



TU's Headwaters Youth Program & Trout in the Classroom as a Gateway Activity

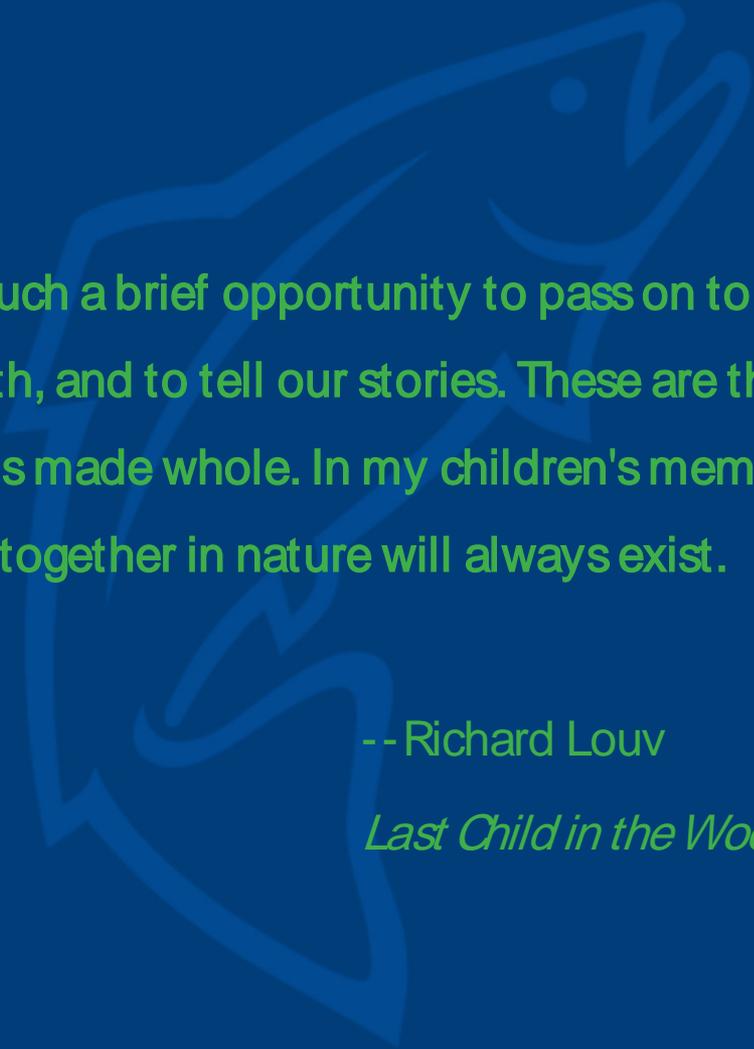
Northeast Regional Rendezvous

June 2, 2019

Outline for today's presentation



1. Introductions
2. Headwaters Youth Program & Stream of Engagement, Tara
3. Partnerships and TIC, Ashley Wilmont
4. TIC a gateway activity to attract and train TU volunteers, Monty Murty
5. Take action: Lessons learned & tips, Chuck Dinkel
6. Q&A



We have such a brief opportunity to pass on to our children our love of this Earth, and to tell our stories. These are the moments when the world is made whole. In my children's memories, the adventures we've had together in nature will always exist.

-- Richard Louv

Last Child in the Woods





Headwaters:

The source of tomorrow's conservation leaders

TU's Stream of Engagement



Kids

Teens

Young Adults

Adults

☛ Chapter activities

☛ Trout in the Classroom

☛ Summer on the Fly

☛ Watershed Ed

☛ TU Teen Summit

☛ Youth Camps

☛ Youth Leadership Council

☛ Watershed Ed

☛ 5 Rivers Clubs

☛ TU Costa 5 Rivers Rendezvous

☛ Interns/ Counselors

☛ TU Volunteer

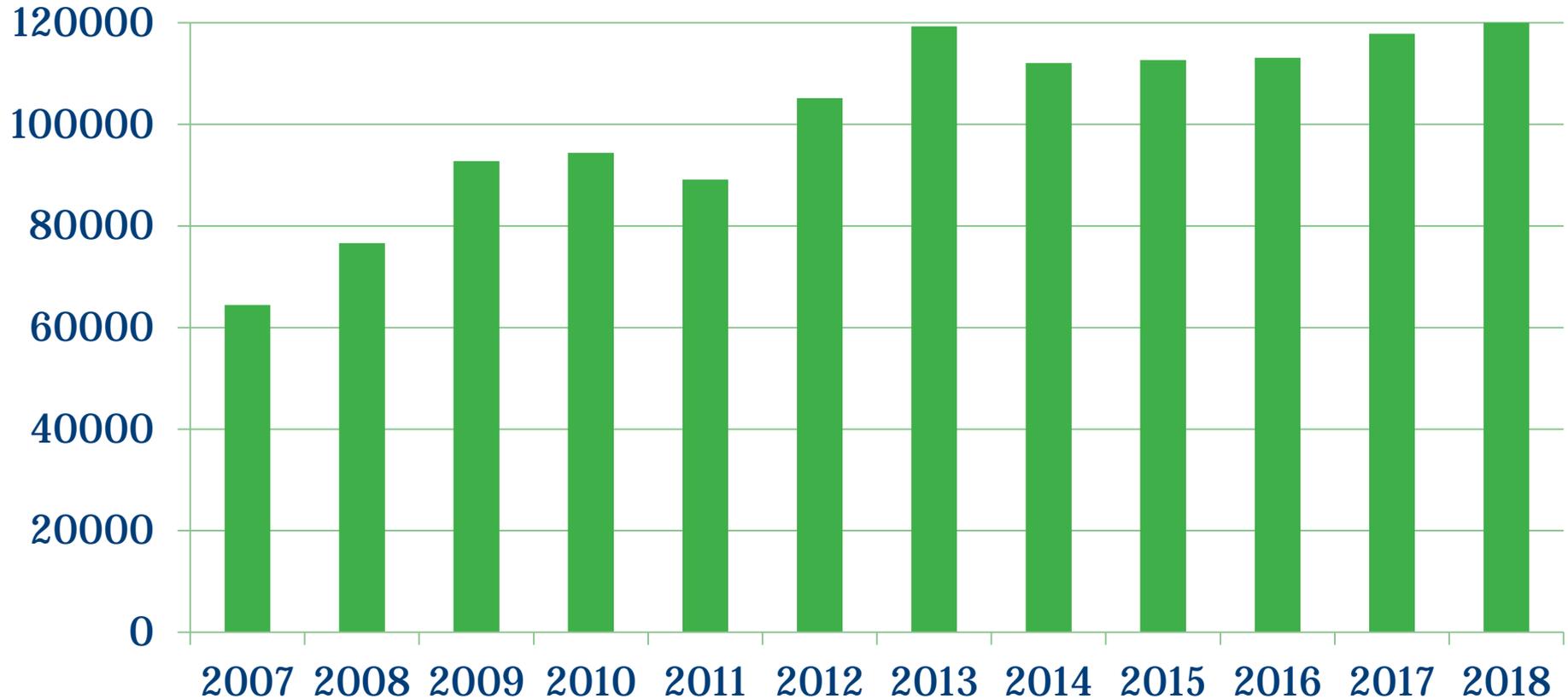
☛ Lifelong Coldwater Conservation Advocate



Our role as staff is to build grassroots capacity

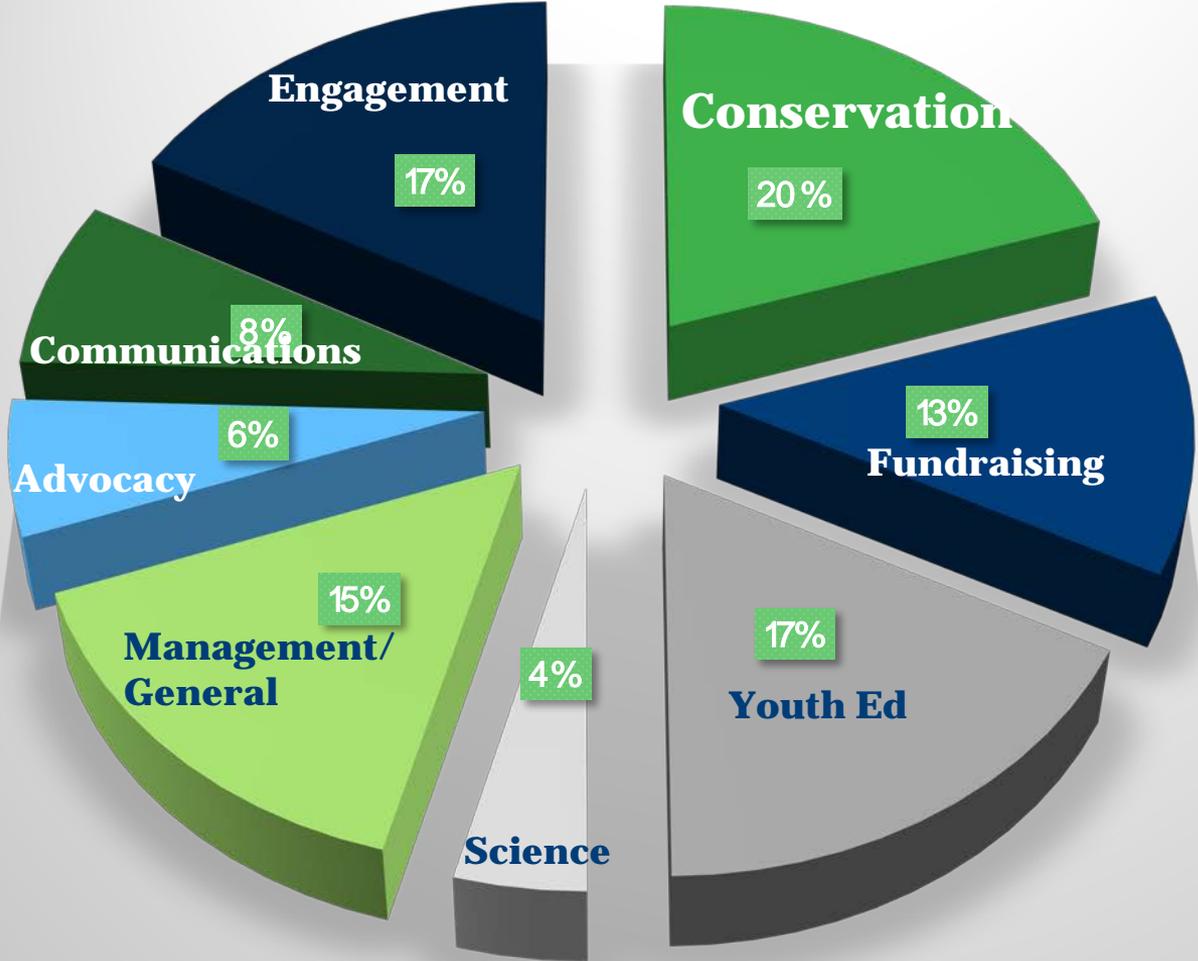
- Trainings
- Program support
- Online resources
- Memberships

Chapter and Council Youth Education Hours 2007 - 2018



737,194 Volunteer Hours

FY2018 Broken Down



1,670

**Youth education events
and activities held by
volunteers just last year!**

Trout/Salmon in the Classroom Nationally



North American history of TIC/SIC

- a) Started in Canada (salmon) in the 1970 s
- b) Spread to California in the 1980 s (probably also still salmon)
- c) Jumped to northern New Jersey in 1991 (Maryellen Soriano; brook trout)
- d) NY Trout Unlimited and Joan Stoliar began the program in 1997
- e) TU hired a full time Coordinator based in NYC in 2004
- f) Spread rapidly back and forth across the country, ultimately to 5,100 schools in 39 states (2017 inventory)



PA Trout in the Classroom

Ashley Wilmont

PA TIC 2008 – 2018



School Year	# of TIC	TIC teaching hours	Students	Volunteer Hours	Local TIC Expenditures
2008-2009	94	5,242	12,802	2,454	<i>Info not collected</i>
2009-2010	136	3,899	14,988	6,335	\$ 12,916
2010-2011	168	6,141	18,204	3,036	\$ 23,924
2011-2012	187	6,302	19,537	2,466	\$ 49,512
2012-2013	225	6,654	26,282	1,610	\$ 102,613
2013-2014	247	8,002	28,208	2,108	\$ 118,056
2014-2015	258	8,715	29,823	5,176	\$ 121,094
2015-2016	283	10,653	35,639	5,399	\$ 117,188
2016-2017	316	11,965	37,219	4,748	\$ 153,742
2017-2018	355	14,366	41,109	4,898	\$ 154,449.00
2018-2019	393	n/a	n/a	n/a	n/a
Total		81,939	263,811	38,230	\$ 853,494

PA TIC Growth



- ✦ Since 2008
 - Increased by 299 programs
 - Increased by 28,307 students
 - Increased by 9,124 hours of teaching time on TIC subjects
 - Increased by \$14,533 in local dollars spent to implement the program

- ✦ On average, the program annually experiences a
 - 12-14% increase in the number of TIC's
 - 10-12% increase in the number of students participating
 - 20% increase in the teaching hours

The program continues to grow.



- ☛ For the 2017 -20 18 TIC school year, there were 355 TIC classrooms, representing over 200 of the 499 school districts across Pennsylvania.
- ☛ 20 17-20 18 TIC End of Year Reports, completed by 335 of the 355 teachers (94% of the TIC teachers), revealed that teachers reached over 41,000 students and taught more than 14,000 hours on TIC related topics (e.g. watersheds, trout habitat, life cycles, fish ecology, conservation etc.).
- ☛ Of the 335 TIC teachers who provided reports, 152 stated that students received instruction on fishing skills. Teachers also reported that over 12,000 students participated in fishing activities, including 615 parents. Of the 152 teachers reporting fishing skills and activities, 27 stated that their schools have fishing clubs.

Minimal advertising

- There is a TIC program in 60 of PA's 67 counties.
- There is a TIC program in 235 of PA's 499 School Districts



Program partner organization	#TIC programs responsible for	Percent of total TIC programs statewide
CD - Conservation District	47	11.96%
Consv. - Conservancy	10	2.54%
SA - Sportsmen's Association or similar organization	14	3.56%
TU- Local Trout Unlimited Chapter	161	40.97%
WA - Watershed Association and/or Alliance	18	4.58%
NONE	137	34.86%
Other (please specify)	6	1.53%
Total TICs	393	

Of the 49 chapters statewide, 38 are partnered with a TIC program (78% of PA's chapters are partnered with a TIC program)

Partnerships



- 🐟 Partners with Pennsylvania Fish & Boat Commission
 - Amidea Daniel
 - Ships eggs, fry, provides **aquarium technical support / education to teachers**
 - Handles program registration/ necessary forms and reporting
 - Created a PA specific program guide
 - Large financial contribution
- 🐟 Partners with Stroud – Coldwater conscious teammates
 - Mandy Nix (TIC Summit, available to support TU Chapter Program Partners)
 - Steve Mohap (grant program administration, about \$10,000 in grants per school year)





Questions? Please contact RA-troutclass@pa.gov



2019 TIC SUMMIT

THURSDAY, JULY 18, 7:30 AM - 5:00 PM

PA Department of Education (PaTTAN) Building
6340 Flank Drive, Harrisburg, PA 17112

Calling all Trout in the Classroom teachers and partners in Pennsylvania!

The PA Fish and Boat Commission, PA Council of Trout Unlimited, and partners are excited to announce the *FIRST EVER* Pennsylvania Trout in the Classroom (PA TIC) Summit! The goal of the PA TIC Summit is not only to provide an opportunity for TIC teachers and program partners to share what they are doing with TIC, but to also provide several opportunities for networking and building upon programs you are currently implementing!

Discover water-education resources with exhibitors from across the state, explore new ways to enrich your program in six concurrent sessions, and enjoy a special keynote presentation from Trout Unlimited President and CEO Chris Wood! You won't want to miss this exciting day of professional development and hands-on immersion in TIC. For complete schedule, session descriptions, and registration instructions, please visit:
<https://patroutintheclassroom.org/>

Register for \$35 by June 30 @ 4 PM! Lunch included.



pennsylvania
FISH & BOAT COMMISSION



pennsylvania
DEPARTMENT OF EDUCATION

STROUD
WATER RESEARCH CENTER



Flyer created by Mandy Nix



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PA Fish and Boat Commission

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Mandy Nix, Watershed Education Specialist

Certified North Carolina Environmental Educator

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O: (610) 268-2153, ext. 311



Ashley Wilmont / Program Director

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Pennsylvania Council of Trout Unlimited

PO Box 5148

Bellefonte, PA 16823

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

Coldwater Heritage Partnership

PFBC Centre Region Office

595 E. Rolling Ridge Drive

Bellefonte, PA 16823

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





TIC: A gateway activity to attract and train volunteers

Monty Murty



Lessons Learned & Tips for Implementing a Grassroots-Driven TIC Program

Chuck Dinkel

Maryland Trout in the Classroom



Tips for TU Chapters/Volunteers

👉 Nucleus of Dedicated Volunteers

👉 Start Small

- One–two schools;
- Grow only as fast as you have volunteers to support new schools
- Buy-in by dedicated teacher and supportive principal
- We do minimal advertising – TIC spreads by word-of-mouth

👉 Your program expands beyond the jurisdiction of originating chapter

- Organize by chapter location as number of schools increases.
- Assign a Lead Volunteer for each chapter/geographic region
- Lead Volunteer recruits team members
- State coordinators

👉 Sources of Funding

- TU Chapter/Council budget
- State DNR
- Grants

Tips for TU Chapters/Volunteers – cont.



Costs

- Start-Up: approximately \$1,200.00
- Replacement supplies: approximately \$100/year
- Trout eggs and food
- Substitute teachers and bus transportation
- Miscellaneous items



Tips for TU Chapters/Volunteers

🐟 Volunteer Time

- Egg/fish food delivery: 4 hours
- School visits/problem solve: ?
- Release activities: 4-6 hours per release

🐟 **Information for Schools:** Program description;
MOI; Link to TIC Manual; DNR grant application



TIC Participants

Schools

- Program geared for grades 3/4 and higher
- Dedicated teacher
- Supportive principal

Environmental Centers

- Provide program visibility
- A source for replacement fish
- Training facilities

🍃 Memo of Intent (MOI)

- TU/TIC expectations for participating schools: student lead program; EOY trout release required
- How will TIC volunteers support schools
- Signed by teacher and principal

🍃 Source of Trout eggs and food

- State/local hatchery – donate
- Purchase

🍃 Permits

- Raise trout
- Release trout



TIC Manual

- Many good ones in print; don't reinvent the wheel
- Keep it up to date

Equipment/Spares

- Standardize
- Lead volunteer in each chapter/geographic area:
 spare chiller and controller, filter;
 other key spares (O-ring, impeller, etc.)
- Teachers encouraged to replace chillers
 at end of warranty period.



Training

- Mandatory for new teachers and volunteers
- Recertify at least every three years
- Local college and DNR help with training
- Panels of new and veteran teachers – “How to plan a release”
- DNR – Continuing education credits
- Tank set-up; Lots of hints/ideas



Logistics



New Teachers receive priority support for first two years; assistance setting up equipment; school visits; help plan and coordinate trout release.



Trout Release

- Labor intensive
- Schools given deadline for scheduling their release
- Veteran teachers transport fish to release site
- Activities: release fingerlings; water testing; stream study; macros- collect and ID; geocaching; stream velocity; fly casting; fly tying; art; story time; trout games – “Prey and Predator”; tree planting; removal of invasive plants (high schools) Other suggestions?
- I have “scripts” for the Stream Study and Water Testing that non-TIC teachers and parents can use.



Sources for Volunteers

- List provided in the Maryland TIC Manual
- TU members
- IFF; IWLA, CFA; AFS; other like-minded environmental organizations
- Retired teachers
- State and federal park rangers/naturalists
- State hatchery: provide tours
- Friends and family members
- Students' parents and chaperones
- Nature centers
- Think outside the box: invite local politicians and newspaper reporters

THANK YOU FOR ALL THAT YOU DO!

