# Article information:

A delayed oscillator model for the quasi-periodic multidecadal variability of the NAO | SpringerLink
<https://link.springer.com/article/10.1007/s00382-014-2459-z>

# Article summary:

1. The North Atlantic Oscillation (NAO) is a dominant mode of atmospheric circulation variability in the Northern Hemisphere, and has been linked to regional and hemispheric climate changes.

2. The NAO has shown an upward trend over the second half of the twentieth century, but since the 1990s it has decreased significantly.

3. Studies have suggested that the NAO decadal variation can exert a persistent forcing on the Atlantic meridional overturning circulation (AMOC), and there is a two-way interaction between the NAO and AMO.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides an overview of research into the North Atlantic Oscillation (NAO) and its impacts on regional and hemispheric climates in the Northern Hemisphere. It presents evidence for an upward trend in the NAO over the second half of the twentieth century, as well as a decrease since the 1990s, which has been linked to extreme cold temperatures in this region. The article also discusses various factors that have been suggested to account for these interdecadal variations, such as greenhouse gas emissions and warming in tropical oceans, but notes that neither of these can explain the recent downward trend. Finally, it suggests that there is a two-way interaction between the NAO and Atlantic meridional overturning circulation (AMOC), with the NAO leading by 15–20 years.

The article appears to be reliable overall, providing evidence from multiple sources to support its claims. However, it does not explore any potential counterarguments or alternative explanations for its findings, nor does it provide any evidence for its claims about possible risks associated with changes in climate due to fluctuations in NAO activity. Additionally, while it acknowledges other factors that may contribute to decadal variations in NAO activity, such as greenhouse gas emissions and warming in tropical oceans, it does not provide any further detail or discussion on these topics. Furthermore, while it mentions potential impacts of changes in climate due to fluctuations in NAO activity on Arctic sea ice concentration and Eurasian/North American temperatures, no further information is provided on these topics either. As such, this article could benefit from more detailed exploration of both sides of this issue before drawing any conclusions about its implications for future climate change predictions or projections.

# Topics for further research:

* Impacts of North Atlantic Oscillation on Arctic sea ice concentration
* Greenhouse gas emissions and North Atlantic Oscillation
* Relationship between Atlantic meridional overturning circulation and North Atlantic Oscillation
* Eurasian/North American temperatures and North Atlantic Oscillation
* Counterarguments to North Atlantic Oscillation trends
* Future climate change predictions and North Atlantic Oscillation

# Report location:

<https://www.fullpicture.app/item/cbbdfdd15822a8430a96a39e317eceba>