

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Our atmosphere and Earth's surface are warming at an unprecedented rate. Globally, the five warmest years on record were each of the last five years, and extreme weather disasters are increasing in frequency and severity (1).

In the Midwest states, we have seen changes in the form of dramatic variability in rainfall, higher humidity, and warmer nights. The excessive moisture and cloud cover have so far thwarted substantial increases in daytime highs and heat waves that other regions have experienced (2). New projections indicate that this will change, with daytime high temperatures rising as moisture patterns adjust over time (3). The current greenhouse gas emissions growth rate is projected to raise the annual number of days above 90°F in Iowa from 23 to 67 by mid-century (3).

A good way to assess heat waves is to look at the average maximum daily temperatures over the hottest five-day period in a year. Over recent decades (1976-2005), that temperature has been about 92°F. By mid-century (2036-2065) the 5-day maximum temperatures are projected to be about 98°F, or 6°F hotter (3). Perhaps even more concerning, one out of every 10 years is projected to have a 5-day period with peak temperatures averaging 105°F (3).

Heat is the leading cause of weather-related deaths in the U.S. (4). People who work outdoors, such as building and road construction workers, military personnel and agricultural workers, are particularly at risk of heat-related illnesses such as heat exhaustion, heat cramps or in severe cases, heat stroke (5-7). Workers with increased risk of heat-related illnesses include those who are overweight, have underlying heart disease or high blood pressure, or those who are over 65 years of age (4).

But it is not just workers who are affected. Many homes, particularly in low-income neighborhoods, are not equipped with air-conditioning and elderly residents may be reluctant to open doors and windows due to fear of intrusion. Thus, these residents are subject to extreme indoor conditions that induce heat stroke and potentially death. Expanding urban heat islands and an increased aging population magnify this problem (4-5, 7).

Animals are also at risk. Iowa's agricultural census includes 23 million hogs, 4 million cattle and 79 million poultry (8). With most of these animals housed in concentrated numbers, there are concerns of animal death, widespread productivity losses and negative economic impacts on animal production. Heat may degrade animal health due to physiological disturbances and a weakened immune system, making them more susceptible to infections and death (9). Further, heat stress slows animal weight gain so more energy and resources are required to offset production efficiency losses (10). Pets kept outdoors or in homes without climate control will be similarly affected, and pets left in vehicles will succumb to the heat more rapidly. Dogs and cats may also be impacted by vector-borne diseases, as the territorial ranges of ticks and mosquitoes expand under conditions associated with climate change (11).

Adaptations to increasing heat waves will require expanded disaster preparedness, increased energy utilization to cool residences and livestock facilities, and curtailment of outdoor work during times of extreme heat. Iowans need to recognize the warning signs for heat-related illnesses and understand who is most vulnerable as we prepare for more frequent and extreme heat events (12).

July 2019 was the hottest month ever in 140 years of record-keeping, according to the World Meteorological Association (13-14). Only by dramatic reductions in greenhouse gas emissions within the next 10 to 15 years will these effects be lessened (15).

Signed by -

Gene Takle,
Emeritus Professor of Agronomy
Iowa State University

Jerald Schnoor
Co-Director
Center for Global and Regional
Environmental Research
University of Iowa

Peter S. Thorne
Professor and Head
Occupational & Environmental Health,
Director, Environmental Health Sciences
Research Center, College of Public Health,
University of Iowa

David Courard-Hauri
Professor of Environmental Science
and Sustainability
Drake University

Brett Ramirez
Assistant Professor
Department of Agricultural and
Biosystems Engineering
Iowa State University

David M. Cwiertny
Professor
Department of Civil and Environmental
Engineering, Director, Center for Health
Effects of Environmental Contamination
University of Iowa

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Matt Abbott
Biology Professor
Des Moines Area Community College
Mahdi Al-Kaisi
Professor
Soil Management and Environment
Iowa State University

Lee-Ann H. Allen
Professor
Inflammation Program
Department of Internal Medicine and
Department of Microbiology and
Immunology
University of Iowa

Karin Allenspach
Professor of Translational Health and
Small Animal Medicine, Department of
Veterinary Clinical Sciences
Iowa State University

Jonathan Andelson
Professor of Anthropology
Department of Anthropology
Director, Center for Prairie Studies
Grinnell College

Craig A. Anderson
Distinguished Professor
Department of Psychology
Iowa State University

John Anderson
Associate Professor of Supply Chain
Management
John Deere Endowed Faculty Fellow
University of Northern Iowa

Marc P. Armstrong
Professor and Collegiate Fellow
Department of Geographical and
Sustainability Sciences
University of Iowa

Mark Aronson
Faculty Emeritus
Department of Biology
Scott Community College

Rajeev Arora
Professor
Horticulture
Iowa State University

Vladimir P. Badovinac
Associate Professor
Departments of Pathology and
Microbiology & Immunology, Roy J. and
Lucille A. Carver College of Medicine
University of Iowa

Mark Baechtel
Lecturer and Director of Forensic
Activities, Editor, Rootstalk: A Prairie
Journal of Culture, Science and the Arts
Grinnell College

Richard G. Baker
Professor Emeritus
Department of Earth and Environmental
Sciences
University of Iowa

Jennifer Barr
Scientific Editor and Writing Consultant
College of Medicine
University of Iowa

Paul E. Bartelt
Professor and Chair
Department of Biology
Waldorf University

Philip W. Becraft
Professor and Associate Chair
Genetics, Development & Cell Biology
Department
Iowa State University

Russ Benedict
Professor of Biology
Department of Biology
Director of Prairies for Agriculture Project
Central College

David Bennett
Professor
Department of Geographical and
Sustainability Sciences
The University of Iowa

Peter Berendzen
Professor
Department of Biology
University of Northern Iowa

Bryson Bergerud
Biology and Microbiology Instructor
Science Department
Iowa Central Community College

E. Arthur Bettis III
Professor Emeritus
Department of Earth and
Environmental Sciences
University of Iowa

Ryan Bezy
Associate Professor of Biology
Chair, Department of Natural & Applied
Sciences
Mount Mercy University

Diane Birt
Distinguished Professor
Food Science and Human Nutrition
College of Agricultural and Life Sciences
and College of Human Sciences
Iowa State University

Gail A. Bishop
Professor of Microbiology & Internal
Medicine, Holden Chair of Cancer Biology
Director, Center for Immunology &
Immune-Based Diseases, Roy J. and
Lucille A. Carver College of Medicine
University of Iowa

Andrea Bixler
Professor
Department of Biology
Clarke University

Amy Blair
Associate Professor and Chair
Department of Biology
Saint Ambrose University

Robert Blount
Assistant Professor
Division of Pulmonary and Critical Care
Medicine
Department of Internal Medicine
University of Iowa

Brian Bristow
Biology Professor
Iowa Lakes Community College

Garry R. Buettner
Professor
Free Radical and Radiation Biology
Department of Radiation Oncology
College of Medicine
University of Iowa

Aaron Bunker
Associate Professor
Department of Natural and Mathematical
Sciences
Morningside College

Beth E. Caissie
Assistant Professor
Department of Geological and
Atmospheric Sciences
Iowa State University

David G. Campbell
Henry R. Luce Professor in Nations & the
Global Environment
Professor of Biology
Grinnell College

Greg Carmichael
Co-Director
Center for Global and Regional
Environmental Research
University of Iowa

Ryan Carnahan
Associate Professor of Epidemiology
Department of Epidemiology
College of Public Health
University of Iowa

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Cinzia Cervato
Professor
Department of Geological & Atmospheric
Sciences
Iowa State University

James Cheaney
Associate Professor of Biology
Department of Math/Science
Ellsworth College

Silvia Cianzio
Professor
Department of Agronomy
Iowa State University

Russell Ciochon
Professor
Department of Anthropology
University of Iowa

John D. Colgan
Associate Professor
Department of Internal Medicine
University of Iowa

John Collins
Assistant Professor
Sustainable Living Department
Maharishi University of Management

Alejandro P. Comellas
Associate Professor of Medicine
Division of Pulmonary, Critical Care and
Occupational Medicine
University of Iowa

Charles Connerly
Professor and Director
School of Urban and Regional Planning
Founder, Iowa Initiative for Sustainable
Communities
University of Iowa

James L. Cornette
Emeritus Professor of Mathematics
Iowa State University

Richard Cruse
Professor
Department of Agronomy
Director, Iowa Water Center
Iowa State University

Radford Davis
Associate Professor of Public Health
Department of Veterinary Microbiology
and Preventive Medicine
College of Veterinary Medicine
Iowa State University

John Dawson
Professor
Mathematics, Earth and
Environmental Sciences
Kirkwood Community College

Robert L. De Haan
Professor
Biology and Environmental Studies
Dordt University

Rhawn F. Denniston
William Harmon Norton Professor of
Geology
Department of Geology
Cornell College

Lakshmi Durairaj
Associate Professor
Division of Pulmonary, Critical Care, and
Occupational Medicine, Roy J. and Lucille
A. Carver College of Medicine
University of Iowa

Vincent M. Eckhart
Waldo S. Walker Professor of Biology
Department of Biology
Grinnell College

Julie Ehresmann
Associate Professor
Science Department
Iowa Central Community College

Kenneth Elgersma
Associate Professor
Department of Biology
University of Northern Iowa

Kamyar Enshayan
Director
Center for Energy & Environmental
Education
University of Northern Iowa

R. William Field
Professor
Departments of Occupational &
Environmental Health,
Department of Epidemiology,
College of Public Health
University of Iowa

Brittany Flokstra
Instructor
Faculty Advisor for Women in STEM
Department of Chemistry and
Biochemistry
University of Northern Iowa

Andrew A. Forbes
Associate Professor
Department of Biology
Director, Environmental Sciences
Program
University of Iowa

Iddo Friedberg
Associate Professor, Veterinary
Microbiology and Preventive Medicine,
Chair, Bioinformatics and Computational
Biology Graduate Program
Iowa State University

Laurence Fuortes
Professor
Occupational and Environmental Health,
College of Public Health
University of Iowa

Laurie Furlong
Professor
Biology Department
Northwestern College

Miranda Gauthier
Instructor, Biology and Microbiology
Des Moines Area Community College

Brian K. Gehlbach
Clinical Professor of Medicine and
Neurology, Associate Program Director
for Fellowship Programs
Department of Internal Medicine
University of Iowa

Fredric Gerr
Professor
Department of Occupational and
Environmental Health
College of Public Health
University of Iowa

Eric Giddens
Energy Education and Outreach
Coordinator, Center for Energy and
Environmental Education
University of Northern Iowa

Charles E. Glatz
Professor Emeritus
Chemical and Biological Engineering
Iowa State University

David M. Grant
Associate Professor
Technical and Scientific Communication
University of Northern Iowa

Robert L. Grant
Professor of Theology and Director,
Environmental Studies
St. Ambrose University

Steven Green
Professor
Department of Biology
University of Iowa

Bill Gutowski
Professor of Meteorology
Department of Geological and
Atmospheric Sciences
Iowa State University

Prajwal Gurung
Assistant Professor
Inflammation Program, Infectious
Diseases
Department of Internal Medicine
University of Iowa

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Steven Hall
Assistant Professor
Department of Ecology, Evolution, and
Organismal Biology
Iowa State University

Thomas C. Harrington
Professor of Plant Pathology
Department of Plant Pathology and
Microbiology
Iowa State University

Emily Heaton
Associate Professor
Biomass Crop Production
Department of Agronomy
Iowa State University

Ted Heindel
Bergles Professor of Thermal Science
Department of Mechanical Engineering
Iowa State University

John R. Helms
Assistant Professor of Chemistry
Department of Natural and Mathematical
Sciences
Morningside College

Steve Hendrix
Professor Emeritus
Department of Biology
University of Iowa

Brian Hornbuckle
Professor
Department of Agronomy
Iowa State University

Keri C. Hornbuckle
Professor, Department of Civil &
Environmental Engineering
Director, Iowa Superfund Research
Program, College of Engineering
University of Iowa

Ming-Chen Hsu
Associate Professor
Mechanical Engineering
Iowa State University

Mohammad Iqbal
Professor
Department of Earth and Environmental
Sciences
University of Northern Iowa

Erin Irish
Associate Professor of Biology
University of Iowa

Laura L. Jackson
Director, Tallgrass Prairie Center
Professor of Biology
Department of Biology
University of Northern Iowa

Kathy Jacobson
Professor of Biology
Grinnell College
Samuel W. James
Associate Professor and Chair,
Sustainable Living Department
Maharishi University of Management

Brandi Janssen
Clinical Assistant Professor
Director, Iowa's Center for Agricultural
Safety and Health
College of Public Health
University of Iowa

Fredric Janzen
Professor of Ecology, Evolution, &
Organismal Biology
Iowa State University

Albert E. Jergens
Donn E. and Beth M. Bacon Professor in
Small Animal Medicine and Surgery and
Associate Chair for Research and
Graduate Studies
College of Veterinary Medicine
Iowa State University

Chris Jones
Research Engineer
IIHR—Hydroscience & Engineering
University of Iowa

Craig Just
Associate Professor
Department of Civil & Environmental
Engineering
University of Iowa

Kristopher J. Keuseman
Associate Professor of Chemistry
Mount Mercy University

Meena Khandelwal
Associate Professor
Departments of Anthropology and GWSS
University of Iowa

Marisa Olson King
Department of Biology
Grand View University

Frederick Kirschenmann
Distinguished Fellow
Leopold Center for Sustainable
Agriculture
Iowa State University

Andrew Kitchen
Associate Professor
Department of Anthropology
University of Iowa

Erwin Klaas
Professor Emeritus of Animal Ecology
Natural Resources Ecology Management
Iowa State University

Robert R. Klepper
Professor Emeritus of Chemistry
Iowa Lakes Community College

Julia Klesney-Tait
Associate Professor of Medicine
Department of Internal Medicine
Carver College of Medicine
University of Iowa

Joel N Kline
Professor
Department of Medicine, Roy J. and
Lucille A. Carver College of Medicine,
University of Iowa

Owen Kolstad
Professor of Practice
Mechanical Engineering Department
Iowa State University

Song-Chang Kong
Professor
Mechanical Engineering
Iowa State University

Witold Krajewski
Director, Iowa Flood Center,
Rose & Joseph Summers Chair in Water
Resources Engineering
University of Iowa

Adriana LaGier
Associate Professor Biology
Grand View University

Dr. Michael LaGier
Associate Professor of Biology
Grand View University

Dennis Lavrov
Associate Professor
Department of Ecology, Evolution, and
Organismal Biology
Iowa State University

Hans-Joachim Lehmler
Professor
Occupational and Environmental Health
University of Iowa

Peter Levi
Assistant Professor
Department of Environmental Science
and Sustainability
Drake University

Louis Licht
Adjunct Professor
Department of Civil & Environmental
Engineering
University of Iowa

Matt Liebman
Professor of Agronomy
H.A. Wallace Endowed Chair for
Sustainable Agriculture
Iowa State University

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Marc Linderman
Associate Professor
Department of Geographical and
Sustainability Sciences
University of Iowa

Gabriele Ludewig
Professor, Department of Occupational &
Environmental Health, DGS,
Interdisciplinary Graduate Program in
Human Toxicology
University of Iowa

Charles F. Lynch
Professor
Department of Epidemiology
College of Public Health
University of Iowa

J. Elizabeth Maas
Assistant Professor
Math/Science Department
Kirkwood Community College

Mark T. Madsen
Professor Emeritus
Department of Radiology
University of Iowa

Amy Madsen-Smith
Biology Department
Clinton Community College

Sunil Malapati
Professor of Biochemistry
Clarke University

Ashutosh K. Mangalam
Assistant Professor
Department of Pathology
University of Iowa

Sara E. Mason
Associate Professor
Department of Chemistry
University of Iowa

Dave May
Professor
Department of Geography
University of Northern Iowa

Paul Mayes
Professor of Biology Emeritus
Eastern Iowa Community College

Katherine McCarville
Delano Professor of Science
Professor of Geosciences
Upper Iowa University

Paul B. McCray
Professor and Executive Vice Chair
Department Pediatrics
Pappajohn Biomedical Institute
Carver College of Medicine
University of Iowa

David McCullough
Professor of Biology, Co-coordinator
Environmental Science and Studies
Director, Center for Integrative and
Interdisciplinary Studies
Wartburg College

Julie Meachen
Associate Professor
Anatomy Department
Des Moines University

Paulina Mena
Associate Professor of Biology
Central College

James Merchant
Professor Emeritus
Occupational and Environmental Health,
College of Public Health
University of Iowa

Laura C. Merrick
Assistant Teaching Professor
Department of Agronomy
Iowa State University

Chris Minion
Professor

Veterinary Microbiology
Iowa State University

Kenneth J. Moore
Charles F. Curtiss Distinguished Professor
and Pioneer Hi-Bred Professor
Department of Agronomy
Iowa State University

Rasika Mudalige-Jayawickrama
Professor of Plant Biology
Department of Natural and Applied
Sciences
University of Dubuque

Marian Muste
Research Engineer and Adjunct Professor
IIHR-Hydroscience & Engineering
University of Iowa

Connie Mutel
Senior Science Writer (retired)
IIHR-Hydroscience & Engineering
University of Iowa

Robert Mutel
Professor of Astronomy
Department of Physics and Astronomy
University of Iowa

Ajay Nair
Associate Professor and Vegetable
Extension Specialist
Department of Horticulture
Iowa State University

William M. Nauseef
Director, Inflammation Program
Professor of Medicine, Professor of
Microbiology and Immunology
Roy J. and Lucille A. Carver College of
Medicine
University of Iowa

Ted Neal
Clinical Associate Professor of Science
Education, Department of Teaching and
Learning, College of Education
University of Iowa

Maurine Neiman
Associate Professor
Departments of Biology and GWSS
University of Iowa

Marit Nilsen-Hamilton
Professor, Roy J. Carver Department of
Biochemistry, Biophysics and Molecular
Biology
Iowa State University

Fred Ochs
Professor of Chemistry and Earth Science
Kirkwood Community College

Marisa Olson King
Department of Biology
Grand View University

Patrick T. O'Shaughnessy
Professor and Associate Head for Student
Affairs and Curriculum Director,
Heartland Center for Occupational Health
and Safety, Department of Occupational
& Environmental Health
University of Iowa

David Osterberg
Professor Emeritus
College of Public Health
University of Iowa

Ulrike Passe
Associate Professor of Architecture
Director, Center for Building Energy
Research
Iowa State University

James L. Pease
Associate Professor Emeritus
Natural Resource Ecology and
Management
Iowa State University

Reuben J. Peters
Professor
Department of Biochemistry, Biophysics
& Molecular Biology
Iowa State University

Christine Petersen
Associate Professor
Department of Epidemiology
College of Public Health
University of Iowa

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Paola G. Pittoni
Assistant Teaching Professor
Department of Mechanical Engineering
Iowa State University

Jeffrey T. Ploegstra
Associate Professor of Biology and
Environmental Studies
Dordt University

Liz Queathem
Senior Lecturer in Biology
Department of Biology
Grinnell College

James W. Raich
Professor
Department of Ecology, Evolution and
Organismal Biology
Iowa State University

Mark Rasmussen
Director, Leopold Center for Sustainable
Agriculture
Professor, Department of Animal Science
and Interdepartmental Microbiology
Iowa State University

Ryan Rehmeier
Professor
Department of Biology and
Environmental Science
Simpson College

Michael J. Renner
Professor of Biology and Psychology
Department of Environmental Science
and Sustainability
Drake University

Larry Robertson
Professor
Department of Occupational and
Environmental Health
College of Public Health
University of Iowa

Jennifer G. Robinson
Professor, Departments of Epidemiology
& Medicine, Director, Prevention
Intervention Center
College of Public Health
University of Iowa

Chuck Rodrigues
Chemistry and Biology Instructor
Department of Biological Sciences
Iowa Western Community College

Nilda E. Rodriguez
Associate Professor of Biology
Department of Biology
University of Northern Iowa

Diane Rohlman
Professor
Occupational & Environmental Health
Director, Healthier Workforce Center of
the Midwest, College of Public Health
University of Iowa

Alicia Rosburg
Associate Professor
Department of Economics
University of Northern Iowa

Thomas Rosburg
Professor, Department of Biology
Curator of the Drake University
Herbarium
Drake University

Amber D. Ruskell-Lamer
Professor, Biology
Department of Math and Sciences
Southeastern Community College

Ann E. Russell
Adjunct Associate Professor
Department of Natural Resource Ecology
& Management
Iowa State University

James A. Roth
Presidential Chair in Veterinary
Microbiology and Preventive Medicine,
Clarence Hartley Covault Distinguished
Professor, Director, Center for Food
Security and Public Health, College of
Veterinary Medicine
Iowa State University

James C. Sacco
Associate Professor
College of Pharmacy and Health Sciences
Drake University

Melanie H. Sadeghpour
Professor and Program Chair
Environmental Studies
Des Moines Area Community College

Aliasger K. Salem
Professor and Bighley Chair of
Pharmaceutical Sciences,
Head, Division of Pharmaceutics and
Translational Therapeutics
College of Pharmacy
University of Iowa

Molly Schiel
Science Instructor
Science Department
Northeast Iowa Community College

Michelle Scherer
Donald E. Bently Professor of Engineering
Associate Director, NSF Sustainable
Water Development Graduate Program
University of Iowa

Patrick S. Schnable
Distinguished Professor
Agronomy
Iowa State University

Lisa Schulte Moore
Professor
Natural Resource Ecology & Management
Associate Director, Bioeconomy Institute
Iowa State University

Timothy M. Sesterhenn
Assistant Professor of Biology
Department of Natural and Mathematical
Sciences
Morningside College

Paul M. Shand
Professor and Head
Physics Department
University of Northern Iowa

David A. Shealer
Professor of Biology
Loras College

Mack Shelley
Professor
Department of Political Science and
Statistics
Iowa State University

William W. Simpkins
Professor of Hydrogeology
Department of Geological and
Atmospheric Sciences
Iowa State University

Mindy Skarda
Chair and Faculty
Health, Math and Science Department
Southwestern Community College

Daryl Smith
Professor Emeritus of Biology
Tallgrass Prairie Center
University of Northern Iowa

Tex A. Sordahl
Professor Emeritus of Biology
Department of Biology
Luther College

Scott N. Spak
Associate Professor
School of Urban & Regional Planning
University of Iowa

Muhammad A. Spocter
Associate Professor of Anatomy
Department of Anatomy
Des Moines University

Martin St. Clair
Professor
Department of Chemistry and
Environmental Studies
Coe College

Iowa Climate Statement 2019: Dangerous Heat Events Will Be More Frequent and Severe

Charles Stanier
Professor, Chemical and Biochemical
Engineering
IIHR Hydroscience and Engineering
University of Iowa

Elizabeth A. Stone
Associate Professor
Department of Chemistry
University of Iowa

Monica R. Storm
Associate Professor
Anatomy & Physiology
Biological & Chemical Sciences
Department
Iowa Western Community College

Jim Stroh
Professor, Biology and Chemistry
Department.
Morningside College

Laura Stunz
Associate Research Scientist (retired)
Department of Microbiology
University of Iowa

Robert C. Summerfelt
Professor Emeritus
Department of Natural Resource Ecology
and Management
Iowa State University

Keith S. Summerville
Deputy Provost
Levitt Distinguished Professor of
Environmental Science
Drake University

David A. Swenson
Associate Scientist
Department of Economics
Iowa State University

Elwynn Taylor
Climatologist Emeritus
Iowa State University Extension
Iowa State University

Jessica Thistle
Professor of Biology
Des Moines Area Community College

Elizabeth E. Trimmer
Professor of Chemistry
Chemistry Department
Grinnell College

H. S. Udaykumar
Professor of Mechanical Engineering,
Interim Associate Dean for Graduate
Programs and Research, College of
Engineering
University of Iowa

Richard L. Valentine
Professor Emeritus
Department of Civil and Environmental
Engineering
University of Iowa

Channon Visscher
Associate Professor of Chemistry
& Planetary Sciences
Dordt University

Kristina Walkup
Professor of Biology
Des Moines Area Community College

Emily O. Walsh
Professor of Geology
Geology Department
Cornell College

Michael H. Walter
Associate Professor
Biology
University of Northern Iowa

Alan D. Wanamaker Jr.
Associate Professor
Department of Geological and
Atmospheric Sciences
Iowa State University

Anna J. Waterman
Associate Professor of Biology
Department of Natural and Applied
Sciences
Mount Mercy University

Larry Weber
Edwin B. Green Chair in Hydraulics
College of Engineering
University of Iowa

Paul Weihe
Associate Professor of Biology &
Environmental Studies
Biology Department
Central College

Ai Wen
Assistant Professor
Biology Department
University of Northern Iowa

Jerrold Weiss
Professor
Departments of Internal Medicine and
Microbiology & Immunology
University of Iowa

Brian J. Wilsey
Professor
Department of Ecology, Evolution and
Organismal Biology
Iowa State University

Sally L. Wilson
Professor
Biology
Iowa Valley Community College

Sam Wormley
Associate Scientist Emeritus
AmesLab/IPRT/CNDE
Iowa State University

Lee Wymore
Professor of Biology, Program Director
Department of Science and Math
Indian Hills Community College

Catherine Zeman
Professor
Environmental Health Division
University of Northern Iowa

