

EXPLANATION OF REVIEW PROCEDURES

SB&F reviewers are scientists in academia and industry, teachers, librarians, and media specialists. Reviewers are asked to "write a critical evaluation... describing (1) the merits and/or d merits of the book or film and any accompanying supplements, (2) the content, technical quality, and instructional value, (3) the audience(s) the material is most appropriate for and why, and (4) how the material could be used for collateral reading or viewing, reference, or classroom use."

SB&F reviewers summarize their overall opinion of materials in terms of quality and level of difficulty by choosing ratings symbols from the list below. When rating materials, reviewers take into account accuracy of scientific information, scope, quality of illustrations or cinematography, and value when compared to other titles. Second opinions are obtained for materials rated "NR."

SB&F reviews are normally signed by reviewers, but if a reviewer so requests or if substantial changes are made, reviews are signed "Staff."

SB&F evaluations are the personal appraisals of the reviewers or of the staff and do not represent official recommendations or decisions of the reviewers' affiliations or of the AAAS.

EXPLANATION OF SYMBOLS

Appraisal

★★ Highly recommended. The material contains no serious errors or deficiencies, and the reviewer thought the content and presentation were excellent.

★ Recommended. The material contains no serious errors or deficiencies, and the reviewer thought the content and presentation were above average.

Ac Acceptable. The material contains no serious errors or deficiencies, and the reviewer thought the content and presentation were average.

Q Questionable. The material contains errors of fact, deficiencies in development, and/or the reviewer thought the content and presentation were below average.

NR Not recommended. The material contains serious errors of fact and/or deficiencies in development.

Level of Difficulty

K Preschool or kindergarten

EP Elementary, grades 1 & 2

EI Elementary, grades 3 & 4

EA Elementary, grades 5 & 6

JH Junior high, grades 7 & 8

YA Young adult, grades 9-12

C College

T Teaching professional

GA General audience

Two consecutive levels are separated by a comma; for example, **K, EP**. Three or more consecutive levels are condensed to show the youngest and oldest age groups, and the symbols for these are separated by a dash; for example, **K-EI**. **GA** and **T** are always noted separately.

LETTERS

SB&F is written for librarians and science teachers in schools, colleges, and public libraries. Letters may be edited and will be published as space permits. Letters submitted for publication should be addressed to "Letters," Science Books & Films, 1200 New York Avenue, NW, Washington, DC 20005.

Improving PK-12 Curriculum Resource Center Collections Outreach Using SB&F and other AAAS Resources

Tim Gerber, John Jax, Karen Lange, and Stefan Smith

Donald Kennedy, editor-in-chief of *Science*, has stressed the importance of the role science plays in solving the many problems human society currently faces. In addition to the technical expertise needed to produce scientific solutions are the added problems of overcoming "social, economic and political resistance." (*Science's State of the Planet 2006-2007*). Solving world problems therefore requires not only technical but also social solutions; solutions which will also require improving public engagement and outreach to the larger community.

As members of the Biology Department and Murphy Library at the University of Wisconsin-La Crosse (UW-L), we have collaborated for the past three years to improve the PK-12 Alice Hagar Curriculum Resource Center (AHCRC) STEM collection. An important part of teacher preparation and teacher professional development is providing pre-service and in-service teachers with high quality STEM resources needed to be effective in the classroom. For the past three years, we have worked to improve library resources for pre-service and in-service teachers. Our focus has been to purchase reviewed STEM trade books and use Project 2061's Resources For Science Literacy, <http://www.project2061.org/publications/rsl/default.htm?nav> as a template to build the STEM section of our AHCRC website, <http://www.uwlax.edu/murphylibrary/departments/curriculum/>.

STEM PK-12 Books: To improve the AHCRC STEM holdings, we have developed a resource selection procedure based primarily on:

1. trade book reviews from the journal SB&F's Best List, annual SB&F prize finalists, National Science Teachers Association's (NSTA) "Outstanding Science Trade Books for Students K-12" list, and other relevant reviews;
2. professional STEM society educational resources and reviews (e.g., AAAS' Project 2061, *Science*, and *Advances Newsletter*; National Council of Teachers of Mathematics and NSTA recommended books);
3. local expertise (e.g., Department of Natural Resources publications, specialized museum publications books and pamphlets);
4. resources which accompany nationally recognized events (e.g., Engineering Week, Math Awareness Month, Earth Day);
5. expertise from university content and teacher education faculty; and
6. professional judgment.

STEM trade books purchased for the AHCRC have been used for university science methods courses, to run an in-service teacher workshop "Hooked on Science using Children's Literature" and build model pedagogical elementary activities (e.g., see Gerber 2006, <http://www.project2061.org/publications/2061Connections/2006/2006-01b.htm>) for local school district in-service teachers. Additional STEM trade book purchases for the AHCRC have also been made for lessons built around topics needed in the local school district grade-level classroom. Initial funding to purchase books was provided through two \$1000 Murphy Library Endowment (UW-L) grants.

STEM Website: After initiating the STEM trade book collection building process in the AHCRC, we wanted to develop a STEM related website <<http://www.uwlax.edu/murphylibrary/departments/curriculum/stem/index.html>> for use by UW-L pre-service and in-service teachers to develop STEM classroom activities. Resources For Science Literacy's "Science Trade Books by Topic", <http://www.project2061.org/publications/rsl/online/TRADEBKS/BYTOPIC.HTM>, was used to provide the structure of the STEM section of our website. American Association for the Advancement of Science (AAAS)

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SUMMER READING

2007. 32pp. \$16.96. ISBN 978-1-55971-964-3.

The Seaside Switch is a beautifully illustrated and written picture book for young readers. The movement of the water from low tide to high tide flows across the pages of the book. With gorgeous sketches and drawings of the many denizens of the tidewater area filling each page, the reader is transported to the beach as the tide ebbs and flows. The young boy who visits the beach is prepared to capture the moment with a well-stocked bag containing science journals, paper, and pens. But through most of the story, he uses his five senses to take in the awe and wonder of the sea and all of its living creatures. Whether he is chasing crabs or studying barnacles, the joy of observation and discovery is present throughout this lovely little book. The author page contains a brief explanation of how the moon's gravitational pull causes the low and high tides we experience on earth. If you are planning a trip to the beach or just hope to go there one day, this is a book that will appeal to parents,

young readers, and school-age science students alike.

The Very Best Bed. Rebekah Raye. (Illus.) Tilbury House, 2006. 32pp. \$16.95. ISBN 0-88448-284-7.

Children love squirrels. You see these little animals everywhere and marvel at their agility, speed, and sense of when danger is near. But did you ever think about what they do when darkness falls? Where do they sleep? Rebekah Raye, an artist known for her bird and animal paintings and sculptures, has written and illustrated *The Very Best Bed* to answer these questions. The story revolves around a bushy gray squirrel that has been so busy all day finding nuts and seeds to store away for the winter, that he hasn't noticed that it is getting dark and cold. He needs to find a cozy bed for the night. The author's simple text and wonderful watercolors make this a great bedtime story for young children, who will delight in seeing the animals in their natural habitats. The book would also be a great addition to a preschool library.

Wings of Light: The Migration of the Yellow Butterfly. Stephen Swinburne. (Illus. by Bruce Hiscock.) Boyds Mills Press, 2006. 32pp. \$15.95. ISBN 1-59078-082-5.

Wings of Light describes the migration of cloudless sulphur butterflies from Yucatan to Vermont, including their flight, feeding, mating, egg laying, and death. The text is short and the vocabulary is relatively simple, befitting the intended audience and the picture-book format. The lovely and evocative illustrations are likewise simplified without being inaccurate. An author's note at the end of the book gives additional scientific information. The story is nicely personalized by the focus on a single butterfly "with a notch in its wing"—a thoughtful middle ground between an excessively abstract description of the whole population and the alternative of cutesy anthropomorphism so often seen in young children's insect books. Young children and the adults who read this book to them will be delighted by the simple story and beautiful illustrations.

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(described for STEM resources above), which provides pre-service and in-service teachers with access to quality content grade-level books, websites, and other materials. Within each topic, we

(1) organized SB&F and NSTA reviewed, grade-level STEM trade books based on the Dewey Decimal system per SB&F topic (e.g., see *The Physical Setting* <<http://www.uwlax.edu/murphylibrary/departments/curriculum/stem/physical.html>>);

(2) provided access to STEM content websites through Science's NetWatch archive database;

(3) linked to AAAS Benchmarks, National, Wisconsin, and Minnesota STEM education standards <<http://www.uwlax.edu/murphylibrary/departments/curriculum/stem/standards.html>> and/or;

(4) linked to teacher-level trade books based on individual Resource's chapters. Because the vast majority of our pre-service teachers are employed in school districts around four major areas (La Crosse, WI; Madison, WI; Milwaukee, WI; and Minneapolis/St. Paul, MN), we have tailored our site by focusing on regional informational resources. As with the trade books, the STEM website is also used for in-service teacher professional development and university science methods courses.

STEM Teacher Resource Day: In 2006, an additional \$5000 grant from the Paul Stry Foundation was obtained to

pilot a "Teacher Resources Day." <<http://www.uwlax.edu/murphylibrary/departments/curriculum/stem/STEMday.html>> Local PK-8 teachers, reading specialists, special education teachers, library media center specialists, and local public librarians will participate in the Day which will feature a demonstration of our STEM website and the 2006 SB&F Best List and SB&F Prize finalist books and DVD's purchased for the AHCRC. During Teacher Resource Day, participants can read reviewed, grade-level STEM trade books and watch the DVDs. UW-L pre-service teachers will also participate during the Day which exposes them to the AHCRC resources. As the pre-service teachers graduate and leave for permanent teaching jobs in PK-12 school districts, they still can access this information through our AHCRC website. In addition to these resources, other electronic Project 2061, AAAS', National Academy of Science, and NSTA resources are referenced throughout the website providing both pre- and in-service teachers the STEM resources they need to provide high quality information to their students.

The university and local community benefit in several ways from this project. (1) Over time, the AHCRC will develop into a regional repository for outstanding STEM resources. (2) Local teachers, library staff, etc. will get

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social insects. The program can provide details of army ant colony life to students studying entomology. —*N. N. Raghuvir, University of Bridgeport, Bridgeport, CT*

Hanging with the Sloth. Choices Video, Inc., www.choicesvideo.net; 2006. Color. 30 minutes. DVD: \$49.95.

EP-C, GA ★

This is a nicely done, simple, single-subject video on sloths. The photography is excellent, with many fine images of sloths at very close range. The animals are almost all captive specimens, so one wishes for more shots in their native habitat. A very brief history of human descriptions of sloths is followed by a good presentation of their ecology and taxonomy at an elementary level. About half the film is devoted to efforts to hold sloths in captivity (mostly unsuccessful) and to rescue

sloths found abandoned or injured in Costa Rica (successful). The narration is at a pace suitable for the sloth, and high school students will likely find it boring or comical. The video will be of most use in elementary and middle school or for general readers. A lesson plan and guidebook are listed on the DVD as extras, but only a Web address is given from which these may be downloaded. In view of the rapid change in Web sites, it is unfortunate that no URLs were included on the DVD, because it would have been easy to do so. —*Timothy C. Williams, Swarthmore College, Swarthmore, PA*

Sponges. BioMedia Associates, PO Box 1234, Beaufort, SC 29901-1234; 2005. Color. 15 minutes. DVD: \$68.00. Teacher's Guide.

JH, YA, C Ac

This DVD includes a 15-minute narrated movie on sponges, 3 minutes

of video observations on sponges, and 68 still images of sponges. Three teaching guides in the form of PDF files are also included. The narrated movie and the 3-minute video are well made, with generally very good vignettes, some of superb quality. The basic structure of sponges, as well as their diversity, feeding, and reproduction, are all well presented and all easy to understand. The narrative and images are generally accurate, although a few scientific terms are mispronounced. The name of one of the three great classes of sponges is misspelled on the DVD as Calcerea and on the DVD box as Calceria. The correct spelling is Calcarea. This is an easily avoidable error. Also, on the DVD box, under the heading "Sponge Image Bank," it is noted that 68 images of "chordates" are presented. This is another silly—and easily avoided—error! —*David L. Pawson, Smithsonian Institution, Washington, DC*

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hands-on experience with the best books and DVD's available for their libraries and classrooms. The end result will be greatly improved local public library, school library/media center, and classroom STEM collections. (3) The project encourages fiscal responsibility in times of tight budgets in our educational system by developing a valuable collection that was built collaboratively to benefit users from a diversity of educational settings and levels (PK-Post Secondary). In addition, teachers will be empowered and informed as a result of direct exposure to these materials, which enables them to make more effective use of their classroom budgets when purchasing STEM resources. (4) The University of Wisconsin library system strives to be a "one university, one library" system, and therefore encourages individual campus libraries to develop specialized curriculum related resource collections not duplicated at other campuses. As such, the specialized STEM PK-8 curriculum resources represented by this project will serve as a valuable resource for the entire UW system. (5) This project will continue to strengthen links between content area faculty, library staff, and the School of Education on our campus.

In the bigger picture, we are harnessing the power of SB&F and other AAAS resources to improve the STEM

outreach our university provides to the local/regional community. Producing stronger university-community ties is an important step in the "public engagement" needed in our society as voiced by, AAAS CEO Alan Leshner (Science 315, 161 (2007)). The development of multiple university-regional outreach programs, such as the one outlined here, would engage the public on many levels.

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