

About IR

Journals

- MEPS
- AB
- AEI
- AME
- CR
  - CR Home
  - CR Forthcoming
  - Most Recent Issue
  - Editors
  - About the Journal
  - CR Specials
- DAO
- ESEP
- ESR
- SEDAO
- Guidelines For Authors
- Authorship Policy
- Editorials
- Subscription Information 2018
- Subscription Information 2019
- Terms of Use
- Open Access
- Contents Mailing Lists
- Rights & Permissions
- Promotional Posters

Book Series

Ecology Institute

Otto Kinne Foundation

Privacy Policy

For Librarians

Search:

Go

Pennsylvania, Delaware, Maryland, Washington, D.C., Virginia, and West Virginia. When discussing climate, Connecticut is sometimes included in the region, since its

CR 14:161-173 (2000) - doi:10.3354/cr014161

## The Mid-Atlantic Region and its climate: past, present, and future

Colin Polsky\*, Jason Allard, Nate Currit, Robert Crane, Brent Yarnal

Department of Geography and Earth System Science Center, The Pennsylvania State University, University Park, Pennsylvania 16802, USA

\*E-mail: [polsky@essc.psu.edu](mailto:polsky@essc.psu.edu)

**ABSTRACT:** The physical and human geographies and the historical climate of the Mid-Atlantic Region of the United States are described to provide a baseline for an ongoing assessment of likely climate change impacts in the region. This region consists of 358 counties intersecting part or all of 8 states and 4 physiographic zones. This geographic diversity provides different sets of options for societies to adapt to environmental changes. Since 1967, the region's human population has grown in both number (19%) and income (116%), and important local ecosystems are experiencing associated stresses. Since 1895, the region's climate has become slightly warmer (+0.5°C) and significantly wetter (+10%), although the warming has abated recently. Projections indicate that these broad regional socio-economic, ecological and climatic trends should persist through the 21st century. The significance of these changes in society, ecosystems and climate are evaluated in the more detailed, sector-specific analyses in the subsequent articles of this Special.

**KEY WORDS:** Climate change · Climate variation · Climate scenarios · Socio-economic change · Mid-Atlantic Region

 [Full text in pdf format](#)

[Export citation](#)

 [Mail this link - Contents Mailing](#)

[Lists - RSS](#)

- [Tweet](#) -

[Previous](#) [Next](#)

[Cited by](#)

Published in CR Vol. 14, No. 3. Online publication date: May 02, 2000  
Print ISSN: 0936-577X; Online ISSN: 1616-1572  
Copyright © 2000 Inter-Research.

The climate of the Atlantic sector exhibits considerable variability on a wide range of time scales. A substantial portion is associated with the North Atlantic Oscillation (NAO), a hemispheric meridional oscillation in atmospheric mass with centers of action near Iceland and over the subtropical Atlantic. NAO-related impacts on winter climate extend from Florida to Greenland and from northwestern Africa over Europe far into northern Asia. A remarkable feature of the NAO is its trend toward a more positive phase over the past 30 years, with a magnitude that seems to be unprecedented in the observational record (2). Some of the most pronounced anomalies have occurred since the winter of 1989, when record positive values of the NAO index have been documented (Fig. 1 Lower). The Mid-Atlantic, also called Middle Atlantic states or the Mid-Atlantic states, form a region of the United States generally located between New England and the South Atlantic States. Its exact definition differs upon source, but the region usually includes New York, New Jersey, Pennsylvania, Delaware, Maryland, Washington, D.C., Virginia, and West Virginia. When discussing climate, Connecticut is sometimes included in the region, since its

This website uses cookies.

OK

We save information relating to your visit using cookies. By using our website you consent to our cookies in accordance with our [Privacy Policy](#).