



# The Dawn of Diversity

## LIFE IN THE BURGESS SHALE

### Additional Resources on the Burgess Shale

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#### Web sites

**The Smithsonian Institution:**

[www.nmnh.si.edu/paleo/shale/pfoslidx.htm](http://www.nmnh.si.edu/paleo/shale/pfoslidx.htm)

Great basic information with an excellent section on individual species in the Burgess.

**National Parks Canada:**

[pc.gc.ca/pn-np/bc/yoho/natcul/natcul15\\_E.asp](http://pc.gc.ca/pn-np/bc/yoho/natcul/natcul15_E.asp)

Basic information about the Burgess Shale, including how to visit the site.

**University of Calgary:**

[www.geo.ucalgary.ca/~macrae/Burgess\\_Shale/](http://www.geo.ucalgary.ca/~macrae/Burgess_Shale/)

Detailed information on all aspects of the Burgess. Photos of many of the fossils. Also includes a reference and links to other Web sites.

**Burgess Shale Geoscience Foundation:**

[burgess-shale.bc.ca/menu.htm](http://burgess-shale.bc.ca/menu.htm)

The most detailed site about the Burgess, with information on history, how to see the area, the national park and photos.

**Science Web:**

[www.scienceweb.org/burgess/contents.html](http://www.scienceweb.org/burgess/contents.html)

Lots of information, including material on geology not related to the Burgess. Has a personal touch to it.

**University of California Museum of Paleontology:**

[www.ucmp.berkeley.edu/cambrian/burgess.html](http://www.ucmp.berkeley.edu/cambrian/burgess.html)

Usual high quality of UCMP.

**Peripatus History of Life:**

[peripatus.gen.nz/Paleontology/MaiLinEvo.html](http://peripatus.gen.nz/Paleontology/MaiLinEvo.html)

Traces the history of life at a somewhat academic level. Has good links with detailed information about many aspects of evolution, Cambrian explosion, Burgess Shale, and other Burgess age and type sites.

#### Books

**The Fossils of the Burgess Shale, by Derek E.G. Briggs, Douglas H. Erwin, and Frederick J. Collier**

A straightforward up-to-date book on the history and science of the Burgess. Contains the most thorough account of the species.

**The Crucible of Creation, by Simon Conway Morris**

Conway Morris was one of the principal investigators of the Burgess. A bit dense at times but his imaginary account of traveling back to see the Burgess animals gives a great feel for life during the Cambrian.

**Wonderful Life, by Stephen Jay Gould**

The most readable of the three. Many scientists disagree with Gould's conclusions, but he tells a great story.

#### Articles

**Showdown on the Burgess Shale — Two articles in *Natural History*, December 1998 – January 1999.**

One is by Simon Conway Morris and the other by Stephen Jay Gould. They are debating evolution and how it plays out in the Burgess. They don't doubt evolution, they have differing views on how it works. The 'gee whiz' of the Burgess Shale By Don Lessem in *Smithsonian* January 1993, pg. 106-115. A basic introduction to the history and science of the fossils.

**Evolution Watch: Whose View of Life?, by Roger Lewin in *Discover*, May 1992, pages 18 – 19.**

Covers the same terrain as Conway Morris and Gould but with less emotion and personal comments.

**Extraordinary fossils, by Derek Briggs in *American Scientist*, March – April 1991, volume 79, number 2, pages 130 – 141.**

Addresses soft body part preservation in the fossil record, their importance and why they are unusual. Not specifically about the Burgess Shale fossils but does cover them. Good drawings and photographs.



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**Animals of the Burgess Shale, by Simon Conway Morris and Harry Whittington, in *Scientific American*, July 1979, volume 241, pages 122 – 133.**

Detailed account of Burgess Shale fossils with information on paleoenvironment, specific species and deposition. Some aspects are out of date but lots of good information.

### **Web-based resources on Washington state fossils**

**Burke Museum of Natural History and Culture:**  
[washington.edu/burkemuseum/collections/paleontology/index.php](http://washington.edu/burkemuseum/collections/paleontology/index.php)

The paleontology page of the Burke's Web site provides good background on the museum's fossil collections. It has a searchable database and links to researchers, who can provide more information.

**Northwest Paleontological Association:**  
[nwpaleo.org/index.html](http://nwpaleo.org/index.html)

A Seattle-based group that sponsors tours and talks. The Links page offers a start to finding out more about Washington's and Oregon's fossils.

**Petrified wood from Western Washington:**  
[mashell.com/~estrauss/pwoodfx.html#formed](http://mashell.com/~estrauss/pwoodfx.html#formed) —

A personal site devoted to all things petrified wood in the western part of the state.

Unfortunately, no good books exist that detail the fossils of the state. The best source of technical articles is *Washington Geology*, which used to be published by the Department of Natural Resources. Several issues are on the Internet at [dnr.wa.gov/geology/wg\\_ol.htm](http://dnr.wa.gov/geology/wg_ol.htm). Back issues are available at a variety of libraries including the University of Washington.