

TABT Updates and URLs of the Week for March 2018

Item 1 – Summer Professional Development Opportunity

NABT / BSCS Biology Teacher Academy

Presented in partnership with HHMI BioInteractive, Biology Teacher Academy will strengthen how biology teachers teach so students learn more meaningful biology and are more interested in studying biology in the future. The academy will be July 8-13 in Colorado Springs, CO. Find more information or register at <https://bscs.org/bscsnabt-biology-teacher-academy>.

Item 2 – Free Professional Development

School of Health Professions Program

The School of Health Professions (SHP) at the University of Texas MD Anderson Cancer Center is hosting a two-week competitive program for Texas High School STEM educators. Participants will enrich their knowledge of cutting-edge lab techniques through hands-on workshops conducted by SHP faculty. Participants will receive a small stipend and Professional Continuing Education credits for up to 80 hours. Housing is available for educators residing more than 20 miles from the Texas Medical Center.

Application: http://bit.ly/SHP_Educators

Reference Form: http://bit.ly/SHP_EdReference

Item 3 – Science Update

Zeqing Ma, et al., “Evolutionary History Resolves Global Organization Of Root Functional Traits”

(*Nature*, 554:7694, 1 March 2018, Pages 94-97)

Analyses of a global dataset of plant root traits identify an ancestral conservative strategy based on thick roots and mycorrhizal symbiosis, and an evolutionarily more-recent opportunistic strategy of thin roots that efficiently use photosynthetic carbon for soil exploration.

L. Scott Mills, et al., “Winter Color Polymorphisms Identify Global Hot Spots For Evolutionary Rescue From Climate Change”

(*Science*, 359:6379, 2 March 2018, Page 1033-1036)

Variation in winter coat color may protect species with winter camouflage—such as hares, weasels, and foxes—when the climate warms.

Item 4 – Quote of the Week for 5 March 2018

“Never limit yourself because of others' limited imagination; never limit others because of your own limited imagination.”– Mae Jemison, *American Engineer, Physician and NASA Astronaut*

Item 5 – URL of the Week for 5 March 2018

BioEd Online

BioEd Online is a clearinghouse of resources for Science Teachers from the Baylor College of Medicine. The site includes nature news, courses, lessons, videos, slides, and more. Resources are designed to be used in K through 12 classrooms.

<http://bioedonline.org/>

Item 6 – Thanks To Our Sponsors

Underwriter Members

[BIOZONE Corporation](#)

[Carolina Biological Supply](#)

[McGraw-Hill Education](#)

[miniPCR | Science for everyone, everywhere](#)

[Ward's Science](#)

Corporate Members

[Flinn Scientific](#)

[NASCO](#)

[Prentice Hall School Division](#)

[STEMscopes](#)

[The MiniOne Electrophoresis](#)

Sustaining Members

[Bedford, Freeman and Worth Publishers](#)

The Texas Association of Biology Teachers grants its members, affiliates and libraries permission to make single reproductions for their own personal, noncommercial, or internal use. This permission does not extend to TABT members forwarding privileges to colleagues who are not TABT members, except on an infrequent basis to alert them to a particular item. Copying for advertising or promotional purposes, creating new collective works (i.e., course packets/anthologies), resale, or any material not copyrighted to the TABT is not permitted. Notices that appear in the *TABT Update and URL of the Week* are announcements and do not indicate an endorsement by TABT.

Item 1 – Professional Development Opportunity

TABT Recommends Our Affiliates

Texas Association of Biology Teachers (TABT) is an affiliate of both the Science Teachers Association of Texas (STAT) and the National Association of Biology Teachers (NABT). If you aren't a member of one or the other, you should give them your consideration. Both have great materials and are leaders in the field. You can find STAT at <http://www.statweb.org/> and NABT at <http://www.nabt.org/>.

Item 2 – Summer Professional Development Opportunity

NABT / BSCS Biology Teacher Academy

Presented in partnership with HHMI BioInteractive the Biology Teacher Academy will strengthen how biology teachers teach so students learn more meaningful biology and are more interested in studying biology in the future. The academy will be July 8-13 in Colorado Springs, CO. Find more information or register at <https://bscs.org/bscsnabt-biology-teacher-academy>.

Item 3 – Science Update

Daphna Rothschild, et al., “Environment Dominates Over Host Genetics In Shaping Human Gut Microbiota”

(*Nature*, 554:7695, 8 March 2018, Pages 210-215)

Statistical analyses of a metagenomics-sequenced human cohort identify a relatively minor role for genetics in determining microbiome composition and show that several human phenotypes are as strongly associated with the gut microbiome as with host genetics.

Charlotte Laufkötter, et al., “Will Marine Productivity Wane”

(*Science*, 359:6380, 9 March 2018, Page 1103-1104)

A model study points to slow but extensive nutrient removal from the surface ocean under long-term climate change.

Item 4 – Quote of the Week for 12 March 2018

“If you know you are on the right track, if you have this inner knowledge, then nobody can turn you off... no matter what they say.”– Barbara McClintock, *American Cytogeneticist and Nobel Laureate*

Item 5 – URL of the Week for 12 March 2018

Planting Science

PlantingScience.org is a free online resource to teachers and schools. The program provides volunteer scientists, resources, and activities to support innovation in teaching, learning, and mentoring. Open education resources are shared for student-centered plant investigations that integrate scientific practices and big ideas in biology that meet the guidelines in the Next Generation Science Standards and other 21st century education standards.

<https://www.plantingscience.org/about>

Item 6 – Thanks To Our Sponsors

Underwriter Members

[BIOZONE Corporation](#)

[Carolina Biological Supply](#)

[McGraw-Hill Education](#)

[miniPCR | Science for everyone, everywhere](#)

[Ward's Science](#)

Corporate Members

[Flinn Scientific](#)

[NASCO](#)

[Prentice Hall School Division](#)

[STEMscopes](#)

[The MiniOne Electrophoresis](#)

Sustaining Members

[Bedford, Freeman and Worth Publishers](#)

The Texas Association of Biology Teachers grants its members, affiliates and libraries permission to make single reproductions for their own personal, noncommercial, or internal use. This permission does not extend to TABT members forwarding privileges to colleagues who are not TABT members, except on an infrequent basis to alert them to a particular item. Copying for advertising or promotional purposes, creating new collective works (i.e., course packets/anthologies), resale, or any material not copyrighted to the TABT is not permitted. Notices that appear in the *TABT Update and URL of the Week* are announcements and do not indicate an endorsement by TABT.

Item 1 – Professional Development Opportunity

TABT Trip to Alaska

The Texas Association of Biology Teachers is sponsoring an international trip to the Copper River Canyon of Alaska June 20-28, 2018. The brochure for the trip is posted for your review in the Current Events section of the TABT website at <http://tabt.us>. The focus of the trip will be natural history. If you or someone you know might be interested in this trip, please share this information with them and have them send altonb@ix.netcom.com an email notification of their interest.

Item 2 – Professional Communications & Networking

TABT Group Page on Facebook

The Texas Association of Biology Teachers maintains a group page on Facebook. Please join the group and take part in additional articles posted on a weekly basis. You're sure to find something new!

Item 3 – Science Update

Patrick Kennedy, *et al.*, “Altruism In A Volatile World”

(*Nature*, 554:7696, 15 March 2018, Pages 359-362)

A derivation of Hamilton's rule that considers explicit environmental stochasticity can predict when organisms should pay a cost to influence the variance in the reproductive success of their relatives, formalizing the link between bet-hedging and altruism.

Carolina Diettrich Mallet de Lima and Anita Göndör, “Circadian Organization Of The Genome”

(*Science*, 359:6381, 16 March 2018, Page 1212-1213)

The clock protein Rev-erba regulates genome folding to establish circadian gene repression.

Item 4 – Quote of the Week for 19 March 2018

“Science is not a boy's game, it's not a girl's game. It's everyone's game. It's about where we are and where we're going.”– Nichelle Nichols, American Actress and NASA Ambassador

Item 5 – URL of the Week for 19 March 2018

ActionBioscience

This Web site is an educational resource of the American Institute of Biological Sciences that promotes bioscience literacy. The site provides articles by scientists, science educators and science students on many topics such as biodiversity, environment, genomics, biotechnology and more. It also includes original lessons and resources to enhance bioscience teaching.

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

Item 6 – Thanks To Our Sponsors

Underwriter Members

[BIOZONE Corporation](#)

[Carolina Biological Supply](#)

[McGraw-Hill EducationNASCO](#)

[miniPCR | Science for everyone, everywhere](#)

[Ward's Science](#)

Corporate Members

[Flinn Scientific](#)

[NASCO](#)

[Prentice Hall School Division](#)

[STEMscopes](#)

[The MiniOne Electrophoresis](#)

Sustaining Members

[Bedford, Freeman and Worth Publishers](#)

The Texas Association of Biology Teachers grants its members, affiliates and libraries permission to make single reproductions for their own personal, noncommercial, or internal use. This permission does not extend to TABT members forwarding privileges to colleagues who are not TABT members, except on an infrequent basis to alert them to a particular item. Copying for advertising or promotional purposes, creating new collective works (i.e., course packets/anthologies), resale, or any material not copyrighted to the TABT is not permitted. Notices that appear in the *TABT Update and URL of the Week* are announcements and do not indicate an endorsement by TABT.

Item 1 – Professional Development Opportunity

Land Stewardship Educator Institute

The Institute is designed to provide an educational experience for educators focusing on the scientific stewardship of natural resources. The Institute will offer educators the opportunity to learn about natural resources, discover current trends in management, and experience activities that bring this knowledge to the classroom. The Institute will occur July 17-19, 2018 at the Texas Tech Llano River Field Station in Junction, Texas. For more information, contact Christine Moseley at Christine.moseley@utsa.edu.

Item 2 – Professional Communications & Networking

TABT Website

The Texas Association of Biology Teachers maintains an extensive website at <http://tabt.us>. Thanks to our webmaster, Corena “Nikki” Fitzgerald and our president elect, Claire Vollmar, the newly developed "Members Only" section is ready. The TABT website can only get better with your help. Please use the "Teacher Materials Form" on the classroom resources page to submit your favorite labs and activities. Claire Vollmar will review and organize materials for this portion of the site and is excited to hear from you. You can submit the completed form along with any handouts or teacher materials to Claire at vollmars@satx.rr.com.

Item 3 – Science Update

Rebecca Albright, et al., “Carbon Dioxide Addition To Coral Reef Waters Suppresses Net Community Calcification”

(*Nature*, 555:7697, 22 March 2018, Pages 516-519)

In situ carbon dioxide enrichment experiments show that ocean acidification poses a threat to coral reefs by reducing the saturation state of aragonite and the concentration of carbonate ions and that this impairs community calcification.

Saera Song, et. al., “Early Life Experience Shapes Neural Genome”

(*Science*, 359:6382, 23 March 2018, Page 1330-1331)

Transposons accumulate in neurons of pups with lack of maternal care in mice.

Item 4 – Quote of the Week for 26 March 2018

“We ignore public understanding of science at our peril” – Eugenie Clark, American Ichthyologist

Item 5 – URL of the Week for 26 March 2018

Science Friday

Science Friday is a website and weekly radio show highlighting the latest in science and technology. The site is organized into four different tabs: Listen, Explore, Educate, and Events.

<https://www.sciencefriday.com/>

Item 6 – Thanks To Our Sponsors

Underwriter Members

[BIOZONE Corporation](#)

[Carolina Biological Supply](#)

[McGraw-Hill Education](#)

[miniPCR | Science for everyone, everywhere](#)

[Ward’s Science](#)

Corporate Members

[Flinn Scientific](#)

[NASCO](#)

[Prentice Hall School Division](#)

[STEMscopes](#)

[The MiniOne Electrophoresis](#)

Sustaining Members

[Bedford, Freeman and Worth Publishers](#)

The Texas Association of Biology Teachers grants its members, affiliates and libraries permission to make single reproductions for their own personal, noncommercial, or internal use. This permission does not extend to TABT members forwarding privileges to colleagues who are not TABT members, except on an infrequent basis to alert them to a particular item. Copying for advertising or promotional purposes, creating new collective works (i.e., course packets/anthologies), resale, or any material not copyrighted to the TABT is not permitted. Notices that appear in the *TABT Update and URL of the Week* are announcements and do not indicate an endorsement by TABT.