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Library Research for Atmospheric and Oceanic Sciences (Including Climate Change)

July 21, 2020

Emily C. Wild, Chemistry, Geosciences and Environmental Studies Librarian
ewild@princeton.edu 609-258-5484



Jersey Shore



St. Augustine, Florida

August 27, 2020 : Library Research for Energy, Mineral, and Uranium Resources

March 2020: Library Research for Water Resources <https://www.fdlp.gov/library-research-for-water-resources>

January 2020: Introduction to Geosciences Library Research <https://www.fdlp.gov/introduction-to-geosciences-library-research>

USGS Library Materials for Natural Hazards <https://www.fdlp.gov/usgs-library-materials-for-natural-hazards>

USGS Library Materials for Water Resources Information <https://www.fdlp.gov/usgs-library-materials-for-water-resources-information>

USGS Library Materials for Earth's Age <https://www.fdlp.gov/usgs-library-materials-for-earth-s-age>

USGS Library: Indexes, catalogs, and other bibliographic tools, a day in the life of a reference librarian <https://www.fdlp.gov/usgs-library-indexes-catalogs-and-other-bibliographic-tools-a-day-in-the-life-of-a-reference-librarian>

USGS Library: Oil, Gas, Coal, Uranium, and Minerals Maps and Data <https://www.fdlp.gov/usgs-library-oil-gas-coal-uranium-and-minerals-maps-and-data>

USGS Library: Using USGS Image, Map, and Data Products for Information Inquiries <https://www.fdlp.gov/usgs-library-using-usgs-image-map-and-data-products-for-information-inquiries>

Quick Bio



Emily C. Wild

Lewis Science Library, Princeton University
ewild@princeton.edu

Schedule a Research Consultation :
Monday – Friday

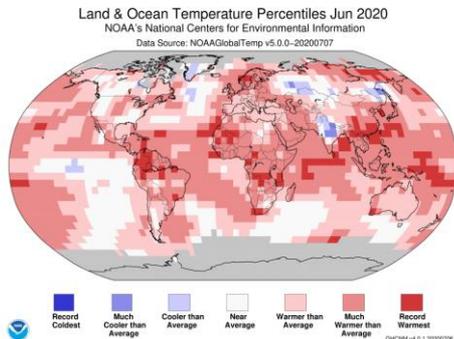
[Meet Our Specialists – Emily Wild](#)

- **Princeton University Library, 2018-Present**
Chemistry, Geosciences and Environmental Studies Librarian

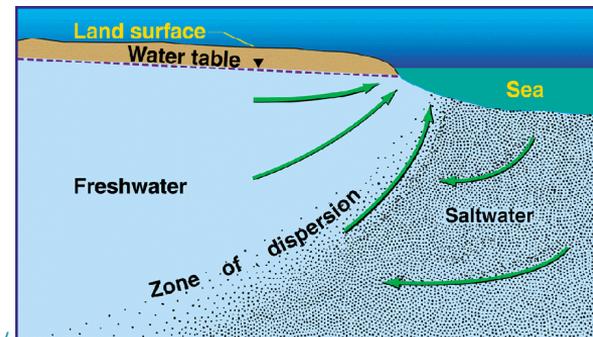
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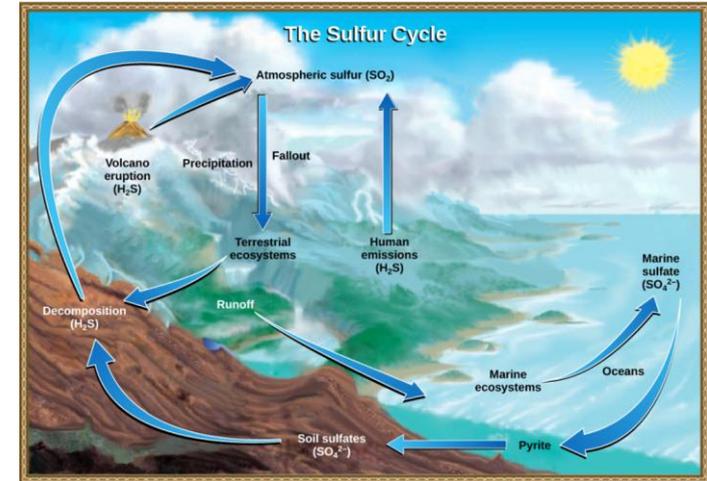
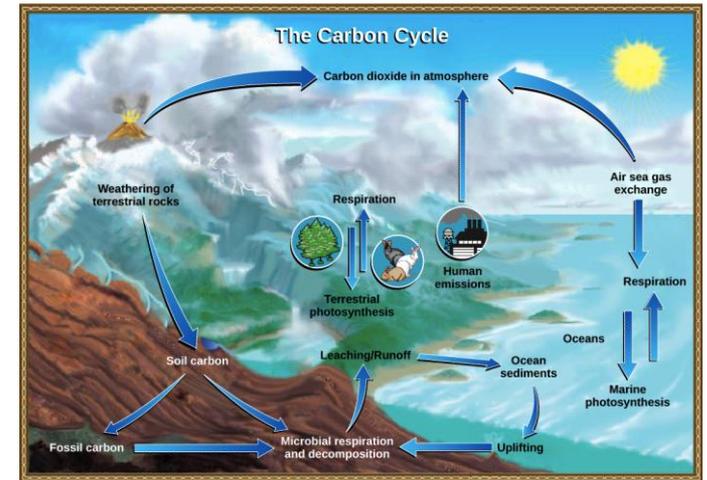
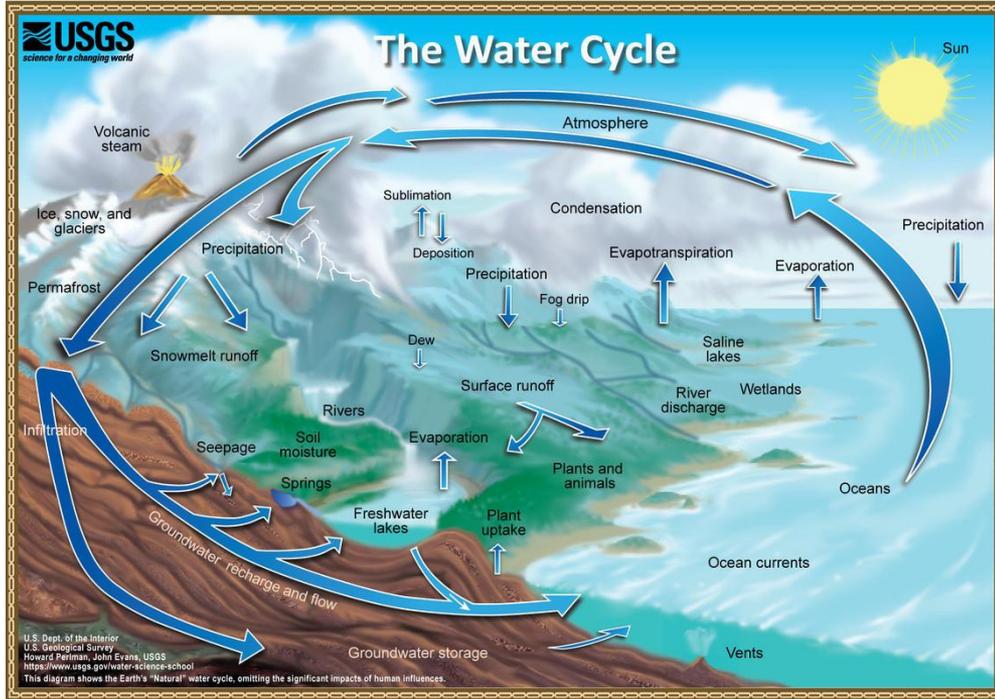
- **U.S. Geological Survey: <https://www.usgs.gov/staff-profiles/emily-wild>**
- Denver, Colorado : 2008-2018 - **Librarian (Physical Scientist)** : Water, Minerals, Energy & Hazards research services, instruction, and outreach
- NH-VT & MA-RI: 1996-2008 **Hydrologist**: Water Use, Surface Water, Groundwater, Water Quality, Coastal Waters, Bibliographic Databases, NWIS Groundwater Database Administrator ; **[Saltwater Intrusion Project Bibliography](#)** <https://pubs.usgs.gov/of/2002/ofr02235/>



<https://www.ncdc.noaa.gov/temp-and-precip/global-maps/>



Wait, hydrologists know about the Ocean & Atmosphere? Yes!



<https://www.usgs.gov/special-topic/water-science-school/science/water-cycle>

Sources used while working in NH, VT, MA, RI, CO, NJ

NH: NOAA Office of Coastal Management:

<https://coast.noaa.gov/states/new-hampshire.html>

VT: Climate Change in Vermont <https://climatechange.vermont.gov/our-changing-climate/dashboard/more-annual-precipitation>

MA: Woods Hole Oceanographic Institution <https://www.whoi.edu/> & USGS Woods Hole Coastal and Marine Science Center <https://www.usgs.gov/centers/whcmssc>

RI: URI's Graduate School of Oceanography (GSO) <https://web.uri.edu/gso/> & NOAA Narragansett Lab: <https://www.fisheries.noaa.gov/about/narragansett-laboratory> & EPA Lab <https://www.epa.gov/greeningepa/atlantic-coastal-environmental-sciences-division-acesd-laboratory>

CO: NOAA Boulder Labs <https://www.boulder.noaa.gov/> National Center for Atmospheric Research (NCAR) <https://ncar.ucar.edu/who-we-are> University Corporation for Atmospheric Research (UCAR) <https://www.ucar.edu/>

USGS Santa Cruz, CA <https://www.usgs.gov/centers/pcmssc> USGS St. Petersburg, FL <https://www.usgs.gov/centers/spcmssc>

[NWS Home](#) > [Climate](#) > [NWS Philadelphia/Mount Holly](#) > [Climate Resources](#)

https://w2.weather.gov/climate/climate_resources.php?wfo=phi

- [Climate Information Outside the Local Office Area](#)
- [Climate Information Outside the Local Office Area](#)
- [Regional Climate Centers](#)
- [State Climate Offices](#)
- [National Centers for Environmental Information \(NCEI\)](#)
- [National Climate Information](#)
- [National Temperature and Precipitation Summary for Selected Cities](#)
- [National Operational Hydrologic Remote Sensing Center](#)
- [NOAA's Climate Page](#)
- [National Centers for Environmental Information \(NCEI\)](#)
- [Climate of the U.S.](#)
- [Climate Prediction Center](#)
- [Earth System Research Laboratory \(ESRL\)](#)
- [NOAA's El Niño and La Niña Pages](#)
- [NOAA's Drought Monitoring Page](#)
- [NOAA's Storm Event Archives](#)
- [U.S. Hazards Outlook](#)
- [International Climate Information](#)
- [World Meteorological Organization](#)
- [World Climate](#)
- [Global Climate Extremes](#)
- [Global Climate Change](#)
- [Global Climate Observing System](#)
- [Climate Data Online \(CDO\)](#)

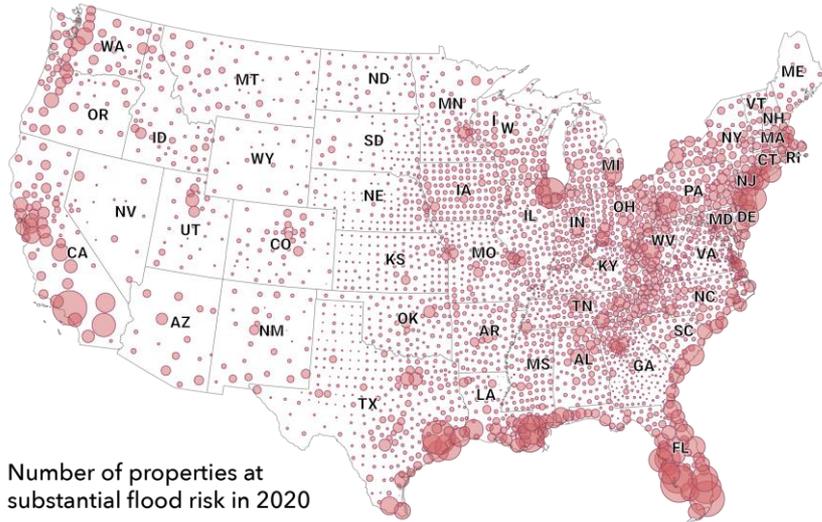
Atmospheric & Oceanic Information

- **Climate in the News**
- **What is the difference between weather & climate?**
- **When/where was the first climate model created?**
- **What is Climate Change?**
- **Who is an Atmospheric Scientist? Oceanographer? Climate Scientist?**
- **Research at Princeton University**
- **Professional Societies, Organizations, Companies**
- **Federal Agencies: Atmosphere, Oceans, and Climate**



<https://eros.usgs.gov/image-gallery/earth-as-art>

Recent News



Number of properties at substantial flood risk in 2020

20,000 ●●● 200,000

Highlights From "The First National Flood Risk Assessment"

<https://firststreet.org/flood-lab/research/2020-national-flood-risk-assessment-highlights/>

https://floodfactor.com/state/newjersey/34_fsid#summary



First Lady Tammy Murphy Announces New Jersey Will Be First State in the Nation to Incorporate Climate Change Across Education Guidelines for K-12 Schools

06/3/2020

TRENTON – First Lady Tammy Murphy today announced that the New Jersey State Board of Education has adopted her initiative to make New Jersey the first state in the nation to incorporate climate change education across its K-12 learning standards. The New Jersey Student Learning Standards (NJSLS) outline what is taught in New Jersey's public schools and set the foundation for school districts to craft instruction and curricula. With this adoption, climate change education will be incorporated across seven content areas—21st Century Life and Careers, Comprehensive Health and Physical Education, Science, Social Studies, Technology, Visual and Performing Arts, and World Languages. Climate change standards have also been added to the appendices of the Mathematics and English Language Arts guidelines, which are up for review in 2022.

<https://nj.gov/governor/news/news/562020/approved/20200603b.shtml>

“The new standards, which take effect in September 2021 and 2022, offer a broad outline that will allow school districts to craft instruction based on why the planet is warming and what can be done to mitigate it.”

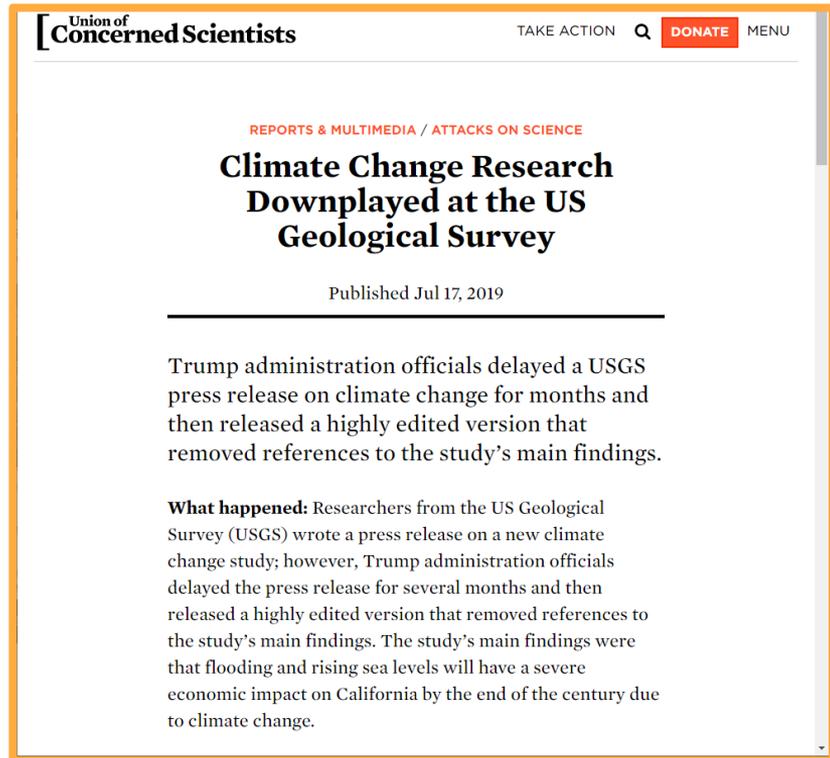
<https://www.northjersey.com/story/news/environment/2020/06/03/nj-becomes-first-state-require-climate-change-k-12-curriculum/3136671001/>



<https://www.nytimes.com/2020/06/15/climate/climate-science-trump.html>

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&q=John+Crusius+USGS&btnG=

https://www.usgs.gov/staff-profiles/john-crusius?qt-staff_profile_science_products=3#qt-staff_profile_science_products



<https://www.ucsusa.org/resources/attacks-on-science/climate-change-research-downplayed-us-geological-survey>

Be Aware of Greenwashing

<https://www.ucsusa.org/climate/disinformation>

Example:

https://scholar.google.com/scholar?as_ylo=2019&q=Greenwashing&hl=en&as_sdt=0,31

Examples at Princeton University:

Writing Seminars Sessions

■ Climate Science Fictions: Climate Supporters vs. Climate Deniers

Journal of Higher Education : Princeton Climate Scientists Tried to Ignore a Campus Skeptic. Then He Went to the White House. <https://www.chronicle.com/article/Princeton-Climate-Scientists/246971>

PAW articles: A White House Role: Physicist Happer *64 Takes Position as Senior Science, Technology Adviser <https://paw.princeton.edu/article/white-house-role-physicist-happer-64-takes-position-senior-science-technology-adviser> vs. Alarms Should Be Going Off <https://paw.princeton.edu/inbox/alarms-should-be-going> and <https://paw.princeton.edu/inbox/response-my-critics>

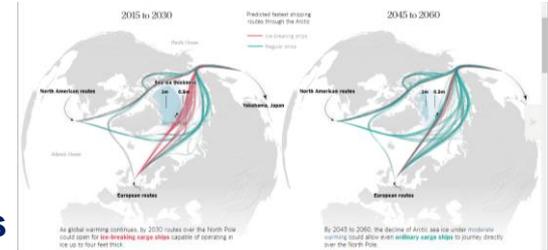
And the NPR story:

Meet The White House's New Chief Climate Change Skeptic

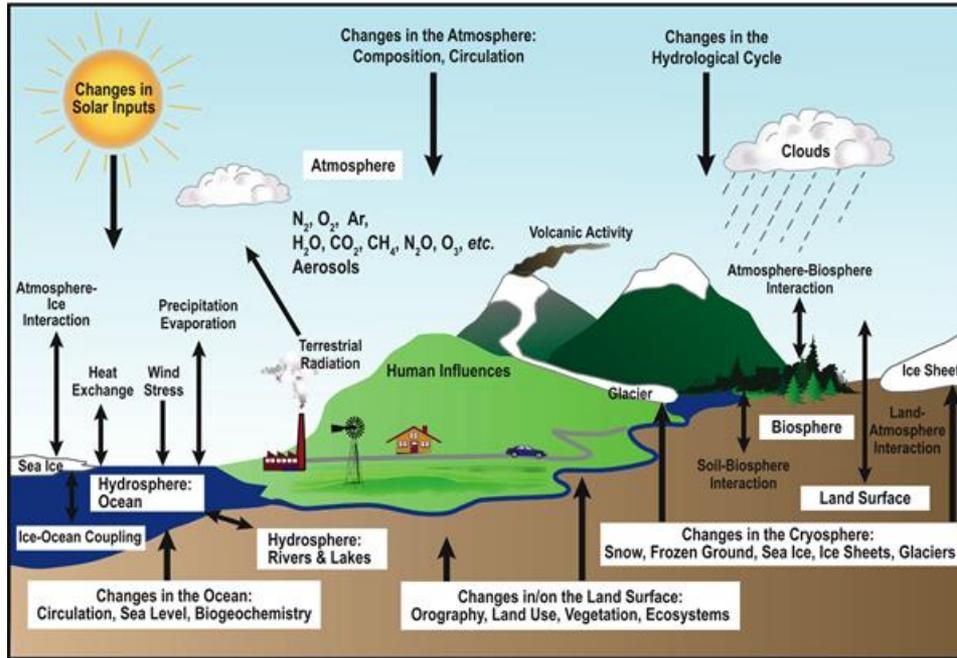
<https://www.npr.org/2019/03/01/698073442/heres-the-white-houses-top-climate-change-skeptic>

September 12, 2019: Why a high-profile climate science opponent quit Trump's White House

<https://www.sciencemag.org/news/2019/09/why-high-profile-climate-science-opponent-quit-trump-s-white-house>



What is the difference between Climate & Weather?



Weather is defined as the state of the atmosphere at a given time and place, with respect to variables such as temperature, moisture, wind speed and direction, and barometric pressure.

Hazardous Weather Conditions

- [Hazardous Weather Outlook](#)
- [Air Quality Alert](#)

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Current conditions at
Trenton, Mercer County Airport (KTTN)
 Lat: 40.28°N Lon: 74.82°W Elev: 210ft.



Fair
89°F
 32°C

Humidity 43%
 Wind Speed NW 3 mph
 Barometer 29.86 in (1010.3 mb)
 Dewpoint 64°F (18°C)
 Visibility 10.00 mi
 Heat Index 90°F (32°C)
 Last update 20 Jul 7:53 pm EDT

More Information:
[Local Forecast Office](#)
[More Local Wx](#)
[3 Day History](#)
[Mobile Weather](#)
[Hourly Weather Forecast](#)

<https://forecast.weather.gov/MapClick.php?lat=40.3487&lon=-74.659#.XxYyOShKjIU>

NWS Forecast Office Philadelphia/Mt Holly

[Weather.gov](#) > Philadelphia/Mt Holly

Philadelphia/Mt Holly
 Weather Forecast Office

[Current Hazards](#) [Current Conditions](#) [Radar](#) [Forecasts](#) [Rivers and Lakes](#) [Climate and Past Weather](#) [Local Programs](#)

Click a location below for detailed forecast.



Last Map Update: Mon, Jul. 20, 2020 at 8:05:27 pm EDT

<https://www.weather.gov/phi/>

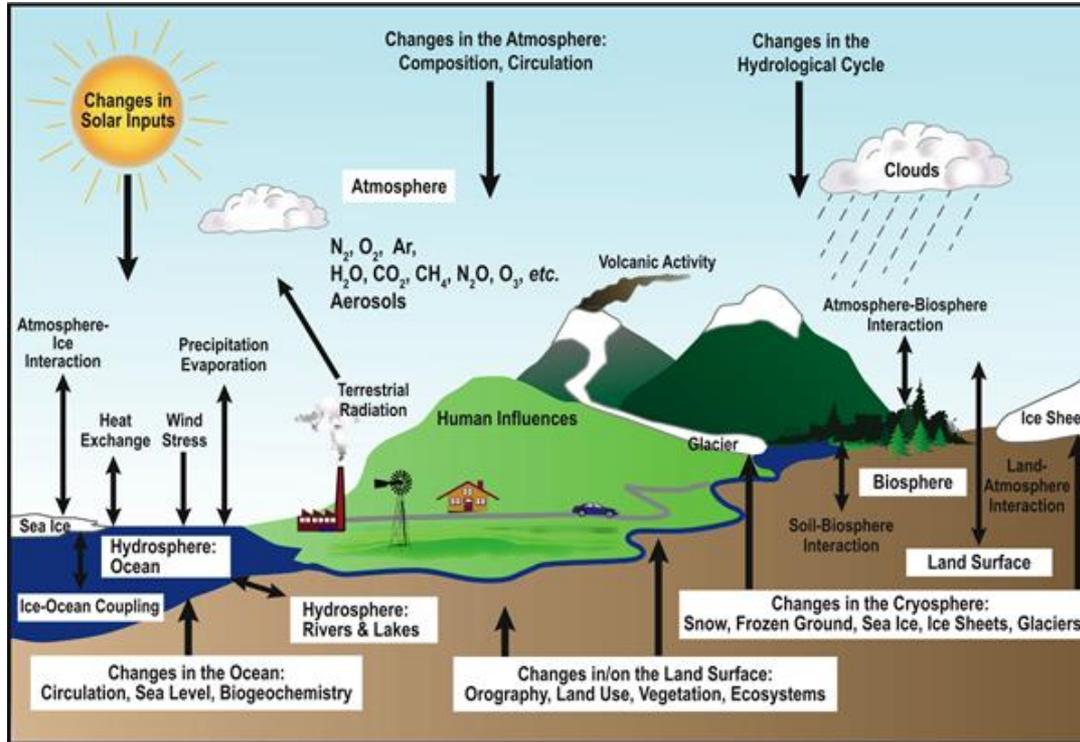


<https://gispub.epa.gov/airnow/?xmin=-9047698.164059745&ymin=4446800.557518414&xmax=-7575215.251174109&ymax=5388504.745991786&clayer=none&mlayer=ozonepm>

<https://gispub.epa.gov/airnow/?xmin=-9047698.164059745&ymin=4446800.557518414&xmax=-7575215.251174109&ymax=5388504.745991786&clayer=none&mlayer=ozonepm>

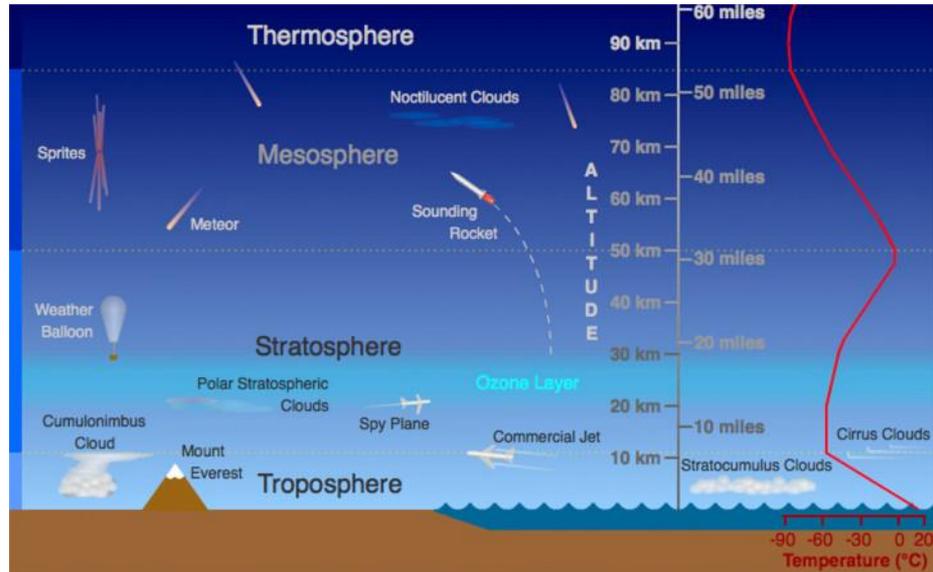
<https://www.airnow.gov/airnow-app/>

What is the difference between Climate & Weather?

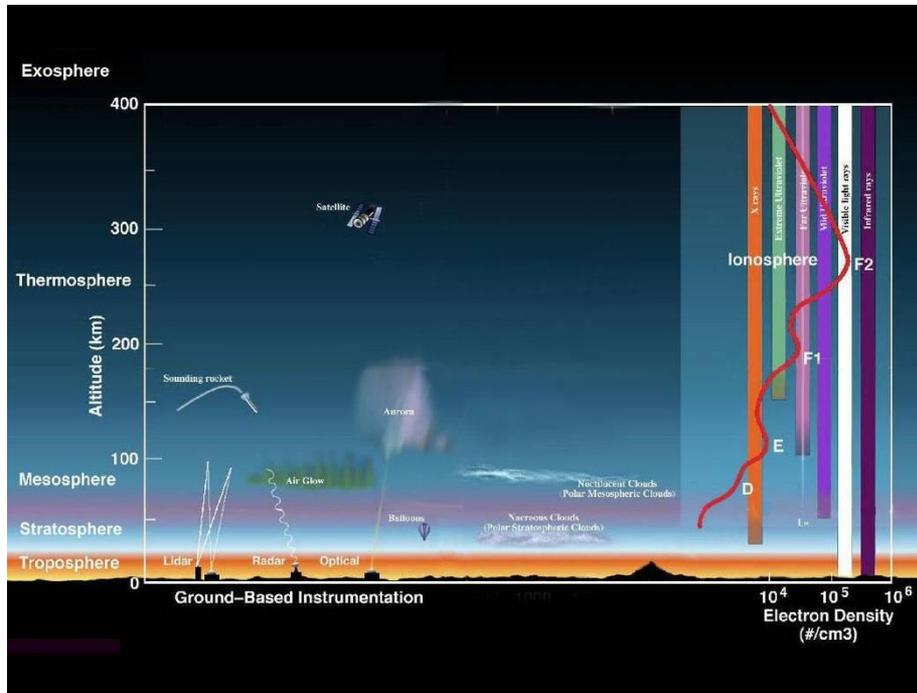


Climate is defined as the expected frequency of specific states of the atmosphere, ocean, and land including variables such as temperature (land, ocean, and atmosphere), salinity (oceans), soil moisture (land), wind speed and direction (atmosphere), current strength and direction (oceans). Climate encompasses the weather over different periods of time and also relates to mutual interactions between the components of the earth system (e.g., atmospheric composition, volcanic eruptions, changes in the earth's orbit around the sun, changes in the energy from the sun itself).

Atmosphere Layers

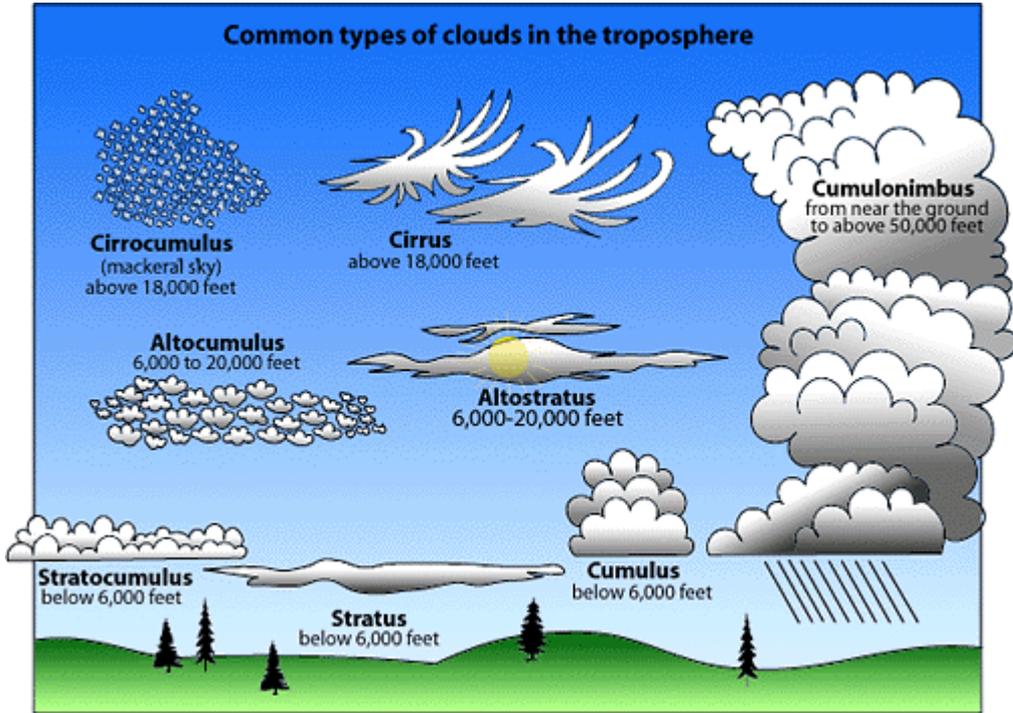


<https://scied.ucar.edu/atmosphere-layers>



https://www.nasa.gov/mission_pages/sunearth/science/atmosphere-layers2.html

Common types of clouds in the troposphere



Cumulus clouds have vertical growth. They are puffy white or light gray clouds that look like floating cotton balls. Cumulus clouds have sharp outlines and a flat base at a height of 1000m. They are generally about one kilometer wide which is about the size of your fist or larger when you hold up your hand at arm's length to look at the cloud. Cumulus clouds can be associated with fair or stormy weather. Watch for rain showers when the cloud's tops look like cauliflower heads.

<https://scied.ucar.edu/learning-zone/clouds/cloud-types>

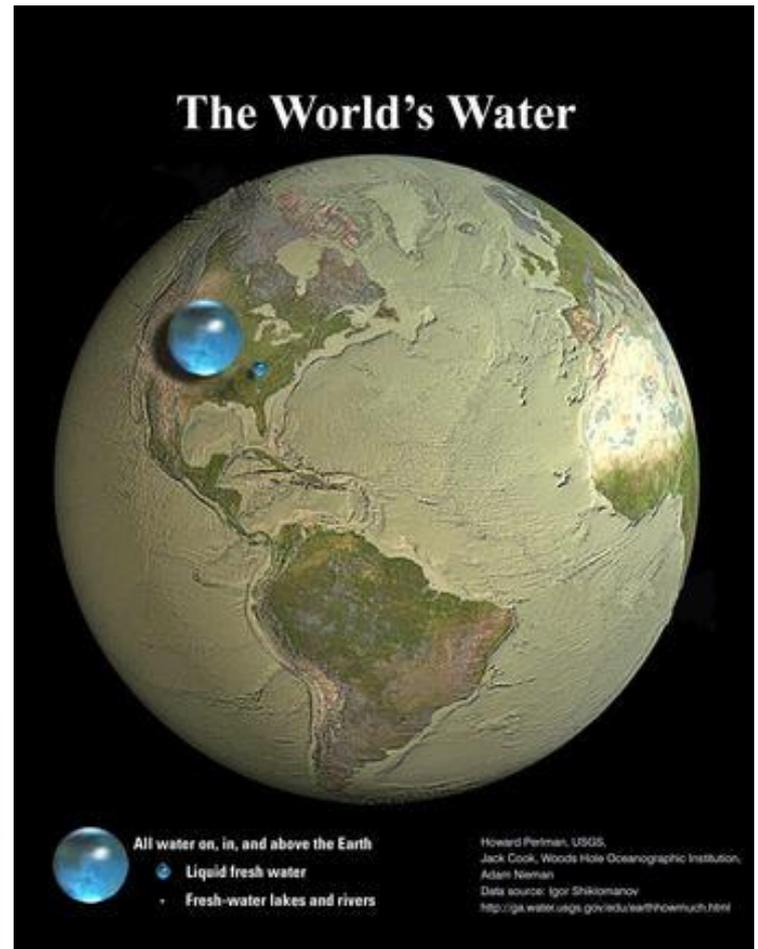
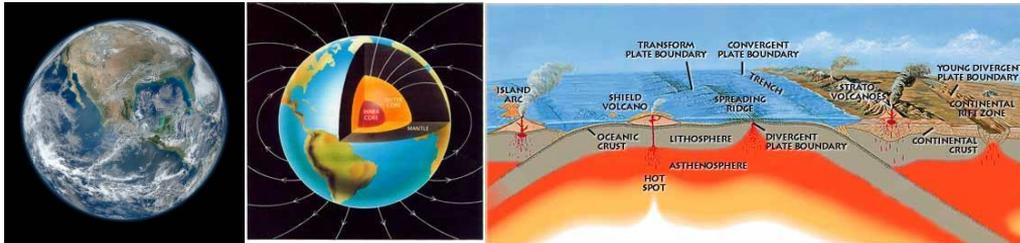
The Water on Earth

<https://www.usgs.gov/media/images/all-earths-water-a-single-sphere>

All Earth's freshwater, liquid fresh water, and water in lakes and rivers

Spheres showing:

- (1) All water (sphere over western U.S., 860 miles in diameter)
- (2) Fresh liquid water in the ground, lakes, swamps, and rivers (sphere over Kentucky, 169.5 miles in diameter), and
- (3) Fresh-water lakes and rivers (sphere over Georgia, 34.9 miles in diameter).

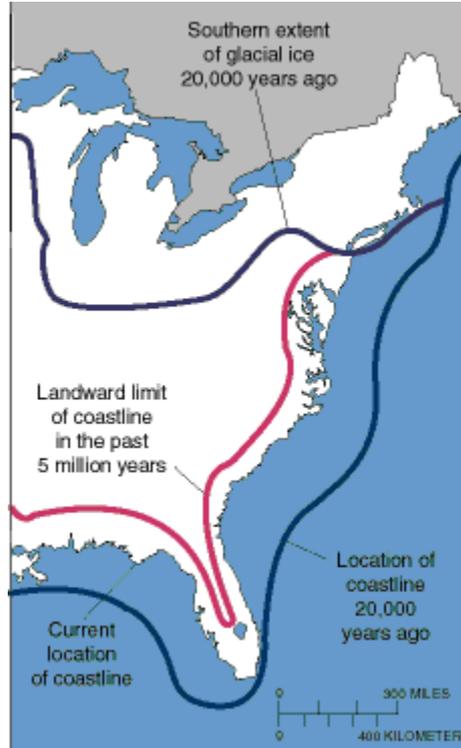




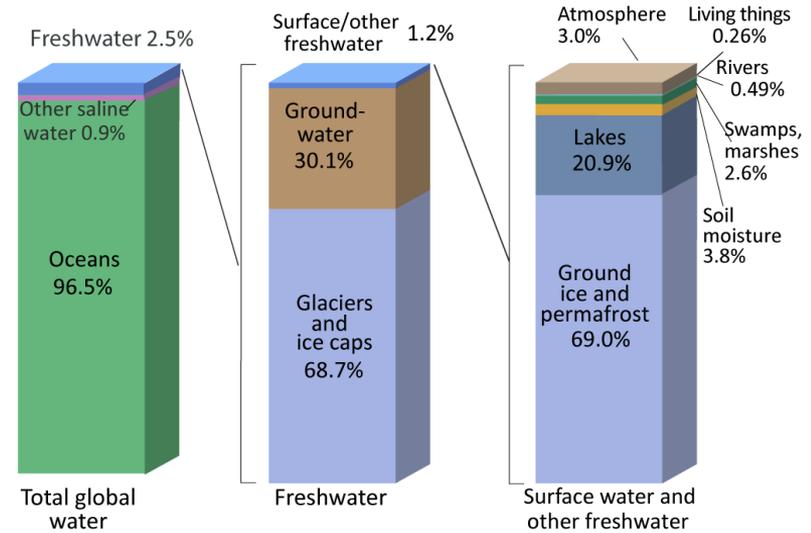
Cretaceous Western Interior Seaway.

Colorado was covered by a shallow, temperate sea.

<https://pubs.usgs.gov/pp/1561/report.pdf>



Where is Earth's Water?



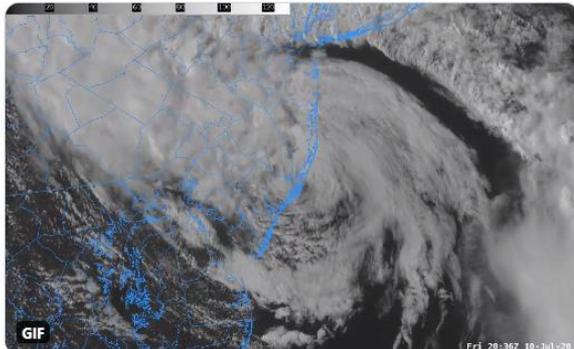
Source: Igor Shiklomanov's chapter "World fresh water resources" in Peter H. Gleick (editor), 1993, *Water in Crisis: A Guide to the World's Fresh Water Resources*. (Numbers are rounded).

Climate: Tropical Storm & Volcanic Eruptions

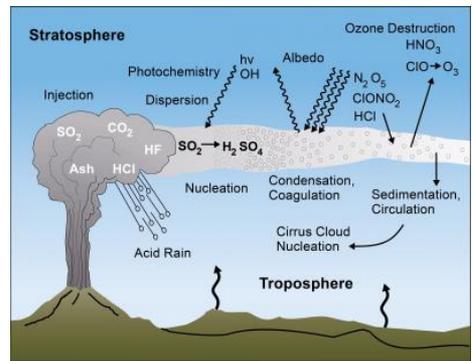
https://volcanoes.usgs.gov/vhp/gas_climate.html

 **NWS Mount Holly**
@NWS_MountHolly

#TropicalStormFay has just made landfall near Little Egg Harbor Inlet in Ocean County, NJ. The remaining heavy rain is well removed north and west from the center. The rain and windy conditions will end slowly from south to north into tonight. #NJwx



5:16 PM · Jul 10, 2020



Busy Atlantic hurricane season predicted for 2020

Multiple climate factors indicate above-normal activity is most likely

<https://www.noaa.gov/media-release/busy-atlantic-hurricane-season-predicted-for-2020>

<https://pubs.usgs.gov/pinatubo/>

The Atmospheric Impact of the 1991 Mount Pinatubo Eruption <https://pubs.usgs.gov/pinatubo/self/>

When/where was the first climate model created?

In the late **1960s**, **NOAA's Geophysical Fluid Dynamics Laboratory** in **Princeton, New Jersey**, developed the first-of-its-kind general circulation climate model that combined both oceanic and atmospheric processes. Scientists were now able to understand how the ocean and atmosphere interacted with each other to influence climate. The model also predicted how changes in the natural factors that control climate such as ocean and atmospheric currents and temperature could lead to climate change. The model still stands today as a breakthrough of enormous importance for climate science and weather forecasting. Earlier knowledge of the oceanic and atmospheric circulation, and their interactions, was based purely on theory and observation.

Climate models are computer-based simulations that use mathematical formulas to re-create the chemical and physical processes that drive Earth's climate. This pioneering model included all the basic components of climatic factors (atmosphere, ocean, land, and sea ice), but covered only one-sixth of the earth's surface, from the North Pole to the equator and 120 degrees of longitude east to west.

https://celebrating200years.noaa.gov/breakthroughs/climate_model/welcome.html#model

<https://www.gfdl.noaa.gov/>

<https://www.gfdl.noaa.gov/bibliography/>

<https://aos.princeton.edu/>

<https://geosciences.princeton.edu/>



<https://recap.princeton.edu/>

1967 Climate Model Paper

Thermal Equilibrium of the Atmosphere with a Given Distribution of Relative Humidity

<https://journals.ametsoc.org/jas/article/24/3/241/17328/Thermal-Equilibrium-of-the-Atmosphere-with-a-Given>

1520-0469(1967)024_0241_teatow_2_0_co_2.pdf

19 / 19

May 1967 SYUKURO MANABE AND RICHARD T. WETHERALD 259

naulichen Observatorium bei Lindenberg, Vol. 15, Braunschweig, Germany, Friedl, Vieweg and Sohn, 1-24.

Herring, W. S., and T. R. Borden, Jr., 1965: Mean distributions of ozone density over North America, 1963-1964. Environmental Research Papers, No. 162, AFCRL-65-914, Air Force Cambridge Research Laboratories, Bedford, Mass., 19 pp.

Houghton, J. T., 1963: Absorption in the stratosphere by some water vapor lines in the ν_2 band. *Quart. J. Roy. Meteor. Soc.*, **89**, 332-338.

Howard, J. N., D. L. Burch and D. Williams, 1955: Near-infrared transmission through synthetic atmosphere. Geophysics Research Papers, No. 40, Air Force Cambridge Research Center, AFCC-TR-55-213, 214 pp.

Kaplan, L. D., 1950: The influence of carbon dioxide variations on the atmospheric heat balance. *Tellus*, **12**, 204-208.

Kondratiev, K. V., and H. H. Nilius, 1960: On the question of carbon dioxide heat radiation in the atmosphere. *Geofiz. Para Appl.*, **46**, 216-250.

London, J., 1962: Mesospheric dynamics, Part III. Final Report, Contract No. AF19(604)-5492, Department of Meteorology and Oceanography, New York University, 99 pp.

Manabe, S., and F. Moller, 1961: On the radiative equilibrium and heat balance of the atmosphere. *Mon. Wea. Rev.*, **89**, 503-532.

—, J. Smagorinsky and R. F. Strickler, 1965: Simulated climatology of general circulation with a hydrologic cycle. *Mon. Wea. Rev.*, **93**, 769-798.

—, and R. F. Strickler, 1964: Thermal equilibrium of the atmosphere with a convective adjustment. *J. Atmos. Sci.*, **21**, 361-385.

Mastenbrook, H. J., 1963: Frost-point hygrometer measurement in the stratosphere and the problem of moisture contamination. *Humidity and Moisture*, Vol. 2, New York, Reinhold Publishing Co., 480-485.

Moller, F., 1963: On the influence of changes in the CO₂ concentration in air on the radiation balance of the sea surface and on the climate. *J. Geophys. Res.*, **68**, 3877-3886.

Murgrafová, R. J., 1960: Some recent measurements by aircraft of humidity up to 80,000 ft in the tropics and their relationship to meridional circulation. *Proc. Symp. Atmos. Ozone*, Oxford, 20-25 July 1959, IUGG Monogr. No. 5, Paris, p. 30.

National Academy of Science, Panel on Weather and Climate Modification, 1966: Weather and climate modification, problem and prospects. Vol II (Research and Development). Publication No. 1350, National Academy of Science—National Research Council, Washington, D. C., 198 pp.

Pass, G. N., 1956: The influence of the 15-micron carbon dioxide band on the atmospheric infrared cooling rate. *Quart. J. Roy. Meteor. Soc.*, **82**, 310-324.

Teledupas, K., and J. London, 1954: A physical model of Northern Hemisphere troposphere for winter and summer. Scientific Report No. 1, Contract AF19(122)-165, Research Div. College of Engineering, New York University, 55 pp.

Walshaw, C. D., 1957: Integrated absorption by ν_2 band of ozone. *Quart. J. Roy. Meteor. Soc.*, **83**, 315-321.

Yamamoto, G., and T. Sasamori, 1958: Calculation of the absorption of the 15 μ carbon dioxide band. *Sci. Rept. Tohoku Univ. Fifth Ser.*, **10**, No. 2, 37-57.

Fig. 31. Radiative convective equilibrium of the atmosphere from the 9- and 18-level models. See text for discussion.

2b is used for both of these computations. The coincidence between the two equilibrium solutions is reasonable.

REFERENCES

Beriland, M. E., and T. G. Beriland, 1952: Determination of the effective outgoing radiation of the earth, taking into account the effect of cloudiness. *Tr. Akad. Nauk SSSR, Ser. Geofiz.*, No. 1, 64-78.

Bolts, H., and G. Falkenberg, 1950: Neubestimmung der Konstanten der Angströmschen Strahlungsformel. *Z. Meteor.*, **7**, 65-66.

Hergewell, M., 1919: Die Strahlung der Atmosphäre unter Zugrundelegung von Lindenberg Temperatur- und Feuchtigkeitsmessungen. *Die Arbeiten des Preussischen Aero-*

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Thermal Equilibrium of the Atmosphere with a Given Distribution of Relative Humidity

[PDF] Thermal equilibrium of the atmosphere with a given distribution of relative humidity [PDF] ametsoc.org

S Manabe, RT Wetherald - Journal of the Atmospheric ..., 1967 - journals.ametsoc.org

Radiative convective equilibrium of the atmosphere with a given distribution of relative humidity is computed as the asymptotic state of an initial value problem. The results show that it takes almost twice as long to reach the state of radiative convective equilibrium for the atmosphere with a given distribution of relative humidity than for the atmosphere with a given distribution of absolute humidity. Also, the surface equilibrium temperature of the former is almost twice as sensitive to change of various factors such as solar constant, CO₂ ...

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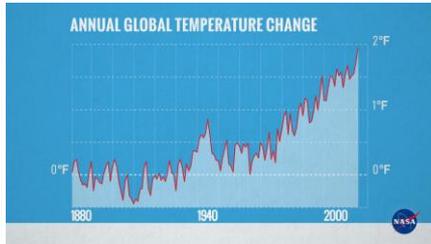
Showing the best result for this search. See all results

Help Privacy Terms

What is Climate Change?

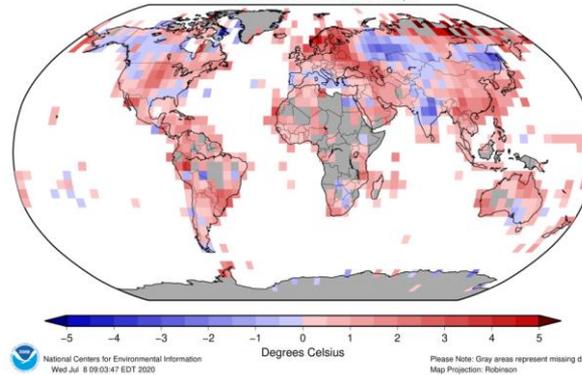
Climate change describes a change in the average conditions — such as temperature and rainfall — in a region over a long period of time. NASA scientists have observed Earth's surface is warming, and many of the warmest years on record have happened in the past 20 years.

<https://climatekids.nasa.gov/climate-change-meaning/>

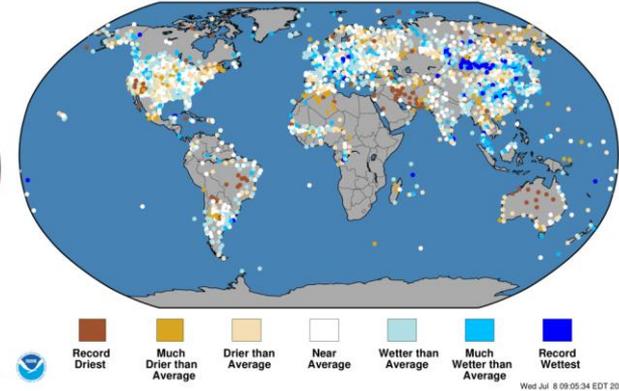


Alaska's Muir glacier in August 1941 and August 2004. Significant changes occurred in the 63 years between these two photos. Credit: USGS

Land-Only Temperature Departure from Average Jun 2020
(with respect to a 1981–2010 base period)
Data Source: GHCNM v4.0.1.20200706.gfe



Land-Only Precipitation Percentiles Jun 2020
NOAA's National Centers for Environmental Information
Data Source: GHCN-M version 4beta



<https://www.ncdc.noaa.gov/temp-and-precip/global-maps/>

Who is an Atmospheric Scientist? Oceanographer? Climate Scientist?

THE HISTORYMAKERS.
The Nation's Largest African American Value-Only History Collection

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George Philander

Biography

Professor and atmospheric scientist S. George Philander was born on August 25, 1942 in Calendon, Republic of South Africa. His father was the noted Afrikaans poet and the headmaster of the Belgravia High School in Athlone. Philander received his B.S. degree in applied mathematics and physics from the University of Cape Town in 1962. When apartheid laws were sanctioned in South Africa, his family decided to move to New York City. He went on to attend Harvard University and graduated in 1980 with his Ph.D. degree in applied mathematics.

Following graduation, Philander was awarded a post-doctoral fellowship at the Massachusetts Institute of Technology in the department of meteorology. He then became a research associate in the Geophysical Fluid Dynamics Program at Princeton University, and was promoted in 1978 to senior research oceanographer of the program. Philander held the position for eleven years until he was appointed as a full professor of geosciences and director of the program in atmospheric and oceanic studies at Princeton University in 1990. He served as chair of the Department of Geosciences at Princeton University from 1994 to 2001 and was then named the Knox Taylor Professor of Geosciences at Princeton University in 2005. Throughout his career, Philander has served as a consultant to the World Meteorological Organization in Geneva, Switzerland and as a visiting professor at the Museum National d'Histoire Naturelle in Paris, France. His research on oceanic and meteorological changes have resulted in the publication of over one hundred academic papers, nine chapters in books, and three books on such topics as El Niño, the Southern Oscillation, and global warming. In 2007, he finally returned to South Africa and joined the University of Cape Town as a research professor.

Interview Date
March 8, 2013

Profession
ScienceMakers

Occupation(s)
Atmospheric Scientist

<https://www.thehistorymakers.org/biography/george-philander>

Why Global Warming Is Controversial
<https://science.sciencemag.org/content/294/5549/2105/tab-article-info>

Our Affair with El Niño: How We Transformed an Enchanting Peruvian Current into a Global Climate Hazard & Is the Temperature Rising?: The Uncertain Science of Global Warming
<https://press.princeton.edu/our-authors/philander-s-george>

Google Scholar search [How to search with Google Scholar](#)

Authors:

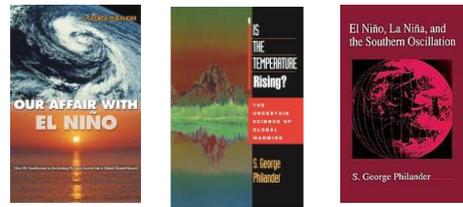
Publication name:

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Publication years: 1891-2018					
Citation years: 129 (1891-2020)					
Papers: 69					
Citations: 5780					
Cites/year: 44.81					
Cites/paper: 83.77					
Authors/paper: 1.58					
h-index: 17					
g-index: 69					
hI,norm: 16					
hI,annual: 0.12					
Papers with ACC >= 1,2,5,10,20: 18,16,9,6,3					
<input checked="" type="checkbox"/>	h 3222	103.94	1	SG Philander	El Niño, La Niña, and t...
<input checked="" type="checkbox"/>	h 761	38.05	2	AV Fedorov, SG Ph...	Is El Niño changing?
<input checked="" type="checkbox"/>	h 300	15.79	3	AV Fedorov, SG Ph...	A stability analysis of t...
<input checked="" type="checkbox"/>	h 229	13.47	4	SG Philander, AV F...	Role of tropics in chan...
<input checked="" type="checkbox"/>	h 144	12.00	5	G Philander, SG P...	Encyclopedia of global...
<input checked="" type="checkbox"/>	h 131	5.04	6	P Chang, SG Phila...	A coupled ocean-atm...
<input checked="" type="checkbox"/>	h 126	63.00	7	SG Philander	Is the temperature risi...
<input checked="" type="checkbox"/>	h 126	7.41	8	SG Philander, A Fe...	Is El Niño sporadic or c...
<input checked="" type="checkbox"/>	h 106	3.42	16	G Philander	El Niño and La Niña
<input checked="" type="checkbox"/>	h 80	5.71	10	SG Philander	Our affair with El Niño:...
<input checked="" type="checkbox"/>	h 78	2.23	9	G Philander, D Hal...	Long waves in the equ...
<input checked="" type="checkbox"/>	h 72	2.06	11	SG Philander, EM ...	The southern oscillatio...



<https://www.worldcat.org/search?q=bn%3A+0125532350&qt=advanced&dblist=638>

<https://science.sciencemag.org/content/288/5473/1997.abstract>

Who is an Atmospheric Scientist? Oceanographer? Climate Scientist?

<https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/>

Position Classification Standards for White Collar Work

<https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/#url=Standards>

1300 – Physical Sciences Group

<https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/#url=1300>

Example Job Searches:

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- Series Covered:1301, General Physical Science
 - 1306, Health Physics
 - 1310, Physics
 - 1313, Geophysics
 - 1315, Hydrology**
 - 1320, Chemistry
 - 1321, Metallurgy
 - 1330, Astronomy and Space Science
 - 1340, Meteorology
 - 1350, Geology
 - 1360, Oceanography
 - 1370, Cartography
 - 1372, Geodesy
 - 1373, Land Surveying
 - 1380, Forest Products Technology
 - 1382, Food Technology
 - 1384, Textile Technology
 - 1386, Photographic Technology
- <https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/standards/1300/gS1300p.pdf>

Research at Princeton University

Susceptible supply limits the role of climate in the COVID-19 pandemic

<https://www.medrxiv.org/content/10.1101/2020.04.03.20052787v1>

Local climate unlikely to drive the early COVID-19 pandemic

<https://vecchi.princeton.edu/news/local-climate-unlikely-drive-early-covid-19-pandemic>

Why are big storms bringing so much more rain? Warming, yes, but also winds

<https://www.princeton.edu/news/2019/10/29/why-are-big-storms-bringing-so-much-more-rain-warming-yes-also-winds>

PEI Faculty Seminar: "Climatic Influences on Tropical Cyclones and Their Severity"

<https://vecchi.princeton.edu/news/pei-faculty-seminar-climatic-influences-tropical-cyclones-and-their-severity>

Princeton University – Geosciences Dept., Climate Science

<https://geosciences.princeton.edu/research/climate-science>

[Cooperative Institute for Modeling the Earth System](#)

A Princeton University and Geophysical Fluid Dynamics Laboratory Collaboration

Princeton University – Princeton Environmental Studies (PEI):

Climate Futures Initiative

<https://scholar.princeton.edu/cfi/home>

Climate Change and Infectious Disease

<https://environment.princeton.edu/research/climate-change-and-infectious-disease/>

Princeton Environmental Forum — Full Conference

<https://environment.princeton.edu/videos/princeton-environmental-forum-full-conference/>

Attribution of the Australian bushfire risk to anthropogenic climate change

<https://www.worldweatherattribution.org/bushfires-in-australia-2019-2020/>

Rapid attribution of the extreme rainfall in Texas from Tropical Storm Imelda

<https://www.worldweatherattribution.org/rapid-attribution-of-the-extreme-rainfall-in-texas-from-tropical-storm-imelda/>

Human contribution to the record-breaking July 2019 heatwave in Western Europe

<https://www.worldweatherattribution.org/human-contribution-to-the-record-breaking-july-2019-heat-wave-in-western-europe/>

<https://www.worldweatherattribution.org/>

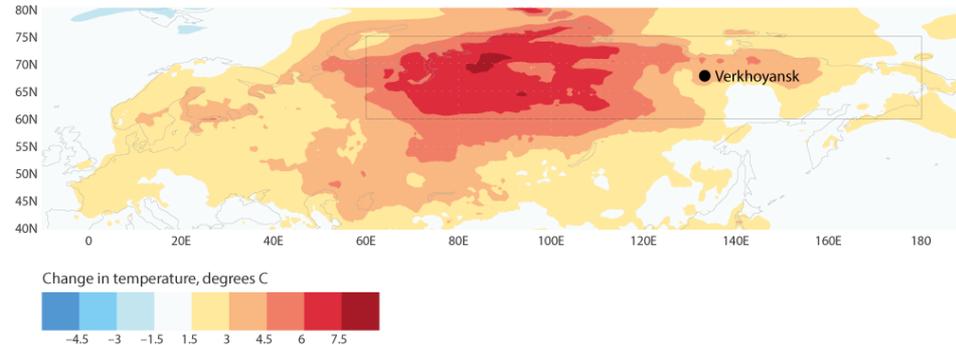


Figure 1: Prolonged Siberian heat: January – June 2020 average temperatures compared to normal (1981-2010) over the Siberian region used in the study (box), and the location of the town of Verkhoyansk that experienced the record June daily temperature within the Arctic circle.

Siberian heatwave of 2020 almost impossible without climate change

<https://www.worldweatherattribution.org/siberian-heatwave-of-2020-almost-impossible-without-climate-change/>

Professional Societies, Organizations, Companies

The American Geosciences Institute (AGI)
<https://www.americangeosciences.org/about>

Workforce: <https://www.americangeosciences.org/workforce/>

Geoscience COVID-19 Survey
<https://www.americangeosciences.org/workforce/covid19>

COVID-19 and Employment of Recent Geoscience Graduates
<https://www.americangeosciences.org/geoscience-currents/covid-19-and-employment-recent-geoscience-graduates>

COVID-19 Impacts to Geoscience Business Operations
<https://www.americangeosciences.org/geoscience-currents/covid-19-impacts-geoscience-business-operations>

Impacts of the COVID-19 Pandemic on Ocean Science Activities
<https://www.americangeosciences.org/geoscience-currents/impacts-covid-19-pandemic-ocean-science-activities>

COVID-19 Impacts to Research Activities in Spring 2020
<https://www.americangeosciences.org/geoscience-currents/covid-19-impacts-research-activities-spring-2020>

Geoscience Information Society

<http://www.geoinfo.org/>

Listserv: <http://www.geoinfo.org/e-mail-list/>

Or email me: ewild@princeton.edu

And an AGI Member Society:

<https://www.americangeosciences.org/member-societies>

GSA Associated Society:

https://www.geosociety.org/GSA/About/Who_We_Are/Associated_Societies/GSA/About/Associated_Societies.aspx

Atmospheric Science Librarians International

<http://www.aslionline.org/wp/>

Listserv: <http://www.aslionline.org/wp/about/asli-listserv/>

AMS Society Conference Boston 2020

<https://ams.confex.com/ams/2020Annual/meetingapp.cgi/Index/Recording~1/Program/1418>

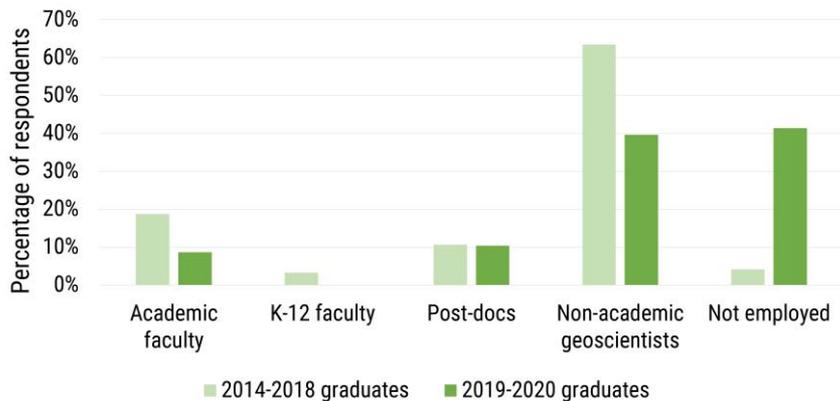
CSA Ocean Sciences Inc. (CSA)

<https://www.csaocean.com/portfolio>

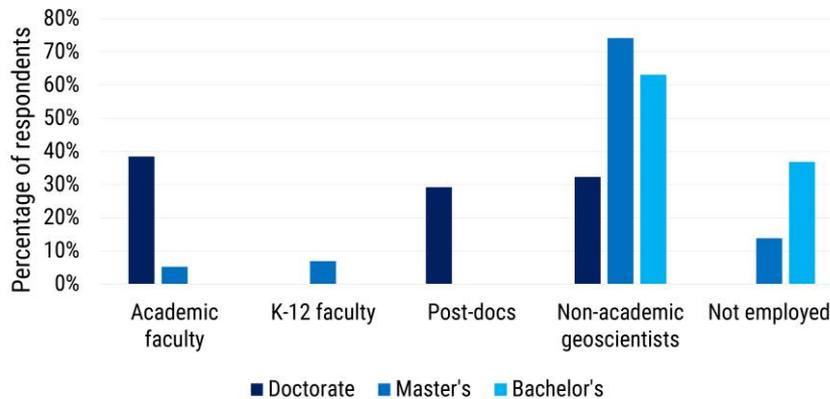
Press Releases: <https://www.csaocean.com/press-releases>

COVID-19 and Employment of Recent Geoscience Graduates

Employment of recent geoscience graduates by graduation year



Employment of recent geoscience graduates by degree level

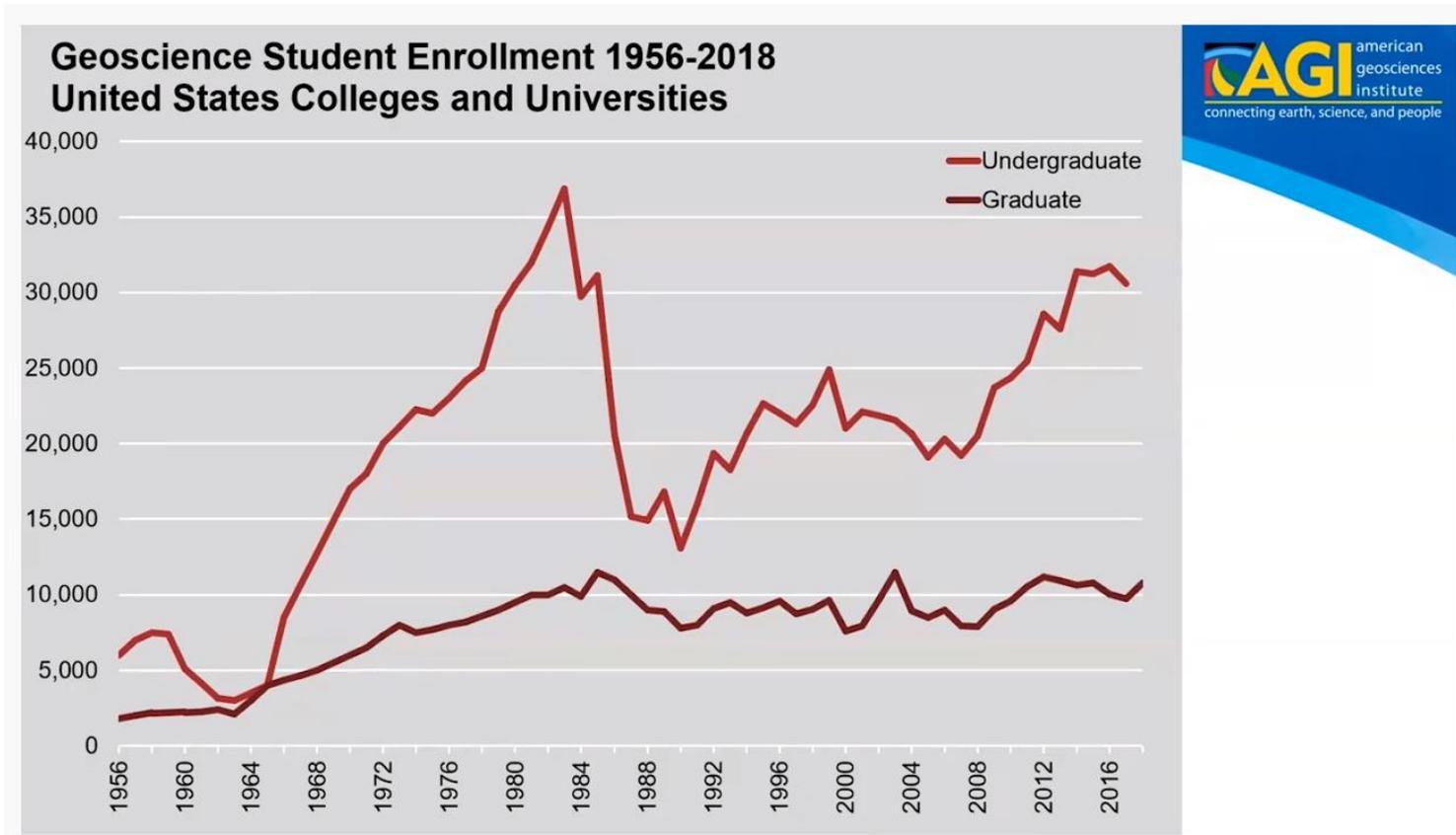


Credit: AGI; data from AGI's Geoscience COVID-19 Survey

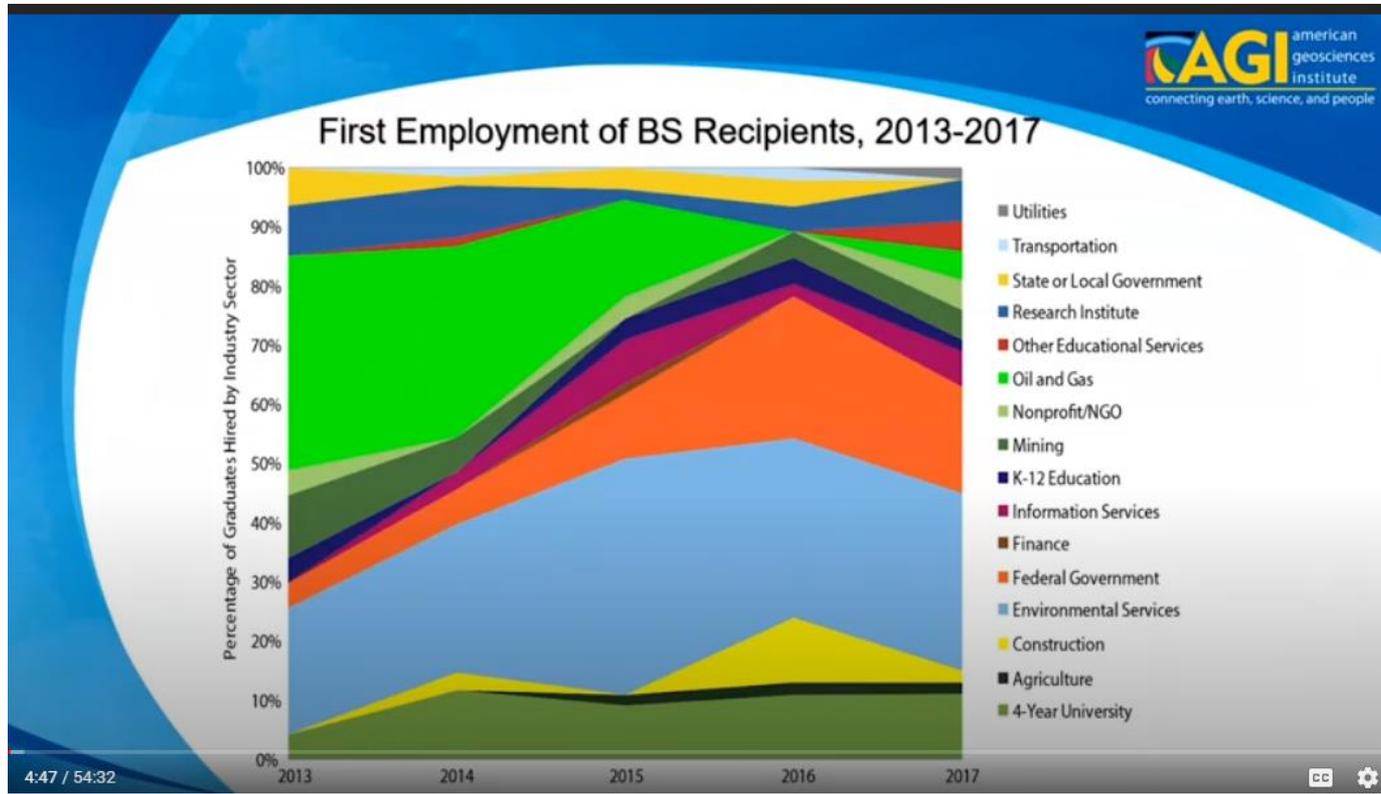
Credit: AGI; data from AGI's Geoscience COVID-19 Survey

<https://www.americangeosciences.org/geoscience-currents/covid-19-and-employment-recent-geoscience-graduates>

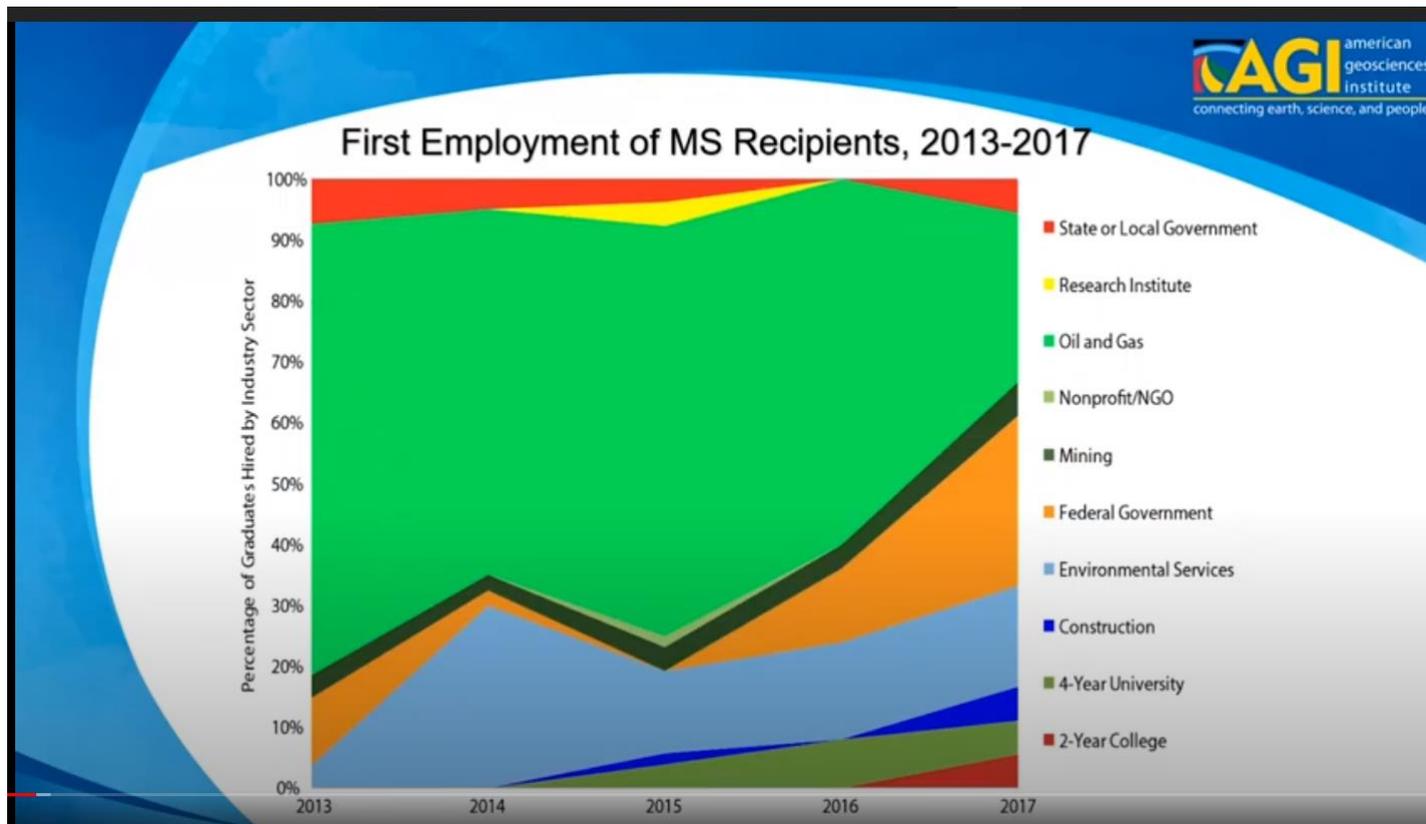
A Look at the Current Trends in Geoscience Workforce <https://www.youtube.com/watch?v=hIq81jwF1hg>



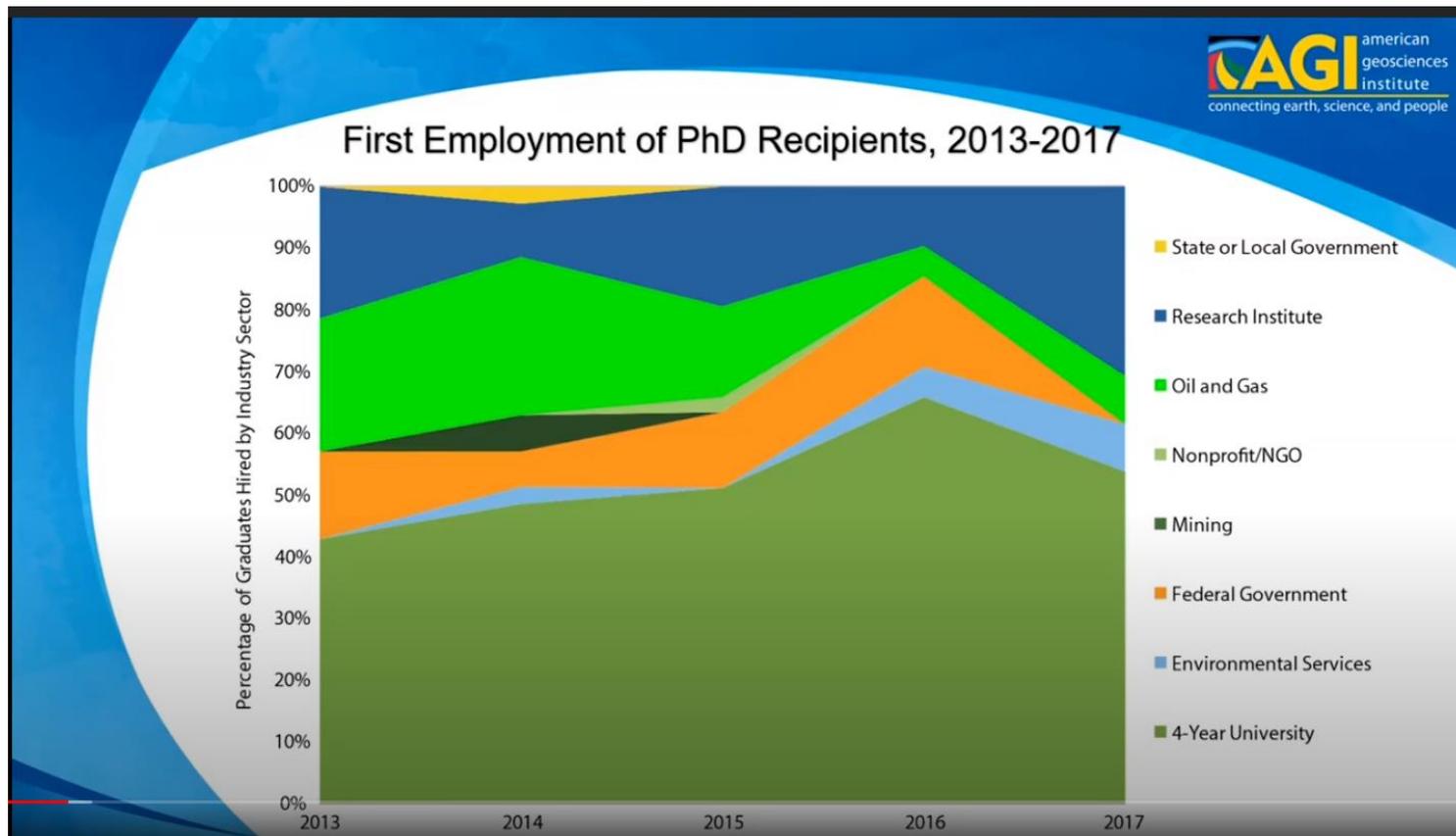
A Look at the Current Trends in Geoscience Workforce <https://www.youtube.com/watch?v=hIq81jwF1hg>



A Look at the Current Trends in Geoscience Workforce <https://www.youtube.com/watch?v=hlq81jwF1hg>



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Manufacturers invited to join global PFOA stewardship Jan 25 - Participating companies will be asked to commit to reducing PFOA from emissions and product content by 95 percent by 2010, and work toward eliminating these exposure sources by 2015. PFOA is

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EPA Report Environmental Violations

<https://web.archive.org/web/20060201095027/http://www.epa.gov/>

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 - how EPA handles spills
 - safer chemicals, TSCA
 - databases such as IRIS and SRS
- Environmental Information by Location**
 - conditions in your state or community
 - nearby facilities or cleanup sites
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 - asthma, children in school buildings
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 - methods, modeling, data and tools
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 - watersheds and rivers
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<https://web.archive.org/web/20170119081239/https://www.epa.gov/environmental-topics>

Google Scholar title searches

“Climate Change” 1980-2020 = 138,000

https://scholar.google.com/scholar?as_q=%22Climate+Change%22+&as_epq=&as_oq=&as_eq=&as_occt=title&as_sauthors=&as_publication=&as_ylo=1980&as_yhi=2020&hl=en&as_sdt=0%2C31

“Global Change” 1980-2020 = 16,400

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&as_ylo=1980&as_yhi=2020&q=allintitle%3A+%22Global+Change%22&btnG=

“Global Warming” 1980-2020 = 19,500

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&as_ylo=1980&as_yhi=2020&q=allintitle%3A+%22Global+Warming%22&btnG=

“Climate Change” 1970-2010 = 61,100

https://scholar.google.com/scholar?as_q=%22Climate+Change%22+&as_epq=&as_oq=&as_eq=&as_occt=title&as_sauthors=&as_publication=&as_ylo=1970&as_yhi=2010&hl=en&as_sdt=0%2C31

“Global Change” 1970-2010 = 11,600

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&as_ylo=1970&as_yhi=2010&q=allintitle%3A+%22Global+Change%22&btnG=

“Global Warming” 1970-2010 = 15,600

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C31&as_ylo=1970&as_yhi=2010&q=allintitle%3A+%22Global+Warming%22&btnG=

Reports

The Intergovernmental Panel on Climate Change

<https://www.ipcc.ch/>

<https://www.ipcc.ch/reports/>

Methodology Report on Short-lived Climate Forcers

The Ocean and Cryosphere in a Changing Climate

Climate Change and Land

Global Warming of 1.5°C

Climate Change: The IPCC 1990 and 1992 Assessments

FAR Climate Change: The IPCC Response Strategies

<https://www.globalchange.gov/>

Call for Public Comment on the Draft Prospectus for the Fifth National Climate Assessment (NCA5)

<https://www.globalchange.gov/content/call-public-comment-draft-prospectus-fifth-national-climate-assessment-nca5>

All comments must be submitted by **11:59 PM ET on August 10, 2020.**

Fourth National Climate Assessment Vol I + II

<https://www.globalchange.gov/nca4>

2nd State of the Carbon Cycle Report (SOCCR2)

<https://www.globalchange.gov/content/about-soccr-2>

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An overview from the Royal Society and the
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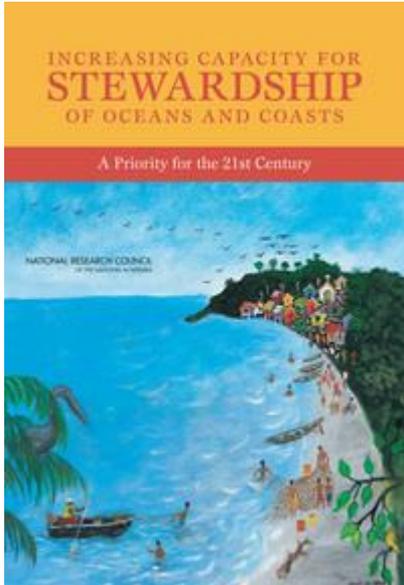
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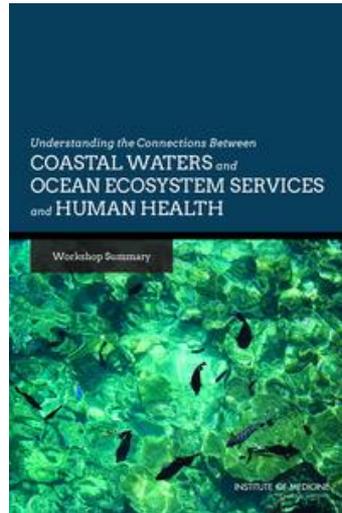
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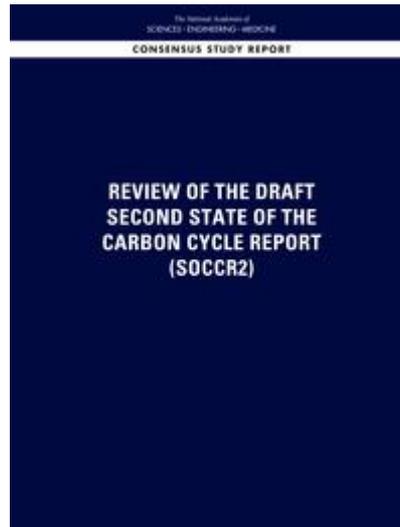
100 YEARS



Understanding the Connections Between Coastal Waters and Ocean Ecosystem Services and Human Health: Workshop Summary (2014)



Review of the Draft Second State of the Carbon Cycle Report (SOCCR2) (2018)



The Role of Research and Technology in the Changing Ocean Economy: Proceedings of a Workshop in Brief (2020)



<https://pubs.geoscienceworld.org/search-results?page=1&quicknav=1&q=%22Climate%20Change%22>

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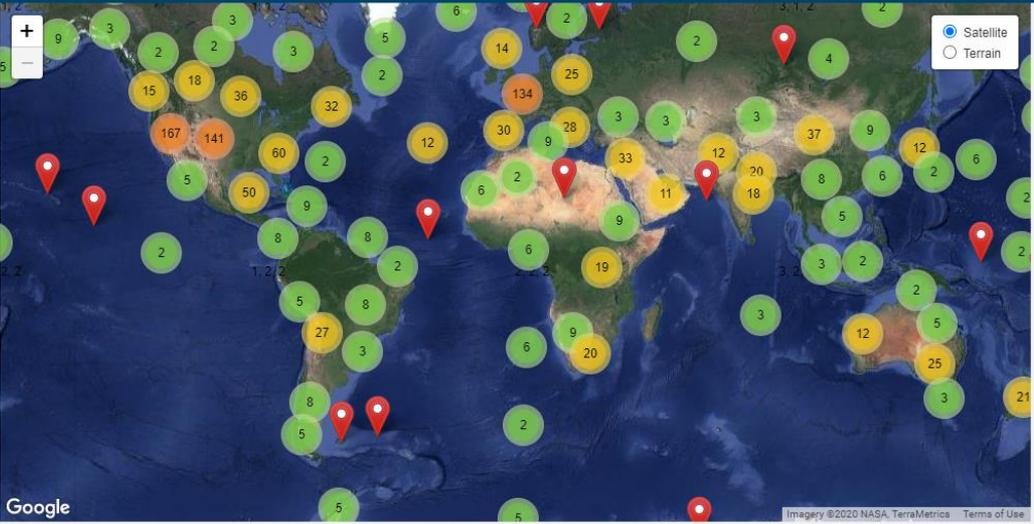
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Index to the international geological literature. Covers journal articles, books, conference proceedings, and a wide variety of publications indexed by special bibliographies from international, national and regional geological surveys and societies.

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Reference Module in Earth Systems and Environmental Sciences
Contains articles which cover all aspects of this interdisciplinary area of study, including atmospheric sciences, bioscience, energy and natural resources, geosciences, global change, hydrology and oceanography.

SciTechNetBase (CRCnetBase)
Online books published by CRC Press. Princeton subscribes to select modules (Biomedical Science, Chemistry, Clean Tech, Economics, Environmental Science, Geosciences, Material Science, Math, Neuroscience, Physics, Psychology).

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Catalog

Climate Change.
Book
United States. Congress. House. Committee on Oversight and Reform. Subcommittee on Environment. Bethesda, Md. : ProQuest, 2019.
Online | congressional.proquest.com | Online | congressional.emquest.com

Articles+

Assessing Dangerous Climate Change through an Update of the Intergovernmental Panel on Climate Change (IPCC) "Reasons for Concern"
Joel B. Smith
Journal Article - Full-Text Available
Proceedings of the National Academy of Sciences - PNAS

Databases

Environmental Studies in Video
Includes films covering all realms of environmental studies, particularly ethics, policy, economics, law, sociology....

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<https://library.princeton.edu/find/all/Climate%20Change>

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United States. Congress. House. Committee on Oversight and Reform. Subcommittee on Environment [Browse]
Bethesda, Md. : ProQuest, 2019.
 BOOK
[Online](#) congressional.proquest.com
- Climate change : the IPCC scientific assessment / edited by J.T. Houghton, G.J. Jenkins, and J.J. Ephraums.**
Intergovernmental Panel on Climate Change [Browse]
Cambridge ; New York : Cambridge University Press, 1990.
 BOOK
- Climate change / Shelley Tanaka.**
Tanaka, Shelley [Browse]
Toronto : Groundwood Books, c2006.
 BOOK

https://catalog.princeton.edu/catalog?search_field=all_fields&q=Climate+Change&utf8=%E2%9C%93

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United States. Congress. House. Committee on Oversight and Reform. Subcommittee on Environment [Browse]
Bethesda, Md. : ProQuest, 2019.
 BOOK
[Online](#) congressional.proquest.com
- Climate change [electronic resource].**
[Silver Spring, Md.] : NOAA, National Weather Service, [2007]
 BOOK
[Online](#) puri.fdlp.gov
- Climate change / Kauful Vincent Wong.**
Wong, Kauful Vincent [Browse]
New York, [New York] (222 East 46th Street, New York, NY 10017) : Momentum Press, 2016.
 BOOK
[Online](#) portal.igpublish.com

https://catalog.princeton.edu/?f%5Baccess_facet%5D%5B%5D=Online&q=Climate%20Change&search_field=all_fields

NOAA Library

The screenshot shows the NOAA Central Library homepage. At the top, there is a navigation bar with the NOAA logo and the text "NOAA Central Library National Oceanic and Atmospheric Administration". Below this is a secondary navigation bar with links for HOME, ABOUT, RESEARCH TOOLS, SERVICES, COLLECTIONS, A-Z, and CONTACT. A large green banner features the text "CAN'T FIND THE BOOK YOU WANT? NEED AN ARTICLE?" and "Get them through Interlibrary Loan! Email us: interlibrary.loan@noaa.gov". Below the banner are tabs for "Catalog", "Institutional Repository", "Web of Science", and "Ebooks". The "Institutional Repository" tab is active, showing a search box and a "Go" button. To the right, there is a "Quicklinks" section with a list of links: Daily Weather Maps, Library Seminars, Journal Finder, Databases, Legal Database Account, Request, Interlibrary Loan, NOAA Publications, Report Access Issue, and Request IR Report.

<https://library.noaa.gov/>

<https://photolib.noaa.gov/>

The screenshot shows the NOAA Photo Library Collections page. At the top, there is a navigation bar with the NOAA logo and the text "NOAA PHOTO LIBRARY National Oceanic and Atmospheric Administration". Below this is a secondary navigation bar with links for Collections, About, and Submit, along with a search icon. The main heading is "COLLECTIONS". Below this is a grid of collection thumbnails, each with a title: National Weather Service, Sailing For Science, Historic Fisheries, Flying With NOAA, NOAA In Space, It's A Small World, Paths Less Taken, NOAA's Ark, and Coral Kingdom. A sidebar on the right contains social media icons for YouTube and Instagram.

Earth As Art!

Earth As Art 1 : <https://eros.usgs.gov/image-gallery/earth-art-1>

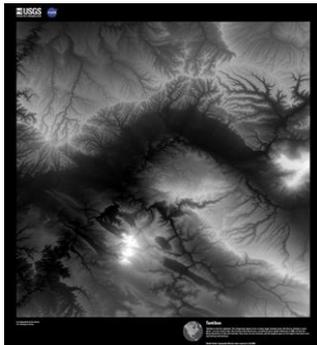
Earth As Art 2 : <https://eros.usgs.gov/image-gallery/earth-art-2>

Earth As Art 3 : <https://eros.usgs.gov/image-gallery/earth-art-3>

Earth As Art 4 : <https://eros.usgs.gov/image-gallery/earth-art-4>

Earth As Art 5 : <https://eros.usgs.gov/image-gallery/earth-art-5>

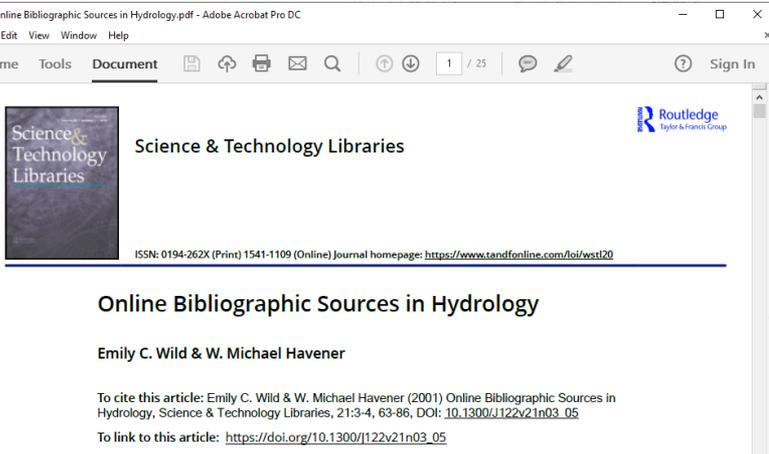
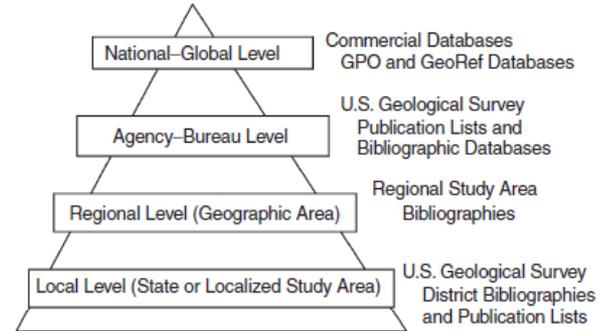
Earth As Art 6 : <https://eros.usgs.gov/image-gallery/earth-art-6>



I hope to publish an update in 2020-2021

<https://pubs.er.usgs.gov/publication/70023512>

FIGURE 2. Indexing and Availability Trends of U.S. Geological Survey Publications in Hydrology



Abstract

Traditional commercial bibliographic databases and indexes provide some access to hydrology materials produced by the government; however, these sources do not provide comprehensive coverage of relevant hydrologic publications. This paper discusses bibliographic information available from the federal government and state geological surveys, water resources agencies, and depositories. In addition to information in these databases, the paper describes the scope, styles of citing, subject terminology, and the ways these information sources are currently being searched, formally and informally, by hydrologists. Information available from the federal and state agencies and from the state depositories might be missed by limiting searches to commercially distributed databases.

Thank You!



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Princeton University Library
<http://library.princeton.edu>

Princeton University Geosciences
<http://geosciences.princeton.edu>
Geophysical Fluid Dynamics Laboratory
<https://www.gfdl.noaa.gov/>
Princeton Environmental Institute
<http://environment.princeton.edu>

Princeton University Chemistry
<https://chemistry.princeton.edu/>

Andlinger Center for Energy and the Environment
<https://acee.princeton.edu/>