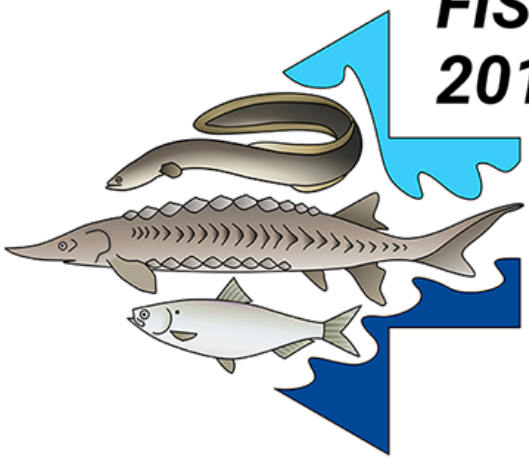
53RD ANNUAL MEETING OF THE NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY



FISH ON THE MOVE
2019 ANNUAL MEETING
NEW YORK CHAPTER and
NORTHEASTERN DIVISION of the
AMERICAN FISHERIES SOCIETY

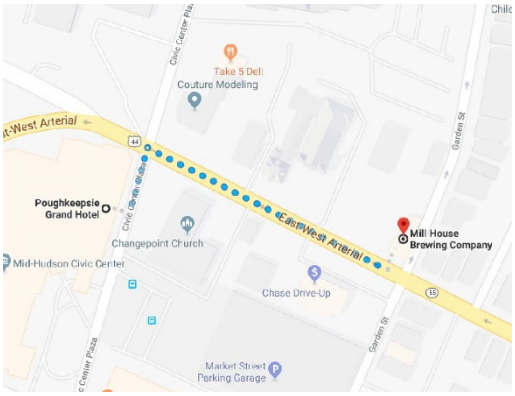
February 6 – 8, 2019
Poughkeepsie Grand Hotel
40 Civic Center Plaza
Poughkeepsie, NY


Total Rentable Space
Approximately 15,000 SQ. FT.
LUNCH and BANQUET
Regency Room
4200 sf
Bar
PRIZE TABLE
Terrace
Garden
MEETING ROOM
Dutchess
1680 sf
Bar
WORKSHOP
POSTER SESSION
BREAKS
Parking Garage Elevators
PLENARY SESSION
Entrance to parking garage
MEETING ROOM
Starlight
2400 sf
Terrace
2989 sf
Bar
Guest Elevators
REGISTRATION
Bar
Bar
Terrace
Suite
Front Desk
Gift
Shop
MEETING ROOM
Palm Court
2600 sf
Regency
Suite
Lobby
Market Street Bar & Grill
Mens Restrooms
Waterfall
Ladies Restrooms

Schedule by day

06 February 2019

11:00am - 12:30pm	Registration
12:30pm - 7:00pm	Poster set up (Terrace room)
4:30pm – 6:00pm	NYCAFS Executive Committee Meeting (Terrace room)
6:30pm - 8:30pm	NYCAFS Welcome Social Millhouse Brewing Company, 2nd&3rd floors, 289 Mill St., Poughkeepsie – see map



07 February 2019

SCHEDULE AT A GLANCE

7:00am – 8:00am	Registration
7:00am – 8:30am	Continental Breakfast (Regency)
7:00am – 6:30pm	Poster set up (Terrace)
8:30am – 12:15pm	Plenary Session (Starlight/Dutchess)
10:30am – 10:45am	Break
12:15pm – 1:00pm	Lunch (Regency)
1:00pm – 4:40pm	Concurrent Sessions (Starlight, Dutchess, Palm Court)
2:20pm – 2:40pm	Break
5:00pm – 6:15pm	Business meeting (Palm Court)
5:30pm – 6:30pm	Poster Session (Terrace)
6:30pm – 10:00pm	Banquet, Awards and Raffle (Regency)

08 FEBRUARY 2019

SCHEDULE AT A GLANCE

7:00am – 8:00am	Registration
7:00am – 8:30am	Continental breakfast (Regency)
7:30am – 8:30am	NED Business meeting (Terrace)
8:30am – 10:10am	Concurrent sessions (Palm Court, Regency, Terrace)
10:10am – 10:30am	BREAK
10:30am – 11:50am	Concurrent sessions (Palm Court, Regency, Terrace)
11:50am – 12:10pm	Student presentation awards (Regency)

07 FEBRUARY 2019

PLENARY SESSION

8:30am – 8:45am	Meeting and film introductions (Karin Limburg/Riverkeeper)
8:45am – 9:00am	Riverkeeper film
9:00am – 9:30am	David H Secor. Migration ecology of marine fisheries: Contingents for contingencies
9:30am – 10:00am	Janet Nye. The future is now: Climate change and North Atlantic fisheries
10:00am – 10:30am	Katherine E. Mills. Vulnerabilities and adaptation of Northeast fishing communities in the context of fish on the move
10:30am – 10:45am	BREAK
10:45am – 11:15am	John Maniscalco. Fish on the move – one manager's perspective
11:15am – 11:45am	Chris Bowser. The Hudson River Eel Project: Fish conservation through community engagement (and vice versa)
11:45am – 12:15pm	Panel Discussion, John Waldman, moderator
12:15pm – 1:00pm	Lunch – Regency Room

CONCURRENT SESSIONS (*Student presenter)

Shad Symposium (Palm Court)

1:00pm - 1:20pm	Limburg, K. and R. Adams. Whither Shad? What has happened to America's "Founding Fish"?
1:20pm – 1:40pm	*Gilligan, E. Incorporating anticipated climate change effects in growth models for American shad populations throughout the Atlantic Coast.
1:40pm – 2:00pm	Adams, et al. Hudson River American shad: A brief status update.
2:00pm – 2:20pm	*Nack, et al. Historical and future changes in spawning phenologies of American shad and striped bass in the Hudson River Estuary.
2:20pm – 2:40pm	BREAK
2:40pm – 3:00pm	*Andrews, D. Variability in growth of alewife in six coastal rivers.
3:00pm – 3:20pm	*Futia, et al. Can fish have too much fat? Lower thiamine concentrations in salmonines associated with the consumption of fatty alewife *Alosa pseudoharengus.*
3:20pm – 3:40pm	Lambert, et al. Diadromous fishes and ecosystem services: A transnational approach for a first valuation.
3:40pm – 4:00pm	*Hodkin, C. and K. Limburg. Differential migration in blueback herring as evidenced from otolith chemical signatures.
4:00pm – 4:20pm	*Bianchi, et al. Oocyte development of age 2 alewife in Lake Ontario.

Management (Starlight)

1:00pm – 1:20pm	Jackson, et al. Year-class production of black bass before and after opening of a spring catch and release season in New York: Case studies from three lakes.
1:20pm – 1:40pm	*Marcy-Quay, et al. A comparison of three boat electrofishing effort metrics.
1:40pm – 2:00pm	*Kasper, et al. Modifying age-based selectivity to rebuild overfished stocks and increase resilience.
2:00pm – 2:20pm	Boenish, R. The global rise of crustaceans: Shelling out more for seafood?
2:20pm – 2:40pm	BREAK

Hudson River/Marine Symposium (Starlight)

2:40pm – 3:00 pm	*Smith, K. Reconnecting waters for eels and river herring: Towards resilience building approaches for dam removal action in the Hudson River watershed.
3:00pm – 3:20pm	Pendleton, et al. Tracking the recovery: Atlantic sturgeon in the Hudson River.
3:20pm – 3:40pm	Wildman, L. Dam removal: When less is more.
3:40pm – 4:00pm	McKown, K. Lobsters in Southern New England and climate change.
4:00pm – 4:20pm	Van Genechten, A. When your diadromous reputation precedes you: Convincing striped bass anglers and unintended consequences of a Hudson River slot limit.
4:20pm – 4:40pm	Mount, et al. The American eel: Citizen science ambassador at all life stages.

Cisco in the Great Lakes (Dutchess)

1:00pm – 1:20pm	*Paufve, et al. Spawning habitat and reproductive strategies of Cisco in the Great Lakes.
1:20pm – 1:40pm	*Brown, et al. Moving to a lake-wide understanding of early life-history habitat for Lake Ontario coregonines.
1:40pm – 2:00pm	*George, et al. Genetic diversity, stock structure, and hybridization of cisco in Lake Ontario.
2:00pm – 2:20pm	*Lachance, et al. Shedding light on an understudied environmental factor: How does light impact cisco (*Coregonus artedi*) eggs and larvae?
2:20pm – 2:40pm	BREAK

Great Lakes/Lake Champlain (Dutchess)

2:40pm – 3:00pm	Evans, et al. Can size spectrum modeling be used to inform ecosystem management of the Great Lakes?
3:00pm – 3:20pm	Watkins, et al. Pop-off satellite archival tags on Chinook salmon in Lake Ontario.
3:20pm – 3:40pm	*Wilkins, P. and E. Marsden. Growth and recruitment of lake trout juveniles in Lake Champlain.

3:40pm – 4:00pm	Markham, J. Using lake trout movement patterns to understand reproductive failure in Lake Erie.
4:00pm – 4:20pm	Robinson, J. Differing movement patterns of walleye spawning stocks in Lake Erie.
4:20pm – 4:40pm	*Conklyn, et al. Seasonal condition and VHSV prevalence in the invasive round goby in the Upper St. Lawrence River.

08 FEBRUARY 2019

CONCURRENT SESSIONS (*Student presenter)

Shad Symposium (Palm Court)

8:30am – 8:50am	Gahagan, B. and M. Bailey. Improving acoustic telemetry in alosines: American shad in the Charles River and beyond.
8:50am – 9:10am	*Limaye, et al. Monitoring Long Island alewife populations: Evaluating the efficacy of a new fishway at Beaver Lake in Mill Neck, NY.
9:10am – 9:30am	Gurshin, C. and M. Balge. Using sonar technologies to monitor out-migration of juvenile Clupeids: Two case studies in the Mohawk River and Connecticut River.
9:30am – 9:50am	*Littrell, et al. River restoration project mediates secondary contact between anadromous and landlocked alewife.
9:50am – 10:10am	Eakin, et al. River herring abundance and parameters influencing migration patterns in Black Creek, a small tributary of the Hudson River.
10:10am – 10:30am	BREAK
10:30am – 10:50am	Savoy, T. “Ecological Trap” consequences of fish restoration: A case history of American shad in the Connecticut River.
10:50am – 11:10am	Daverat, et al. Shadeau research project: From applied to academic research for the recovery of Allis shad and Twaite shad.
11:10am – 11:30am	Stich, D. and E.Gilligan. Moving toward a unified approach to informing American shad dam passage performance standards.
11:30am – 11:50am	Constantine, et al. Dam removals and the return of East Coast shads and other native species.

Recovery & Resilience in Response to Major Environmental Change (Regency)

8:30am – 8:50am	*Coney et al. The reintroduction of the American eel to the NY portion of the Upper Susquehanna.

8:50am – 9:10am	*Goretzke, J. and J. Farrell. Development of native fish and aquatic macrophyte assemblages in excavated coastal wetlands of the Upper St. Lawrence River.
9:10am – 9:30am	*Kronisch, G. and N. Ringler. Evaluation of fish assemblage response to the remediation of an urban lake.
9:30am – 9:50am	*Caves, S. Grass carp *Ctenopharyngodon Idella* growth before and after hydrilla *Hydrilla verticillata* control.
9:50am – 10:10am	*Block, et al. The importance of winter foraging by thermally-dissimilar fish species.
10:10am – 10:30am	BREAK
10:30am – 10:50am	Gorman, L. The first 2 years of the Lower Grasse River freshwater mussel relocation project.
10:50am – 11:10am	Siegfried, S. Aquatic organism passage benefits resulting from culvert replacement projects at Fort Drum.
11:10am – 11:30am	Josephson et al. Chemical and biological recovery of Adirondack Mountain region lakes from acid deposition: A conservation success story.
11:30am – 11:50am	***Infections & Invasions (Terrace)***
8:30am – 8:50am	Getchell et al. Co-infections in Oneida Lake smallmouths and Sodus Bay sunfish.
8:50am – 9:10am	Reyda, F. Fish parasites as indicators of host biology: Insights from a fish parasite survey in New York.
9:10am – 9:30am	*Mullin, B. A survey of Salmonid infection with the copepod *Salminicola californiensis* in Lake Ontario.
9:30am – 9:50am	George, S. and B. Baldigo. Efficacy of Environmental DNA and traditional sampling methods to monitor the expansion of round goby in the Mohawk River-Barge Canal System.
9:50am – 10:10am	Cushman, S. and N. Michels. Foraging ecology of round goby: Impacts on native and non-native prey choices.
10:10am – 10:30am	BREAK
Genetics (Dutchess)	
10:30am – 10:50am	Therkildsen, et al. Whole genome sequencing provides new insights into adaptive divergence in Atlantic cod.
10:50am – 11:10am	Roman et al. Contrasted patterns of divergence and gene flow among five fish species in a Mongolian rift lake following glaciation.

11:10am – 11:30am	Sethi et al. Estimating the number of contributors to DNA mixtures provides a novel tool for ecology.
11:30am – 11:50am	Sard, N. Environmental DNA metabarcoding sampling methods are effective at detecting low abundance species in complex aquatic communities.

Plenary Presenter Biographies

David H. Secor

Dr. Secor is a fisheries ecologist and Regents Professor at University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory, where he began as a PostDoc in 1991. He was graduated by Macalester College (BA, 1983) and conducted dissertation research (PhD, 1990) at the Baruch Institute, University of South Carolina and at Kagoshima University, Japan. His research group has pioneered applications using otolith tracers and acoustic telemetry to reconstruct migrations in estuarine and coastal fishes. Much of this work during the past 25 has been focused in the Hudson River and NY Harbor. A primary interest is how diversity in life history and migration contribute to resilience in exploited species and species of concern. He has provided a comprehensive review of this topic in his book entitled *Migration Ecology of Marine Fishes* published in 2015 by The Johns Hopkins University Press. Dave teaches graduate courses in fisheries science and management and fish ecology, and advises the Chesapeake Bay Program and other state, federal, and international agencies on fisheries stock assessment, climate impacts, species of concern, and ecosystem-based fisheries management.

Janet Nye

Dr. Nye is an Associate Professor at Stony Brook University School of Marine and Atmospheric Science. She is a quantitative fisheries ecologist interested in the effects of climate variability and climate change, including ocean acidification, on marine fishes and ecosystems. Her research has focused on how changes in the physical environment scale from individual physiological effects to populations and ecosystems. She is an expert in ecosystem-based fisheries management and teaches courses in Fish Ecology, Biological Oceanography and Scientific Decision Support.

Katherine E. Mills

Dr. Katherine Mills is a research scientist at the Gulf of Maine Research Institute in Portland, Maine. She earned her Ph.D. in Natural Resources at Cornell University. As a quantitative fisheries ecologist, Kathy studies (1) how physical and ecosystem conditions are changing; (2) how these changes affect fish populations, biological communities, and marine fisheries; and (3) how fisheries and fishing communities can effectively respond. Much of her work is interdisciplinary, seeking to understand and inform management of fisheries as coupled social-ecological systems. This research integrates climate, ecological, social and economic information to link changes in the ecosystem to societal outcomes. Climate adaptation within marine fisheries has become a major recent focus, with emphases on assessing climate adaptation strategies and providing new forms of information to support adaptation planning by fishery participants, fishing communities and fishery managers.

John Maniscalco

John Maniscalco is the Bureau Chief of Marine Fisheries for the New York State Department of Environmental Conservation's Division of Marine Resources. After receiving his M.S. from Stony Brook University's School of Marine and Atmospheric Science, he began working for New York State in 2006 as a biologist monitoring horseshoe crab and American lobster. Prior to graduate

school, he had been a fish-geek maintaining tanks at the New York Aquarium. John Maniscalco is an active participant in the interstate fisheries management process, and currently sits on several technically-oriented species committees including summer flounder, scup and black sea bass.

Chris Bowser

Chris Bowser is the education coordinator at the NYSDEC Hudson River National Estuarine Research Reserve and Hudson River Estuary Program, in partnership with the Water Resource Institute at Cornell University. He has also taught environmental science at Marist and Bard Colleges, explored the Hudson aboard the Sloop Clearwater, and planted trees in the Sahara Desert with the US Peace Corps.

2019 Klumb-Spindler Award Recipients

Benjamin Block, *The importance of winter foraging by thermally-dissimilar fish species*, University of Vermont

Thomas Bianchi, *Oocyte development of Age-2 Alewife in Lake Ontario*, SUNY Brockport

Cara Ewell Hodkin, *Differential migration in blueback herring as evidenced from otolith chemical signatures*, SUNY ESF

Colleen Schmid, *Analyzing the Change in Juvenile Eel Catch and Weight Throughout the Migration Season*, Ossining High School

"Fish on the Move" logo design: Matthew Paufve

Contributed Posters (*student posters)

Bishop, D. Annual trends in YOY abundance for two Hudson River catfish.

Breece, M., A. Higgs and D. Fox. Environmental drivers of broad-scale adult Atlantic sturgeon behavior in the Hudson River.

Carlson, D. Late-spawning suckers of the eastern and western Adirondacks.

*Cooper, R.A., O.F. Vosburg, M.R. Willett and T.E. Yorks. Walleye and tiger muskellunge stocking in Jamesville Reservoir and its fish community.

Craig, C. Western Long Island striped bass seine survey.

Craig, C. and Z. Schuller. Long Island juvenile American eel survey.

Dittman, D. and Chalupnicki, M. Status and seasonal habitat use by lake sturgeon in the Seneca River, New York.

Driscoll, C., J. Brewer, M. Todd, R. Roth, Jr. and J. Zanett. Assessing adult muskellunge movements in Buffalo Harbor, Lake Erie, and the Niagara River.

*Duskey, E., A. Higgs and P. Sullivan. Modeling diadromous movement of Hudson River spawning Atlantic sturgeon.

*Fitzpatrick, K.B., T.O. Brenden, S.R. LaPan, L.G. Rudstam, P.J. Sullivan, B.C. Weidel and S.A. Sethi. Modeling Chinook salmon population dynamics in Lake Ontario.

*Goretzke, J., J. Farrell and M. Windle. Range expansion of the western tubenose goby in the Upper St. Lawrence River.

*Kern, B.R., O.S. Hoy, A.L. Rose and T.E. Yorks. Cazenovia Lake's fish community and short-term results of three years of walleye stocking.

Kinney, P., L. Resseguie and T. Kielbasinski. Experimental grading of Washington steelhead.

*Konrad, C. Lake sturgeon and round goby prey consumption and availability in the northern end of Cayuga Lake and the Cayuga/Seneca Canal.

Lepak, J. Understanding angler response to barotrauma in Lake Erie yellow perch.

Limburg, K. 29 years on, your PhD shad otoliths may still surprise you.

*Lloyd, C., C. Evans, R. DeBruyne, A. Briggs, J. Hessenauer, T. Wills and E. Roseman. Distribution and abundance of larval yellow perch in Lake St. Clair and adjoining waters.

Mabey, A., S. Mount and C. Bowser. What eels teach us about people: Evaluating a citizen science project.

*Matt, M. Zooplankton community shifts in Lake Ronkonkoma.

Marshall, C., P. Hudson, J. Watkins, L. Rudstam, T. Brooking and R. Jackson. Parasitic crustacean survey of Oneida Lake.

*Moss, S. Nesting of diamondback terrapins (*Malaclemys terrapin*) at three locations in coastal New Jersey.

O'Malley, B., R. Chapina and J. Stockwell. A remote video camera system to observe behavior, abundance, and predator-prey interactions of deepwater organisms.

*Pakzad, I., J.M.Farrell and R.Razavi. Mercury bioaccumulation and diet overlap of two invasive goby species in the St. Lawrence River.

*Paumier, A., H.Drouineau and P. Lambert. Assessing the environmental control on fish life cycle: case of temperature, discharge and photoperiod control on shad reproduction.

*Petrou, N.A., T.A.Bauer, H.N.O'Riordan and K.C. Jones. Fluctuations in drought levels that effected banded sunfish populations in the Peconic River Drainage.

*Petrou, N.A., A.R.Holsopple, M.K. Mulvihill, M. Best and A.G. Landis. Characterization of spawning rainbow smelt in relation to water temperature on Otsego Lake, NY.

Pokorny, T. and D. Pierce. Joint fisheries investigation plan for the Delaware Tailwaters, 2018-2020.

Rinchard, J., M. Beers, T. Bianchi and M. Futia. Comparison of prey fish fatty acid signatures among the Finger Lakes.

Rinchard, J., J. Noonan, M. Futia, M. Sanderson, S. Prindle, M. Todd, C. Lake and M. Yuille. Lake-wide comparison of Chinook salmon condition after pen-rearing in Lake Ontario.

Ross, A., B. Weidel and C. Solomon. Against the current: stream-run behavior in Cisco (*Coregonus artedi*).

*Schmid, C. and M. Ippoliti. Analyzing the change in glass eel count and weight throughout the glass eel season.

*Sinopoli, D. and D. Stewart. A synthesis of management regulations and attitudes towards bowfins, and conservation implications of a developing caviar fishery.

Swenson, S. Utilizing pass thru and pass over radio frequency identification HDX single antenna systems to evaluate the passability of a culvert pre and post baffle installation.

Turek, J., G. Fricano and B. Kulik. Scaling riverine ecological restoration services from dam removals.

Van Genechten, A. Reaching and educating Hudson River fish consumers about PCB contamination in fish.

Weidel, B., J. Hoyle, M. Connerton, J. Holden and M. Vinson. Long-term surveys inform Lake Ontario coregonine dynamics.

*Winterhalter, D. and A.G. Landis. Potential effects of culvert water velocity on upstream movements of brook trout.

Zacharias, J., C. Ziegler, K. McKown, R. Cerrato and M. Frisk. One fish, two fish, red fish, blue fish: Nearshore ocean trawl survey.

Thursday, February 7th – Abbreviated overview of concurrent sessions (*Student presenter)

ROOM:	PALM COURT	STARLIGHT	DUTCHESS
TIME	**SHAD SYMPOSIUM**	**MANAGEMENT**	**GREAT LAKES CISCO**
1:00-1:20pm	Limburg, K. & R. Adams. Whither shad? What has happened to America's "Founding Fish"?	Jackson, et al. Year-class prod of black bass before & after opening of spring C&R season in NY: Case studies from three lakes.	*Paufve, et al. Spawning habitat and reproductive strategies of cisco in the Great Lakes.
1:20-1:40pm	*Gilligan, E. Incorporating climate change effects in growth models for Am. shad throughout the At. Coast.	*Marcy-Quay, et al. A comparison of three boat electrofishing effort metrics.	*Brown, et al. Moving to a lake-wide understanding of early life-history habitat for Lake Ontario coregonines.
1:40-2:00pm	Adams, et al. Hudson River American shad: A brief status update.	*Kasper, et al. Modifying age-based selectivity to rebuild overfished stocks and increase resilience.	*George, et al. Genetic diversity, stock structure, and hybridization of cisco in Lake Ontario.
2:00-2:20pm	*Nack, et al. Historical and future changes in spawning phenologies of Am. shad and striped bass in the HRE.	Boenish, R. The global rise of crustaceans: Shelling out more for seafood?	*Lachance, et al. Shedding light on an understudied environmental factor: How does light impact cisco eggs and larvae?
2:20-2:40pm	BREAK	BREAK	BREAK
	SHAD SYMPOSIUM	**HUDSON RIVER/MARINE SYMPOSIUM**	**GREAT LAKES/LAKE CHAMPLAIN**
2:40-3:00pm	*Andrews, D. Variability in growth of alewife in six coastal rivers.	*Smith, K. Reconnecting waters for eels and river herring: dam removal action in HR watershed	Evans, et al. Can size spectrum modeling be used to inform ecosystem management of the Great Lakes?
3:00-3:20pm	*Futia, et al. Can fish have too much fat? Lower thiamine conc in salmonines assoc with consumption of fatty alewife *A. pseudoharengus.*	Pendleton, et al. Tracking the recovery: Atlantic Sturgeon in the Hudson River.	Watkins, et al. Pop-off satellite archival tags on Chinook salmon in Lake Ontario.
3:20-3:40pm	Lambert, et al. Diadromous fishes and ecosystem services: A transnational approach	Wildman, L. Dam removal: When less is more.	*Wilkins, P. and E. Marsden. Growth and recruitment of lake trout juveniles in Lake Champlain.
3:40-4:00pm	*Hodkin, C. and K.Limburg. Diff. migration in blueback herring as evid from otolith chemical signatures.	McKown, K. Lobsters in Southern New England and climate change.	Markham, J. Using lake trout movement patterns to understand reproductive failure in Lake Erie.
4:00-4:20pm	*Bianchi, et al. Oocyte development of age 2 alewife in Lake Ontario	Van Genechten, A.: Convincing striped.bass anglers/unintended consequences of slot limit	Robinson, J. Differing movement patterns of walleye spawning stocks in Lake Erie.
4:20-4:40pm		Mount, et al. American eel: Citizen science ambassador at all life stages.	*Conklyn, et al. Seasonal condition/VHSV in round goby in Upper St. Lawrence River.

Friday, February 8th - Abbreviated overview of concurrent sessions (*Student presenter)

ROOM:	PALM COURT	REGENCY	TERRACE
TIME	**SHAD SYMPOSIUM**	**RESPONSES TO MAJOR ENV CHANGE**	**INFECTIONS & INVASIONS**
8:30-8:50am	Gahagan, B. and M. Bailey. Improving acoustic telemetry in alosines: American shad in the Charles River & beyond	*Coney, et al. The reintroduction of the American eel to the NY portion of the Upper Susquehanna.	Getchell, et al. Co-infections in Oneida Lake smallmouths and Sodus Bay sunfish
8:50-9:10am	*Limaye, et al. Monitoring LI alewife populations: Evaluating a new fishway at Beaver Lake in Mill Neck, NY	*Goretzke, J. & J. Farrell. Development of native fish & aquatic macrophyte assemblages in excavated coastal wetlands of the Upper St. Lawrence River.	Reyda, F. Fish parasites as indicators of host biology: Insights from a fish parasite survey in New York.
9:10-9:30am	Gurshin, C. & M. Balge. Using sonar technologies to monitor out-migration of juvenile Clupeids: 2 case studies in the Mohawk River & Connecticut River	*Kronisch, G. & N. Ringler. Evaluation of fish assemblage response to the remediation of an urban lake.	*Mullin, B. A survey of Salmonid infection with the copepod *Salminicola californiensis* in Lake Ontario.
9:30-9:50am	*Littrell, et al. River restoration project mediates secondary contact between anadromous & landlocked alewife	*Caves, S. Grass carp growth before and after hydrilla control	George, S. and B. Baldigo. Efficacy of eDNA & traditional sampling methods to monitor round goby expansion in the Mohawk River-Barge Canal System
9:50-10:10am	Eakin, et al. River herring abundance and parameters influencing migration patterns in Black Creek, HR tributary	*Block, et al. The importance of winter foraging by thermally-dissimilar fish species.	Cushman, S. & N. Michels. Foraging ecology of round goby: Impacts on native & non-native prey choices.
10:10-10:30am	BREAK	BREAK	BREAK
	SHAD SYMPOSIUM	**RESPONSES TO MAJOR ENV CHANGE**	**GENETICS**
10:30-10:50am	Savoy, T. "Ecological Trap" consequences of fish restoration: A case history of Am shad in Ct. River	Gorman, L. The first 2 years of the Lower Grasse River freshwater mussel relocation project	Therkildsen, et al. Whole genome sequencing provides new insights into adaptive divergence in Atlantic cod.
10:50-11:10am	Daverat, et al. Shadeau research project: From applied to acad res. for Allis and Twaite shad recovery	Siegfried, S. Aquatic organism passage benefits resulting from culvert replacement projects at Ft. Drum	Roman, et al. Contrasted patterns of divergence and gene flow among five fish species in a Mongolian rift lake following glaciation.
11:10-11:30am	Stich, D. & E. Gilligan. Moving toward a unified approach to informing Am shad dam passage perf standards	Josephson, et al. Chemical and biological recovery of Adirondack Mountain region lakes from acid deposition: A conservation success story.	Sethi, et al. Estimating the number of contributors to DNA mixtures provides a novel tool for ecology.
11:30-11:50am	Constantine, et al. Dam removals and the return of East Coast shads and other native species		Sard, N. Environmental DNA metabarcoding sampling methods are effective at detecting low abundance species in complex aquatic communities.

Special thanks to this year's raffle contributors:

Kurt Jirka

Roland Hagan

Amanda Higgs

Thad Yorks

Sarah Mount/Chris Bowser

John Magee

Scott Schleuter

Susan Cushman

Michelle Flanders

Finger Lake Institute

Jesse Lepak

Cara Ewell Hodkin

Dawn Dittman

The Millhouse Brewing Company

Jones Jerky Joint

Leslie Resseguie

Justin Herne

Thanks for attending this year's meeting!