

SCHEDULE-AT-A-GLANCE

#PATroutintheClassroom

Pennsylvania Trout in the Classroom Second Biennial Summit



Virtual Summit | July 12, 13, & 14
Connect, Collaborate, Change

July 12, 2021

4:00pm - 5:30pm	Keynote Address: Trout in the Classroom and Environmental Literacy Presented By: Courtney Hallacher
6:00pm – 7:00pm <i>Panel Discussion</i>	PA TIC Happy Hour Presented By: Rachel Kester & Cody Whipple

July 13, 2021

12:30pm-1:30pm <i>Concurrent Session 1</i>	<u>Option A</u> Connecting TIC to Citizen Science Opportunities Presented By: James Hovan & Bert Johnson	<u>Option B</u> Calling all Ectotherms: How Reptiles and Amphibians Play a Role in Connecting Students to Watersheds Presented By: Chris Urban
1:45pm – 3:45pm <i>Session</i>	Bringing the Stream to the Screen: Teaching Watershed Education Virtually Presenter: Carissa Longo & Mandy Nix	
4:00pm - 5:00pm <i>Concurrent Session 2</i>	<u>Option C</u> Climate Change and Penn’s Woods: What Does the Future Hold? Presented By: Greg Czarnecki	<u>Option D</u> Trout and the Triple Bottom Line: The Role of Aquaculture in Sustainability Education Presented By: Roy Weitzell
6:00pm - 7:30pm <i>Panel Discussion</i>	Connecting TIC Outside the Classroom Virtual Panel Discussion with New and Veteran TIC Participants	



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July 14, 2021

12:30pm-1:30pm <i>Concurrent Session 1</i>	<u>Option A</u> Interdisciplinary and multi-age collaboration within schools/districts Presented By: Javius Galan & Dave Andrews	<u>Option B</u> Trout in the Classroom Aquarium Tips, Tricks, and Troubleshooting Presented By: Scott Ray
1:45pm – 3:45pm	Project WET Climate, Water, & Resilience (CWR) Mini-Workshop for Middle to High School Educators Presenter: Jessica Kester, PAEE and PA Project WET	
4:00pm - 5:00pm <i>Concurrent Session 2</i>	<u>Option C</u> Resources and Programs that enhance Native and Wild Trout populations in Pennsylvania Presented By: Dave Nihart	<u>Option D</u> Hooked on TIC: Connecting Angling and Science within your TIC Curriculum Presented By: Christian Shane & Cody Whipple
6:00pm - 7:30pm <i>Panel Discussion</i>	TIC DIY & Sustainability Virtual Panel Discussion with New and Veteran TIC Participants	



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2021 PA TIC Virtual Summit: July 12, 2021**4:00 pm – 5:30pm**

Keynote Speaker: | *Courtney Hallacher, State-wide Wildlife Education Coordinator at Virginia Department of Wildlife Resources and Professor of the Trout in the Classroom course at Mary Baldwin University* | Virtual Address

Voted Virginia's 2019 Environmental Educator of the Year, Courtney Hallacher is an award-winning secondary education teacher, college professor, and currently the Virginia Department of Wildlife Resources state-wide Wildlife Education Coordinator. Courtney earned her undergraduate degree from California University of Pennsylvania studying secondary education with a concentration in Biology and General Science and her Masters in Education in Environment-Based Learning from Mary Baldwin University. She became involved in the Trout in the Classroom program in 2007, while teaching middle school, and continued implementing the program into her high school classroom over the next 12 years. Wanting to contribute to research conducted on the Trout in the Classroom Program, in 2017, she wrote her thesis on "Assessing Environmental Literacy Among Virginia Middle School Students in the Trout in the Classroom Program." She is also the professor of the Trout in the Classroom course at Mary Baldwin University. When she is not teaching, Courtney can be found traveling, hiking, and kayaking with her husband, Jason, and their dog, Julep.

PA TIC Happy Hour: TIC Summit Ice Breaker and Introductions | *Rachel Kester, Program Director at Pennsylvania Council of Trout Unlimited and Cody Whipple, Pennsylvania Fish and Boat Commission Trout in the Classroom Coordinator* | Virtual Introduction

Pennsylvania Trout in the Classroom ice breaker and introductions for participants attending the 2021 Summit. Join us for a fun and interactive meet and greet where we will discuss the summit ahead and play a TIC themed version of Jeopardy.

2021 PA TIC Virtual Summit: July 13, 2021**12:30pm - 1:30pm**

*** PLEASE NOTE:** Session meeting rooms will be open 15 minutes prior to the start time. Please sign in early to complete a brief poll and to take attendance to ensure accurate reporting of act 48 hours.

Option A | Connecting TIC to Citizen Science Opportunities | *James Hovan, Experienced TIC Teacher and TES-MMW Master Teacher and Bertram Johnson, Experienced TIC Teacher* | Virtual Session

Citizen science opportunities provide a hands-on educational tool that introduces students to real world science projects. Learn how meshing these projects with your TIC curriculum can benefit both your students and partnering organizations through gathering long-term data.

Option B | Calling all Ectotherms: How Reptiles and Amphibians Play a Role in Connecting Students to Watersheds

| *Chris Urban, Pennsylvania Fish and Boat Commission Chief of Natural Diversity*, | Virtual Session

Trout and aquatic macroinvertebrates aren't the only cold-blooded critters that rely on clean water and suitable habitat when it comes to healthy ecosystems. Learn more about how reptiles and amphibians can further enhance the connections made between students and their watersheds. Also, learn about a great citizen science opportunity through the Pennsylvania Amphibian & Reptile Survey (PARS).

1:45pm - 3:45pm

Bringing the Stream to the Screen: Teaching Watershed Education Virtually | *Carissa Longo, Environmental Education Program Coordinator at DNCR-PA State Parks and Mandy Nix, Watershed Education Specialist at Stroud Water Research Center* | Virtual Session

In this engaging, interactive workshop designed for both non-formal educators and classroom teachers, learn how to engage your students in stream-to-screen virtual and in-person watershed education. Learn from the presenters' pandemic successes (and struggles) in teaching Meaningful Watershed Educational Experiences (MWEEs), trout, aquatic macroinvertebrates, stormwater runoff, and so much more in the "new normal" of online Zoom learning. Then, explore free online teaching tools such as the Stroud Center's multi-award winning WikiWatershed® Toolkit, receive electronic copies of printable lessons for ALL types of learning, and discover tips/tricks to create your own virtual stream studies.



4:00pm - 5:00pm

Option C | Climate Change and Penn's Woods: What Does the Future Hold | Greg Czarnecki, Director of Applied Climate Science at Department of Conservation and Natural Resources| Virtual Session

This presentation will look at the current and projected impacts of climate change globally, in the U.S., and here in Pennsylvania. We'll also look at ways that we can adapt to those impacts, what we need to do to prevent the most catastrophic consequences of climate change, and the relationship between climate change and global pandemics.

Option D | Trout and the Triple Bottom Line: The Role of Aquaculture in Sustainability Education | Roy Weitzell, Assistant Professor of Aquatic Ecology, and Director of the Eden Hall Aquaculture Lab at Chatham University | Virtual Session

Trout and aquatic macroinvertebrates aren't the only cold-blooded critters that rely on clean water and suitable habitat when it comes to healthy ecosystems. Learn more about how reptiles and amphibians can further enhance the connections made between students and their watersheds. Also, learn about a great citizen science opportunity through the Pennsylvania Amphibian & Reptile Survey (PARS).

6:00pm - 7:30pm

Panel Discussion: Connecting TIC Outside the Classroom | Virtual Panel

This virtual panel discussion will provide TIC participants with information and tips on how to make important connections outside of the classroom. Learn and collaborate with veteran TIC teachers on important topics regarding coldwater resources for both the aquatic life and the communities that rely on them!

2021 PA TIC Summit: July 14, 2021

12:30pm - 1:30pm

*** PLEASE NOTE: Session meeting rooms will be open 15 minutes prior to the start time. Please sign in early to complete a brief poll and to take attendance to ensure accurate reporting of act 48 hours.**

Option A | Interdisciplinary and multi-age collaboration within schools/districts| David Andrews, Instructional Coach for Student Engagement in Butler Area School District and Javius Galan, Autistic Support Teacher, Wilson School District | Virtual Session

TIC is an interdisciplinary program in which the concepts taught can reach far beyond the trout themselves. Collaborating within your school and your school district can prove to further enhance and enforce the curriculum for all. Learn from experienced TIC teachers as to how your TIC program can reach far beyond the students in your classroom.

Option B | Trout in the Classroom Aquarium Tips, Tricks, and Troubleshooting| Scott Ray, Fish Culture Station Foreman at Union City State Fish Hatchery, Pennsylvania Fish and Boat Commission and Aquarium Expert | Virtual Session

Learn some great tips and tricks for your TIC aquarium from an expert. This session will provide participants with knowledge regarding water quality and some of the best practices to consider for your TIC system. The session will also dive into what can be done to ensure you are maintaining a healthy, functioning aquarium.

1:45pm - 3:45pm

Project WET Climate, Water, & Resilience (CWR) Mini-Workshop for Middle to High School Educators| Jessica Kester, PAEE State Coordinator for Project WET. | Virtual Session

This workshop will equip participants with everything they need to know to teach several Project WET activities to their students. We will cover key water literacy principles as well as best practices to incorporate these activities into your lessons and outreach. PAEE organizes workshops for classroom teachers and non-formal educators to deliver Project WET, an award-winning water education program that promotes awareness of water and empowers community action to solve complex water issues.



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4:00pm - 5:00pm

Option C | Resources and Programs that Enhance Native and Wild Trout Populations in Pennsylvania

| **Dave Nihart, Chief Division of Fisheries Management at Pennsylvania Fish & Boat Commission** | Virtual Session

This presentation will introduce TIC participants to some of the programs that protect, conserve, and enhance both native and wild trout populations in Pennsylvania. Learn more about the why behind protecting these populations and why they are important to discuss within your TIC curriculum.

Option D | Hooked on TIC: Connecting Angling and Science within your TIC Curriculum

| **Christian Shane, Experienced TIC Teacher and Cody Whipple, PFBC TIC Coordinator** | Virtual Session

In this hands-on presentation, learn more about how angling can help provide a connection between recreation and important cold-water resources. Investigate new ways to provide an angling experience through your TIC curriculum both inside and outside of the classroom. This session will also feature some of the educational resources and programs available through the Pennsylvania Fish & Boat Commission and Trout Unlimited.

6:00pm - 7:30pm

Panel Discussion: TIC DIY & Sustainability | Virtual Panel

With your TIC curriculum the possibilities are endless! This virtual panel discussion will provide TIC participants with fun and creative ways to teach valuable TIC concepts. Learn and collaborate with veteran TIC teachers and discuss ideas as to how DIY projects have worked for them!

