
My NASA Data - STEM Career Connections

SCIENCE: Glaciologist



Education

Glaciologists require a minimum of a bachelor's degree in environmental or earth sciences, climatology, physics, geomatics, or geography. Students may want to seek a masters or doctoral degree in glaciology to do university or government-level research. There are limited schools who offer graduate degrees in glaciology.

Related Fields

- Climatologist [Link](#)
- Geographer [Link](#)
- Meteorologist [Link](#)
- Oceanographer [Link](#)

Work Description

Glaciology is the study of snow and ice. A glaciologist is one who studies and analyzes the movement and physical properties of glaciers and ice. Glaciologists research characteristics of the Cryosphere that include formation, movement, and effects of other parts of the Earth System. A

characteristic of their research is to analyze how glaciers and ice caps move and change due to climate change and how those changes influence the climate and surrounding environment.

Check out this snapshot of the work of one NASA Glaciologist, Dr. Kelly Brunt.

[Video: Meet the Scientist - ICESat 2 Researcher Kelly Brunt \(Part 1\) - Session 3 for 18/19 cohort](#)

Video

Meet the Scientist - ICESat 2 Researcher Kelly Brunt (Part 1) - Session 3 for 18/19 cohort | <https://www.youtube.com/watch?v=HSmAWS3AJYk> | Source: Bonnie Murray

Why is this job Important?

Glaciologists study the effects glaciers have on the world around us. A moving glacier will erode the ground around it, carving out valleys and lifting rocks out of the ground. The discovery of ice on other planets also makes glaciology a vital part of understanding worlds beyond our own, climate change, and sea level rise.

NASA Connections

Job Title NASA Examples:

- Avalanche forecaster
- Climate change specialist
- Climatologist
- Environmental geologist

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- Geographer
 - Hydrologist
 - Limnologist
 - Meteorologist
 - Oceanographer

NASA Career Links:

- [NASA Careers](#)
- [NASA Internships & Fellowships Pathways](#)
- [NASA Student Volunteer Program](#)