WHO Guidelines for Safe Recreational Water Environments

Experts Consultation
Development of a Protocol for Epidemiological Investigations in Recreational Bathing Waters

Mexico City, Mexico,
Gerencia de Saneamiento y Calidad del Agua
Comisión Nacional del Agua
28-30 November 2005

Summary Report

APPENDIX 6.
Bio-sketches of international experts. 1) Dr. Nicholas J. Ashbolt, 2) Dr. Alfred Dufour, 3) Dr. David Kay, 4) Dr. Claudia Condé Lamparelli, and 5) Dr. med Albrecht Wiedenmann

Prepared by
Keira Robinson (CEPIS-BS/SDE/PAHO)
Henry Salas (CEPIS-BS/SDE/PAHO)

Pan American Health Organization
Regional Office of the World Health Organization
AREA OF SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL HEALTH

Pan American Center for Sanitary Engineering and Environmental Sciences
CEPIS/PAHO

2006
APPENDIX 6 Bio-Sketches of International Experts

1. Dr. Nicholas J. Ashbolt

Professor Nicholas J. Ashbolt

Professor Nicholas Ashbolt is an environmental microbiologist with over twenty years post doctoral industrial research experience. He was formally the Principal Scientist (Microbiology) for Sydney Water Corp. before joining the School of Civil and Environmental Engineering at the University of New South Wales, Sydney in 1994, where he was also Deputy Director for the Centre for Water and Waste Technology until taking over as Head of the School of Civil and Environmental Engineering in 2005.

Nicholas is a major player contributing to the next round of WHO water guidelines, especially with his novel system-analysis approach to quantitative microbial risk assessment (QMRA), for which he has written WHO recreational and wastewater reuse guideline sections. He was also the chair of the National Health and Medical Research Council’s working group that developed Australia’s new recreational water guidelines, and is developing the risk-based microbiological criteria for the next Australian water reuse guidelines. A major research programme of Prof. Ashbolt is the enumeration of pathogens, rather than faecal indicators, in urban water systems, and modelling their fate and transport with the aid of model organisms. Faecal source tracking with faecal sterols and F-RNA coliphages has been an important part of this work over the last ten years. The combined information has formed the basis for numerical modelling of human health risks at various points of exposure in the urban environment, utilising software tools such as Mathematica, @Risk and Analytica.

As Australia’s representative on the management committee of Health-Related Water Microbiology group of IWA he is scientific member to its biennial conferences. Active consultation on water microbiology and risk assessment issues has involved training of staff at WHO centres at the Institute for Medical Research, Kuala Lumpur and EAWAG, Zurich as well as advice to the US-EPA and Hong Kong EPD on bathing water risks, and possible application of QMRA to NASA’s preparation for maned exploration of mars. He is the current recipient of major funding from the Australian Government (DEST) for his group’s lead role with QMRA in
the European Union drinking water project, MicroRISK; the six-year Swedish Government Urban Water Project (MISTRA) for QMRA of alternative urban water systems; and the American Water Works Research Foundation-CRC Water Quality and Treatment for catchment pathogen fate and transport research. Academically, Nicholas has supervised 12 successful Ph.D. students, published 26 book chapters and 80 international journal papers.

http://www.civeng.unsw.edu.au/staff/nicholas.ashbolt/

**Selected papers on recreational water quality**


2. Dr. Alfred P. Dufour

Alfred P. Dufour, Ph.D., MPH

Dr. Alfred P. Dufour is a Senior Research Microbiologist with the U.S. Environmental Protection Agency's National Exposure Research Laboratory. He has served as a microbiologist for the USEPA since its inception in 1970 and before that he was with the U.S. Public Health Service from 1966 to 1970 where he served as a research microbiologist.

During his tenure at the US EPA Dr. Dufour has held various positions, including Director of the Microbiology Research Division in the Environmental Monitoring Systems Laboratory, Director of the Aquatic Research Division and then the Microbiological and Chemical Exposure Assessment Research Division in the National Exposure Research Laboratory.

Dr. Dufour has served on advisory panels of numerous organizations, both within EPA as well as in the international community, including the World Health Organization, the Pan American Health Organization, Health Canada and the Organization for Economic Cooperation and Development.

His main research interests are in public health issues related to water, which includes risk assessments associated with drinking water, recreational water and shellfish harvesting waters, and the development of analytical methods for measuring water quality. His current research involves swimmer behavior, e.g., how much water is swallowed by swimmers during swimming activity, the development of rapid quantitative PCR methods for measuring water quality, and the development of protocols for setting water quality standards and water sampling designs for monitoring water.

Dr. Dufour received a B.A. degree in biology and chemistry from Northern Michigan University in 1955, and a Ph.D. degree in microbiology from the University of Rhode Island in 1975. In 1981 he received an MPH degree in epidemiology and environmental health science from Yale University.
3. Dr. David Kay

David Kay

PRESENT POSTS
Professor of Environment and Health University of Wales Aberystwyth
Director for the Centre for Research into Environment and Health, since 1990.

PREVIOUS POSTS
Professor of Environmental Science, University of Leeds, 1992-98.
Honorary Professor, University of Wales, Lampeter, 1998-.
Honorary Professor Sunderland University 1999-
Honorary professor University of Wales Lampeter 1994-

QUALIFICATIONS
BSc (Hons), PGCE, PhD, MIWEM, FRSH

NATIONALITY
British

YEAR OF BIRTH
1953
Affiliations.

- Member of the Chartered Institution of Water and Environmental Management.
- Member of the Society for Applied Bacteriology.
- Member IAWQ
- Fellow of the Royal Society for Health
- Member of the Institution of Water Officers
- Member of the UK Advisory Committee in Water and Environment of the PHLS/HPa
- Member Research and Scientific Strategy Committee of the PHLS/HPa

Selected papers on recreational water quality


4. Claudia Condé Lamparelli

**CURRICULUM VITAE**

**Name:** Claudia Condé Lamparelli  
**Born:** 02.05.1958  
**Nationality:** Brazilian  
**Marital Status:** Married  
**Address:** CETESB - Companhia de Tecnologia de Saneamento Ambiental  
Av. Prof. Frederico Hermann Júnior, 345  
05459-900 São Paulo, SP - Brazil  
Phone: +55-11-3030.6078  
Fax : +55-11-3030.6079  
E-mail: claudial@cetesb.sp.gov.br

**EDUCATION**

- **1976-1980:** Bachelor's Degree in Biological Sciences  
  Instituto de Biologia - Universidade de São Paulo - São Paulo, SP

- **1982-1987:** MSc in Ecology  
  Instituto de Biologia - Universidade de São Paulo - São Paulo, SP  
  "Biomonitoring of sanitary conditions of coastal waters"

- **1990-1995:** PhD in Public Health  
  Faculdade de Saúde Pública - Universidade de São Paulo (USP), São Paulo SP  
  'Litter dynamics in Mangrove Forests of Bertioga Estuary in Southwestern Brazil ’

- Over 20 courses in Coastal and Estuarine Ecology.  
  1992 - University of Southwestern Louisiana

**PROFESSIONAL EXPERIENCE**

19 years of professional experience in CETESB (Environmental Protection Agency of São Paulo State - Brazil), with strong scientific knowledge in Ecology mainly in coastal ecosystems. Since 1997 has been performing management activities in CETESB in these areas.

**CURRENT POSITION**

Manager of the coastal waters sector  
Responsible for the Beach monitoring program of the State of São Paulo

**SCIENTIFIC MEETINGS**

Participation in more than 20 scientific meetings presenting scientific papers, lectures and coordinating sessions.
5. Dr. Albrecht Wiedenmann

Dr. Albrecht Wiedenmann has studied medicine at the University of Tübingen, Germany, from 1982 to 1988. He completed his dissertation on "Enterobacteria as a quality criterion in drinking water and bathing water" in 1989. From 1989 to 1990 he gained clinical practice in gynaecology, internal medicine and surgery at the municipal hospitals in Sigmaringen and Pfullendorf, Germany, and practised at the municipal public health office in Stuttgart, Germany. From 1991 to 2003 he worked as a scientist and lecturer at the Institute for General and Environmental Hygiene of the University of Tübingen where he earned his degree as a Specialist in Hygiene and Environmental Medicine. His scientific work was mainly in the field of water microbiology, molecular detection methods and the epidemiology of water-related infectious diseases. He is author or co-author of 14 research articles, 3 review articles, 11 book chapters or online-publications, 5 research reports and a patent. He has presented 48 speeches and 15 posters at national and international scientific meetings, and supervised 11 diploma theses or dissertations. In 2000 and 2001 he was the principal investigator in the German randomised controlled trials on health risks from bathing in fresh recreational waters. These trials were carried out on behalf of the German Federal Environmental Agency (UBA) with a final cohort size of 1981 participants. Since 2002 he is member of the Federal Ministry of Health and Social Security’s scientific board on bathing water quality. From 2003 to 2005 he has worked for the State Health Office of the District Government Stuttgart, Germany, and was responsible for organizing the monitoring of the State of Baden-Württembergs more than 300 fresh water bathing sites. Since 16 September 2005 he works as a public health official for the Administrative District Loerrach, Germany, in the field of environmental hygiene and infectious disease control.