Education Forum



Now Available in Japanese!

BY KATIE ENGEN ASPB Education Coordinator

n July 2012, Kazuki Saito (RIKEN Plant Science Center-Yokohma) visited the ASPB Education Booth during Plant Biology 2012. He was excited about the potential of the newly released activity book funded by ASPB called My Life as a Plant. Kazuki initiated a translation by working with ASPB staff and recruiting Keiko Yonekura-Sakakibara and Avuko Kuwahara-Seo, also from RIKEN, as volunteer translators. The team worked to not only transform the text, but also set up a formal connection for posting the final product on the Japanese Society of Plant Physiology website. (See ad on page 32 for all access options to the translated book.)

Translator Contributions— In Their Own Words

Kazuki: The project was initiated after I met Katie twice in Austinonce at the ASPB booth at the annual meeting and accidentally the second time at the Austin airport. My role was small—I just carried the original English booklet from Austin to Japan (a world tour!) and found two excellent plant biologists who volunteered to do the translation. My hope is that Japanese kids will enjoy the book and that it will give them a good impression of plants they will carry with them throughout their lives.



Susan Whitfield

Keiko: I mainly translated the latter part of the book. It was a great pleasure to contribute to this excellent project and now read the Japanese version to my 3-year-old daughter. I hope the book will provide an opportunity for Japanese children to discover the fascinating world of plants. Ayuko: It was my great pleasure to have an opportunity to work on such a wonderful project for Japanese children and their parents. I mainly translated the story section pages for younger children. I believe many children will enjoy the book, including my 6-year-old daughter.

Preparing for Publication

Going from the Roman (English) alphabet to Japanese characters



Ayuko Kuwahara-Seo (left) and Keiko Yonekura-Sakakibura.

was rather challenging when it came time to format the translated text within the book's art-laden template files. Book coauthor Alan Jones (University of North Carolina; UNC) brought in some skilled help from the Chapel Hill campus. Susan Whitfield, the visual arts specialist in the department of biology, has a BA degree in botany from UNC. She has been the scientific illustrator in the Biology Department since 1980 and provides illustration services

(along with assistance on the biology website) to the faculty, staff, and students in this large, diverse department. Susan consulted with native-speaking UNC graduate student Ariko Urano to finalize this publication.

Susan reported on the logistics and technicalities of the project:

My contribution began with assembling all of the text from the pages of the original version

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Education Forum

New ASPB Higher Education Resource

Inspiring Students to Study Successfully for the Sciences

BY KATIE ENGEN ASPB Education Coordinator

Do any of these concerns from students sound familiar to you?

- I don't have time to study all this stuff. And even if I spend hours, it doesn't really pay off.
- How do I use the textbook? How does it fit with class notes?
- I understand the different parts but can't fit it together. By the time the test comes, I'm just confused.
- I just can't do science.

Many students actually expect to fail science courses or abandon the pursuit of science altogether because they are overwhelmed with course content, study skill, or time management issues. That's why ASPB now offers a new resource of practical tips that can help undo underperformance and stomp out science-oriented apathy stemming from the fears and inefficiencies students have when learning science.

Inspiring Students to Study Successfully for the Sciences

Practical tips to help your students overcome their struggles with course content mastery (http://tinyurl.com/qcl82gb).

These tips are based on a presentation by Doug Gaffin and Marielle Hoefnagels, of the University of Oklahoma, given at the Introductory Biology Project 2012 Summer Meeting in Washington, D.C. (http://tinyurl. com/omh337k).

Stay Calm and Study On

Inspiring Students to Study Successfully for the Sciences will help you encourage students to

- Set a goal to replace study skill insecurities with curiosity and confidence about content mastery by interacting with material and thinking critically while studying.
- Select one or two techniques that fit best with their learning style, your presentation methods, and scheduling realities.
 If you make students feel they must use every technique for all classes, they'll run screaming for the humanities (where they still could use these techniques, of course).

DO Try This at Home (or Dorm or Library)

Go to http://tinyurl.com/qcl82gb for simple-yet-detailed instructions and insights for study skills in these categories:

Note Taking: An ounce of prevention is worth a pound of cure. Before diving headfirst into heavy content, start your class with an upbeat, well-paced review of effective note taking.

Rewritten Notes: Simple can be effective. Rewriting the information clearly and in familiar correct terms is a critical step that moves new information to long-term memory and links it to previously mastered content. *Flashcards:* Vocabulary? Sure. Yet flash cards also can be used to connect and apply information.

Concept Maps: Build on the brain's network-building tendencies by linking terms with phrases that explain connections and represent deep thinking. Start small and bulk up as the term progresses.

Blank Paper: When studying has degraded to little more than a blank stare, put away the pile of notes and cards, get out a blank piece of paper, and try some new techniques.

Office Hours: They exist for a reason. Even if confidence and grades

are high, students should go at some point early in the term.

Table of Contents: If a class relies on a textbook, take advantage of its organization as you review for exams later in the term.

Three Study Habit–Killing Misconceptions and a Posse of Antidotes: Attitude is everything. Perception matters. Help your students manage three major misconceptions and they will advance.

See complete explanations and tip lists to share with your students at http://tinyurl.com/ qcl82gb. ■

The Important Distinction of Face Time vs. Virtual Learning

Student-teacher interactions are fundamental to successful learning. However, because face time is so valuable, it's in everyone's best interest to determine which interactions *require* face time and which learning opportunities can be effectively applied or even enhanced with online learning—which can be considered as another type of study skill.

In their *Science* editorial (22 Mar 2013, p. 1359) titled "Two Revolutions in Learning" (http://www.sciencemag.org/content/339/6126/1359.full), Susan Singer (Carleton College) and William Bonvillian (Massachusetts Institute of Technology) advocate for the need to scale up innovative, research-based teaching techniques for effective undergraduate learning, especially for use in ever-expanding virtual classrooms (a.k.a., MOOCs). They agree that "across all sciences, students struggle with fundamental concepts and underlying ideas." And they note that "research demonstrates that problem-solving skills can be developed through discussionoriented learning environments." Susan and William hope that more research will address these needs and lead to properly designed online learning options to create quality hybrid models (online and face-to-face) that help to accelerate learning.

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of the publication into a single document. This document was sent to the translators, who converted the text into the Japanese language and had the translated document returned to me. I replaced the English text in the original illustration files with the translated text, receiving invaluable assistance from Ariko Urano, who was able to tell me where the text line breaks could be made. The translated, resaved pages were then returned to the original translators for another review, and a few additional changes

were made. The final product will surely provide fun, educational plant-based activities for Japanese parents and children, just as they have for the English-speaking parents and children already enjoying the original published version. It is gratifying to have participated in this small way to the production of the Japanese version of *My Life as a Plant*.

ASPB is grateful for the time, energy, and expertise each person gave to this project. For options to acquire and/or sell bulk amounts of traditionally printed hard copies of the Japanese (or English) version, please contact katie@aspb.org.

ASPB's Activity Book for the Youngest Scientists

Now Available in Japanese!



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