



2019 Meeting of the Virginia, West Virginia and Virginia Tech Chapters of the American Fisheries Society

“The R3 Initiative”

Tuesday, February 19th - Thursday, February 21st, 2019

Hyatt Place Blacksburg / University
650 University City Blvd, Blacksburg, VA 24060

The Virginia, West Virginia and Virginia Tech Chapters thank the Sponsors for our 2019 meeting



Dominion[®]



CONSERVE. CONNECT. PROTECT.



**Virginia Tech
Alumni Association**

VirginiaTechforlife



**John Kauffman, LLC,
Crozet, Virginia**



**Aquatic Biological
Monitoring Services, LLC**

The Virginia, West Virginia and Virginia Tech Chapters
thank the Sponsors for our 2019 meeting



COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
FISH & WILDLIFE CONSERVATION
VIRGINIA TECH.

Robert Tuckwiller, Artist

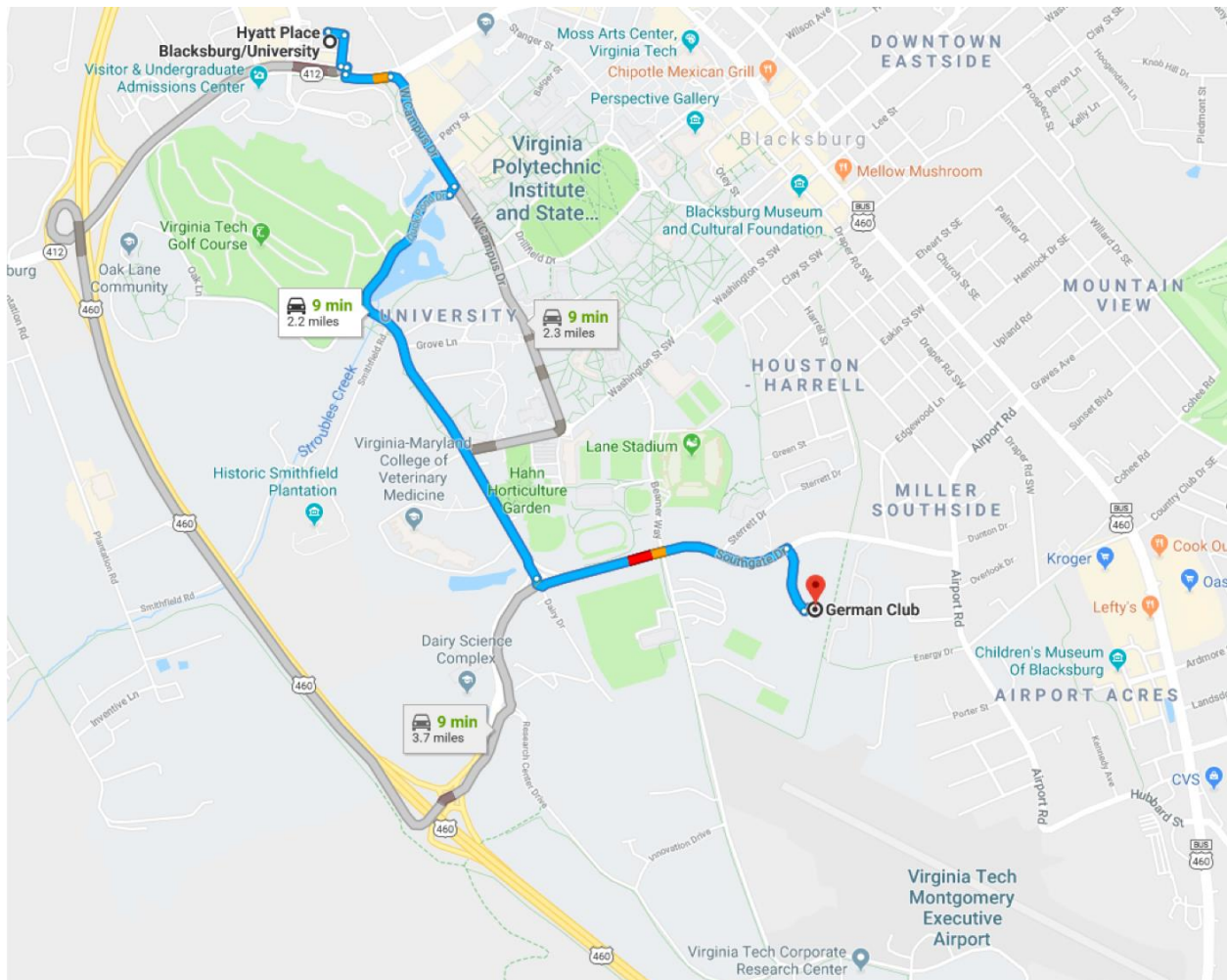




Directions to Hyatt Place from US-460 W

- Follow US-460 W to VA-412 N/Prices Fork Rd in Blacksburg.
- Take the VA-412 N exit on to Prices Fork Road from US-460 W
- Continue on VA-412 N/Prices Fork Rd 0.7 miles
- Take left onto University City Blvd
- Take right at next stop light.

Address: 650 University City Blvd, Blacksburg, VA 24060



Directions from Hyatt Place to German Club

- Continue to Prices Fork Rd 1 min (0.1 mi)
- Take W Campus Dr to Duck Pond Dr 2 min (0.4 mi)
- Follow Duck Pond Dr to Southgate Dr in E-01 3 min (1.0 mi)
- At the traffic circle, take the 3rd exit onto Southgate Dr 2 min (0.5 mi)
- Drive to your destination 1 min (0.2 mi)

Address: 711 Southgate Dr, Blacksburg, VA 24060

2019 Meeting of the Virginia, West Virginia and Virginia Tech Chapters of the
American Fisheries Society

Tuesday, February 19th - Thursday, February 21st, 2019

Hyatt Place Blacksburg / University
650 University City Blvd, Blacksburg, VA 24060

Program at a glance	
Tuesday 19th February	
12:00 PM	Registration for Joint AFS Meeting
1:00 PM – 5:00 PM	R3 Initiative Presentations and Discussion
6:30 PM – 10:00 PM	Informal Social – German Club
Wednesday 20th February	
7:45 AM	Registration for Joint AFS Meeting
8:00 AM – 8:05 AM	Opening Remarks
8:05 AM – 9:50 AM	Contributed Papers
9:50 AM – 10:05 AM	BREAK
10:05 AM – 11:55 AM	Contributed Papers
11:55 AM – 1:20 PM	LUNCH
1:20 PM – 2:45 PM	Contributed Papers
2:45 PM – 3:00 PM	BREAK
3:00 PM – 3:40 PM	Contributed Papers
3:40 PM – 4:00 PM	BREAK
4:00 PM – 5:00 PM	Chapter Business Meetings
6:00 PM – 7:00 PM	Poster Session and Social – German Club
6:00 PM – 10:00 PM	Dinner and Raffle – German Club
Thursday 21st February	
8:30 AM – 10:10 AM	Contributed Papers
10:10 AM – 10:30 AM	BREAK
10:30 AM – 11:55 AM	Contributed Papers
11:55 AM – 12:30 PM	Closing Remarks / Awards

Program Committee: Brad Fink (VA Chair), Aaron Bunch, Scott Smith, Brandon Keplinger and Alan Temple.

Tuesday, February 19th

Registration Opens at 12:00

TIME	Hyatt Place Blacksburg - Ballroom
	Moderator: Dr. Don Orth
1:00-5:00 p.m.	R3 Initiative Presentations and Discussion
1:00-2:00 p.m.	Title: Fishing for Ideas - Is the North American Model Still Relevant in Today's World? <i>Presenter: John Arway – Pennsylvania Fish and Boat Commission - Ret. Executive Director</i>
2:00-3:00 p.m.	Title: Marketing and R3 in West Virginia <i>Presenter: Kayla Donathan - WVDNR - Public Information Specialist</i>
3:00-4:00 p.m.	Title: Developing and Implementing an Agency-wide R3 Plan <i>Presenter: Ed Herndon - VDGIF - Recruitment, Retention and Reactivation (R3) Coordinator</i>
4:00-5:00 p.m.	Question and Answer Session / Panel Discussion <i>John Arway, Kayla Donathan, Ed Herndon)</i>

TIME	German Club
6:30-10:00 p.m.	Social – Pizza and Salad <u>Cohosted by the Virginia Tech Alumni Association</u>



**Virginia Tech
Alumni Association**

VirginiaTechforlife

Wednesday, February 20th

Registration Opens at 7:45 A.M.

TIME	Hyatt Place Blacksburg - Ballroom
8:00-8:05 a.m.	Opening Remarks <i>Johnathan Harris, VA Chapter President</i>
	Moderator: Alan Temple
8:05-8:20 a.m.	Largemouth Bass Population Response to a Protected Slot Limit Regulation in a Small Impoundment <i>B. Keplinger - WVDNR</i>
8:20-8:35 a.m.	Assessment of Small Impoundment Bluegill Populations in Northern West Virginia <i>D. M. Smith - WVDNR</i>
8:35-8:50 a.m.	Efforts to Enhance Channel Catfish Natural Recruitment in Virginia Small Impoundments <i>J. Lam - Blue Ridge Community College, 2018 VCAFS Junior Fish Biologist - Student</i>
8:50-9:05 a.m.	Evaluation of Sampling Gears and Population Characteristics of Catfish in the Monongahela River, WV <i>K. L. Chestnut - WVU - Student</i>
9:05-9:20 a.m.	Examining Multi-scale Effects of Land Use on Fish Abundance within the New River Basin <i>L. G. Sleezer - VT - Student</i>
9:20-9:35 a.m.	A simulation study to evaluate the influence of sub-sampling bin sizes on growth parameter estimation <i>C. Hilling - VT - Student</i>
9:35-9:50 a.m.	Protective Slot Limit, Changing Angler Behavior, and Increased Survival Has Unintentional Consequences for Striped Bass Fishery <i>D. Wilson - VDGIF</i>
9:50-10:05 a.m.	BREAK
	Moderator: Kirk Smith
10:05-10:20 a.m.	Examining mutualistic interactions between nest-building stream fish and Clinch dace using two modeling approaches <i>B. C. Kline - PSU - Student</i>
10:20-10:35 a.m.	The federally endangered Candy Darter (<i>Etheostoma osburni</i>): how did it happen and can we prevent population extirpation or species extinction? <i>D. Cincotta - WVDNR</i>

TIME	Hyatt Place Blacksburg - Ballroom
10:35-10:50 a.m.	Population genetic structure of the endangered Candy Darter in West Virginia and implications for management <i>B. E. Kessinger – WVU Student</i>
10:50-11:05 a.m.	Variation in detectability among riffle-dwelling fishes in two Virginia streams <i>K. E. McBaine - VT - Student</i>
11:05-11:20 a.m.	Assessing Brook Trout (<i>Salvelinus fontinalis</i>) Populations Above and Below Waterfalls in Virginia <i>H. Eisemann - JMU - Student</i>
11:20-11:30 a.m.	Using sex ratios of Brook Trout to identify population resilience and spawning adult size structure <i>B. A. Wager - WVU - (Lightning) Student</i>
11:30-11:40	<i>Why are there no big Brook Trout in headwater streams?</i> <i>K. J. Hartman - WVU – (Lightning)</i>
11:40-11:55	Stream Restoration and Monitoring Efforts and the Introduction of Brook Trout (<i>Salvelinus fontinalis</i>) Into Catharpin Creek, a Small Spring-fed Stream in Bull Run Mountains Natural Area Preserve Located 35 Miles Outside of Washington, DC <i>R. M. Geiger - West Springfield High School - Student</i>
11:55-1:20 p.m.	LUNCH – On Your Own
	Moderator: Steve Reeser
1:20-1:35 p.m.	Lake Fertilization and Nutrient Budgets: Lake Management versus Chesapeake Bay Total Maximum Daily Load (TMDL) Reduction <i>L. Bondurant - JMU - Student</i>
1:35-1:45 p.m.	Mucking Around with Aquatic Plants in Claytor Lake: What have we Learned? <i>J. R. Copeland - DGIF (Lightning)</i>
1:45-2:00 p.m.	Population Genetic Analysis of Striped Bass in the Roanoke River Basin <i>S. C. Harris - VT - Student</i>
2:00-2:15 p.m.	Effects of spatial autocorrelation on the diet composition analysis: an example based on a migratory species along Eastern Coast of China <i>M. Li - VT - Student</i>
2:15-2:30 p.m.	Evaluating drivers of Brook Trout stock/recruitment relationships in West Virginia headwater streams <i>C. W. Schwinghamer - WVU - Student</i>

TIME	Hyatt Place Blacksburg - Ballroom
2:30-2:45	Understanding Virginia Anglers' & Other Wildlife Recreationists' Conservation Behaviors & Perspectives about the State Agency <i>B. P. Grooms - VT - Student</i>
2:45-3:00 p.m.	BREAK
	Moderator: Dan Wilson
3:00-3:15 p.m.	The TIA Alliance: Students and Conservation Organizations Working Together for the Integrity of Our Aquatic Ecosystems <i>M. Waclawski - James Madison High School – Student</i> <i>Dr. B. Murphy - VT</i>
3:15-3:30 p.m.	Investigations into the life-history and genetic diversity of the Tennessee heelsplitter (<i>Lasmigona holstonia</i>) <i>A. M. Ganzer - VT - Student</i>
3:30-3:40 p.m.	Blue Catfish and Flathead Catfish Population Characteristics and Movement in Ohio and Lower Kanawha River, West Virginia <i>J. V. Siegel – WVU – Student (Lightning)</i>
3:40-4:00 p.m.	BREAK
4:00-5:00 p.m.	Chapter Business Meetings – Hyatt Place Ballroom

Breaks Provided by the Virginia Tech Department of Fish and Wildlife Conservation



COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT
FISH & WILDLIFE CONSERVATION
VIRGINIA TECH.

TIME	German Club
6:00-7:00 p.m.	Poster Session – Maddie Johnson (VT Chapter) – John Copeland
	VDGIF Northern Snakehead Citizen Science App. <i>B. P. Donovan - VDGIF</i>
	Identification of larval darters of the upper Roanoke River drainage <i>J. Buckwalter - VT</i>
	Modeling the Predation Dynamics of Invasive Blue Catfish <i>Ictalurus furcatus</i> in the Chesapeake Bay Tributaries and Subestuaries <i>Dr. D. Orth - VT</i>
	Using fishers' knowledge of catch rates to conserve Brazilian fisheries <i>L. Castello - VT</i>
	Bluegill (<i>Lepomis macrochirus</i>) exhibit distinct morphology, but not gonad mass, in reservoirs versus streams <i>A. Hajjami and Thomas Bustamante</i>
	Bluegill Habitat Use in the Upper Mississippi River <i>E. Rutledge - WVU - Student</i>
	Urban Stream Restoration: Material Processing and Conveyance Channels <i>M. Berg - JMU - Student</i>
	Pitt Springs Run: A Tale of Two Water Chemistries <i>E. Hutchinson and C. Guo - JMU - Student</i>
	Lake Keokee: Physical – Chemical Parameters, Fish Populations and Management Issues <i>M. Roberts - JMU - Student</i>
	Can you see the rainbow: Assessing the genetic diversity of a common and ubiquitous freshwater mussel species, <i>Villosa iris</i> <i>K. Ortiz - VT - Student</i>
	Fragmentation and Genetic Diversity in Clinch Dace <i>Chrosomus sp. cf. saylori</i> <i>R. Bourquin - VT - Student</i>
	Patterns of larval darter catch in the upper Roanoke River drainage <i>H. Greenway and G. Martin - VT - Student</i>
	Habitata Utilization and Impact of Flooding on the James Spiny Mussel (<i>Parvaspina Collina</i>) Populations in Virginia Streams <i>Christine A. Verdream - JMU - Student</i>
	Smallmouth Bass Habitat Use in the Upper Mississippi River <i>C. G. Gainer - WVU - Student</i>
	Ichthyochory in omnivorous fishes of the Amazonian floodplain <i>S. Alascio - W&L University - Student</i>
6:00-10:00 p.m.	Dinner & Raffle – German Club

Thursday, February 21st

TIME	Hyatt Place Blacksburg - Ballroom
	Moderator: Jason Hallacher
8:30-8:45 a.m.	Springtime Exploitation of Brook Trout by Anglers in Remote Headwater Streams of Central Appalachia <i>K. Hartman - WVU</i>
8:45-9:00 a.m.	Long Term Variability in Brook Trout (<i>Salvelinus fontinalis</i>) Populations and Climate across a Large Spatial Extent in the Central Appalachian Mountains <i>R. G. Andrew - WVU</i>
9:00-9:15 a.m.	Trout Angler Use and Trends at the Clinch Mountain Fee Area <i>S. Owens - VDGIF</i>
9:15-9:30 a.m.	<i>Population genetics of Brook Trout (Salvelinus fontinalis) in the southern Appalachian Mountains</i> <i>E. Hallerman - VT</i>
9:30-9:45 a.m.	Variable Exploitation of Walleye and Saugeye in John W. Flannagan Reservoir <i>J. Williams - VDGIF</i>
9:45-9:55 a.m.	Egg Size Variation Among Walleye in Virginia <i>C. B. Hopkins – VT (Lightning)</i>
9:55-10:10 a.m.	Exploring Pathways of Atlantic Sturgeon DNA in Diets from a Tidal River Fish Assemblage using NextGeneration Sequencing <i>A. Bunch - VDGIF</i>
10:10-10:30 a.m.	BREAK
	Moderator: Aaron Bunch
10:30-10:40 a.m.	<i>Comparative Analysis of Two Genetic Markers Used Separately and in Conjunction for DNA Metabarcoding Diet Studies</i> <i>F. Hoogakker – VDGIF (Lightning)</i>
10:40-10:50 a.m.	Competition and Predation: Interactions between American eels (<i>Anguilla rostrata</i>) and brook trout (<i>Salvelinus fontinalis</i>) in Virginia mountains streams <i>J. Studio - Environmental Solutions and Innovations, Inc (Lightning)</i>
10:50-11:00 a.m.	Virtual reality meets fish biology: introducing Project eTrout <i>T. Hitt - USGS Leetown Science Center (Lightning)</i>
11:00-11:15 a.m.	A Fisheries Management Perspective: Public Versus Private Sector Approaches <i>V. DiCenzo - Solitude Lake Management</i>

TIME	Hyatt Place Blacksburg - Ballroom
11:15-11:25 a.m.	Restoration of Beneficial Native Vegetation in the Presence of Herbivores <i>Tyler Meighan - Solitude Lake Management (Lightning)</i>
11:25-11:40 a.m.	<i>Lighting Up the Black Box: Discovery of Novel Viruses that Infect Fish Using Massively Parallel Sequencing Approaches</i> <i>L. R. Iwanowicz - U.S. Geological Survey, Leetown Science Center, Fish Health Branch</i>
11:40-11:55 a.m.	A Tale of Two New Catfishes from Oz <i>S. A. Welch - USGS</i>
11:55-12:00 p.m.	Closing Remarks <i>Brad Fink, VA Chapter President</i>