

LEARNING

Earthscape offers complete and ready-to-use resources including; Glossaries and FAQs (Frequently Asked Questions) for quick fact-checking, as well as lectures and E-Seminars on in-depth topics from Medical Ecology and Oceanography to Environmental Politics.

SEARCH

Searching Columbia Earthscape

Earthscape is a large digital library of earth science material, covering disciplines ecology, environmental science, physical geography, geology, meteorology, oceanography and paleontology. This section provides directions and tips for searching the site.

Simple Search

Advanced Search: using additional criteria to narrow your search

Reading the search results

Tips for searching earthscape

Earthscape Annotated Subject Tags

Simple Search

The Simple Search will access the full text of every document on Columbia Earthscape.

Use Earthscape's Simple Search by clicking on the 'Search' button in the left-hand navigation panel.

To search for two or more terms, enter them in the search field without commas or quotes. (For example; a search for *habitat destruction* will produce resources with the word *habitat* in the text, resources with the word *destruction* in the text, or resources with both terms).

To search for documents that **must** include both words, but **in any order** and **not necessarily as a single phrase**, enter them in the search field separated by a plus sign (For example; *+habitat+destruction*).

To search for a term made up of more than one word, enter it in the search field in quotes (For example; "*environmental sustainability index*").

Limit by Format Type

Search can be focused by selecting publication format, like book or video. Select the checkbox next to the format type to search for resources in one format.

Searches can be conducted for material in more than one type of format. For example, searching journals and papers for material related to *coastal prairies* brings up journal articles and papers about *coastal prairies* only.

Formats available in earthscape:

Books: full text and selected chapters are available from a variety of publishers. The list of books available also includes the complete list of earth science books from Columbia University Press

Journals: Full-text journal articles and abstracts from research- and policy-related journals

Papers: includes reports, government factsheets, working papers and conference proceedings.

Videos: include ABCnews video clips and animations.

Image banks: selections of annotated images on a variety of topics.

Lectures: lesson plan outlines and class lectures about climate change, . To browse lectures, visit the classroom models section.

Case Studies: detailed descriptions and analyses of earth science-related projects or programs

Labs: Class and laboratory exercises for all grades

FAQ/Glossary: earth science terms and definitions, questions with answers for earth science students

Advanced Search

Use additional criteria to narrow your search for still more focused results. Click 'Advanced Search' at the upper right of the Simple Search page.

(You can return to the Simple Search page at any time by clicking on 'Simple Search' at the upper right of the Advanced Search page.)

Should contain / Must contain / Must not contain

The option to search for documents that 'should contain,' 'must contain,' or 'must not contain' the search terms. These options are equivalent to the boolean AND, OR, and NOT, respectively.

Selecting 'must contain' from the pull down menu, and typing search terms, will return only documents with the chosen subject term in the text or the title.

Selecting 'should contain' from the pull down menu, and typing search terms, will return documents that may or may not have the search term.

Selecting 'must not contain' from the pull down menu, and entering terms will return documents that do not have the search term.

In the body / In the title / In the institution name

Searching for terms 'in the body' will return documents with the desired terms anywhere in the text of the document. Searching for terms in the title will only bring back resources with search terms in the title. 'Institutions' are generally institutions that partner with Columbia Earthscape. (For example, a search for *Columbia University Press* will call up only publications from that institution.)

the words / the phrase

In the first section of search options, you can specify whether the search terms should be treated as separate words or a complete phrase. 'Phrase' is the equivalent of surrounding the search terms

in quotes. (For example; searching for the words *intertidal ecosystem* will bring up documents with **either** word or with **both** words, approximately 90 results. Searching for the **phrase** *intertidal ecosystem* narrows your search results to documents with these words as a single term.)

LIMITING THE ADVANCED SEARCH

Searches can be limited to returning results with only selected subject terms, regions of interest or within a certain date range.

‘Subjects’ are terms assigned by the editors to classify materials.

Limiting your search request to documents published ‘in the past year’ results in list of documents from the last rolling year, not the past calendar year. This means a search executed on April 1, 2004 for documents ‘in the past year’ will return documents published between April 1, 2003 and April 1, 2004.

READING SEARCH RESULTS

Click ‘Search’ and search results will appear beneath the search form.

In the search results, by default you will see the most relevant resources first, at the top of the list. Each search result includes the title of the resource, the first few lines of text, and the date of first publication. The individual author or contributing institution will also appear if available, along with the subject, as designated by the Earthscape editors.

For a quicker review of search results, click on ‘Hide Summaries.’ You will see only the titles that match your search criteria.

The title of each search result listing is a link. Simply click on that link to reach the full-text of the article. To go back to the search results, use your browser’s back button.

To start a new search, click on ‘Start New Search’ in the upper left corner.

To narrow your list of results further, click on ‘Search these results.’

TIPS FOR SEARCHING COLUMBIA EARTHSCAPE

Columbia earthscape is a vast library of earth sciences content. To focus your search, use the tips below:

Use American Spelling

Columbia earthscape uses American spelling for most of the content. When entering search terms, be sure to use the American spelling. For variant spellings of a word, use wildcard operators like * and ?

Surround Phrases in Quotes

You can narrow your search by putting quotes around terms. Submitting a query for ‘global warming’ will return documents with the phrase global warming. Without the quotes, documents with global, documents with warming and documents with global warming will be listed.

Examples: “global warming”, “South Africa.”

Search for more than one term with ‘+’

Using ‘+’ will ensure that all terms in a search query will appear in each document in the search results.

Country or geographically-specific queries.

Much of columbia earthscape content is country-specific. If desired, you can narrow search results by entering a country or U.S. state name.

Example: +Brazil +pollution

In addition, much of the content regarding environmental concerns is related to one area like the Great Lakes region or the San Francisco bay.

Example: +”Hudson River” +boats

Uppercase Letters and lowercase letters.

Using the lowercase letters in search queries will return documents with all possibilities for uppercase and lowercase letters. Capitalizing proper nouns in search queries will return documents with exact case matches.

Example: USGS, rather than usgs will return documents about the United States Geological Survey only

SIMPLE SEARCH EXAMPLES

Sample searches . . . will return . . .

Climate oscillation documents with the word **climate**, documents with the word **oscillation**, documents with **climate oscillation**

+Brazil +pollution documents with both terms, Brazil and pollution, only

“plate movement” documents with the phrase plate movement

development* documents with variations of the word development including developmental, developments, developmentalist, developmentally

EARTHSCAPE ANNOTATED SUBJECT TAGS

agriculture

Issues and research on the cultivation, production, and processing of crops. Includes material about animal husbandry and livestock, and fisheries.

air quality/air pollution

Material pertains to all matters of air quality. Includes photochemical smog, particulates, indoor air pollution, or ozone at ground level (excludes ozone in the upper atmosphere).

astronomy/space science

Information about stars, planets, satellites and moons, and various cosmological processes, particularly their effect on environmental systems.

atmosphere/atmospheric structure

Atmospheric processes such as albedo or the greenhouse effect. Also includes the layers of the atmosphere: the troposphere, ionosphere, stratosphere, etc.

biodiversity

Information about the multitude of species found worldwide and their interactions with natural systems. Includes genetic diversity and ecosystem diversity.

biogeochemical cycles

Various natural cycles including the hydrologic cycle, carbon cycle, nitrogen cycle, phosphorus cycle, and the rock cycle.

carbon/greenhouse gases

Issues and research specifically concerning compounds that constitute greenhouse gases: carbon dioxide, methane, CFCs, etc.

climate change/climate variability

Basic concepts and issues that pertain to climate change. Includes long-term climate variability such as global warming, as well as short-term climate variability.

climate/meteorology

Various climate processes such as wind generation, storm generation, or precipitation.

coasts/coastal processes

Coasts and coastal processes such as tidal exchange, coastal development, and beach erosion.

community ecology

Ecological communities, including descriptions of predator/prey relationships and interactions between whole communities and systems.

culture/aesthetics

The effects of environmental issues on human culture and aesthetics.

ecology/ecosystems

Whole ecosystems, interactions and relationships within ecosystems, or ecosystem health.

economics

Environmental issues and policies influenced by economic factors. Trade, economic models, or the wealth of nations.

education

All educational material (teaching materials and student readings, etc.). Includes material on education theory.

endangered species/extinction

The deterioration of a biological species such that few or no individuals within a remaining population survive. Covers seriously threatened and already extinct species.

energy/energy flow

All types of energy such as energy flows through food webs.

engineering/technology

Biotechnology (such as genetic modification) and bioengineering, but also includes computers and distance learning.

evolution/natural selection

Evolutionary processes such as speciation and natural selection.

fertilizers/pesticides

All substances that are used in the control of environmental conditions and pests. Also includes issues with and management of the use of these chemicals in various settings such as schools, on crops, in homes, etc.

forests/forest management

All facets of forest management including deforestation, forest fires, and selective logging.

fossil fuels

Processing and use of petroleum and other fossil fuels, including pipelines and oil spills.

geochemistry/geophysics

Chemical and physical properties and processes that govern geology.

geography

Physical attributes of the surface of the earth - especially topographical maps.

geology/physical geology

The history of the earth and the processes that govern the surface of the earth.

health & society

How environmental factors affect societal health and public health. This includes the proliferation of disease.

industry/manufacturing

All types and scales of industry and factory production.

infrastructure/development

Urban development and planning: buildings and housing, city streets and highways, utilities, etc.

international relations

All aspects of the relationship and cooperation between nations on international issues such as the trafficking of endangered species, coordination of global agreements, etc. Includes the United Nations.

land habitats/biomes

Global and regional habitats. Examples: tundras, savannahs, grasslands, tropical forests.

land management/land use

Issues and concepts involved in the management and use of land resources.

marine geophysics

Physical and geological properties of the marine environment such as ocean circulation or mid-ocean ridges.

marine habitats

Aquatic habitats/ecosystems: coral reefs, the deep ocean, or the open ocean.

mass wasting/mass movement

Movement of large amounts of geologic matter (rocks, soil, or volcanic debris, etc.). This may include landslides or avalanches, for example.

modeling/prediction

All types of the modeling of natural systems, especially computer modeling.

natural hazards

Earthquakes, hurricanes, and volcanic eruptions.

natural resources

Resources that are found in nature and are of limited availability.

oceans/oceanography

All aspects about oceans, including the physical and chemical properties of their waters, small- and large-scale ocean processes, and various ocean resources.

paleoclimates/paleontology

Basic concepts of paleontology or paleoclimates that factor in environmental issues. Includes dinosaurs, or other fossil records and evidence for past climate.

plate tectonics

Issues, basic concepts, and research pertaining to the plate tectonic theory. Includes continental drift and hot spots.

politics

Local, national, and international debate over issues pertaining to the environment.

population/population dynamics

Issues, basic concepts, and research that involves human population theory, modeling, and prediction. Also includes population dynamics of other species, and interactions and relationships between populations.

soil

All aspects of soil, including soil nutrients and topsoil erosion.

solid and hazardous waste

The production and disposal of particularly harmful wastes, including toxic substances.

transportation

Environmental issues and concepts regarding mass transportation (buses, planes, subways, trains) and automobiles.

vegetation

Includes trees, flowering plants, and other flora.

waste management

Management issues related to the production and disposal of all kinds of waste material. This also includes recycling technologies.

water basics

Basic concepts that illustrate the chemical and physical properties of water. Also includes water supply issues and resources (such as groundwater and surface

water).

water quality/water pollution

All matters of water quality. Includes point-source and non-point source water pollution.

watersheds/wetlands

All types of wetland and watershed areas - from river basins to estuaries.

wildlife

Issues, basic information, and research on animal species.

PRINT

Printing from PC

Printing from Macintosh

Printing Acrobat Reader (.pdf) Files

PRINTING FROM PC

In Netscape Navigator

1. Click once on a blank area (not on a hyperlink or an image) within the frame you want to print.
2. Click on the 'File' menu item
3. Select 'Print Frame,' or click on the printer button in the browser's toolbar

In Internet Explorer

A page can be printed either as shown on screen (one page only), by selected frame alone, or all frames individually. If you wish to print all the content on a long page, we recommend you print by selected frame.

To print the contents of a single frame:

1. Right-click in the frame and a floating menu will appear
2. Left-click 'Print' on the floating menu

If you simply click on the 'Print' button on the Internet Explorer toolbar, you will print all the frames.

PRINTING FROM MACINTOSH

In Netscape Navigator

1. Click the mouse button and a floating menu will appear
2. Select 'Open this frame in a new window' from the floating menu
3. In the new window, select 'Print' from the File menu in the browser

In Internet Explorer

1. Click the mouse button and a floating menu will appear
2. Select 'Open this frame in a new window' from the floating menu
3. In the new window, select 'Print' from the File menu in the browser

PRINTING ACROBAT READER (.PDF) FILES

Documents in portable document format (.pdf) can be printed by clicking on the 'Print' icon in the File menu of Acrobat Reader

SAVING FILES

Saving To PC

Saving To Macintosh

Saving Acrobat Reader (.pdf) Files

SAVING TO PC

In Netscape Navigator

1. Right click in the page frame you'd like to save
2. Select 'Save page as' in the menu that appears
3. When the 'Save As' box appears, choose the location where you would like the file to reside on your computer
4. Name the file and click 'Save.'

In Internet Explorer

1. Right-click on the link to the article you would like to save.
2. Select 'Save Target As...' from the floating menu that appears
3. When the 'Save As' box appears, choose the file where you'd like the earthscape document to reside on your computer
4. Name the file and click 'Save.'

SAVING TO MACINITOSH

In Netscape Navigator

All research and policy documents have abstract pages. On these pages find the link to the full text.

1. Click on the link and hold down the button
2. Select 'save this link as...' from the menu that appears
3. Choose the file where you'd like the document to reside on your computer and click 'Save.'

In Internet Explorer

All research and policy documents have abstract pages. On these pages find the link to the full text.

1. Click on the link and hold down the button
2. Select 'download link to disk' from the menu that appears
3. Choose the location where you would like the file to reside on your computer
4. Name the file and click 'Save.'

Taking these steps, you will capture the content, not the banners and navigational toolbars of Earthscape.

SAVING ACROBAT READER (.PDF) FILES

Documents in portable document format (.pdf) can be saved by clicking on the 'Save' icon on the top menu when the document is open.

CITING COLUMBIA EARTHSCAPE RESOURCES

CITING TEXT

Two types of citation for Earthscape resources are possible. One is the humanities style, such as is specified by the MLA (Modern Language Association). The other is the scientific style, based on CBE (Council of Biology Editors) specifications. Whether you use the humanities or the scientific style, be assured that bibliographic listings of electronic sources follow the same format as print sources you use.

Students should consult with their professor when deciding to use a particular bibliographical style.

HUMANITIES STYLE

Document

Journal Article

Book

SCIENTIFIC STYLE

Document

Journal Article

Book

HUMANITIES STYLE

Document

Author's Last Name, First Name. "Title of Document." Title of Complete Work [if applicable].
Name of institution/organization affiliated with web site. Version or File Number [if applicable].
Document date or date of last revision [if different from access date]. Access path or directories,
date of access, <electronic address>.

Examples:

Bice, David. "Modeling the Global Water Cycle: Exploring the Dynamics of Earth Systems."
Carleton College, on Columbia Earthscape, January 2001. Keyword search: "water cycle." 12

November 2003, <http://www.earthscape.org/t1/bid01/bid01e_02.html>. Heckert, Andrew B.
"Groundwater Resources and Contamination." New Mexico Museum of Natural History and
Science, on Columbia Earthscape, March 2003. Teaching; Classroom Models; Water Resources;
Getting Enough Water. 12 November 2003,
<<http://www.earthscape.org/t1/ES14455/heckert.html>>.

Journal Article

Author's Last Name, First Name. "Title of Article." Name of Journal and Volume number: Issue
number, or other identifying number, (Date of Publication): Number range or total number of
pages, paragraphs or other numbered sections. Date of access, <electronic address>.

Examples:

Brewer, Carol. "Conservation Education Partnerships in Schoolyard Laboratories: a Call Back to Action." *Conservation Biology*. 16:3, June 2002. 17 November 2003, <http://www.earthscape.org/r2/scb/scb16_3/scb16-3_brc01/scb16-3_brc01.pdf>

Singer, Peter. "Ethics: Beyond the Species Barrier." *EARTHmatters*. Winter 1999/2000. 17 November 2003, <http://www.earthscape.org/p2/em/em_win00/win12.html>.

Book

Author's Last Name, First Name. (if editor, follow with "ed.") "Title of Book." Series name [if applicable]. Place of Publication: Publisher, Date. Page number(s) or range, or chapter title. Date of access, <electronic address>.

Examples:

Bevers, Michael and John Hof. "Spatial Optimization in Ecological Applications." *Complexity in Ecological Systems Series*. New York: Columbia University Press, 2002. Chapter 2. 17 November 2003, <http://www.earthscape.org/r3/ES14781/HofBevers_ToC.html>.

Pielou, E. C. "Fresh Water." Chicago: University of Chicago Press, 1998. 17 November 2003, <<http://www.earthscape.org/r3/pie01/pie01.html>>.

SCIENTIFIC STYLE

Document

Author's Last Name, Initial(s). (Date of document) Title of document. Title of complete work [if applicable]. Version or File number [if applicable]. (Edition or revision [if applicable]). Access path or directories, date of access, <electronic address>.

Examples:

Bice, D. January 2001. Modeling the Global Water Cycle: Exploring the Dynamics of Earth Systems. Columbia Earthscape. Keyword search: "water cycle." 12 November 2003, <http://www.earthscape.org/t1/bid01/bid01e_02.html>.

Heckert, A. B. March 2003. Groundwater Resources and Contamination, from New Mexico Museum of Natural History and Science. Columbia Earthscape; Teaching; Classroom Models; Water Resources; Getting Enough Water. 12 November 2003, <<http://www.earthscape.org/t1/ES14455/heckert.html>>.

Journal Article

Author's Last Name, First Name. (Date of Publication) "Title of Article." Name of Journal and Volume number, Issue number, or other identifying number: Number range or total number of pages, paragraphs or other numbered sections. Date of access, <electronic address>.

Examples:

Brewer, Carol. (2002) "Conservation Education Partnerships in Schoolyard Laboratories: a Call Back to Action." *Conservation Biology*. 16:3, June 2002. 17 November 2003, <http://www.earthscape.org/r2/scb/scb16_3/scb16-3_brc01/scb16-3_brc01.pdf>.

Singer, Peter. (2000) "Ethics: Beyond the Species Barrier." *EARTHmatters*. Winter 1999/2000. 17 November 2003, <http://www.earthscape.org/p2/em/em_win00/win12.html>.

Book

Author's Last Name, First Name. (if editor, follow with "ed.") (Date of publication) "Title of Book." Place of Publication: Publisher. Date of access, <electronic address>.

Examples:

Beyers, Michael and John Hof. (2002) "Spatial Optimization in Ecological Applications." *Complexity in Ecological Systems Series*. New York: Columbia University Press. Chapter 2. 17 November 2003, <http://www.earthscape.org/r3/ES14781/HofBeyers_ToC.html>.

Pielou, E. C. (1998) "Fresh Water." Chicago: University of Chicago Press. 17 November 2003, <<http://www.earthscape.org/r3/pie01/pie01.html>>.

EARTH GLOSSARIES & EARTH FAQs

Trying to find a definition for a term that you've come across in research? You can find it in the **Quick Answers** section.

Earthscape features a collection of in-depth Glossaries and Frequently Asked Questions, useful for quick fact-checking and highlighting core scientific concepts particular to topics in *General Earth Science, Geology and Geologic Hazards, Meteorology and Climate Change, and Oceanography and Water Resources*.

Ask your own questions. Just click on the links under "And YOUR questions . . ." in the Quick Answers page.

Access 'Quick Answers' directly from the homepage, or navigate to the yellow 'Learning' quadrant in the left-side navigation menu, then click on the 'Quick Answers' link on the map.

E-SEMINARS FREE TO COLUMBIA EARTHSCAPE SUBSCRIBERS

Subscribers to Columbia Earthscape receive full access to the Earth Systems Science and related E-Seminars produced by Columbia University Digital Knowledge Ventures, the online course development unit of Columbia University. Additional teaching and learning resources from partner institutions are also free.

Access the E-Seminars and related resources by navigating to the yellow 'Learning E-Seminars Free To Columbia Earthscape Subscribers' quadrant on Earthscape's home page or in the left-side navigation menu, then click on the 'E-Seminars' link on the map.