DIRECTORY OF UNIVERSITY
WATER EXPERTISE
IN THE DISTRICT OF COLUMBIA
1982

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D.C. WRRC Report No. 40
District of Columbia Water Resources
Research Center
University of the District of Columbia
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008
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The D.C. Water Resources Research Center was established at the University of the District of Columbia in 1973 under the Water Research and Development Act of 1964. The mission of the center is to promote research, training, technology transfer, and information dissemination on the water resources of the District of Columbia.

The directory of faculty expertise in the District of Columbia is prepared as part of the information dissemination program. The directory has been assembled for several purposes:

1) to identify as nearly as possible those faculty members of universities in the District of Columbia who are actively involved in one or more aspects of water resources,

2) to facilitate communication among faculty members with water expertise and interests, so that duplication of effort can be minimized,

3) to stimulate exchange of information between faculty members and public agencies and private organizations with interest and/or responsibility in the field of water resources, and

4) to inform interested parties of the active role that D.C. university faculty members are playing in the area of water resources research.
The primary source of information for this directory was the faculty member him/herself, who was provided with a questionnaire. These were sent to all university faculty in the District of Columbia known to be involved in water and related research activity. Department chairpersons and heads of organized research units were also requested to assist by providing appropriate names. Numerous follow-up telephone calls were placed in an effort to obtain information from all pertinent faculty. The excellent cooperation received is gratefully appreciated.

The basic information for each individual is presented in the body of the directory. Individuals are listed in alphabetical order in this section. In addition, two cross-indices are provided to assist users in locating persons by expertise/interest area or by university.

It is inevitable that omissions and errors have been made. Since the directory will be periodically updated, we would appreciate learning about these so that later editions will be more complete and correct. To aid in this effort, an update/correction form has been included at the back of the directory. In addition, comments and suggestions concerning this publication are welcomed. Improvements will be made wherever possible in subsequent editions.

The development and production of this directory were carried out by Lynnea C. Salvo, Research Assistant, under the
supervision of Dr. Mamadou H. Watt, Director of D.C. Water Resources Research Center. Special thanks go to Peggy Edler for her assistance and meticulous record keeping and to Willie Mitchell for assembling the final product. The DC-WRRC also wishes to thank the following persons for their informal review of the directory: Dr. Ruth Allen, Dr. Frederick Carson, Dr. Michael Champ, Dr. Benedict DeCicco, Dr. James Johnson, Jr., Dr. A. Jose Jones, Dr. Donald Spoon, Dr. Man Varma, and Dr. Robert Waters.

Contents of this publication do not necessarily reflect the views and policies of the U.S. Department of Interior, Office of Water Research and Technology, nor does mention of trade names or commercial products constitute their endorsement or recommendation for use by the U.S. Government.

August 1982
Mamadou H. Watt
Director
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1. FACULTY
ALLEN, Dr. Ruth H. 686-2177
Assistant Professor of Ecology and Environmental Systems Management
Department of Biology
The American University
Washington, D.C. 20016

Water resources management planning; urban hydrology; urban ecology; urban forestry (for water management); environmental analysis; arid land ecosystems

ANDERSON, Dr. Richard R. 686-2177
Professor
Department of Biology The American University Washington, D.C. 20016

Submersed vascular plants: their ecology, life history, distribution, and effects of toxic compounds on them; remote sensing for water quality and marsh lands

ARMSTRONG, Daniel W. 625-4432
Assistant Professor
Department of Chemistry Georgetown University 37th and 0 Sts., N.W.
Washington, D.C. 20057

Water pollution; acid rain; foaming problems on rivers, lakes, etc.

BACK, Dr. William 703-860-6083
Adjunct Professor
Department of Geology
George Washington University
Washington, D.C. 20052

Ground water; geochemistry of groundwater; isotopes in groundwater; Karst hydrology; groundwater contamination
BANTA, Dr. William C. 686-2177
Professor
Department of Biology The American University
Washington, D.C. 20016

Invertebrates: taxonomy, ecology; water quality: standard methods

BELL, Dr. Bruce A. 676-7446
Professor of Engineering
Department of Civil, Mechanical, and Environmental Engineering George Washington University
801 22nd Street, N.W., Suite 7T37 Washington, D.C. 20052

Water and wastewater treatment processes; treatment plant design; treatment of toxic and hazardous wastes

BUENTE, David T., Jr. At U.S. Department of Justice
Adjunct Associate Professor
School of Law
George Washington University
Washington, D.C. 20052

Water law; water pollution

CARSON, Dr. Frederick W. 686-2048
Associate Professor
Department of Chemistry The American University
Washington, D.C. 20016

Enzymatic analysis of nutrients
CHAMP, Dr. Michael A. 686-2177
Research Professor (At N.O.A.A.)
Department of Biology 443-8734
The American University
Washington, D.C. 20016

Marine pollution; marine waste management; ocean disposal of municipal and industrial wastes and dredged materials; marine optics; primary productivity

CHANG, Dr. Fred F. M. 282-7349
Professor
Department of Civil & Mechanical Engineering
University of the District of Columbia
4200 Connecticut Avenue, N.W. Washington, D.C. 20008

Erosion and sedimentation, streamflow and runoff, hydraulics, ground water

CHARLES, Dr. Carl 0. A. 636-6570 or 636-6568
Assistant Professor
Department of Civil Engineering
Howard University
2400 Sixth Street, N.W.
Washington, D.C. 20059

Hydraulics; water resource management; water treatment

CHAWLA, Dr. Ramesh C. 636-6625
Associate Professor
Department of Chemical Engineering
Howard University
2400 Sixth Street, N.W.
Washington, D.C. 20059

Disinfection of drinking water; chemistry and kinetics of chlorination; formation and removal of trihalomethanes in water; water conservation and management in industrial use; industrial wastewater treatment, recycle, and reuse
CHEH, Dr. Albert
Assistant Professor
Department of Chemistry
The American University
Washington, D.C. 20016

Quantitation and identification of mutagens and carcinogens arising from water chlorination; precursors, model chemical reactions

CHI, Dr. Michael
Professor
Department of Civil Engineering
Catholic University
c/o 2721 N. 24th Street Arlington,
VA 22207

Hydrodynamics; water pollution; hydraulics; soil mechanics

CHINNIS, Dr. Robert J.
Associate Professor
Department of Biology The American
University Washington, D.C. 20016

Estuaries; domestic and municipal conservation; sources of pollution; public information

CHIOGIOJI, Dr. Melvin H.
Professorial Lecturer
Department of Management Science George
Washington University 15113 Middlegate Road
(home) Silver Spring, MD 20904

Water rates, water quality, water resources planning
CORRELL, Dr. David L.  
Associate Director  
Chesapeake Bay Center for Environmental Studies  
Smithsonian Institution  
Box 28  
Edgewater, MD 21037  

Nutrient dynamics in estuaries and watersheds

DANNER, Dr. David  
Research Associate  
Department of Civil Engineering  
Catholic University  
Washington, D. C. 20064  

Urban planning; water pollution control; information processing; water treatment alternatives; non-point source pollution control

DE CI000, Dr. Benedict T.  
Professor  
Department of Biology  
Catholic University Washington, D.C.  
20064  

BOD determinations and alternatives; removal of nitrogen and phosphorus by bacteria

EARLEY, Dr. Joseph E.  
Professor  
Department of Chemistry  
Georgetown University (607C Reiss Bldg.)  
Washington, D. C. 20057  

Chromium chemistry; kinetics and mechanism of inorganic reactions in aqueous solutions (especially chromium, titanium, ruthenium)
ENDERS, Dr. Michael J. 676-7475
Assistant Professor
Department of Urban & Regional Planning
George Washington University
2023 G Street, N.W.
Washington, D.C. 20052

Environmental planning with special interest in water resources problems

ENG, Dr. George 727-2280
Professor
Department of Chemistry
University of the District of Columbia
1321 H Street, N:W.
Washington, D.C. 20008

Organotin compounds in water: identification of species formed and the effects of their leaching into the water system

FAUST, Dr. Maria A. 261-4190
Smithsonian Institution
Chesapeake Bay Center for Environmental Studies
P.O. Box 28
Edgewater, MD 21037

Bacterial pollution from non-point sources; fate of fecal bacteria in estuarine water

FLINT, Dr. Oliver 357-2169
Curator of Neuropteroids
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Identification of caddis-flies
GILHEANEY, Dr. John J. 635-5170
Associate Professor (At N.O.A.A.: 443-8444)
Department of Mechanical Engineering
Catholic University
Washington, D.C. 20064

Ocean acoustics, oceanography

GIRARD, Dr. James E. 686-7517
Associate Professor
Department of Chemistry The American University
Washington, D.C. 20016

Separation and quantitation of inorganic ions in water; ion chromatography

GOICOECHEA, Dr. Ambrose 676-3648
Associate Research Professor 703-325-0574
Department of Civil, Mechanical, and Environmental Engineering
International Water Resources Institute
George Washington University CMEE T-718,
801 22nd Street, N.W.
Washington, D.C. 20052

Water cycle, water quantity management and control, water quality management and protection, water resources planning

HAQUE, Dr. Muhammad I. 676-4964
Senior Research Scientist
Department of Civil, Mechanical, and Environmental Engineering
George Washington University
The Academic Center
801 22nd Street, N.W., Suite T717
Washington, D.C. 20052

Computational hydraulics, finite element method, hydraulic structures, hydraulics, hydraulic machinery
HARBACH, Dr. Ralph 357-1856
Research Entomologist
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Systematics of mosquitoes

HARRISON, Captain Bruce 357-1856
Research Entomologist
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Systematics of mosquitoes

HEDEMAN, William N., Jr. At EPA: 382-2180
Professorial Lecturer in Law
School of Law
George Washington University
Washington, D.C. 20052

Water law; water pollution

HOLMAN, Mary A. 676-6156
Professor Department of Economics
George Washington University
Washington, D.C. 20052

Economic policy

HUANG, Dr. Yi.au-min 357-1856
Research Entomologist
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Systematics of mosquitoes
HUDDLESTON, Dr. Terry L. 676-6989
Associate Professor of Botany
Department of Biological Sciences
George Washington University
2029 G Street, N.W.
Washington, D.C. 20052

Effect of pollutants on aquatic microflora; evaluation of water quality through diatom community analysis; algal identification and establishment of baseline algal flora

HUNT, Dr. John B. 635-5396
Professor
Department of Chemistry
Catholic University
Washington, D. C. 20064

Chemical oceanography

JERNIGAN, R. W. 686-2393
Assistant Professor
Department of Mathematics and Statistics
The American University
Washington, D. C. 20016

Water resource and eutrophication models

JOHNSON, Dr. James H., Jr. 636-6577
Assistant Professor and Assistant Chairman
Department of Civil Engineering
Howard University
Washington, D.C. 20059

Sludge treatment and disposal; water and wastewater treatment processes
JONES, Dr. Albert Jose 282-7370
Department Chairman; Professor of Marine Science
Department of Environmental Science
University of the District of Columbia
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Aquaculture; heavy metals; recreational uses of water resources; sources of pollution

JONES, Dr. Irving W. 636-6570
Professor and Chairman
Department of Civil Engineering
Howard University
2400 Sixth Street, N.W.
Washington, D.C. 20059

Engineering works

KAKOVITCH, Thomas 282-7371
Associate Professor
Department of Environmental Science
University of the District of Columbia
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Fluid flow; waste water design

KAO, Dr. Timothy W. 635-5163
Professor and Chairman
Department of Civil Engineering
The Catholic University of America
Washington, D.C. 20064

Water cycle - lakes, estuaries; water quality management and protection - sources, transport, fate, and effects of pollutants; engineering works - hydraulics
KNOWLTON, Dr. Robert E. 676-6093, 6130
Assistant Dean, Columbian College
Associate Professor of Biology
Department of Biological Sciences
George Washington University Washington, D.C. 20052

Physiological ecology of decapod crustacean larvae (effects of environmental factors such as temperature, salinity, and light on responses such as growth, molting, and differentiation); water pollution

LEE, Dr. Yuen-Sen 282-7373
Associate Professor
Department of Food Science
University of the District of Columbia
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Heavy metals and fish contamination

LEVINSON, Dr. Nanette S. 686-2513
Assistant Professor of Technology and Administration
Center for Technology and Administration
The American University
Hurst Hall - #206
Washington, D.C. 20016

Knowledge and technology transfer; policy issues

LIEBER, Dr. Harvey 686-2814
Associate Professor
School of Government The American University
Washington, D.C. 20016

Administrative, legislative, and political aspects of water quality management, nationally and in the Washington metro area; author of book on 1972 Water Pollution Control Act and monograph on Section 208 water resources planning in the Washington area
MAHMOOD, Dr. Kahlid 676-3793
Professor of Civil Engineering
Department of Civil, Mechanical, and Environmental Engineering
George Washington University
Washington, D.C. 20052

Sedimentation engineering; river mechanics; earth dams; hydraulic structures; physical and mathematical modeling

MATHIS, Dr. Wayne 357-1566
Associate Curator of Diptera
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Systematics of shore-flies

MC GRATH, Dorn C., Jr. 676-7475
Chairman and Professor
Department of Urban and Regional Planning
The George Washington University
2023 G Street, N.W., Suite 101
Washington, D.C. 20052

Urban planning aspects of water resource planning and management

MEIJER, Dr. Paul H. E. 635-5324
Professor
Physics Department
The Catholic University of America
Washington, D.C. 20064

Water-models; theory and physical properties of water
MERCER, Dr. James W.  703-435-4400
Hydrogeologist  
Department of Geology
George Washington University

c/o P.O. Box 2550
Reston, VA 22090

Ground water: hazardous waste disposal, radioactive waste disposal, water supply, salt water intrusion, geothermal energy, aquifer thermal energy storage

MERCHANT, Dr. Henry  676-7123
Associate Professor
Department of Biological Sciences
George Washington University
Washington, D.C. 20052

Effects of water quality on organisms; effects of the biota upon water quality

MOORMAN, James V.  c/o 293-6300
Professorial Lecturer in Law
School of Law
George Washington University
Washington, D.C. 20052

Western water law

MOTZ, Dr. Annabelle Bender  686-2419 or 2414
Professor
Department of Sociology
The American University
Washington, D.C. 20016

Effects of flooding or drought on communities; social impacts of existent or proposed projects and/or programs to deal with water problems; community actions and reactions
NARDONE, Dr. Roland M. 635-5275
Professor
Department of Biology
Catholic University of America
Washington, D. C. 20064

In vitro toxicity testing, especially neurotoxicity

OBEYSEKERA, Dr. Jayantha T. B. 676-5970
Research Scientist
Department of Civil, Mechanical, and Environmental Engineering
George Washington University
CMEE, T718, 801 22nd Street, N.W.
Washington, D.C. 20052

Water cycle, water quantity management and control, water resources planning, resources data

O’CONNOR, James V. 282-7379
Associate Professor
Department of Earth Sciences
University of the District of Columbia
B44 Rm. 203-G
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Fluvial geomorphology and flood history of local streams; water regime of the District of Columbia; water and man in the Potomac Basin

PACKER, Dr. Randall K. 676-6977
Professor of Zoology
Department of Biological Sciences George
Washington University Washington, D.C. 20052

Physiological effects of environmental pollutants on aquatic vertebrates, especially fish.

PAO, Dr. Hsieng P. 635-5163
Professor
Department of Civil Engineering
Catholic University of America
Washington, D.C. 20064

Fluid mechanics, density stratified flows, thermal plumes, groundwater flows, selective withdrawal in lakes and reservoirs
PEYTON, Ed
Research Entomologist
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Taxonomy and biology of mosquitoes

357-1856

PHELPS, Dr. Harriette L. Associate
Professor Department of Biology
University of the District of Columbia
1331 H Street, N.W.
Washington, D.C. 20005

Effects of heavy metals on benthic species

727-2743, 4

PIERCE, Dr. Jack W.
Geologist
Adjunct Professor
Department of Paleobiology/
Department of Geology
Sedimentology
Smithsonian Institution
Washington, D.C. 20052

Suspended particulates, underwater light quality

357-2579

POSEY, Dr. Isadora J.
Professor
Department of Chemistry
University of the District of Columbia
1321 H Street, N.W.
Washington, D.C. 20008

Nature and extent of which antifoulant transformation
organotin compounds undergo in water systems

727-2279
PREER, Dr. James R. 282-7370 or 727-0553
Professor
Department of Environmental Sciences
University of the District of Columbia
Bldg. 44 - Rm. 202
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Heavy metals analysis; land application of sludge - heavy metal uptake by plants; inorganic analyses on water

REICH, Dr. Melvin 676-2907
Professor
Department of Microbiology
George Washington University School of Medicine and Health Sciences
2300 I Street, N.W.
Washington, D.C. 20037

Water purification (using silver)

REITZE, Arnold W. 676-6908
Professor
School of Law
George Washington University
Washington, D.C. 20052

Water law; water pollution

RICHARDSON, Dr. John M., Jr. Sabbatical 1982-83
Professor of International Affairs & Applied Systems Analysis
School of International Service
The American University
Washington, D.C. 20016

Computer modeling/simulation; fresh water lakes
SAGER, Dr. Martha C. 686-2177
Chairman and Professor
Department of Biology
The American University
Hurst Hall 101
Washington, D.C. 20016

Industrial effluents; legislation

SHEPHERD, Charles, Jr. 676-5977
Assistant Professor of Business Administration
Department of Business Administration
The George Washington University
Washington, D.C. 20052

Legal and social environment of business

SIEGEL, Dr. Frederic R. 676-6194
Professor of Geochemistry and Department Chairman
Department of Geology
The George Washington University
Bell Hall (Rm. B02) 2029 G Street, N.W.
Washington, D.C. 20052

Geochemistry; geology, water and health; land-use planning; wastes (industrial, agricultural, domestic); suspended sediment geochemistry in environmental geochemistry monitoring

SIEGENTHALER, Dr. Jurg K. 686-2417
Associate Professor
Department of Sociology
The American University
McCabe Hall 221 Washington, D.C. 20016

Water management (use of water resources, prevention of water damages, and anti-water pollution measures) in the course of industrialization; methodologies in this area, especially long-term assessment
SPANGLER, Dr. Paul 357-2061
Curator of Coleoptera
Department of Entomology
Smithsonian Institution
Washington, D.C. 20560

Water beetle identification and systematics

SPOON, Dr. Donald 625-4126
Assistant Professor 625-3124
Department of Biology
Georgetown University Washington, D.C. 20057

Aquatic groups, especially microscopic animals including aufwuchs (periphyton) and zooplankton

SULLIVAN, Dr. J. Kevin 261-4190
Director
Chesapeake Bay Center for Environmental Studies
Smithsonian Institution
Box 28
Edgewater, MD 21037

Resource planning; human ecology

SZE, Philip 625-4126
Assistant Professor
Department of Biology
Georgetown University
Washington, D.C. 20057

Phycology (algology), limnology, phytoplankton ecology
TSENG, Dr. Ming T. 636-6570
Professor
Department of Civil Engineering
Howard University
Washington, D.C. 20059

Water resources management, specifically rainfall-runoff modeling, hydraulics, coastal engineering, groundwater hydrology, and water resources planning.

VARMA, Dr. Man M. 636-6570, 6575
Professor of Environmental Engineering and Sciences 301-384-9278
Department of Civil Engineering
Howard University
2400 Sixth Street, N.W.
Washington, D.C. 20059

Water and wastewater treatment plants; hydraulic computations; environmental impact; industrial wastes; water resource planning and management.

VITERITO, Dr. Arthur 676-3966
Assistant Professor
Department of Geography George Washington University 203 Quigley's
Washington, D.C. 20052

Areal measurement of precipitation, evapotranspiration models.

VITT, Geoffrey 862-5000
Associate Professorial Lecturer in Law
School of Law
George Washington University
Washington, D.C. 20052

Litigation concerning wetlands and marine issues.
WATERS, Dr. Robert C. 676-3791
Professor
Department of Engineering Administration George Washington University Gelman Library 630 Washington, D.C. 20052

Water resource planning: benefit evaluation; cost allocation; cost sharing; principals, standards and procedures; institutional arrangements; port administration; nonstructural methods

WATT, Dr. Mamadou H. 282-7333
Director
D.C. Water Resources Research Center University of the District of Columbia 4200 Connecticut Avenue, N.W. Washington, D.C. 20008

Fluid mechanics; hydraulics; water conservation; water resources planning; renewable energy resources; international development

WHIGHAM, Dr. Dennis F. 798-4424
Ecologist
Chesapeake Bay Center for Environmental Studies Smithsonian Institution Box 28 Edgewater, MD 21037

Ecology of freshwater and brackish wetlands

WILSON, Dr. Alton J., Jr. 282-2156
Chairman
Department of Geography University of the District of Columbia Building 41, Room 502-62 4200 Connecticut Avenue, N.W. Washington, D.C. 20008
WRATHALL, Dr. C. Richard 686-2177
Associate Professor
Department of Biology The American
University Washington, D.C. 20016

Marine sediment, chemical and microbiological pollution, sewage sludge, dredge material disposal

YANG, Dr. Tony T. S. 282-7350
Professor and Chairman
Department of Civil and Mechanical Engineering
University of the District of Columbia
4200 Connecticut Avenue, N.W. Washington, D.C. 20008

Engineering related areas, including design of dams, culverts, and channels; water treatment and distribution

YEVJEVICH, Dr. Vujica 676-3648
Professor and Director
International Water Resources Institute
School of Engineering and Applied Science
George Washington University
CMEE T-720-B, 801 22nd Street, N.W.
Washington, D.C. 20052

Hydrology, hydraulics, hydraulic engineering, water resources planning and management

YOUNG, Dr. G. Kenneth (At GKY and Associates:)
Adjunct Professor 642-5080
Department of Civil Engineering
Catholic University
Washington, D.C. 20064

Water resource management; water pollution control; operations research; computer models; policy analysis; groundwater; rivers; training; cost-benefit analysis
2. EXPERTISE / INTEREST INDEX
NATURE OF WATER

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Champ, M.
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Yevjevich, V.

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Yevjevich, V.

Conservation in Agricultural Use
Allen, R.
Chiogioji, M.

WATER QUANTITY MANAGEMENT AND CONTROL
Control of Water on the Surface
Allen, R.
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**WATER QUALITY MANAGEMENT AND PROTECTION**

**Identification of Pollutants**

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Expertise/Interests in water

Please highlight your interests related to any aspect of water listed on the back of this form. Be as concise as possible. We realize that it may be difficult to boil your work down to a short statement, but space is limited. We may edit your statement lightly for consistent format.

Other faculty members who should be included, and their university affiliation.

Please complete the other side also

Return to: Dr. Mamadou H. Watt, Director D.C.
Water Resources Research Center
4200 Connecticut Avenue, N.W.
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Kindly check the category or categories in which your expertise falls.

NATURE OF WATER
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WATER CYCLE
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