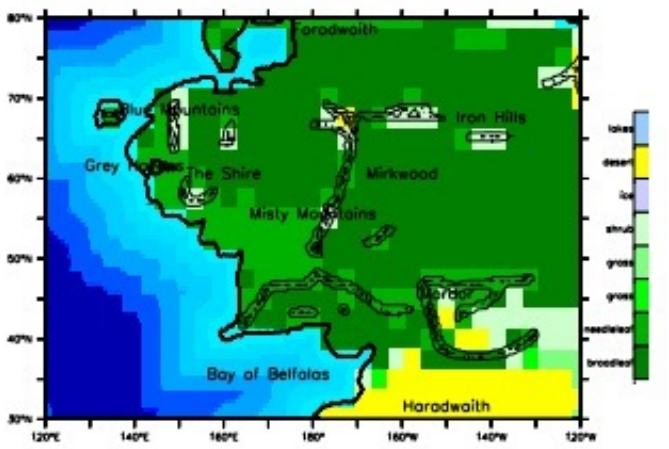
One climate model to rule them all

Ever wondered what the climate would be like in Middle Earth, the fantasy land of The Hobbit and The Lord of the Rings? So did a researcher at the University of Bristol, UK. And he had access to a supercomputer...

Ever



Vegetation pattern predicted for Middle Earth. Lunt finds that prevailing winds would have caused the area immediately to the west of the Misty Mountains to be particularly wet. Image courtesy Radagast the Brown.

wondered what the climate would be like in Middle Earth, the fantasy land of The Hobbit *and* The Lord of the Rings? *So did a researcher at the University of Bristol, UK. And he had access to a supercomputer...*

Mordor, the stronghold of evil forces in Tolkien's epic novels, is apparently just like Los Angeles - at least, it's also very hot and dry. And The Shire, home of the Hobbits, has a climate similar to that of Leicestershire or Lincolnshire in the UK. Also, much of Middle Earth would probably be covered in dense forests - assuming, of course, that "the landscape had not been altered by dragons, orcs, wizards, *etc.*," writes the author, Dan Lunt.

Lunt, from the University of Bristol's Cabot Institute, studied the detailed maps Tolkien created of his sprawling fantasy land. Lunt then input

Posted on JAN 8 2014 10:06AM

Share this story

Republish

Tags

books
climate
dwarves
elves
fantasy
films
Hobbit
Lord of the Rings
Middle Earth
model
Mordor
movies
orcs
Shire
Simulation

Tolkien

weather

wizards

geographical information gleaned from these maps into a climate model developed by the UK Met Office. The simulations were carried out on the supercomputers of the Advanced Computing Research Centre, which is home to BlueCrystal, the University of Bristol's high-performance computing machine. The research, which was published by Lunt under the pseudonym 'Radagast the Brown', was not funded and was set up in the author's spare time.

"Because climate models are based on fundamental scientific processes, they are able not only to simulate the climate of the modern Earth, but can also be easily adapted to simulate any planet, real or imagined, so long as the underlying continental positions and heights, and ocean depths are known," says Richard Pancost, director of the Cabot Institute.

"This work is a bit of fun, but it does have a serious side," explains Lunt. "A core part of our work here in Bristol involves using state-of-the-art climate models to simulate and understand the past climate of our Earth. By comparing our results to evidence of past climate change, for example from tree rings, ice cores, and ancient fossils of plants and animals, we can validate the climate models, and gain confidence in the accuracy of their predictions of future climate."

The research, published under the title 'The Climate of Middle Earth', is available online, here. Translations are also available in Elvish and Dwarvish.

- Andrew Purcell

Join the conversation

Contribute

Do you have story ideas or something to contribute? **Let us know!**

OUR UNDERWRITERS

Thank to you our underwriters, who have supported us since the transition from International Science Grid This Week (iSGTW) into Science Node in 2015. We are incredibly grateful.

View all underwriters

CATEGORIES

Advanced computing
Research networks
Big data
Tech trends
Community building

CONTACT

Science Node
Email:
editors@sciencenode.o
Website:
sciencenode.org

GIVE NOW