

Biographies

Mark Adams, Ph.D., is a Professor of Ecology and Ecosystem Science at the University of New South Wales and Adjunct Professor at the University of Western Australia. He was a member of the Board of Trustees for the World Agroforestry Centre in Nairobi, Kenya for six years. Mark holds editorial responsibilities for several journals and publishes widely in forest, fire, and range ecology. Mark has been a QEII Fellow and has received other prestigious fellowships and awards from the Australian Academy of Science, the University of Canterbury, the Alexander von Humboldt Foundation, the French National Research Institute, and the British Council.

Christian Andersen, Ph.D., is a plant physiologist with the Environmental Protection Agency in Corvallis, Oregon, and he is a member of the Graduate Faculty at Oregon State University. He has studied the effects of air pollution on plants for over 20 years, and has worked with the Office of Air and Radiation in assessing the risk of forests to ozone in the United States. His research has addressed the effects of stress on root physiology, including the role of ozone stress in altering below-ground processes. His current research interests include the role of air quality in altering ecosystem services such as carbon sequestration and water quality.

Meinrat O. Andreae is a director of the Biogeochemistry Department and Scientific Member at the Max Planck Institute for Chemistry, Biogeochemistry Department, Mainz, Germany. He has studied earth sciences at the universities of Karlsruhe and Göttingen. He holds Ph.D. in Oceanography from the Scripps Institution of Oceanography, University of California, San Diego. Before moving back to Germany, he has worked as an Assistant Professor, an Associate Professor, and Professor at the Florida State University, Tallahassee.

Michael J. Arbaugh earned a B.S. degree in Biology from the University of California, Riverside in 1980; an M.S. degree in Statistics from the University of California, Riverside in 1984; and a Ph.D. in Forest Ecology from Colorado State University, Ft. Collins in 1995. His research interests include understanding the multiple air pollutant effects

on ecosystems, long-term changes in forest composition, and passive air pollution monitor development and application to Class I areas.

Stephen Baker is a chemist at the US Forest Service Fire Sciences Laboratory Missoula, Montana, where he specializes in sampling techniques and gas chromatography analysis of fire emissions. He has done fire emissions sampling and research in Alaska, Mexico, Chile, and the southeastern and western United States. He is currently involved in fire emissions and soil respiration research in Siberia, as part of FIREBEAR, a cooperative fire research project between the US Forest Service and Russia. He has a B.S. in Chemistry from Northern Arizona University and an M.S. in Forestry from the University of Montana.

Paulo Barbosa has a Ph.D. in Forest Engineering from the Technical University of Lisbon (2000), an M.Sc. in Rural Planning in Relation to the Environment from the International Centre for Advanced Mediterranean Agronomic Studies (1993), and a degree in Forest Engineering from the Technical University of Lisbon (1990). He has worked as a researcher on GIS and Remote Sensing applications at the Agronomic Research Institute, Zaragoza, Spain (1991–1993) at the Space Applications Institute of the EC Joint Research Centre (1994–1999) and at the National Centre for Geographic Information (CNIG) Lisbon, Portugal (1999–2000). He has been responsible for the development and implementation of the European Forest Fire Information System (EFFIS). He is currently at the Institute for Prospective Technological Studies of the EC Joint Research Centre.

Tina Bell, Ph.D., is a Senior Research Fellow in the School of Forest and Ecosystem Science at the University of Melbourne. Prior to this Tina completed a Research and Teaching Fellowship at the University of Western Australia and a Post Doctoral Fellowship at the University of Cape Town in South Africa. Her research is in the broad area of ecology and physiology of plants with particular interest in plants from fire-prone ecosystems. Her current project leadership has taken her into the fields of emissions in smoke from wildfires and the effects of smoke on human health and the environment.

Randall P. Benson received his B.F.A. from Texas Christian University, majoring in Communications Graphics. He did graduate work in the Meteorology Department at the University of Utah, earning an M.S. in 1996. He completed his Ph.D. from the Atmospheric and Environmental Sciences program at South Dakota School of Mines & Technology in 2006 by developing a statistical model to predict wildfire occurrence. In addition to serving as the State Fire Meteorologist, he also teaches atmospheric

science and fire science. Dr. Benson has worked previously in private industry as a research climatologist and a forecasting meteorologist.

Oleg O. Bondarenko, Ph.D., is currently the Director of the Chernobyl Radioecological Centre, State Specialized Scientific and Industrial Enterprise in Chernobyl, Kiev Region, Ukraine.

Timothy Brown, Ph.D., is the founder and director of the Program for Climate, Ecosystem and Fire Applications (CEFA) at the Desert Research Institute (DRI), and Associate Research Professor at DRI in Reno. His primary academic interests include applied research in climatology and meteorology in relation to wildland fire; the application of scientific information for decision-making, strategic planning and policy; statistical data analysis; and scientific visualization. Dr. Brown actively serves in a liaison role between scientific and decision-maker/stakeholder communities as a key mission of CEFA.

Andrzej Bytnerowicz is a Senior Scientist with the US Forest Service, Pacific Southwest Research Station in Riverside, CA. He is also a Visiting Professor at the Department of Environmental Sciences, University of California in Riverside. He earned M.Sc. in Food Chemistry from the Warsaw Agricultural University, Poland, in 1972, and Ph.D. in Natural Sciences from the Silesian University in Katowice, Poland. His main research interests are atmospheric deposition to natural ecosystems and effects of air pollution and climatic change on forest ecosystems. He is a Deputy Coordinator of Research Group 7.01 “Impacts of Air Pollution and Climate Change on Forest Ecosystems” of the International Union of Forest Research Organizations (IUFRO).

Andrea Camia holds Ph.D. in Forestry and is a Research Scientist at the Institute of Environment and Sustainability of the European Commission Joint Research Centre since 2004. He has been actively involved in the international wildland fire research arena for the last 20 years. His main interests in the wildland fire domain are focused on meteorological fire danger assessment methods, fire risk assessment and mapping, fuel modelling and mapping, historical fire data management and analysis. He is currently responsible for the operation of the European Forest Fire Information System (EFFIS) of the European Commission.

Deborah J. Chavez received a B.Sc. in Sociology from the University of California at Riverside in 1980, and a Ph.D. in Sociology from University of California at Riverside in 1986. She is currently a research social scientist at the Pacific Southwest Research Station, USDA Forest Service,

in Riverside, CA. She specializes in outdoor recreation research and research on law enforcement.

Nataly Y. Chubarova, Ph.D., is a leading scientist at the Lomonosov Moscow State University (MSU). Since 1985 she has worked at the Meteorological Observatory, Faculty of Geography of MSU. Her scientific interests are in the field of atmospheric physics and mainly are devoted to the analysis of ultraviolet irradiance at the Earth's surface. She is responsible of UVB monitoring program and aerosol program (within the AERONET network) at the MSU.

Susan G. Conard is a National Program Leader for Fire Ecology Research and a Wildland Fire Research and Development Strategic Program Area Lead person in Washington Office of the US Forest Service. She got her Ph.D. and M.S. in Plant Ecology from the University of California, Davis, and B.A. in Environmental Studies from the Antioch College, Yellow Springs, OH. She is a Deputy Coordinator of Division 8 of the International Union of Forest Research Organizations. She is a member of the Steering Group of the International Boreal Forest Research Association and on the Editorial Advisory Committee for the International Journal of Wildland Fire.

Roland R. Draxler has been a research meteorologist with NOAA's Air Resources Laboratory (ARL) since 1975. Currently he leads the headquarter division's "Transport Modeling and Assessment Group". His research interests are focused on long-range transport modeling, designing response systems for atmospheric emergencies, and air quality forecasting. Most of his recent development efforts have been related to improving the HYSPLIT atmospheric transport and dispersion model. Prior to working at ARL, Mr. Draxler received an M.Sc. at the Pennsylvania State University (1975), worked as a Research Associate at TRC of New England (1972–1973), and received a B.S. from the State University of New York Maritime College (1972).

Alexander Dunn received a B.S. in Environmental Studies from the University of Oregon in 1998, and an M.Sc. in Environmental Studies from the University of Montana in 2004. He is currently Program Manager for the Western Forestry Leadership Coalition, US Forest Service, Rocky Mountain Region, State and Private Forestry in Lakewood, CO. He specializes in landscape scale policy, planning, and implementation with an emphasis on wildfire management and sustainable forestry.

Annie Esperanza is an air resources specialist with the National Park Service, based in Sequoia and Kings Canyon National Parks in

California. A graduate of Humboldt State University, she has worked on air-related research and monitoring efforts in the Sierra Nevada for over 25 years. Other professional pursuits involve educational outreach as it relates to air quality and global climate change.

Mark E. Fenn is a Research Plant Pathologist with the US Forest Service, Pacific Southwest Research Station in Riverside, CA. He earned a B.S. degree in plant pathology from the University of Arizona in 1981 and a Ph.D. in plant pathology from the University of California, Riverside in 1986. His main research interests include the development of methods for measuring nitrogen deposition in remote sites with the aim of determining atmospheric input thresholds at which ecosystem components are impacted, using empirical and ecosystem modeling approaches. He is also a member of the Mexican Academy of Sciences.

Sue A. Ferguson was a meteorologist and scientist whose career spanned both avalanche forecasting and fire weather and smoke research. As a mountain weather forecaster at the National Weather Service, she founded the now-preeminent *Avalanche Review* journal, and helped advance the science of avalanche forecasting. As a meteorologist with the US Forest Service, she was the creator and leader of the AirFire Team, which focused on weather, climate, and air quality issues surrounding wildland fire, and was a founding member of the Northwest Regional Modeling Center (NWRMC), which provides daily scientific products for the fire weather, meteorological, air quality, energy, and other communities. The success of the NWRMC led to the development of the national Fire Consortia for the Advanced Modeling of Meteorology and Smoke (FCAMMS), and to the development of the BlueSky Smoke Modeling Framework. Sue received her B.S. in Physics in 1976 from the University of Massachusetts and her Ph.D. in Geophysics/Atmospheric Science in 1984 from the University of Washington.

Marco Ferretti studied Forest Sciences at the University of Florence (Italy) and obtained his Ph.D. from the University of Siena (Italy). Since 1987 his interest is monitoring environmental (air pollution) effects on forests. In particular, his interest is to ensure that monitoring design and implementation are scientifically sound and quality assured. He has served at the International Union of Forest Research Organizations as a coordinator of a Working Group on Detection Monitoring and Evaluation and as a chairman of the UN/ECE ICP-Forests Quality Assurance Committee. He is lecturer at the University of Siena and coordinator of the Italian Task Force on Integrated Evaluation of Forest Monitoring.

Douglas G. Fox, Ph.D., QEP is a senior research scientist, emeritus at the Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University in Fort Collins. Prior to joining CIRA he was director of the Terrestrial Ecosystems Regional Research and Analysis (TERRA) Laboratory, and scientist and program manager for global change research at the Rocky Mountain Research Station. He currently resides on the Isle of Man.

Ernesto Franco-Vizcaino obtained the Ph.D. in Soil Science in 1986 at the University of California, Riverside. Since then he has worked on coastal, desert, and mountain ecosystems in Baja California. He is currently adjunct faculty at both the Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE) and California State University, Monterey Bay (CSUMB). His research interests include soil ecology, water relations of native plants, and management and conservation of ecosystems. Ernesto's activities have been focused on improving public understanding of Baja California's natural beauty and promoting the conservation of its wildlands.

Francis M. Fujioka is a research meteorologist for the US Forest Service, Pacific Southwest Research Station in Riverside, CA. He earned a B.S. in Geoscience and M.S. in Meteorology from the University of Hawaii, an M.A. in Statistics from the University of California, Berkeley, and a Ph.D. in Earth Science from the University of California, Riverside. He currently leads the Fire Management Research Unit at the Riverside Fire Lab in California.

A. Malcolm Gill, Ph.D., has been a full-time research fire ecologist since 1971. During most of this time he has been employed by CSIRO Plant Industry in Canberra, Australia. His interests include the effects of fire on organisms, water quality and the urban interface, fire behaviour, and fire weather. Currently he is an Honorary Research Fellow at CSIRO Plant Industry and a Visiting Fellow at the Australian National University in Canberra; he is also a contributor to Australia's Bushfire Cooperative Research Centre based in Melbourne.

Benjamin S. Gimeno is a Research Ecologist with the Ecotoxicology of Air Pollution laboratory of the Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT) in Madrid, Spain. He earned his degree in Biology in 1984 and his Ph.D. in Biology in 1997 from the Madrid Complutense University. His main research interest is the determination of critical loads and levels of air pollutants. He is a specialist in tropospheric ozone phytotoxicity and more recently he has been involved in research related with the adverse effects of nitrogen

deposition in Mediterranean ecosystems. He is the coordinator of the Spanish activities related with the United Nations—Economic Commission for Europe International Cooperative (UN-ECE) Working Group on Effects of the Convention on Long-Range Transboundary Air Pollution (CLRTAP). He is also a member of the steering committees of the UN-ECE Panel on Effects of Air Pollution on Natural Vegetation and Crops (ICP-Vegetation) and the European Science Foundation Programme, Nitrogen in Europe (NinE).

Johann G. Goldammer, Ph.D., is a head of the Fire Ecology and Biomass Burning Research Group, Max Planck Institute for Chemistry, and Director of the Global Fire Monitoring Center (GFMC), Germany, an Associate Institute of the United Nations University (UNU) and Freiburg University, where he is serving as professor for fire ecology. He is coordinator the UNISDR Wildland Fire Advisory Group and the UNISDR Global Wildland Fire Network and co-authored and co-edited the Health Guidelines for Vegetation Fire Events on behalf of the UN.

Nancy E. Grulke received a B.Sc. in Botany from Duke University in 1978, and a Ph.D. in Botany from University of Washington in 1983. She is currently a research plant physiologist at the Pacific Southwest Research Station, US Forest Service, in Riverside, CA. She specializes in whole tree responses to atmospheric pollution (O_3 , CO_2 , N deposition) and drought stress in mixed conifer forests of California.

Wei Min Hao, Ph.D., is a senior scientist and team leader for fire chemistry research in the Fire, Fuel, and Smoke Science Program at the US Forest Service's Rocky Mountain Research Station. Dr. Hao leads an interdisciplinary team to study the impacts of fires on air quality, atmospheric chemistry, and climate at regional and global scales. He received a B.S. degree in chemistry from Fu Jen Catholic University in Taiwan in 1976, two M.S. degrees in geochemistry and toxicology from Massachusetts Institute of Technology in 1979 and 1981, and a Ph.D. degree in atmospheric chemistry from Harvard University in 1986.

Xianjun Hao, Ph.D., is a research scientist at EastFIRE Lab, College of Science, George Mason University. His major research areas are satellite remote sensing, geosciences, fire sciences, and high performance computing.

Jeanne Hoadley is an Air and Water Quality Specialist with the US Forest Service serving the five national forests in New Mexico. Previously, she served as a Meteorologist on the Atmosphere and Fire Interaction Research and Engineering (AirFIRE) team doing technology transfer and

applied studies related to the BlueSky modeling framework. She also completed research related to applications of the MM5 mesoscale meteorological model to Fire Weather forecasting. Jeanne has 18 years experience with the National Weather Service working as an Incident Meteorologist, Fire Weather Forecaster, Fire Weather Program Manager, and Senior Forecaster. She holds B.S. and M.A. degrees in Geography.

Carolyn F. Hunsaker, Ph.D., is a research ecologist with the US Forest Service's Sierra Nevada Research Center, Fresno, CA. Prior to joining the Forest Service in 1998, Carolyn was a scientist at Oak Ridge National Laboratory in Tennessee for 16 years. Dr. Hunsaker is the lead scientist for the Kings River Experimental Watershed, which she started in 2000. Her research interests are understanding stream ecosystems and their associated watersheds, landscape ecology, remote sensing of forest structure, and environmental monitoring and assessment. She is an adjunct faculty member at California State University Fresno.

Diane Hutton is the Fire Management Officer at Wisdom and Wise River Ranger Districts of the Beaverhead-Deerlodge National Forest, US Forest Service in Wisdom, Montana. She coordinates and directs the fire management activities for two ranger districts. The responsibility includes fire suppression, prevention, detection, and prescribed fire on approximately 400,000 ha. She received a B.S. degree in Forestry from Washington State University in 1978 and an M.S. degree in silviculture and forest ecology from University of Montana in 1984. She is also currently serving as the Incident Commander for the Northern Rockies Fire Use Management Team.

Dale W. Johnson is a Professor of Soils in the Department of Environmental and Resource Sciences, College of Agriculture, University of Nevada, Reno (UNR). He received his Ph.D. in forest soils from the University of Washington in 1975, and held positions at Oak Ridge National Laboratory from 1977 to 1989 and jointly at the Desert Research Institute and UNR between 1989 and 2001 before becoming full-time professor at UNR in 2001. His research interests are in soil chemistry and nutrient cycling and include studies on acid deposition, fertilization, harvesting, CO₂ enrichment, nitrogen fixation, and fire.

Julide Kahyaoglu-Koracin is an atmospheric modeler in the Bay Area Air Quality Management District. She earned her Ph.D. in Atmospheric Sciences in 2004 from the University of Nevada, Reno, and her M.S. in Physics in 2000 from the University of Marmara, Istanbul, Turkey. Her research interests include numerical simulations and transport and dispersion studies of atmospheric pollutants, emissions inventory

development and emissions modeling of air pollutants, numerical weather predictions, data assimilation and forecasting, climate change, and its interactions with air quality.

Jan Kucera works as a junior researcher at Joint Research Centre (JRC) of European Commission on the field of forest fires and natural disaster monitoring. He received his Ph.D. on Remote Sensing and GIS from the University of Tokyo (2002) and M.Eng. from the Czech Technical University on Land Surveying and Geodesy (1999). He worked as a researcher (2002–2003) at the University of Tokyo. He joined Institute of Environment and Sustainability of the European Union Joint Research Center in 2004.

Narasimhan (Sim) K. Larkin is a Research Physical Climatologist with the US Forest Service's (USFS) Atmosphere and Fire Interaction Research and Engineering (AirFIRE) Team in Seattle, Washington. He works on climate change and air quality issues connected with wildland fire, as well as issues of climate variability. He is the co-author of the first papers to detail the statistically significant patterns and impacts of El Niño and La Niña. Currently he leads the USFS BlueSky smoke modeling project. Sim received a B.A. from the University of California, Berkeley studying physics and Ph.D. from the University of Washington, Seattle studying climate diagnostics.

Giorgio Libertà works as a GIS expert at the Institute of Environment and Sustainability – Land Management & Natural Hazards Unit of the EC Joint Research Centre since the end of 1997. For about 20 years he has been developing GIS applications related to data acquisition tools, mapping production, agricultural statistics, geological and environment monitoring systems, forest fire simulation, forest fire risks index, planning and management of metro area transport system, remote sensing data, Web GIS applications, GIS analysis with integration of vector and raster data.

Jeremy J. Littell is a research scientist at the JISAO CSES Climate Impacts Group, University of Washington. His research focuses on the relationships between climate and forest ecosystems, including fire, tree growth, species distributions, and adaptation to climate change. His field work spans montane and treeline forests in a dozen national forests and five National Parks. He holds a Ph.D. from the College of Forest Resources at the University of Washington, and an M.S. in Land Resources and Environmental Science from Montana State University.

Yongqiang Liu, Ph.D., is a research meteorologist at the Center for Forest Disturbance Science, US Forest Service. He received his Ph.D. degree in

atmospheric dynamics from the Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China in 1990. His current research interests include wildland fire and their environmental effects, land–atmosphere interactions, regional climate modeling, and climate change.

Enrico Marchi works at the Department of Environmental Science and Technology in Forestry, University of Florence, Italy. He is an Associate Professor of Wood Technology & Forest Operations at the University of Florence (Italy), Faculty of Agriculture. He holds Ph.D. in Wood Sciences from the University of Florence.

His research interests are forest fire prevention and suppression, forest operations planning and management (thinning and final harvesting), cable-extraction systems, multi-functional forest roads planning, ergonomics, health and safety in firefighting, and forest operations. He is also interested in technical–professional information and training activities for firefighters and forest operators.

Lachlan McCaw, Ph.D., is a Principal Research Scientist with the Department of Environment and Conservation Western Australia and is an active participant in the Bushfire Cooperative Research Centre. Since 1981 he has investigated the behaviour and ecological effects of fires in forests, woodlands, and shrublands of south-western Australia. Current research interests include fire behaviour prediction, fuel moisture modeling, combustion of coarse woody fuels in eucalypt forest fires, and fire history. He devotes substantial time to knowledge transfer with fire practitioners.

Donald McKenzie, Ph.D., is a research ecologist with the US Forest Service, Pacific Wildland Fire Sciences Laboratory. His current research interests include the landscape ecology of fire, particularly in mountain ecosystems, the effects of wildfire on regional air quality and the global carbon cycle, the effects of global warming on forest species distributions, and modeling of the spatial patterns of historical fires.

Thomas Meixner is an associate Professor of Hydrochemistry in the Department of Hydrology and Water Resources at the University of Arizona in Tucson, Arizona. He received a B.S. in Soil and Water Conservation and BA in the History of Science from the University of Maryland in 1992 and a Ph.D. in Hydrology in 1999 from the University of Arizona. From 1999–2005 he was an Assistant Professor at the University of California, Riverside. His research interests focus on how hydrologic processes such as hydrologic flowpath, hydrologic residence time and precipitation intermittency and seasonality influence and control biogeochemical fluxes from the plot to landscape scale.

Millán M. Millán, M.Sc., Ph.D., designed the COSPEC for the remote sensing of SO₂. He joined Environment Canada in 1972 to study dispersion from tall stacks and developed methodologies that have been used in more than 40 countries. He returned to Spain in 1981 and has participated in more than 19 European Commission projects on air pollution, meteorology, and climate in the Mediterranean Basin.

Watkins W. Miller, Ph.D., is currently Associate Director of Research for the University of Nevada, Reno, Academy for the Environment, and a Professor of Soils & Hydrology in the Department of Natural Resources & Environmental Science, College of Agriculture, Biotechnology, & Natural Resources. His current research considers the effects of wildfire and various biomass management strategies in the Lake Tahoe Basin and eastern Sierras on ecosystem response and discharge water quality. Of specific interest are the effects of fire suppression, controlled burning, and mechanical harvest on changes in soil compaction, water repellency, preferential flow, overland/litter interflow, plot condition, and vegetative cover.

Graham Mills has undergraduate science degrees from the University of Adelaide, and postgraduate degrees from Flinders University of South Australia and Monash University. He has worked for the Australian Bureau of Meteorology for more than 40 years, and in its research branches since 1975. Initial priorities were the development of operational limited area NWP systems, with particular emphasis on data assimilation. These have evolved to the application of mesoscale NWP to high-impact weather events, including intense subtropical and extratropical cyclones, severe convective weather, and fire weather. He manages the Bushfire Cooperative Research Centre fire weather research projects.

Richard A. Minnich received a B.A. in Geography in 1968, an M.A. in Geography in 1970, both from University of California, Riverside, and Ph.D. in Geography in 1978 from the University of California, Los Angeles. He is a Professor in the Department of Earth Sciences, University of California, Riverside. His research focuses on the fire ecology of Mediterranean ecosystems of California and northern Baja California. Studies operate at the landscape-scale to establish fire regime properties of ecosystems, including fire size, frequency and return intervals, denudation of vegetation, post-fire successions, and how fire disturbances exert selection in the distribution of plant communities. Documentation and quantification of these properties requires the use of remote sensing and geographic information systems, complimented by field sampling. Studies compare fire regimes under different management

systems in southern California and Mexico, emphasizing Californian chaparral and conifer forest.

Ana Isabel Miranda is an Environmental Engineer, graduated by the University of Aveiro in 1989. Since then, she is doing research at the Department of Environment and Planning from this University. Her Ph.D. thesis focused on the effects of forest fire on air quality. She collaborated in several European and national research projects related to forest fires, namely MINERVE I and II, INFLAME, ACRE, SPREAD, ERAS, and EUFIRELAB. Her research interests include air quality, forest fires, and climate change. Currently she is an Associate Professor at the University of Aveiro and she coordinates the research group “Emissions, Modelling and Climate Change”.

Susan M. O’Neill is an Air Quality Scientist with the USDA Natural Resources Conservation Service (NRCS) Air Quality and Atmospheric Change (AQAC) Team, focusing on particulate matter and ozone formation issues as they relate to agriculture. Previously, Susan was a Research Air Quality Engineer with the USDA Forest Service, Atmosphere and Fire Interaction Research and Engineering (AirFIRE) Team. With the AirFIRE Team she was the Development Team Leader for the BlueSkyRAINS Smoke Prediction System, a system designed to forecast PM_{2.5} concentrations from prescribed fires and wildfires. Susan has a B.S. in Mechanical Engineering, an M.S. in Environmental Engineering, and a Ph.D. in Civil Engineering.

Roger D. Ottmar is a Research Forester with the Fire and Environmental Research Applications Team, Pacific Northwest Research Station, US Forest Service in Seattle, Washington. He has been involved with fuels, fire, and smoke-related research for over 30 years and is leading efforts to continue the development of (1) a natural fuels photo series; (2) fuel consumption and emission production models by combustion phase and fuelbed layer for forested and non-forested fuel types across North America; and (3) a system to characterize and classify fuelbeds.

Timothy D. Paine received a B.S. in Entomology and a B.A. in History from the University of California, Davis in 1973 and a Ph.D. in Entomology from UC Davis in 1981. He is currently a professor and entomologist in the Entomology Department at the University of California, Riverside. His research is focused on the impact of environmental stress on insect/plant/microorganism interactions in managed and unmanaged forests, chemical ecology, and biological control.

Ilaria Palumbo has studied Environmental Science at the University of Milano. In 2007 she got her Ph.D. in Forest Ecology at the University of

Tuscia (Viterbo). Since 2002 she analyzed the ecological impacts of fires in the African and Mediterranean ecosystems. During her Ph.D. work she improved a RS-based method for the quantification of fire emissions in the Mediterranean ecosystem. She is currently employed as a research associate at the University of Leicester and her work contributes to the CARBOAFRICA Project. Her current research focuses on the burned areas mapping methods and the estimation of savannas fire emissions.

David L. Peterson, Ph.D., is a Research Biologist with the US Forest Service Pacific Northwest Research Station in Seattle and Professor in the College of Forest Resources, University of Washington. He has conducted research on fire ecology and climate change in mountain ecosystems throughout the western United States. He is a principal investigator for the Western Mountain Initiative and a contributing author for Intergovernmental Panel on Climate Change reports. He currently works on hazardous fuel treatment issues in the West and on adaptation options for managing natural resources in a warmer climate.

Haiganoush K. Preisler is a research statistician with US Forest Service, Pacific Southwest Research Station. She earned her Ph.D. in Statistics in 1977 from the University of California, Berkeley and her M.Sc. in 1972 from the American University of Beirut, Lebanon. Her current work focuses on statistical modeling and analysis of environmental data in particular as it relates to forecasting forest threats.

Nickolay G. Prilepsky, Ph.D., is an Assistant Professor at the Geobotany Department of Biological Faculty, Lomonosov Moscow State University. After postgraduate studies since 1990 he works at Geobotany Department, Biological Faculty, Moscow State University. Area of current expertise: phenology and ecology of plants, floristics.

Trent Procter is currently the Air Quality Program Manager for the Pacific Southwest Region of the US Forest Service. He provides program and technical guidance to the Region's 18 national forests. He has 30 years of experience with the Forest Service and has served in his present position since 2004. He holds a B.S. in Natural Resource Management from Cal Poly, San Luis Obispo. His experience includes tracking the status and change of forest resource values that can be impacted by air pollution as well as air quality regulatory consultation and policy development.

Xianlin Qin, Ph.D., is an associate professor of the Institute of Forest Resources Information Techniques, Chinese Academy of Forestry (CAF), Beijing, China. He has pursued the research on forest fire remote sensing since 1996. He has worked on several projects relative to forest

fire research by using Remote Sensing and GIS Techniques such as “National Forecast System of Forest Fire Danger”, “Satellite Remote Sensing Monitoring Technique and its Demonstration on Vegetation Change and Vegetation Combustion”, “Forest Fire Monitoring Demonstration by Satellite Remote Sensing in China”, and “Tropical Forest Fire Monitoring and Management System Based on Satellite Remote Sensing Data in China”, etc. More than 10 papers about forest fire have been published in recent years.

John J. Qu, Ph.D., is an associate professor at Department of Earth Systems and Geoinformation Sciences, College of Science, and is Co-Director and founder of EastFIRE Lab at George Mason University. His major research areas are satellite remote sensing, Earth systems sciences, fire sciences, and GIS applications.

Allen R. Riebau, is currently working as a principal air quality scientist and consultant in Western Australia. He worked for the United States government for 32 years in various capacities with his last assignment, in which he served for almost 10 years as Chief Atmospheric Scientist for US Forest Service Research and Development in Washington, D.C. He holds AAS, B.S., M.S. degrees in environmental sciences, ecology, and biology and a Ph.D. in Earth Resources Management (air quality and ecosystems focus area) from Colorado State University. His areas of expertise include minerals management and air quality, wildland fire and wildland fire smoke, air quality impacts to ecosystems, and climate variability.

Philip J. Riggan is an ecologist with the US Forest Service, Pacific Southwest Research Station, stationed at the Riverside Fire Laboratory, Riverside, California. He holds Ph.D. from the College of Forest Resources at the University of Washington (1979) and B.Sc. in chemistry from San Diego State University. Dr. Riggan has conducted research on remote measurement of wildfire properties; the ecology and effects of fire in Mediterranean-type ecosystems of California; and the global consequences of wildland fire in tropical ecosystems. He has been Principal Investigator and leader of the Forest Service/IBAMA *Working Group on Fire and Environmental Change in Tropical Ecosystems* and led eight airborne campaigns in Brazil that made the first high-resolution, synoptic, and quantitative remote sensing measurements of large wildland fires. He is currently Principal Investigator on projects developing and applying thermal-imaging technology for wildfire measurement in the western United States.

John O. Roads is a Director of the Climate Research Division at the Scripps Institution of Oceanography and a Professor at the University of

California in San Diego. He received his Ph.D. in Meteorology in 1977 from the Massachusetts Institute of Technology, Cambridge, M.A. and B.A. in Physics 1972 from the University of Colorado, Boulder, CO.

Glenn Rolph is a research meteorologist with the National Oceanic and Atmospheric Administration's Air Resources Laboratory in Silver Spring, Maryland. His work is primarily focused on transport and dispersion modeling with an emphasis on building better model user interfaces. He has published several papers on the use of the HYSPLIT transport and dispersion model for acid rain deposition and developed a web-based system of tools that enable researchers to run the HYSPLIT model and explore the meteorological data used by the model. Recently, he has been working with a team at NOAA to implement the Smoke Forecast Tool into operations at the National Weather Service.

Alexei N. Rublev received his Ph.D. in 1985 and M.S. at the Dzerzhinsky Military Academy, Moscow, 1976. He has been a senior Research Scientist at the Institute of Molecular Physics since 1992. His area of expertise are optical radiative transfer in random media, mathematical models for interpretation of satellite and ground-based radiometric measurements.

Mark Ruminski received his B.S. and M.S. degrees in Meteorology from St Louis University. He has worked in NOAA for the past 23 years, mainly in an operational capacity analyzing and forecasting weather, land, and atmospheric hazards such as tropical storms, volcanic eruptions and flash floods. Since 1999 he has been the fire program team leader in the NOAA/NESDIS Satellite Analysis Branch (SAB) and worked with the team that developed the Hazard Mapping System that is used to generate NOAA's satellite-based daily fire and smoke analysis for North America. Mark has recently been involved with transferring the HMS technology to Mexico, Thailand, and Panama.

Jesús San-Miguel-Ayanz is a Senior Researcher at the Institute for Environment and Sustainability of the EC Joint Research Centre (JRC) in the field of forestry. He is a leader of the JRC FOREST project (<http://forest.jrc.it>), which focuses on the development of methods for the assessment of the state of European forests (including e.g. forest resources, forest condition, forest fires). He received his Ph.D. and M.Sc. degrees (specialty in Remote Sensing and GIS) from the University of California, at Berkeley (in 1993 and 1989, respectively) and the Forest Engineering Degree (1987) by Polytechnic University of Madrid. Since 1997 he has been working at the JRC; he was (1995–1997) Associate

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