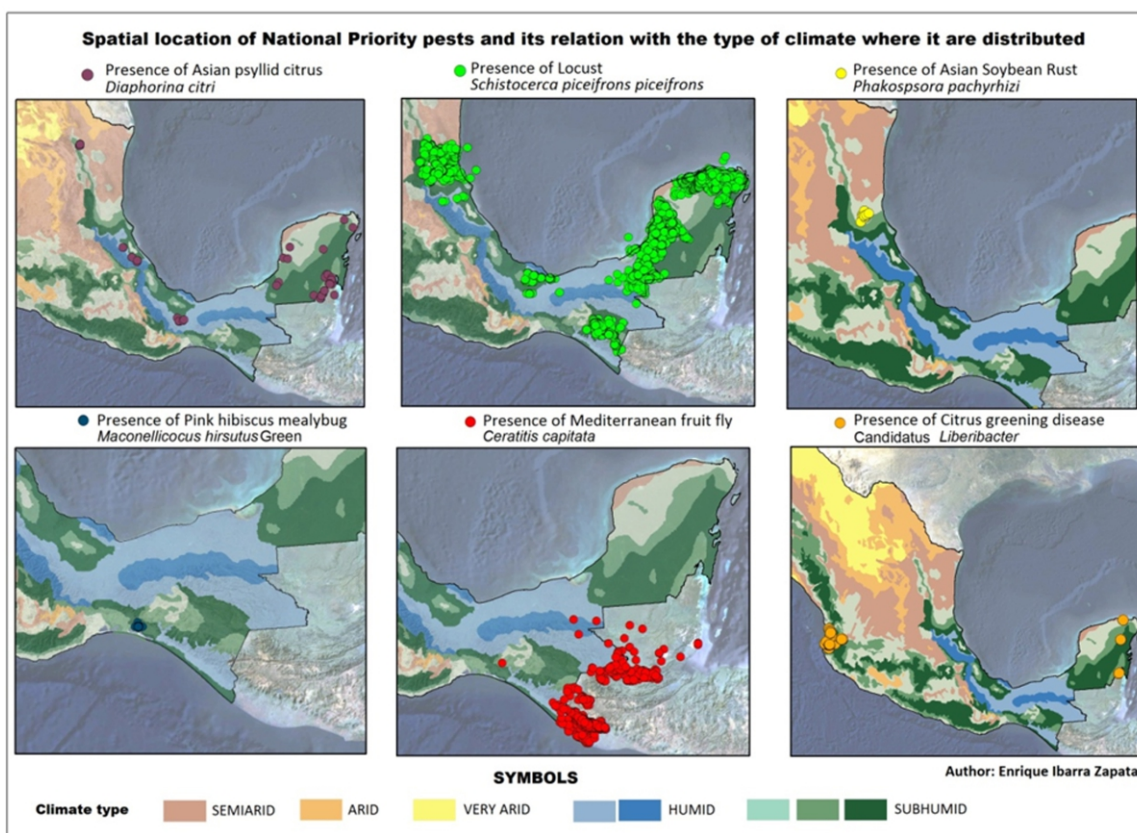




Atmospheric and Climate Sciences

Special Issue on Climatology Research



Source: Instituto Nacional de Estadística y Geografía; INEGI, 2000. Plant Health State Committees; DGSV 2009.



Journal Editorial Board

ISSN 2160-0414 (Print) ISSN 2160-0422 (Online)

<http://www.scirp.org/journal/acs>

Editor-in-Chief

Prof. Shaocai Yu North Carolina State University, USA

Editorial Board (According to Alphabet)

Dr. Jørgen Brandt Aarhus University, Denmark
Prof. Chak K. Chan Hong Kong University of Science and Technology, China
Prof. Yoon-Seok Chang Pohang University of Science and Technology, South Korea
Dr. Paolo Di Girolamo Università degli Studi della Basilicata, Italy
Dr. Ke Du University of Calgary, Canada
Dr. Jiwen Fan Pacific Northwest National Laboratory, USA
Dr. Guobin Fu CSIRO Land and Water, Australia
Dr. Andreas Hofzumahaus Institute of Energy and Climate Research, Germany
Dr. Daniel A. Knopf Stony Brook University, USA
Dr. Yanqing Lian University of Illinois, USA
Prof. Ioannis Liritzis University of the Aegean, Greece
Prof. Athanasios Nenes Georgia Institute of Technology, USA
Prof. Junbom Park Seoul National University, South Korea
Dr. Alessandro Pezzoli Turin Polytechnic, Italy
Dr. Rajib Shaw Kyoto University, Japan
Prof. Daniel Tong US NOAA Air Resources Laboratory, USA
Dr. Krishna Prasad Vadrevu University of Maryland, USA
Prof. Julian X. L. Wang US NOAA Air Resources Laboratory, USA
Prof. Tijian Wang Nanjing University, China
Dr. Jianjun Xu George Mason University, USA
Prof. Fangqun Yu State University of New York at Albany, USA
Prof. Qiang Zhang Sun Yat-sen University, China

Table of Contents

Volume 4 Number 5

December 2014

Past, Present and Future: Urgency of Dealing with Climate Change

A. D. Hecht.....779

QA/QC Procedures for *in-Situ* Calibration of a High Altitude Automatic Weather Station: The Case Study of the AWS Pyramid, 5050 m asl, Khumbu Valley, Nepal

E. Vuillermoz, G. P. Verza, P. Cristofanelli, P. Bonasoni, G. Roggero, A. Merlone.....796

Extreme Weather and Climate Events and Their Impacts on Island Countries in the Western Pacific: Cyclones, Floods and Droughts

Y. Kuleshov, S. McGree, D. Jones, A. Charles, A. Cottrill, B. Prakash, T. Atalifo, S. Nihmei, F. L. S. K. Seuseu.....803

Do Increasing Contents of Methane and Carbon Dioxide in the Atmosphere Cause Global Warming?

G. V. Chilingar, O. G. Sorokhtin, L. F. Khilyuk, M. Liu.....819

Dynamic Interactions in the Atmosphere

G. Barceló.....828

A Regional Climate Study of Heat Waves over the Iberian Peninsula

Hariprasad, I. Pozo, F. Ferri-Yáñez, M. B. Araújo.....841

Precipitation Patterns in Cape Verde Islands: Santiago Island Case Study

G. E. Varela-Lopes, L. C. B. Molion.....854

Fair Plan 5: A Critical Appraisal of Five Congressional Bills to Reduce US CO₂ Emissions

M. E. Schlesinger, M. Ring, D. Lindner, E. Cross, V. Prince.....866

Influence of the Tropical Atlantic Ocean's Sea Surface Temperature in the Eastern Northeast Brazil Precipitation

A. C. B. Amorim, R. R. Chaves, C. M. S. e Silva.....874

Spatial and Temporal Variability of Total Column Ozone over the Indian Subcontinent: A Study Based on Nimbus-7 TOMS Satellite

V. Madhu.....884

Numerical Modeling of the Initial Formation of Cyclonic Vortices at Tropical Latitudes

I. V. Mingalev, N. M. Astafieva, K. G. Orlov, V. S. Mingalev, O. V. Mingalev, V. M. Chechetkin.....899

Improved Retrieval of Sea Ice Thickness and Density from Laser Altimeter

V. Djepa.....907

Physical Analysis of Hail Fall Risk in Iran and the Consequent Damages on Agricultural Crops	
J. B. Jamli.....	919
Climate Change and Its Influence on Agricultural Pest in Mexico	
C. C. Servín, G. G. Mendoza.....	931
Consistency in Z-R Relationship Variability Regardless Precipitating Systems, Climatic Zones Observed from Two Types of Disdrometer	
B. Bamba, A. D. Ochou, E.-P. Zahir, M. Kacou.....	941
Tropospheric Circulation Variability over Central and Southern South America	
O. A. Frumento, V. R. Barros.....	956

Atmospheric and Climate Sciences (ACS)

Journal Information

SUBSCRIPTIONS

The *Atmospheric and Climate Sciences* (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2014 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright © 2014 by author(s) and Scientific Research Publishing Inc.

REUSE RIGHTS FOR INDIVIDUAL PAPERS:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

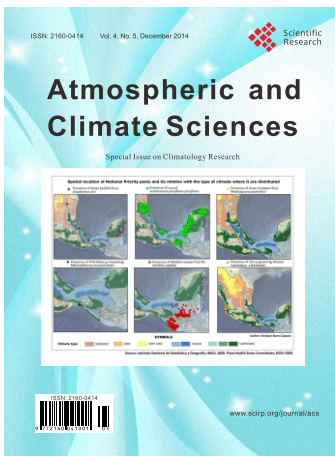
DISCLAIMER OF LIABILITY

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: acs@scirp.org



Atmospheric and Climate Sciences (ACS)

ISSN 2160-0414 (Print) ISSN 2160-0422 (Online)

<http://www.scirp.org/journal/acs>

Editor-in-Chief

Prof. Shaocai Yu

North Carolina State University, USA

Subject Coverage

This journal invites original research and review papers that address the following issues. Topics of interest include, but are not limited to:

ACS aims to rapidly publish original scientific papers in all the fields of applied and/or climate atmospheric science. It covers the latest achievements and developments in the applied climate and atmospheric sciences, including but not limited to the following scopes as well as the theoretical and practical aspects of these disciplines:

- Agricultural climatology
- Air chemistry and the boundary layer, clouds and weather modification
- Air quality, atmosphere & health
- Applied meteorology
- Atmospheric acoustics, electricity, optics, physics, radiation and sounding
- Atmospheric and oceanic physics
- Atmospheric and solar-terrestrial physics
- Atmospheric chemistry
- Atmospheric environment
- Aviation climatology
- Biometeorology
- Building climatology and forestry climatology
- Climate change and broadcast meteorology
- Climate dynamics and variability
- Climate policy
- Clouds and precipitation physics
- Cosmical meteorology
- Dendroclimatology
- Dynamics of atmospheres and ocean
- Hydrology, oceans and atmosphere
- Hydrometeorology
- Marine meteorology and meteorology-associated geophysics
- Medical meteorology and medical climatology
- Meteorological, climatological and atmospheric environmental issues
- Navigation climatology
- Phenology and paleoclimatology
- Polar meteorology
- Radar meteorology and radio meteorology
- Remote sensing
- Satellite meteorology and synoptic meteorology
- Theoretical and applied climatology
- Tropical meteorology
- Weather systems, numerical weather prediction

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the **ACS**.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/acs>

E-mail: acs@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific
Research**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org