeting of the Ozark-Prairie Regional Chapter of the Society of Toxicology and Chemistry, St. Louis, MO, May 18-20, 2015.
- S.M.B. Nagam, M. A. Nadeem, and C.W. Theodorakis. 2015. Thyroid hormone status affects arsenite-induced oxidative stress in zebrafish. Annual Meeting of the Illinois State Academy of Sciences, Macomb, IL, April 10-11, 2015.
- M. A. Nadeem, S.M.B. Nagam, and C.W. Theodorakis. 2015. Effect of thyroid hormones and arsenite on expression of glutathione-metabolizing genes in zebrafish. Annual Meeting of the Illinois State Academy of Sciences, Macomb, IL, April 10-11, 2015.
- C. McCabe, C.W. Theodorakis, T. Henry, and M. Hartl. 2014. Kinetics of DNA damage and repair in fish, using the zebrafish (*Danio rerio*) as a model. International Congress on the Biology of Fish (ICBF), Edinburgh, Scotland, UK, Aug. 3-7, 2014.
- C. McCabe, C.W. Theodorakis, T. Henry, and M. Hartl. 2014. Kinetics of DNA damage and repair in fish, using the zebrafish (*Danio rerio*) as a model. Marine Alliance for Science and Technology for Scotland: Annual Science Meeting, Edinburgh, Scotland, UK, Sep. 4-5, 2014.

- M. Rakers, A. Hubert, and C.W. Theodorakis. 2014. Establishing *Schmidtea mediterranea* as a model to study nanoparticle toxicity in freshwater systems. Mississippi River Watershed Education Symposium, Godfrey, IL, Nov14-15, 2104.
- M. A. Nadeem, S.M.B. Nagam, and C.W. Theodorakis. 2014. Effect of thyroid hormones and arsenite on expression of glutathione-metabolizing genes in zebrafish. Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry North America (SETAC NA), Vancouver, B.C., Canada, Nov. 9-13 2014.
- M.A. Meyer and C.W. Theodorakis. 2013. Sequential DNA Analysis of the Mediterranean mussel, *Mytilus galloprovincialis*, Annual Meeting of the Illinois State Academy of Sciences, Jacksonville, IL, Apr. 5-6, 2013.
- R. Bright, V. McCracken, and C.W. Theodorakis. 2013. Metal toxicity of nanoparticles in bacteria. Annual Meeting of the Illinois State Academy of Sciences, Jacksonville, IL, Apr. 5-6, 2013.
- C.W. Theodorakis, K.C. Donnelly, T.J. McDonnald, and J.W. Bickham. 2013. DNA damage in cichlids and environmental forensics at an oil production facility in Guatemala. Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry North America (SETAC NA), Nashville, TN, Nov. 17-2, 2013.
- C. Theodorakis, K-W Shramm, O. Okay, and M.A. Meyer. 2012. Population genetics of Mediterranean mussels from the Strait of Istanbul. Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry North America (SETAC NA), Nov. 11-15, 2012.
- C. Theodorakis, S Richter, N. Villotti, J. Rotter, A. Hay, C. Smith, and S.M. Adams. 2012. Conservation Genetics and Evolutionary Toxicology of Gopher Tortoises on an Army Base. Annual Meeting in Society of Environmental Toxicology and Chemistry Europe (SETAC Europe), May 23-27, 2010..
- C Theodorakis, K. O'Shaughnessy K. Shaw Z. Mu. 2010. Chronic toxicity and oxidative stress induced by metal oxide nanoparticles in fathead minnows. Annual Meeting in Society of Environmental Toxicology and Chemistry Europe (SETAC Europe), May 23-27, 2010.
- K. Shaw, K. O'Shaughnessy, C. Theodorakis. 2009. Effects of Titanium Dioxide Nanoparticles on Arsenate-Induced Oxidative Stress in Goldfish. 30th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Nov 19-23 2009.
- K. O'Shaughnessy, K. Shaw, Z. Mu, C. Theodorakis. 2009. Chronic Toxicity of Metal Oxide Nanoparticles to Fathead Minnows. 30th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Nov 19-23 2009.
- Z. Mu, K. O'Shaughnessy, C. Theodorakis. 2009. Oxidative stress in fathead minnows exposed to metal oxide nanoparticles. 30th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Nov 19-23 2009.
- C.W. Theodorakis and F. Liu. 2009. Oxidative Stress and DNA Damage in Zebrafish Exposed to Sodium Arsenate and Sodium Perchlorate. 30th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Nov 19-23 2009.
- C.W. Theodorakis, S. Nations, G. Chavez, and G. Cobb. 2009. Toxicity of Metal Oxide Nanoparticles to Fathead Minnows and African Clawed Frogs. Annual Meeting in Society of Environmental Toxicology and Chemistry Europe (SETAC Europe), May 6-10, 2009.
- C.W. Theodorakis, S. Nations, G. Chavez, and G. Cobb. 2009. Toxicity of Metal Oxide Nanoparticles to Fathead Minnows and African Clawed Frogs. Society of Ecotoxicology and Environmental Safety (SECOTOX), June 21-25, 2009.
- S.L. Nations, M. Wages, M. Long, G.P. Cobb, C Theodorakis. 2008. Developmental Toxicity of ZnO Nanoparticles to African Clawed Frogs. 29th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Tampa, FL, Nov 16-20 2008.
- C. Theodorakis, N. Villotti, J. Rotter, A. Hay, C. Smith. 2008. Conservation Genetics and Evolutionary Toxicology of Gopher Tortoises on an Army Base. 29th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Tampa, FL, Nov 16-20 2008.
- G. Chavez, C. Theodorakis. 2008. Toxicity of Metal Oxide Nanoparticles to Fathead Minnows. 29th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Tampa, FL, Nov 16-20 2008.
- A. Hay, C. Theodorakis. 2008. DNA strand breakage in endangered gopher tortoises on a military reservation. 29th Annual Meeting in North America of the Society of Environmental Toxicology and Chemistry (SETAC), Tampa, FL, Nov 16-20 2008.

- Theodorakis, C. W., J. Rotter, A. Hay, C. Smith, and S.M Adams. 2008. Conservation toxicology: oxidative stress and DNA damage in gopher tortoises on a military base. Annual Meeting of the Illinois State Academy of Science, Urbana, IL.
- Theodorakis, C. W., and S.M Adams. 2007. Conservation toxicology: oxidative stress and DNA damage in gopher tortoises on a military base. Oral Presentation, SETAC Society of Environmental Toxicology and Chemistry, Milwaukee, WI.
- Theodorakis, C. W., and S.M Adams. 2006. Evidence of altered gene flow and mutations in redbreast sunfish from a pulp-mill contaminated site. Poster Presentation, SETAC Society of Environmental Toxicology and Chemistry, Montreal, Canada.
- Theodorakis, C. W., J. Rinchard, and R.J. Kendall. 2005. Thyroid endocrine disruption in stonerollers from perchlorate-contaminated streams in east-central Texas. Oral Presentation, SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD.
- Liu, F-J1, Wang, J-S, Hooper, M, Cobb, G, Collie, N, Theodorakis, C. 2005. Sodium arsenate enhances thyrotoxicity of sodium perchlorate in zebrafish *Danio rerio*. Oral presentation. SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD
- Liu, F-J1, Wang, J-S, Hooper, M, Cobb, G, Collie, N, Theodorakis, C. 2005. Uptake and depuration of sodium perchlorate and sodium arsenate from zebrafish *Danio rerio*. Poster presentation. SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD
- Wang, J-S, Billam, M, Tang, L, McKean, C, Wang, Z, Wang, P, Theodorakis, C, Kendall, R. Mosquitofish as a sensitive bioindicator for toxicity of biotoxin mixtures. Oral Presentation, SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD.
- Liu F, and Theodorakis C.W. 2004. Study on effect of sodium perchlorate on toxicity of sodium arsenate to zebrafish *Danio rerio*. Poster presentation. SETAC Society of Environmental Toxicology and Chemistry, Austin, TX.
- Theodorakis, C.W. 2003. Mechanistic Linkages Between DNA Damage and Higher-Level Effects. Oral Presentation, SETAC Society of Environmental Toxicology and Chemistry, Austin, TX.
- Liu F, and Theodorakis C.W. 2003. Thyroid function modulates oxidative stress and DNA damage in zebrafish *Danio rerio*. Oral presentation. SETAC Society of Environmental Toxicology and Chemistry, Austin, TX.
- McDaniel, L., and C.W Theodorakis. 2003. Genotoxicity in *Xenopus laevis* Exposed to Sodium Perchlorate and UV Radiation. Poster presentation. SETAC Society of Environmental Toxicology and Chemistry, Austin, TX.
- Theodorakis, C.W. 2002. Population Genetic Structure in Redbreast Sunfish from a Pulp Mill Contaminated River. Poster Presentation, SETAC Society of Environmental Toxicology and Chemistry, Salt Lake City, Utah.
- Theodorakis, C.W. 2002. Role of Molecular Biomarkers in Ecological Risk Assessment. Oral Presentation, SETAC Society of Environmental Toxicology and Chemistry, Salt Lake City, Utah.
- Theodorakis, C.W., P.N. Smith, T.A. Anderson and R.J. Kendall. 2001 Preliminary assessment of perchlorate in ecological receptors at the Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. Oral Presentation, SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD.
- Goleman, W., Urquidi, L., Anderson, T., Kendall, R., Smith, E., Theodorakis, C., Carr, J. 2001. Environmentally relevant concentrations of ammonium perchlorate disrupt amphibian thyroid function and metamorphosis. Poster Presentation, SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD.
- Hendrickson, C., Carr, J., Theodorakis, C. 2001. Effects of Perchlorate on Thyroid Function in Mosquitofish (*Gambusia affinis*). Poster Presentation, SETAC Society of Environmental Toxicology and Chemistry, Baltimore, MD.
- Theodorakis, C.W., P.N. Smith, T.A. Anderson and R.J. Kendall. 2001 Preliminary assessment of perchlorate in ecological receptors at the Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. Oral Presentation, SETAC Europe, Madrid, Spain.
- Theodorakis, C.W. and J.W. Bickham. 2000. DNA damage and fin erosion in cichlids from an oil production facility in Guatemala. Oral Presentation, Society of Environmental Toxicology and Chemistry. Nashville, TN.
- Theodorakis, C.W. 2000. Natural Selection in Contaminated Environments as Revealed by RAPD Genotypes. Oral Presentation, Society of Environmental Toxicology and Chemistry. Nashville, TN.
- Theodorakis, C.W. 2000. Natural selection in contaminated habitats: case studies from the aquatic environment. Oral Presentation, European Environmental Mutagen Society, Budapest, Hungary.
- Theodorakis, C.W., J.W. Bickham, and P.A Medica. 1999. Integration of genotoxicity and population genetic

- analysis in kangaroo rats (*Dipodomys merriami*) exposed to radionuclide contamination. Oral Presentation, Society of Environmental Toxicology and Chemistry, Philadelphia, PA.
- Theodorakis C.W., C.D. Swartz, J.W. Bickham, and S.M. Adams. 1998. Relationship between genotoxicity, mutagenicity, and fish community structure in a contaminated stream. Oral Presentation, Society of Environmental Toxicology and Chemistry, Charlotte, NC.
- Theodorakis, C.W., J.W. Bickham, and R.K. Chesser. 1998. Molecular characterization of contaminant-indicative RAPD markers: homology between species, DNA sequence, and development of marker-specific primers. Poster Presentation, Society of Environmental Toxicology and Chemistry, Charlotte, NC.
- Theodorakis, C.W. and L.R. Shugart. 1996. Differential survival of mosquitofish exposed to radionuclides is dependant on RAPD genotype. Poster Presentation. Society of Environmental Toxicology and Chemistry, Washington, DC.
- Theodorakis, C.W. and L.R. Shugart. 1996. Ultraviolet radiation-specific DNA damage and embryonic viability in sea urchins from Kasitsna Bay, Alaska. Oral presentation. Society of Environmental Toxicology and Chemistry, Washington, DC.
- Theodorakis, C.W. and L.R. Shugart. 1996. Genetic ecotoxicology of radionuclides in mosquitofish: An overview. Oral presentation. Society of Environmental Toxicology and Chemistry, Washington, DC.
- Theodorakis, C.W. and L.R. Shugart. 1995. Genetic ecotoxicology of radionuclides in mosquitofish: The relationship between DNA strand breaks and genotype. Oral presentation. Second SETAC world Congress, Vancouver, BC.
- Theodorakis, C.W. and L.R. Shugart. 1993. Allozyme and DNA polymorphisms as revealed by the RAPD technique show differences between radionuclide-contaminated and uncontaminated populations. Poster presentation. Society of Environmental Toxicology and Chemistry, Houston, TX.
- Theodorakis, C.W. and L.R. Shugart. 1993. DNA strand breaks and their relationship to fecundity in radionuclide-contaminated mosquitofish populations. Oral presentation. Society of Environmental Toxicology and Chemistry, Houston, TX.
- Theodorakis, C.W., S.J. D'Surney, J.W. Bickham, T.B. Lyne, B.P. Bradley, W.E. Hawkins, W.L. Farkas, J.F. McCarthy and L.R. Shugart. 1992. Sequential expression of biomarkers in bluegill sunfish exposed to contaminated sediment. Poster presentation. Society of Environmental Toxicology and Chemistry, Cincinnati, OH.
- Theodorakis, C.W., S.J. D'Surney and L.R. Shugart. 1992. Assessing DNA damage in fish blood cells using electrophoresis with agarose plugs. Oral presentation. Society of Environmental Toxicology and Chemistry, Cincinnati, OH.
- Theodorakis, C.W., S.J. D'Surney, J.W. Bickham, T.B. Lyne, B.P. Bradley, W.E. Hawkins, W.L. Farkas, J.F. McCarthy and L.R. Shugart. 1991. Sequential expression of biomarkers in bluegill sunfish exposed to contaminated sediment. Poster presentation. Estuarine Research Federation, San Francisco, CA.
- Theodorakis, C.W. 1987. Size segregation and the effects of oddity on predation risk in minnow schools. Oral presentation. Ecological Society of America, Columbus, OH.
- Theodorakis, C.W. 1987. Size segregation and the effects of oddity on predation risk in minnow schools. Poster presentation. Animal Behavior Society, Williamsburg, MD.