

PIERO R. GARDINALI

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EDUCATION

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Dates</u>
Ph.D.	Texas A&M University	<i>Chemical Oceanography</i>	1991-1996.
M.Sc.	Universidad Simón Bolívar	<i>Analytical Chemistry</i>	1986-1989
B.S.	Universidad Simón Bolívar	<i>Chemistry</i>	1981-1986

FULL-TIME ACADEMIC EXPERIENCE

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Florida International University	Associate Professor	Environmental Analytical Chemistry	8/04-present
Florida International University	Assistant Professor	Environmental Analytical Chemistry	2/98-8/04
Texas A&M University	Lab Manager- Research Associate	Environmental Analytical Chemistry	9/96-12/97
Texas A&M University	Research Assistant	Chemical Oceanography	6/91-8/96

PART-TIME ACADEMIC EXPERIENCE

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Universidad Simón Bolívar	Assistant Professor	<i>Chemistry</i>	8/89-5/91

PUBLICATIONS IN DISCIPLINE

Refereed Publications (out of 52)

1. L. Arroyo, T. Trejos, P. Gardinali and J. Almirall (2008) Optimization and Validation of a LA-ICP-MS Method for the Routine Analysis of Soils and Sediments. (accepted for publication *Spectrochimica Acta Part B*).
2. T. Hoang, E. Rogevich, R. Frakes, T. Bargar, P. Gardinali and G. Rand (2008) "Copper Desorption in Flooded Agricultural Soils and Toxicity to the Florida Apple Snail (*Pomacea Paludosa*): Implications in Everglades Restoration" *Environmental Pollution*, Volume 154 Pages 338-347.
3. K. Kenty, T. Helgeson, M. McNeal, T. Slifko, J. Englehardt, P. Gardinali, M. Meyer (2008) "Study of Reclaimed, Surface, and Groundwater". WRF 02-008; WaterReuse Foundation, 635 Slaters Lane, 3rd Floor Alexandria, VA 22314 (203pp.)
4. S. Kirkham Cole, William J. Cooper*, Robert V. Fox, Piero R. Gardinali, Stephen P. Mezyk, Bruce J. Mincher, and Kevin E. O'Shea (2007) Free Radical Chemistry of Disinfection-By-Products 2: Rate Constants and Degradation Mechanisms of Trichloronitromethane (Chloropicrin). *Environmental Science & Technology*, Volume 41, Pages 863-869.
5. Arroyo, L., and Gardinali, P. (2006) Determination of Phenoxy Acids Herbicides in Organic Rich Sediments By (ASE-SPE) and Electrospray Ionization- Mass Spectrometry (ESI-LC/MS). *Revista de Ciencias Forenses Issue 1*, Pages 45-53.
6. Mezyk, S. P.; Helgeson, T.; Cole, S. K.; Cooper, W. J.; Fox, R. V.; Gardinali, P. R.; Mincher, B. J. (2006) Free Radical Chemistry of Disinfection-Byproducts. 1. Kinetics of Hydrated Electron and Hydroxyl Radical Reactions with Halonitromethanes in Water. *Journal of Physical Chemistry A*, Volume 110 Issue 6; Pages 2176-2180.
7. Carriger, J., Rand, G., Gardinali, P., Perry, W., Tompkins, M., and Fernandez, A., (2006) "Pesticides of Potential Ecological Concern in Sediment from South Florida Canals: An Ecological Risk Prioritization for Aquatic Arthropods" *Soil and Sediment Contamination*, Volume 15, Pages 21-45
8. Zamora, I., Gardinali, P. and Jochem, F. (2006) "Assessing the Effects of Irgarol 1051 on Marine Phytoplankton Populations in Key Largo Harbor, Florida". *Marine Pollution Bulletin* Volume 52, Issue 8, Pages 935-941
9. Singh, S. P. and Gardinali, P. R. (2006) Trace Determination of 1-aminopropanone, a Marker for Waste Water Contamination by Liquid Chromatography and Atmospheric

- Pressure Chemical Ionization-Mass Spectrometry (APCI-LC/MS). *Water Research*, Volume 40, Issue 3, February 2006, Pages 588-594
10. Cole, S.K., W.J. Cooper, R.V. Fox, P.R. Gardinali, S.P. Mezyk, B.J. Mincher and K.E. O'Shea. (2005) The Radiation Chemistry and Free Radical Treatment of Bromonitromethane. in Photocatalytic and Advanced Oxidation Processes for Treatment of Air, Water, Soil and Surfaces, D.F. Ollis and H. Al-Ekabi (eds), Redox Technologies, Inc. (ISBN 0-9738746-0-0), 311-317.
 11. Hall, L., Killen, W., Anderson, R., Gardinali, P., and Balcomb, R. (2005) Monitoring of Irgarol 1051 concentrations with concurrent phytoplankton evaluations in East Coast areas of the United States. *Marine Pollution Bulletin*, Volume 50, Issue 6, June 2005, Pages 668-681
 12. Hardman, R.C. W.J. Cooper, A.J. Bourdelais, P. Gardinali and D.G. Baden. (2004) Brevetoxin Degradation and By-Product Formation via Natural Sunlight. In Harmful Algae 2002, Steidinger, K.A., J.H. Landsberg, C.R. Tomas, and G.A. Vargo (Eds) Florida Fish and Wildlife conservation Commission, Florida Institute of Oceanography, and Intergovernmental Oceanographic Commission of UNESCO, St. Petersburg, FL, U.S.A. 153-154.
 13. Hall, L., Gardinali, P. (2004) Ecological risk assessment for Irgarol 1051 and its major metabolite in United States surface waters. *Human and Ecological Risk Assessment*, Volume 10, Issue 3, June 2004, Pages 525-542
 14. Gardinali, P., Plasencia, M., and Maxey, C. (2004). "Occurrence and Transport of IRGAROL 1051 and its Major Metabolite in Coastal Waters from South Florida". *Marine Pollution Bulletin*. Volume 49, Issues 11-12, December 2004, Pages 1072-108.
 15. Lenwood W. Hall, Jr. , William D. Killen and Piero R. Gardinali (2004) "Occurrence of Irgarol 1051 and its major metabolite in Maryland waters of Chesapeake Bay ", *Marine Pollution Bulletin*, Volume 48, Issues 5-6, March 2004, Pages 554-562
 16. Piero R. Gardinali, José L. Sericano and Terry L. Wade. (2004) "Uptake and depuration of toxic halogenated aromatic hydrocarbons by the American oyster (*Crassostrea virginica*): a field study ", *Chemosphere*, Volume 54, Issue 1, January 2004, Pages 61-70.
 17. Gary M. Rand & Piero R. Gardinali. (2004) "South Florida Ecosystems" *Ecotoxicology* 13 (3): 179-184, April 2004.
 18. Hall, Jr., Lenwood W.; Gardinali, Piero (2004) Ecological Risk Assessment for Irgarol 1051 and Its Major Metabolite in United States Surface Waters Source: *Human and Ecological Risk Assessment* 10, no. 3 (2004): 525-542 .
 19. Annavarapu, S., Foran, C. M., Gardinali, P. Metzger, C., and Willett, K. L. (2004) "Characterization of Bioassays and Chemical Contaminants in Largemouth Bass (*Micropterus salmoides*) and Sediments Collected at Two sites in the Mobile Bay

- National Estuary". *Archives of Environmental Contamination and Toxicology* 46(4): 502-510, May 2004
20. Jaffé, R., Gardinali P., Cai Y, Sudbury, A, Fernandez, A, and Hay, B.(2003), "Organic Compounds and Trace Metals of Anthropogenic Origin in Sediments from Montego Bay, Jamaica: Assessment of Sources and Distribution Pathways" *Environmental Pollution*, 123:291-299.
 21. Gardinali, P.R., Zhao, X. (2002) "Ultra Trace Determination of Caffeine in Natural Waters by LC-APCI-MS" *Environment International*, 28:521-528.
 22. Gardinali, P.R., Plasencia, M.D., Poppell, C., D., and Mack, S. (2002) "Occurrence of Irgarol 1051, a New Antifouling Agent in Surface Waters from Biscayne Bay, Florida" *Marine Pollution Bulletin*, 44, 781-788.
 23. Gardinali, P.R. et al., (2002) "Effects of increased urban and agricultural landuse on the anthropogenic loading to Southwest Florida estuaries: Volume I Technical report; Volume II Analytical Data". Prepared for the Environmental Services Division, Pollution Control Department Collier County, Florida. Piero R. Gardinali, PhD. Principal Investigator In cooperation with Yong Cai, PhD. Rudolf Jaffe, PhD., and Joseph Boyer, PhD. October 2002, 194 pp + electronic deliverables.
 24. Willett, K.L., Gardinali, P.R., Lienesch, L.A., and Di Giulio, R.T. (2000). "Comparative Metabolism and Excretion of Benzo(a)pyrene in Two Species of Ictalurid Catfish" *Toxicological Sciences*, 58: 68-76.
 25. Mora, M.A., Laack, L. L., Lee, M.C., Sericano, J., Presley, R., Gardinali, P.R., Gamble, L. R., Robertson, S., and Frank, D. (2000). "Environmental contaminants in blood, hair, and tissues of ocelots from the Lower Rio Grande Valley, Texas, 1986-97". *Environmental Monitoring and Assessment*, 64: 477-492.
 26. Denoux, G.J., P. Gardinali and T.L. Wade. 1998. Quantitative Determination of Polynuclear Aromatic Hydrocarbons by Gas Chromatography/Mass Spectrometry - Selected Ion Monitoring (SIM) Mode. In: Sampling and Analytical Methods of the National Status and Trends Program, Mussel Watch Project: 1993-1996 Update. NOAA Technical Memorandum NOS ORCA 130, 1998, pp.129-139.
 27. Gardinali, P., L. Chambers, L., J.L. Sericano, and T.L. Wade. 1998. Procedures for the Extraction of Tissues and Purification of Extracts for Analysis of Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans. In: Sampling and Analytical Methods of the National Status and Trends Program, Mussel Watch Project: 1993-1996 Update. NOAA Technical Memorandum NOS ORCA 130, 1998, pp. 102-114.
 28. Sericano, J.L., P. Gardinali, and T.L. Wade. 1998. Quantitative Determination of Chlorinated Hydrocarbons. In: Sampling and Analytical Methods of the National Status

and Trends Program, Mussel Watch Project: 1993-1996 Update. NOAA Technical Memorandum NOS ORCA 130, 1998, pp. 160-167.

29. Gardinali, P.R., and Wade, T.L. (1998) "Contribution of PAHs, PCBs, and PCDD/PCDFs to the 2,3,7,8-TCDD Induction Equivalents (IEQs) in Environmental Samples", *Marine Pollution Bulletin*, 37(1-2): 27-31.
30. Wade, T.L., Sericano, J.L., Gardinali, P.R., Wolff, G., and Chambers, L. (1998) "NOAA's national Status and Trends "Mussel Watch" Program: Additional Analytes", *Marine Pollution Bulletin*, 37(1-2): 20-26.

PRESENTED PAPERS and LECTURES (out of 110)

1. "Endosulfan Sulfate in Fish Tissue from Everglades National Park: Tales of an Unregulated Pesticide Metabolite" Piero R. Gardinali, Adolfo Fernandez, David Acosta, Ingrid Zamora, Mark Cejas, Gary M. Rand and Joffre Castro. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
2. "Microconstituents in Surface Waters from South Florida: Occurrence, Persistence and Relevance with Respect to Water Reuse" Piero R. Gardinali, Simrat Singh, Jun Shi, Mark Cejas and Cheng Tao Wang Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
3. "Regional Distribution of Organic Contaminants in Water and Sediments Everglades National Park, Biscayne National Park and Big Cypress National Preserve". Piero R. Gardinali, Adolfo Fernandez, Ingrid Ley, Mark Cejas, Luis Arroyo, Elienai Veguilla, Elsa Nhuch, Cheng Tao Wang, Gary M. Rand and Joffre Castro. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
4. "Bioavailability of Copper in Flooded Agricultural Soils and Toxicity to the Florida Apple Snail (*Pomacea paludosa*)" Tham C. Hoang, Emily C. Rogevich, Gary M. Rand, Piero R. Gardinali and Robert A. Frakes. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
5. "Occurrence and Distribution of Trace Metals in Sediment Samples from Protected Areas in South Florida" Piero Gardinali, Valentina G. Caccia and Joffre Castro. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
6. "Rapid Screening for Airborne Trace Elements by In situ Laser Ablation ICP-MS Assessing Sources and Distributions in South Florida Sensitive Ecosystems". Luis Arroyo, D. Seba, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
7. "Photodegradation of a Macrolide Antibiotic Roxithromycin by Simulated Solar Radiation" Suda Rani Batchu, V. Panditi, J. Wang, and P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008. (Best student poster award).

8. "Assessment of Submerged Aquatic Vegetation as Indicators of Antifoulant Contamination in Southeast Florida Coastal Environments". Melissa Fernandez, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
9. "The use of Silicone Composites as Passive Samplers for the Assessment of Water Contamination along the C-111 Basin". Madai Gomez, A. Fernandez, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
10. "Occurrence of Pharmaceuticals and Personal Care Products in Surface Water in South Florida Canals and Coastal Environments". Chengtao Wang, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
11. "Endosulfan, a pollutant of concern at S-178" Joffre castro and Piero Gardinali, Everglades Foundation, Palmetto Bay, FL, March 26, 2008. Invitation by Nathaniel Reed.
12. "Endosulfan & the C-111 Basin" Piero R. Gardinali and Gary M. Rand, Department of Interior, Everglades National park, South Florida Natural Resource Office, Homestead, FL January 28, 2008. Invitation by Superintendent Dan Kimball.
13. "Environmental occurrence of Irgarol 1051 metabolites (M1,M2, M3 and M4) in coastal waters from the United States" Piero R. Gardinali and Charles Maxey, SETAC North America 28th Annual Meeting. Milwaukee, WI. 11-15 November 2007. Platform 681.
- 14.
15. "Assessment of LA-ICP-MS for the Forensic Analysis of Soil and Sediments" Luis Arroyo, Tatiana Trejos, Piero R. Gardinali, and Jose R. Almirall. AAFS 59th Annual Scientific Meeting, February 19-24, 2007, Henry B. Gonzalez Convention Center, San Antonio, TX.
16. "Emergent Pollutants of Concern in South Florida Surface Waters: Occurrence, Distribution and Fate". Gardinali, P., Singh, S. and Shi, J. SETAC North America 27th Annual Meeting. Palais des Congres, Montreal, Quebec, Canada. 5 - 9 November 2006
17. "Monitoring and Ecological Risk of Irgarol 1051 in Maryland Waters of Chesapeake Bay and other North East Coast Areas of the United States". Hall, L., Killen, W., Anderson, R., Gardinali, P. and Balcomb, R. SETAC North America 27th Annual Meeting. Palais des Congres, Montreal, Quebec, Canada. 5 - 9 November 2006
18. "Assessing Non-traditional Micro-constituents in South Florida Waters: Analytical Challenges of the Part Per Trillion World", Piero Gardinali, Ph.D., Florida Section American Water Works Association 2005 Fall Conference, Orlando, November 27-December 1, 2005.
19. "A comprehensive method for the fast screening of selected EPOCs in ground, surface and waste waters". (SIN-1117-835459) Singh, Simrat, Gardinali, Piero. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
20. "Assessing the fate and transport of Irgarol 1051 and its interactions with biological endpoints in near-coastal environments". (GAR-1118-467505). Gardinali, Piero, Maxey, Charles, Zamora, Ingrid, Jochem, Frank. Society of Environmental

- Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
21. "Distribution of Irgarol 1051 and M1 in biotic and abiotic samples around the Florida coast". (MAX-1117-816546). Maxey, C, Zamora, I, Gardinali, P. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
 22. "Using Silicone Polymer Composites (PDMS, Fe-PDMS) as Environmental Sampling Media". (BEL-1117-836174) Bell, S, Gardinali, P. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
 23. "Assessment of toxicological potential in marine coastal areas using YES assay and chemical analyses". (WIL-1117-835086) Willett, K, Chaudhary, A, Khan, S, Singh, S, Azua, A, Gardinali, P. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
 24. Potential hazard of exposure to natural and medicinal estrogens from drinking surface water to children under two years of age. Stephannie Thacker, BS, Simrat Singh, MS, Piero Gardinali, PhD, Quentin Felty, PhD, Deodutta Roy, PhD. American Public Health Association 134th Annual Meeting -- Boston, MA -- November 4-8, 2006
 25. "Occurrence and Distribution of Steroids and Pharmaceuticals in Coastal Environments from the Florida Keys" .Singh, S¹, Azua, A¹, Gardinali, P^{1,2,1} (PT057) Fourth SETAC World Congress 25th Annual Meeting in North America 14-18 November 2004 Portland, Oregon, USA.
 26. "An improved analytical method for the determination of unstable and volatile organophosphorous pesticides in complex environmental matrices" Cejas, Mark, Fernandez, Adolfo, Gardinali, Piero, (PH058) Fourth SETAC World Congress 25th Annual Meeting in North America 14-18 November 2004 Portland, Oregon, USA.
 27. "Assessing the Effects of Irgarol 1051 on Marine Phytoplankton Populations in Key Largo Harbor, Florida" Zamora, Ingrid, Jochem, Frank , Gardinali, Piero (PM062) Fourth SETAC World Congress 25th Annual Meeting in North America 14-18 November 2004 Portland, Oregon, USA.
 28. "Assessing the pollution chronology of sediments in South Florida estuaries by a combination of chemical analysis and fluorescence screening". Alvarez-Fraga, L; Gardinali, P Poster PT100, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
 29. "Determination of caffeine and other personal care product ingredients, in coastal environments from the Florida Keys". Azua, A; Gardinali, P Poster PW114, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
 30. "Regional distribution of organic contaminants and trace metals in fish tissue from Everglades National Park". Fernandez, A; Jaffe, R; Gardinali, P; Rand, G; Cai, Y; Cejas, M; Perry, W., Poster PH117, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.

31. "Trace determination of 1-aminopropanone, a marker for wastewater contamination, by liquid chromatography with fluorescence detection (LC-FL)". Singh, Simrat P; Gardinali, Piero Poster PH130, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
32. "Paleo-reconstruction of hydrocarbon contamination sources due to the presence of major roads and their contribution to the pollution loads of wetlands in the Florida Keys and the Southern Everglades". Cejas, M; Gardinali, P Poster PW200, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
33. "Evaluation of an Atmospheric Pressure Ionization Mass Spectrometry (API-LC/MS) method for the determination of triazine-based herbicides in complex environmental matrices"., Arroyo, L; Wu, J; Gardinali, P. Poster PW204, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
34. "Bioassay Directed Chemical Analyses of Biscayne Bay Sediments" Wu, J., Annavarapu, S; Willett, KL; Gardinali, PR. Platform 080, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
35. "New Method for the Rapid Determination of Triazine Herbicides and Irgarol 1051 in Soils and Sediment by ASE-SPE-GC/MS". Wu, J; Gardinali, P Poster PH129, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
36. "Multidisciplinary Tools to Solve Environmental Problems in South Florida" Florida International University, October 17th 2003.
38. "Caffeine, as a specific marker for wastewater contamination, in coastal environments: lessons learned from the Florida Keys", Piero R. Gardinali*, Arlette Azua and Joseph N. Boyer 31st Scientific Meeting of the ASSOCIATION OF MARINE LABORATORIES OF THE CARIBBEAN, Port of Spain, Trinidad, July 14-18, 2003.
39. "The chemical risks of smooth sailing: the controversy around new antifouling additives and coral reefs in the Florida Keys", Gardinali, P.R. and Maxey, C. 31st Scientific Meeting of the ASSOCIATION OF MARINE LABORATORIES OF THE CARIBBEAN, Port of Spain, Trinidad, July 14-18, 2003.
40. "Using a combination of in vitro bioassays to assess toxicity of estuarine sediments". Annavarapu, S., Gardinali, P. R., and Willett, K.L. SETAC Mid-South Region Annual Meeting, Vanderbilt University, July 2003. (1st place Platform Award).
41. "New Method For The Rapid Determination Of Triazine Herbicides In Soils And Sediment By ASE-SPE-GC/MS", Jianghong Wu and Piero Gardinali . South Florida ACS -FAME2003, Orlando FL, May 10th 2003.

42. "Environmental Analysis Of Polar Herbicides In Complex Organic-Rich Matrices By High Performance Liquid Chromatography Atmospheric Pressure Ionization Mass Spectrometry (HPLC-API-MS)" Luis Arroyo and Piero Gardinali . South Florida ACS -FAME2003, Orlando Fl, May 10th 2003.
43. "Occurrence and transport of IRGAROL 1051, a new antifouling herbicide, and its major metabolite in coastal waters from Biscayne Bay and the Florida Keys". Piero R. Gardinali*, and Charles Maxey. Joint conference on the Science and Restoration of the Greater Everglades and Florida bay Ecosystem (GEER). Palm Harbor, Florida, April 13-18, 2003 (Oral Presentation).
44. "Distribution and Occurrence of Inorganic and Organic Contaminants in Sediments from Everglades and Biscayne National Parks" Adolfo Fernandez, Piero Gardinali*, Rudolf Jaffe, Yong Cai, Gary Rand and Mark Cejas. Joint conference on the Science and Restoration of the Greater Everglades and Florida bay Ecosystem (GEER). Palm Harbor, Florida, April 13-18, 2003 (Poster).

RESERACH GRANTS

Total funding brought to FIU: \$3,610,400

Total corrected by participation: \$2,492,000

ACTIVE

"Providing contaminant data for coastal management: assessing the effects of land based sources of pollution on collier county's estuaries and their associated watersheds" **Principal investigator: Piero Gardinali. Collier County Florida (State).** Total Funding: **\$95K** for 2007-2008

"Contaminant Assessment & Risk Evaluation (CARE) for Everglades National Park, Biscayne National Park and Big Cypress National Preserve ". **Department of Interior, National Park Service, Biscayne National Park. Piero R. Gardinali (PI), and Gary M. Rand (Co-PI).** Total Funding **\$2.1M** for 2005-2009.

"Study of Reclaimed, Surface, and Groundwater Quality (WRF02-008)" **Principal Investigator: Mark McNeal, CH2M Hill; Piero Gardinali (FIU Subcontractor). Water Reuse Federation.** Total Funding **\$500K** for 2005-2007. FIU contract: \$83K.

"Assessing the occurrence, dissipation and potential risks of glyphosate applications to near-coastal environments within Biscayne National Park". **Principal investigator: Piero Gardinali . Department of Interior, National Park Service, Biscayne National Park.** Total Funding **\$97K** for 2005-2007.

"Monitoring the occurrence and transport of Irgarol and its known metabolites along coastal environmental compartments". **Principal investigator: Piero Gardinali. Ciba Specialty**

Chemicals, Plastic Additive Division (Industrial).Total funding \$ **85K** for 2005-2007.

PREVIOUSLY FUNDED

“Distribution of antifouling herbicides in biotic and abiotic media along the coastal marine environment: Assessing potential impacts of IRGAROL1051 to submerged vegetation species in the Florida Keys”, **Principal investigator: Piero Gardinali. Ciba Specialty Chemicals, Plastic Additive Division (Industrial).**

Total funding \$ **82K** for 2004-2005.

“Screening Level Risk Assessment to Determine Potential High Priority Contaminants and Natural Resources at Risk in Biscayne and Everglades National Parks: Critical information needs for CERP. Principal Investigators: Gary M. Rand (PI), **Piero R. Gardinali (Co-PI)** , YongCai , Rudolf Jaffé. **Department of Interior, National Park Service.** (Federal).

Total Funding \$**736K** Duration 3 years, 2001-2004.

“Dissipation of IRGAROL 1051 in the near coastal marine environment: Assessing potential impacts to protected symbiotic species in the Florida Keys” **Principal investigator: Piero Gardinali (PI). Ciba Specialty Chemicals, Plastic Additive Division (Industrial).**

Total funding \$ **97K** for 2002-2003.

“Analysis of atmospheric samples and surface slicks from the South Pacific, the Caribbean and the Bitterroot” **Principal Investigators: Piero Gardinali and Rudolf Jaffe. Academy of Marine Sciences (Private Foundation).**

Total Funding \$**3K** for 2002-2003.

“Pollution chronology in the Florida Rock and Sand/ FIU Wetland Restoration Property: Using aromatic hydrocarbons as tracers for past and present activities”

Principal investigator: **Piero Gardinali (PI).** Florida Rock and Sand/FIU (Mixed).

Total funding \$ **15K** for 2002-2003.

"Occurrence and Transport of IRGAROL 1051 and its Major Metabolite in Coastal Waters from the United States". **Principal investigator: Piero Gardinali (PI). Ciba Specialty Chemicals, Plastic Additive Division (Industrial).**

Total funding \$ **44.7K** for 2001-2002.

" Effects of Urban and Agricultural Landuse on the Anthropogenic Loading to Southwest Florida Estuaries: Baseline Information to Assess Changing Watersheds". Collier County Florida. **Principal investigators: Piero Gardinali (PI),** Rudolf Jaffe, Joseph Boyer and Yong Cai. **(State).**

Total funding \$ **88K** for 2001-2002.

" Evaluation of Caffeine as a Selective Molecular Tracer for Sewage Intrusions in Marine Coastal Ecosystems: A new analytical tool to help the interpretation of water quality data for

management purposes" **Principal investigator: Piero Gardinali. FIU-Office of the Provost (Internal).**

Total funding \$ **14.5K** for 5/2001-12/2001.

"Occurrence and Photo-transformation of Iragrol 1051 in Florida Coastal Waters: Preliminary Assessment". **Principal investigator: Piero Gardinali. Ciba Specialty Chemicals, Plastic Additive Division (Industrial).**

Total funding \$ **10K** for 2000.

"Effects of the Flamingo Wastewater Treatment Plant and ECO-Pond on the Water Quality of Florida Bay" Principal Investigators: Rudolf Jaffé (PI), Joseph Boyer, David Generaux and **Piero Gardinali (CO-PI).** Department of Interior, National park Service, Everglades National Park.

Total funding \$ **74.7K** for 1999-2000.

SOLICITED REVIEWER

Chemosphere	Environmental Science and Technology
Marine Pollution Bulletin	Organic Geochemistry
Applied Geochemistry	Environmental Toxicology & Chemistry
Water Research	Bulletin of Environmental Contamination and Toxicology
Ecotoxicology	Hydrobiologia
Interciencia (Venezuela)	Biologia Tropical
Revista de Ciencias Forenses (Costa Rica)	

TEACHING

A. Courses Taught at FIU

Semester	Year	Course	Description	Credits
Spring	1998	CHM4130L	Modern Analytical Chemistry Lab.	2
Summer	1998	CHM1046L	General Chemistry II Lab	2
Summer	1998	CHM1046L	General Chemistry II Lab	2
Fall	1998	CHM5936	Sp.Top. in Environmental Chemistry	3
Spring	1999	CHM4130	Modern Analytical Chemistry	3
Summer	1999	CHM1046L	General Chemistry II Lab	2
Fall	1999	CHM5931*	Advanced Mass Spectrometry	3
Spring	2000	CHM4130L	Modern Analytical Chemistry Lab	2
Summer	2000	CHM3120	Quantitative Analysis	3
Fall	2000	None		
Spring	2001	CHM4130L	Modern Analytical Chemistry Lab.	2
Spring	2001	CHM4130L	Modern Analytical Chemistry Lab.	2
Fall	2001	CHM5931*	Advanced Mass Spectrometry	3
Spring	2002	CHM4130	Modern Analytical Chemistry	3
Summer	2002	CHM5996	Mass Spectrometry Workshop	2
Fall	2002	None		
Spring	2003	CHM4130L	Modern Analytical Chemistry Lab.	1
Spring	2003	CHM4130L	Modern Analytical Chemistry Lab.	1
Summer	2003	CHM5996	Mass Spectrometry Workshop	2
Fall	2003	CHM5938	Advanced Mass Spectrometry	3
Spring	2004	CHM4130	Modern Analytical Chemistry	3
Fall	2004	CHM4130	Modern Analytical Chemistry	3
Spring	2005	CHM5936	Sp.Top. in Environmental Chemistry	3
Fall	2005	CHM5938	Advanced mass Spectrometry	3
Fall	2005	CHM4130L	Modern Analytical Chemistry Lab.	1
Spring	2006	None		
Fall	2006	CHM4130L	Modern Analytical Chemistry Lab.	1
Spring	2007	CHM4130	Modern Analytical Chemistry	3
Spring	2007	CHM5150	Graduate Analytical Methods	3
Fall	2007	CHM5938	Advanced Mass Spectrometry	3
Spring	2008	CHM4130L	Modern Analytical Chemistry Lab.	1
Fall	2008	CHM4130L	Modern Analytical Chemistry Lab.	1
Fall	2008	CHM6281	Environmental Organic Chemistry	3

In addition, CHM4910/11 and EVR4910/11 (Undergraduate Research) were offered every semester in the Department of Chemistry and Environmental Studies. *Number changed to CHM-5938 when class was converted to a core course in the Analytical Division.

B. Graduate Student Supervision

B.1 Thesis Dissertation Advisor

1. Zequi Rao 1999-2000 “Fast Screening of Chlorinated Contaminants Using Gas Chromatography with Atomic Emission Detection GC/AED”. M.Sc.(CHM) 2000.
2. Xu Zhao 1998-2000 “Evaluation of Haloacetic Acids and Caffeine as Dissolved Phase Tracers for Wastewater Contamination”. M.Sc.(CHM) 2000.
3. Manolo D. Plasencia 1999-2001 “Occurrence and Environmental Fate of Irgarol 1051, a New Antifouling Agent”. M. Sc (CHM), 2001
5. Loreta Alvarez-Fraga 2001-present “Effects of Urban and Agricultural Landuse on the Anthropogenic Loading to Southwest Florida Estuaries: Baseline Information to Assess Changing Watersheds” M.Sc, (CHM), Fall 2003.
6. Luis Arroyo 2001-present “Environmental Analysis of Polar Herbicides in Complex Organic-Rich Matrixes by HPLC-ESP-MS” M.Sc (FORENSIC), Fall 2003.
7. Jianhong Wu 2001-present “Bioassay Directed Chemical Analyses of Estuarine Sediments” M.Sc. (CHM), Fall 2003.
4. Patricia Harrison 2000-2006 “Multielemental Fingerprinting of Oils and Other Petroleum Derivates by Using Gas Chromatography with Atomic Amission Detection GC/AED” M.Sc, (CHM) Fall 2006
8. Arlette Azua 2003-2005 “Use of Caffeine and Other Personal Care Products (PCPs) as a Simple Tool for the Rapid Assessment of Water Quality “M.Sc. (CHM), Summer 2005.
9. Ingrid Zamora 2002-2005 “Effects of Irgarol 1051 to Marine Algae and Submerged Aquatic Vegetation” M.Sc. (EVR), Fall 2005
- 10 Simrat Singh 2003-2006 “Tracing Human Derived Wastewaters Using Biologically Active Xenobiotics and Natural Products” PhD. (CHM), Fall 2006.
- 11 Stephanie Bell 2003-present “Development of New Solid Phase Extraction Composites (SPEC) for the Determination of Soluble Contaminants in Surface and Ground Waters” M.Sc. (FORENSIC), Fallr 2007.

- 12 Jun Shi 2004-2006 “Fate and transport of pharmaceuticals and other personal care products: assessing persistence and availability in near-coastal environments” Ms. (CHM). Summer 2006.
- 13 Charles Maxey 2005-2006 “Fate and transport of new antifouling boosters in the marine environment” M Sc. (CHM) Fall 2006.
- 14 Luis Arroyo 2005-Present “Analytical methods for polar organic contaminants in organic rich environmental matrices” PhD. (CHM-Forensic Track) Anticipated Spring 2009.
- 15 Chengtao Wang 2007-Present “Occurrence of Persistent Pharmaceuticals, Hormones and Steroids in Coastal Environments” (CHM) Anticipated Spring 2010.
- 16 Sudha Rany Batchu 2007-present “Photochemical transformation of common antibiotics in the freshwater and coastal environments of South Florida” PhD (CHM) Anticipated Fall 2011.
- 17 Mark Cejas 2007-Present “Multivariate statistical analysis for tracking wastewater intrusions in coastal environments in the Florida Keys” MSc. (CHM) Anticipated Spring 2009.
- 18 Melissa Fernandez 2007-Present “Use of submerged vegetation as indicators of antifoulant contamination in Southeast Florida environments” MSc. (CHM) Anticipated Spring 2009.
- 19 Cesar Ramirez 2008-Present “Analytical methods for the trace determination of modern use pesticides in coastal environments” PhD (CHM) Anticipated Fall 2012.
- 20 Jian Wang 2008-Present “Occurrence and distribution of chemical indicators of wastewater in fish exposed to reclaimed water” PhD (CHM) Anticipated Fall 2012.
- 21 Venkat Reddy-Pandity 2008-Present “Fate and transport of common antibiotics in marsh environments influenced by water reuse” PhD (CHM) Anticipated Fall 2012.

B.2. Thesis/Dissertation Co-Advisor

1. Adolfo Fernandez 2001-2003 “Regional Distribution of Organic Contaminants and Trace Metals in Everglades and Biscayne National Parks”.
M.Sc.(EVR). (Advisor: Rudolf Jaffe)

B.3. Thesis/Dissertation Committee Member

Appointed member of the Dissertation/Thesis Committees for the following students :

Alex Gongora (MSc, CHM),	Ralph Mead (PhD, CHEM),
Xiofang Lang (MSc, CHM),	Zuzana Zajikova (PhD, CHEM, Florida Atlantic University),
Julio Lopez (MSc, CHM),	Yang Deng (PhD, CVEN, University of Miami)
Jinghui Su (MSc, CHM),	Allison Curran (PhD, CHEM)
Maria Shiels (MSc, CHM),	Xuping Xu (PhD, CHEM)
Shivanna Mahabir (MSc, ENV),	Joshua Coultier (PhD, CHEM)
Troy Lee (MSc, ENV),	Oliva Pisani (PhD, CHEM)
John Carriger (MSc, ENV),	
Oliver Spicer (MSc, Forensic),	

B.4. Other Supervision

Undergraduate Students (CHM4910 and CHM4911, Undergraduate Research)

Nubia Heuett (2008)	Julio Morillo (2008)
Kety Garcia (2004-2005)	Arlette Azua (2002)
Yeivelis Batista (2004-2005)	Jose Marti (2001)
Beatriz Torres (2003)	Lisette Martell (2001)
Karla Pacheco (2003)	Lester Diaz (2001)
Peta Johnson (2003)	Mark Cejas (2001)
Charles Maxey (2003)	Charles Poppell (1999-2000)
Ingrid Zamora (2002)	Manolo Plasencia (1998)

High School Students (ACS-SEED)

David Acosta (2003 and 2004), Milagros Mendoza (1999 and 2000)