Past Tibor T. Polgar Fellowships

The Hudson River estuary stretches from its tidal limit at the Federal Dam at Troy, New York, to its merger with the New York Bight, south of New York City. Within that reach, the estuary displays a broad transition from tidal freshwater to marine conditions that are reflected in its physical composition and the biota it supports. These characteristics present a major opportunity and challenge for researchers to describe the makeup and workings of a complex and dynamic ecosystem. The Tibor T. Polgar Fellowship Program provides funds for graduate and undergraduate students to study selected aspects of the physical, chemical, biological, and public policy realms of the estuary.

Since its inception in 1985, the program has provided approximately $1 million in funding to 189 students and can boast the involvement of 116 advisors from 64 institutions.

The program is named in memory of Dr. Tibor T. Polgar, an estuarine biologist who was a key advisor to the Hudson River Foundation for Science and Environmental Research when the fellowship program was created. The program is conducted jointly by the Hudson River Foundation and the New York State Department of Environmental Conservation. The fellowships are funded by the Foundation.

Past reports of the Tibor T. Polgar Fellowship program are listed below. Download the entire report or particular sections as PDF files.

Final Reports of the Tibor T. Polgar Fellowship Program, 2016 – Sarah Fernald, David Yozzo, and Helena Andreyko, editors

I. Utilizing DNA Sequencing and Land Use Data for an Improved Understanding of Fecal Contamination in Hudson River Tributaries – Elizabeth P. Farrell and Gregory D. O’Mullan

II. Modeling Potential Phytoplankton Blooms in the Hudson River Estuary: Challenges and Solutions – Samuel A. Nadell and Robert W. Howarth

III. Submersed Aquatic Vegetation in a Hudson River Watershed: The Great Swamp of New York – Chris Cotroneo and John Waldman

IV. Induction of Metallothionein in Grass Shrimp (Palaemonetes pugio) Exposed to Naturally Occurring Metals – Abhishek Naik and William G. Wallace

V. Quantifying the Effects of TCDD Exposure on Early Life-Stage Cardiac Gene Expression of Atlantic Tomcod by RT–PCR – Kristy A. Vitale and Isaac Virgin

VI. Perched Culverts’ Effects on Downstream Eel Habitat in Hudson River Streams – Marissa J. Porter, Zofia Gagnon, Robert Schmidt, and Christopher Bowser

VII. Effects of Tributaries in the Transport of Microplastics in the Hudson Valley Watershed – Ian Krout, Zofia Gagnon, David Conover, and Christopher Bowser
Final Reports of the Tibor T. Polgar Fellowship Program, 2015 – Sarah Fernald, David Yozzo, and Helena Andreyko, editors

I. Testing Environmental DNA Techniques to Assess American Eel Populations in the Bronx River – Jessica Miranda, Elizabeth Alter and John Waldman
II. Ecology of Painted Turtles in a Freshwater Tidal Marsh, Tivoli North Bay, New York – Reminy J. Bacon and Erik Kiviat
III. Effects of Perched Culverts on Upstream and Downstream Eel Populations in Hudson River Streams – Richard Brase, Zofia Gagnon, Robert Schmidt, Christopher Bowser, and Andrew Meyer
IV. Influence of a Hudson River Tributary on the Bacterial Colonization of Riparian Vegetation – Beckett Lansbury and M. Elias Dueker
V. Reconstructing the Paleoecology of Haverstraw Tidal Marshlands – Lucy Gill and Dorothy Peteet
VI. Protecting an Upper Hudson Heritage Lake: Assessing the Need for Fish Barrier Installation at Wolf Lake, Newcomb, New York – Samouel Beguin, Karin Limburg, and Stacy McNulty
VII. The Combined Effects of Hypoxia and Contaminants on the Early Life-Stages of Shortnose Sturgeon, Acipenser brevirostrum – Carlye McConnell and Christopher Chambers

Final Reports of the Tibor T. Polgar Fellowship Program, 2014 – Sarah Fernald, David Yozzo, and Helena Andreyko, editors

I. Factors for Loss and Restoration of Vallisneria americana in the Hudson River – Herbivory and Depth in Sediment – L. Jonas Hamberg, Karin Limburg and Stuart Findlay
II. The Conservation Status of Goldenclub (Orontium aquaticum) in the Freshwater Tidal Wetlands of the Hudson River – Julia C. Les and Erik Kiviat
IV. Prey density effects on predator foraging: a comparison of prey loss and implications towards a natural insect community – Katherine Guild, Jeffrey Levinton
V. Impact of aquatic toxins on heart development in Atlantic and shortnose sturgeon larvae – Corinna Singleman and Nathalia Holtzman
VI. Tidal Community Exchange Between the Hudson River and a Tributary – Alec Schmidt, Karin Limburg and Alison Robbins
VII. Interactions between the Alien Oriental Weatherfish (Misgurnus anguillicaudatus) and Native Fishes in the Klyne Esopus Kill, a Hudson River Tributary – Anastasia Frank, Robert E. Schmidt, Suparna Bhalla and Chris H. Bowser
VIII. The Effects of Dams on Densities and Sizes of American Eels in the Bronx River – Richard DeMarte, John Waldman and Michael S. Bednarski

**Final Reports of the Tibor T. Polgar Fellowship Program, 2013 – David Yozzo, Sarah Fernald, and Helena Andreyko, editors**

I. Reconstructing Hudson River Sedimentary Signals – Kyle M. Monahan and Dallas Abbott
II. Sea Level Rise and Sediment: Recent Salt Marsh Accretion in the Hudson River Estuary – Troy D. Hill and Shimon C. Anisfeld
III. Nutrient Pollution in Hudson River Marshes: Effects on Greenhouse Gas Production – Angel Montero, Brian Brigham and Gregory D. O’Mullan
IV. Microbial Agents of Concern in Water and Air at the Hudson River Estuary Waterfront – Sherif Kamal and M. Elias Dueker
V. Occurrence and Ecological Effects of Amphetamine Type Stimulants in Wastewater Effluent – Alexis M. Paspalof, Daniel Snow and Emma Rosi-Marshall
VI. The Distribution of Invasive Celastrus orbiculatus in an Anthropogenically Disturbed Riparian Ecosystem – Shabana Hoosein and George Robinson
VII. Hypoxia Tolerance of the Invertebrates Associated with Water-chestnut Beds (*Trapa natans* L.) in the Hudson River – Mariana Carolina Teixeira and David L. Strayer
VIII. The Distribution and Feeding Ecology of Larval Sea Lampreys in the Hudson River Basin – Thomas M. Evans and Karin E. Limburg

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I. Recruitment of Oysters within the Hudson River Estuary – Ryan Carthan and Jeffrey S. Levinton
III. Field and Laboratory Investigations on the Effects of Salinity on Decomposition Dynamics among the Hudson River’s Freshwater Tidal Wetlands – Craig T. Connolly, Stuart E.G. Findlay, and William V. Sobczak
IV. Temperature as a Driver of a Size-Structure Shift in Zebra Mussels (*Dreissena polymorpha*) in the Hudson River – Jessica A. Gephart, Michael Pace, and David Strayer
V. Who Controls Whom? Linking Predator-Prey Dynamics Between Mud Crabs and Juvenile Oysters to Restoration Efforts in the New York Metropolitan Region – Rebecca E. Kulp and Bradley J. Peterson
VI. Fish Parasites in the Hudson River Estuary’s Littoral Habitats: A Prelude to Restoration – Emily C. Ogburn, Karin E. Limburg, and Christopher M. Whipps
VII. Investigation of Estuarine Sediment as a Reservoir for Sewage Associated Bacteria - Erin Schneider and Gregory D. O’Mullan

VIII. Developing a Nonlethal Field Method for Determining Lipid Content of American Eels (Anguilla rostrata) - Sean O. I. Swift, Robert E. Schmidt, and David R. Myers

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I. Tracing Combined Sewage Overflow Discharge with Quaternary Ammonium Compound - Patrick Fitzgerald and Bruce Brownawell

II. Genotyping Historic Atlantic Tomcod Samples to Determine the Timeline of Onset of PCB Resistance - Carrie Greenfield and Isaac Wirgin

III. Prevalence and Characterization of Cardiac Pathology Induced by the Parasitic Nematode Philometra saltatrix in Juvenile Bluefish of the Hudson River Estuary - Sarah Koske and Francis Juanes

IV. Assessment of Temporal and Geographic Population Structuring of Phragmites australis Along the Hudson River Using Microsatellite DNA Markers - Daniel Lipus, Joseph Stabile and Isaac Wirgin

V. Pilot Study for Laser Ablation and Stable Isotope Analysis of Feathers, Eggshells, and Prey of Great Blue Herons Sampled Across an Urbanization Gradient in the Mid-Hudson River Valley - Jill Mandel and Karin Limburg

VI. Diet of American Eel (Anguilla rostrata) Elvers in a Hudson River Tributary - Leah Pitman and Robert Schmidt

VII. The Effects of Salinity Intrusion on the Biogeochemistry of Hudson River Tidal Freshwater Wetlands - Robert Osborne, Stuart Findlay and Melody Bernot

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II. Stable Isotope Analysis in the Hudson River Marshes – Implications for Human Impact, Climate Change, and Trophic Activity – Thien Khoi V. Nguyen and Dorothy M. Peteet

III. Quantification and Identification of Antibiotic Resistant Microbes in the Hudson River and Flushing Bay – Suzanne Young and Gregory O’Mullan

IV. Invasive-Species Removals and Nitrogen-Removal Ecosystem Services in Freshwater Tidal Marshes – Mary Katherine Alldred and Stephen B. Baines

V. The Effects of an Urbanized Estuary on the Physiology and Metal Storage of the Eastern Oyster, Crassostrea virginica – Allison S. Mass and William Wallace
VI. Impact of Silver Nanoparticle Exposure on Crayfish (Orconectes virilis) Growth, Chemistry and Physiology in Controlled Laboratory Experiment and Hudson River Ecosystem – Allen Clayton and Zofia Gagnon

VII. Quantifying Larval Fish Habitat in Shoreline and Shallow Waters of the Tidal Hudson River – Claire E. Stouthamer and Mark B. Bain

VIII. Using Stable Isotopes to Examine Foraging Ecology of New York Harbor Colonial Waterbirds – Elizabeth C. Craig, Paul D. Curtis and Susan B. Elbin

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II. Macrofossil Evidence for Middle to Late Holocene Vegetation Shifts at Iona Island Marsh, Hudson Valley, NY – Cleo Chou and Dorothy Peteet

III. Intensive Rotational Grazing of Romney Sheep as a Control for the Spread of Persicaria perfoliata – Caroline Girard and Gary Kleppel

IV. The Ecology of Wrack: Decomposition and Use by Invertebrates on Natural and Engineered Shorelines of the Hudson River – Cornelia Harris and David Strayer

V. Demographic Analysis of the Jamaica Bay Diamondback Terrapin (Malaclemys terrapin) Population: Implications for Survival in an Urban Habitat – Alexandra Kanonik and Russell Burke

VI. Evaluating Nest Protectors for Turtle Conservation – Shahriar Rahman and Russell Burke

VII. A Native Species, the American Eel (Anguilla rostrata), as a Biological Control for an Invasive Crayfish (Orconectes rusticus) in Tributaries to the Hudson River, NY – Sarah Mount, Catherine O’Reilly and David Strayer

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I. Evidence for a Tsunami Generated by an Impact Event in the New York Metropolitan Area Approximately 2300 Years Ago – Katherine Cagen and Dallas Helen Abbott

II. Gastropods of the Hudson River Shoreline: Subtidal, Intertidal, and Upland Communities – Thomas W. Coote and David Strayer

III. Capturing the Nutrient Overenrichment–Eutrophication–Hypoxia Cycle at Newton Creek – M. Elias Dueker and Gregory O’Mullan

IV. Feeding Habits and the Effects of Prey Morphology on Pellet Production in Double-crested Cormorants, Phalacrocorax auritus auritus – Colin Grubel and John Waldman
V. Genetic, Morphological and Ecological Relationships Among Hudson Valley and a Massachusetts Population of the Clam Shrimp, *Caenestheriella gynecia* - Jonelle Orridge, John Waldman, and Robert Schmidt

VI. Did the Zebra Mussel (*Dreissena polymorpha*) Alter the Thermal Balance of the Hudson River? - David Seekell and Michael L. Pace

VII. Cohort Structure, Growth, and Energy Dynamics of Juvenile Bluefish in the Hudson River Estuary - David G. Stormer and Francis Juanes

VIII. Effects of Surface Roughness on Ecological Function: Implications for Engineered Structures in the Hudson River Shore Zone - Amy M. Villamagna, David Strayer, and Stuart Findlay

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**Final Reports of the Tibor T. Polgar Fellowship Program, 2007** – Catherine A. McGlynn and John R. Waldman, editors

I. Significance of Estuarine Hypoxia to Altered Nutrient Cycling and Toxic Nitrite Accumulation - Sarah L. McGrath and Gregory O'Mullan

II. Measurements of *Enterococci* Bacteria in the Hudson River: Environmental Health Issues and Policy Recommendations for Combined Sewer Overflow - Suzanne Young and Peter Bower

III. Effectiveness of Riparian Wetlands in Improving Water Quality in an Urban Stream - Christine M. Vanderlan and George R. Robinson

IV. New Tools for Assessing the Exposure of Phthalate Esters in the Lower Hudson Estuary - Anne C. Ellefson and Bruce J. Brownawell

V. Applying an Effect-Directed Strategy to Identify Previously Unrecognized Toxic Chemicals in Hudson River Sediments - Sara J. Lupton, Diana S. Aga, and Troy D. Wood

VI. Assimilation and Subcellular Distribution of Dietary Hg by Grass Shrimp, *Palaemonetes pugio*, Collected Along an Environmental Impact Gradient - David R. Seebaugh and William G. Wallace

VII. Possible Effects of Endocrine Disrupting Chemicals on Diamondback Terrapins (*Malaclemys terrapin*) from Jamaica Bay, NY - Erin E. Horn and Russell L. Burke

VIII. Fish Species–Habitat Associations in New York’s Great Swamp - Chris Cotroneo and David J. Yozzo

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I. The Upside-Down Hudson River Estuary: Evidence of 14C-depleted Seaward End-member OC Source Fueling pCO2 Super-saturation in an Urbanized Estuary - David R. Griffith and Peter A. Raymond
II. Ecological Stoichiometry of the Salt Marsh: Si:N Ratios and Effects on the Algal Community - Cheryl Whritenour and Kimberly L. Schulz

III. Effects of Road Salt Pollution on the Mayfly Tricorythodes - Justin Halsey and Peter Groffman

IV. Population and Migration of Banded Killifish in Tivoli South Bay, Hudson River, NY - Alec Schmidt and Robert E. Schmidt

V. The Effect of Polychlorinated Biphenyls (PCBs) on Song Production of the Black-Capped Chickadee (Poecile atricapillus) - Sara DeLeon and Andre Dhondt

VI. An Estimate of Gene Flow in Hudson River and Jamaica Bay Grass Shrimp (Palaemonetes pugio) and Sand Shrimp (Crangon septemspinosa) - Manusha Phoolbosseea and Kathleen A. Nolan

VII. Dietary Habits of Diamondback Terrapin Malaclemys terrapin in the Jamaica Bay Wildlife Refuge, New York - Rafael Sierra and Russell Burke

VIII. The Hudson River Watershed Management Regime: An Inventory and Analysis of Organizational Stakeholders - William G. Dalton, Jr., Shawn Dalton, and Reid McLean

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I. Hydrological Exchange Processes in Hudson River Tidal Wetlands - Alicia S. Arrigoni, Stuart Findlay, and Klement Tockner

II. Summer Microbial Populations in the Lower Hudson River Estuary and their Relationship to Dissolved Organic Nutrients - M.E. Dueker and Raymond Sambrotto

III. Significance of Small Impoundments to American Eel (Anguilla rostrata) - Jacqueline Anderson and Robert E. Schmidt

IV. Development of an Upper Hudson River Estuary GIS-Based Fish Data Resource - Megan P. O'Connor and Francis Juanes

V. Dietary Habits of Diamondback Terrapins, Jamaica Bay Wildlife Refuge, New York - Rafael Sierra and Russell Burke

VI. A Study of Temperature-Dependent Sex Determination in the Diamondback Terrapins of Jamaica Bay - Amanda L. Widrig and Russell L. Burke

VII. Using Telemetry to Assess Foraging Ecology and Habitat Use of Black-Crowned Night Herons (Nycticorax nycticorax) in New York City - Andrew James Bernick and Richard R. Veit

VIII. Quantification and Characterization of Recreational Paddling on Tivoli Bays and Constitution Marsh - Kevin A. Grieser and Shawn E. Dalton

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I. Assessment of Genetic Variation in *Phragmites australis* Populations Along the Hudson River Using Inter Simple Sequence (ISSR) Analysis – Michele Maltz and Joseph Stabile

II. Effects of Light on Microcystin Synthetase Gene Expression in the Toxic Cyanobacterium *Microcystis aeruginosa* in a Controlled Field Study – Heidi Langer Atkinson and Ellen Braun–Howland

III. Observations on the Biology of the Spinycheek Crayfish *Orconectes limosus* Associated with Water Chestnut in the Tidal Hudson River – Michael Bednarski, Karin Limburg, and Robert E. Schmidt

IV. Soniferous Fishes in Tidal Freshwater Tivoli Bay of the Hudson River – Katie A. Anderson, Rodney Rountree, and Francis Juanes

V. Dispersal and Colonization of *Limnodrilus hoffmeisteri* in a Hudson River Tidal Marsh Cove – Maggie Fung and Jeffrey S. Levinton

VI. Salinity Preferences of Hudson River Adult Male Blue Crabs *Callinectes sapidus* – Angie W. Cornwell and Steven H. Jury

VII. Foraging Ecology of Black–Crowned Night Herons *Nycticorax nycticorax* in the New York City Area – Andrew James Bernick and Richard R. Veit


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I. A Comparison of Water Quality in an Urban and a Well Forested Stream: Patroon Creek and Tenmile Creek, Albany County, New York – Sean S. Madden and George R. Robinson

II. From West Point to the Battery: Bacterial Diversity Along the Lower Hudson Estuary – Jean Rothe and Rob DeSalle

III. Waterscaping Water Chestnuts: A Test of Improving Habitat for Fish – Jeremy Frenzel and Karin Limburg

IV. Evaluation of Fish Community Structure in *Trapa natans* Beds in the Middle Hudson River Estuary – Jacqueline R. Anderson and Wayne R. Gilchrest

V. Genetic Differentiation of the Alewife, *Alosa pseudoharengus*, in the Hudson River – Kristen L. Kuhn and Irv Kornfield

VI. The Distribution and Behavior of Soniferous Fishes in the Hudson River Focusing on Striped Cusk–Eel, *Ophiodon marginatum* – Katie A. Anderson, Rodney Rountree, and Francis Juanes

VII. Movements of American Eel (*Anguilla rostrata*) in the Saw Kill, a Hudson River Tributary – Rome Petersson and Robert E. Schmidt

VIII. A Baseline Inventory of Multibeam Acoustic Targets from the Hudson River between New York Harbor and Wappingers Falls – Matthew F. Napolitano and Roger D. Flood
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I. Reconstruction of Paleogeographic History of the Hudson River at Newly Exposed Pleistocene Strata at Bear Mountain - Lawrence C. Cusick and Yuri Gorokhovich

II. Cadmium Resistance in Limnodrilus hoffmeisteri in Foundry Cove Following a Super Fund Cleanup - Ruth A. Junkins and Jeffrey S. Levinton

III. Effects of Phragmites australis on the Early Life History Stages of Fundulus heteroclitus at Iona Island Marsh, Hudson River, New York - Lisa Harms, Ellen Salak, and David Osgood

IV. Distribution, Abundance, and Reproductive Season of Sticklebacks (Gasterosteidae) in the Hudson River Marsh Preserves - Jerry J. Kelley and Eric T. Schultz

V. An Analysis of the Frequency and Duration of Spawning of Local Weakfish, Cynoscion regalis, Based on Age and Size Structure of Young-of-the-Year from the Hudson River, New York - Donald D. Shrum, Jr., and R. Christopher Chambers

VI. A GIS-Based Model for Predicting the Location of Submerged Prehistoric Archaeological Sites in New York Harbor - Daria E. Merwin and David J. Bernstein

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I. The Distribution of Polychlorinated Biphenyls and Polybrominated Diphenyl Ethers in the Benthic Food Web of the Hudson River - Joseph C. Steinbacher and Joel E. Baker

II. Public Participation, Risk Perception, and the EPA’s PCB Remediation Plan for the Upper Hudson River - Jennifer M. Coffey, Nancy Jackson, and Michele Collins

III. Measurements of Pharmaceuticals in a Sewage-Impacted Estuary - Mark Benotti and Bruce Brownawell

IV. Effects of Sewage-Impacted Sediments from Jamaica Bay, NY, on Growth and Reproduction in the Benthic Crustacean Leptocheirus plumulosus - Ann M. Zulkosky and Anne E. McElroy

V. Distribution of the Spotfin Killifish (Fundulus luciae) in the Lower Hudson River Estuary - Frederick Ottman and David J. Yozzo

VI. An Assessment of Predation Risk of Juvenile Atlantic Tomcod, Microgadus tomcod, to Piscivorous Fishes of the Lower Hudson River - Daniela Zima, R. Christopher Chambers, and David A. Witting

VII. Feeding Ecology of Larval and Juvenile Weakfish (Cynoscion regalis) in the Hudson River Estuary - Jennifer M. Martin and Eric T. Schultz

VIII. Demography and Life History of a Wood Turtle (Clemmys insculpta) Population in the Hudson River - Todd W. Hunsinger and Rodger D. Titman
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I. Evaluation of Water, Sediment, and Prey as Routes of Exposure of Atlantic Tomcod to Aromatic Hydrocarbon Pollutants in the Hudson River – Allyce E. Nowak, Joseph Stabile, and Isaac Wirgin

II. Coliphage in the Hudson River as Agents of Coliform Mortality and Indicators of Water Quality – Kathryn M. Docherty and Raymond L. Kepner, Jr.

III. Macroinvertebrates Associated with Vallisneria americana and Trapa natans in Tivoli South Bay – Colleen Lutz and David Strayer

IV. Use of a Periodically Anoxic Trapa natans Bed by Fishes in the Hudson River – Thomas W. Coote, Robert E. Schmidt, and Nina Caraco

V. Preliminary Studies of Larval and Juvenile Gizzard Shad and Atlantic Menhaden in the Hudson River – Karen M. Stainbrook and Karin E. Limburg

VI. Availability, Consumption and Preference of Prey in Juvenile Striped Bass (Morone saxatilis) in the Hudson River – David V. Howe and Francis Juanes

VII. Effects of Summer Temperatures on the Growth and Condition of Juvenile Atlantic Tomcod, Microgadus tomcod – Anne F. Bonvegna, David A. Witting, and R. Christopher Chambers

VIII. Genetic Diversity of Diamondback Terrapins (Malaclemys terrapin) from Piermont Marsh, Hudson River, NY – Dominik M. Wiktor, Malcolm Hill, and Randolph M. Chambers

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I. Sedimentary Environment Adjacent to Tivoli Bays – JoAnn Thissen and Henry Bokuniewicz

II. The Effect of Mycorrhizae on Nitrogen-Fixing Bacteria Associated with the Salt Marsh Grass Spartina patens – David J. Burke and Dittmar Hahn


IV. Habitat Variation and the Diet, Growth, and Condition of Juvenile Striped Bass (Morone saxatilis) in the Mid–Hudson River Estuary – David V. Howe and Francis Juanes

V. Does Otolith Composition Reflect Early Life History? A Prospective Analysis in Atlantic Tomcod Microgadus tomcod and Weakfish Cynoscion regalis from the Hudson River Estuary – Jennifer M. Martin and Eric T. Schultz

VI. The Importance of Sturgeon Along the Middle Hudson River During Prehistoric Times: A Faunal Analysis of the Tufano Site – Audrey Reifler and Christopher Lindner

VII. Impacts of Scale on Breeding Bald Eagles, (Haliaeetus leucocephalus), Along the Hudson River, New York – Craig Thompson and Kevin McGarigal
VIII. A Study of the Effects of Invasive Plant Species on Small Mammals in Hudson River Freshwater Marshes – Catherine A. McGlynn and Richard S. Ostfeld

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II. The Effect of PCBs and Vascular Plants on the Microbial Assemblage of Lower Hudson River Sediment – Kurt H. Jerke and Michael J. Lemke

III. Environmental History of Piermont Marsh, Hudson River, NY – Jennifer K. Wong and Dorothy Peteet

IV. Relative Habitat Value of Phragmites australis for Marsh Resident Nekton in Piermont Marsh, Hudson River, New York – Stephanie R. Hanson and David T. Osgood

V. A Study on the Impact of Zebra Mussel (Dreissena polymorpha) on the Recruitment of Benthic Macro- Invertebrates on Artificial Substrates in the Hudson River – Eun Joo Yi and Jeffrey Levinton

VI. Ontogenetic Shifts in Feeding Habits of Juvenile Striped Bass (Morone saxatilis) in the Mid-Hudson River Estuary – Rebecca C. Jordan and Francis Juanes

VII. Effects of a Municipal Pier on Growth of Young-of-the-Year Atlantic Tomcod: A Study in the Lower Hudson River Estuary – Charles V. Metzger, Janet Duffy-Anderson, and Kenneth W. Able

VIII. A Herpetological Survey of Tivoli Bays and Stockport Flats – Michael J. Rubbo and Erik Kiviat

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II. The Relationship Between Fecundity of an Alewife (Alosa pseudoharengus) Spawning Population and Egg Productivity in Quassaic Creek, a Hudson River Tributary (HRM 60) in Orange County, New York – Thomas R. Lake and Robert E. Schmidt

III. Investigations into Cadmium Resistance in Fundulus from a Metals Contaminated Site – Jennifer C. Samson and Judith S. Weis

IV. The Development of a New Approach to Evaluate Environmentally Induced Genetic Damage in Hudson River Biota – Stacy Zimmerman, Joseph Stabile, and Isaac Wirgin

V. Land Use, Soil Erosion, and Sediment in Two Hudson River Valley Watersheds – Craig A. Hart and Paul K. Barten

11
VI. Characterization of Demographics and Attitudes of Farmers in Dutchess County, New York – David A. K. Pinney and Paul K. Barten

VII. The New York/New Jersey Harbor Dredging Conflict – Naomi Brown and Robert W. Knecht

VIII. Assessing the Effects of Land Use on Water Quality and Biotic Integrity in the Saw Kill (Red Hook, NY) using Two Macroinvertebrate Indices and Chemical Data – Mary Pat Budd and David L. Strayer

IX. Comparison of Fish Communities in Open and Occluded Freshwater Tidal Wetlands in the Hudson River Estuary – Wayne R. Gilchrest and Robert E. Schmidt

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I. The Effects of the Restoration of Foundry Cove on the Dominant, Resident Oligochaete, *Limnodrilus hoffmeisteri* – Lisa Suatoni and Jeffrey Levington

II. Mercury Dynamics in Sediments of Tivoli South Bay, Hudson River, NY - Linda M. Zelewski and David E. Armstrong

III. Bacteria as a Direct Food Source for Zebra Mussels – Kanda Vathanodorn and Robert H. Parsons

IV. Foraging Tactics of Young-of-the-Year Bluefish in the Hudson River: the Influence of Body Size on Predator Mode Choice and Prey Profitability – Frederick S. Scharf and Francis Juanes

V. Terrestrial Insects Associated with *Lythrum salicaria, Phragmites australis*, and *Typha angustifolia* in a Hudson River Tidal Marsh – Lisa Hutton Krause, Carol Rietsma, and Erik Kiviat

VI. Invasion of *Phragmites australis* in the Tidal Marshes of the Hudson River – Han G. Winogrond and Erik Kiviat

VII. Seasonal Presence and Movements of Fish Populations in the Tidal Reach of Quassaic Creek, a Hudson River Tributary (HRM 60): Documentation of Potamodromy, Anadromy, and Residential Components – Thomas R. Lake and Robert E. Schmidt


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I. Sources and Characterization of Dissolved Organic Carbon in the Tivoli Bays Freshwater Tidal Wetlands – Brian Raphael and Stuart Findlay

II. Sediment Chemistry Associated with Native and Non-Native Emergent Macrophytes of the Hudson River Marsh Ecosystem – Pamela Templer, Stuart Findlay, and Cathleen Wigand
| III. | Comparison of the Relative Desorption and Bioavailability of Polychlorinated Biphenyls, Polycyclic Aromatic Hydrocarbons, and Linear Alkybenzenes from Hudson River Sediments | Elizabeth M. Lamoureux and Bruce J. Brownawell |
| IV. | Estimating Piscine Prey Size from Partial Remains: Testing for Shifts in Foraging Mode by Bluefish in the Hudson River | Frederick S. Scharf and Francis Juanes |
| V. | Recruitment of Juvenile *Morone saxatilis* Reflected in Otolith Microstructure | Kristin Arend, Karin Limburg, and Michael Pace |
| VI. | Patterns of Wetland Ownership and Permit Applications in the Hudson River Basin: Implications for Policy | Noel P. Gurwick and Barbara L. Bedford |
| VII. | A Low Density, Tidal Marsh, Painted Turtle Population | Christine Rozycki and Erik Kiviat |
| VIII. | Juvenile Sturgeon Habitat Use in the Hudson River | Nancy Haley, John Boreman, and Mark Bain |

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| I. | Costs of Adaptation to Cadmium in *Limnodrilus hoffmeisteri*, a Common Hudson River Invertebrate | Consuelo Montero and Jeffrey S. Levinton |
| II. | The Uptake of PCBs by Zebra Mussels | LaLaneya Weaver and Thomas R. Lynch |
| III. | The Impact of the Zebra Mussel (*Dreissena polymorpha*) on the Availability of Organic Carbon Nutrients at the Sediment Surface of the Hudson River | Hudson A. Roditi and David L. Strayer |
| IV. | Fishes Consuming Zebra Mussels in the Tidal Hudson River | Wolf E. Chandler, Robert E. Schmidt and David Strayer |
| V. | A Rapid Increase in Water Temperature Alters the Swimming Performance of Striped Bass (*Morone saxatilis*) | Matthew J. McHenry and John H. Long |
| VII. | Population Genetics of *Fundulus heteroclitus* in the Hudson River and North New Jersey Estuaries: Evaluation of Subspecies Boundary and Hybridization with *F. diaphanus* | Nikolai Mugue and Judith S. Weis |
| VIII. | Microhabitat Use by Fish of the Riffle Zone of Catskill Creek | Derek A. Bloomquist and Robert A. Daniels |

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**Final Reports of the Tibor T. Polgar Fellowship Program, 1992** - Elizabeth A. Blair and John R. Waldman, editors

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IX. **Significance of the Fishes Collected by Gill Net in the Tivoli South Bay Ecosystem** - Alison Hamilton and Robert Schmidt
Final Reports of the Tibor T. Polgar Fellowship Program, 1991 - John R. Waldman and Elizabeth A. Blair, editors

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VII. Reproductive Biology of the Redbreast Sunfish (Lepomis auritus) - Scott Orringer and Robert A. Daniels

VIII. Standing Crop of Fishes in Water Celery Beds in the Tidal Hudson River - Nick Hankin and Robert E. Schmidt

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VII. Characterization of Angling Activity on the Hudson River Estuary - Jody Jackson and David M. Green
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III. The Bryophytes of the Tivoli Bays Freshwater Tidal Swamps - Lorinda Leonardi and Erik Kiviat

IV. Composition of Planktonic Rotifer Fauna and Temporal Variation in the Abundance of Rotifers and their Food Supply in the Hudson River - Norman Reyes and John D. Wehr

V. Trophic Significance of Ostracoda in Tivoli South Bay - David J. Yozzo and William E. Odum

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VII. The Extraction of DNA from Formaldehyde-Preserved Samples of Hudson River Tomcod (Microgadus tomcod) - Matthew D'Amore and Isaac I. Wirgin

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III. Metabolism of Submersed Aquatic Macrophyte Beds in a Freshwater Portion of the Hudson River Estuary - Robert H. Garritt and Robert W. Howarth

IV. The Epiphytic Invertebrates of Trapa natans and Myriophyllum at Roosevelt Cove, Hyde Park, NY - Michele Kelly and William Perrotte

V. Studies of the Life History and Trophic Connections of a Population of Palaemonetes pugio in the Croton River - Irene Wallhausser and Jay Shiro Tashiro

VI. A Survey of Larval and Juvenile Fish Populations in Waterchestnut (Trapa natans) Beds in Tivoli South Bay, a Hudson River Tidal Marsh - Allan Barth Anderson and Robert E. Schmidt
VII. Larval Fish Flux Between a Freshwater Tidal Marsh and the Hudson River Estuary - Catherine Bohne and Robert E. Schmidt

VIII. Evaluation of Potential Sources of Recruitment of Largemouth Bass to the Hudson River - Drew Hopkins and David M. Green

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I. Summer Zooplankton Ecology of Piermont Marsh - David A. Nemazie and Barbara L. Dexter

II. The Composition of the Summer Zooplankton Community in Tivoli Bays, Hudson River, New York - Sabrina Drill and Robert E. Schmidt


IV. Macroinvertebrates of the Piermont Marsh Component of the Hudson River National Estuarine Research Reserve - Anthony S. Perrone and Henry M. Knizeski

V. Composition, Abundance, and Dynamics of Macroinvertebrates in Tivoli South Bay, with Emphasis on the Chironomidae (Diptera) - Karl L. Schoebel and Stuart Findlay

VI. Trophic Status of the Spottail Shiner, (Notropis hudsonius) in Tivoli North Bay, a Hudson River Freshwater Tidal Marsh - Sean Smith and Robert E. Schmidt

VII. Studies of Young-of-the-Year River Herring and American Shad in the Tivoli Bays, Hudson River, New York - Karin E. Limburg and David Strayer

VIII. Estimation of Suspended Material Flux Between a Trapa natans Stand and the Hudson River Estuary - Allan Goldhammer and Stuart Findlay

IX. Modeling Carbon Flow in Tivoli South Bay, Hudson River, NY - Stuart Findlay, Karin Limburg, and David Strayer

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I. Feeding Ecology of the Banded Killifish (Fundulus diaphanus) at Tivoli North Bay, Hudson River, New York - Ellen Richard and Robert E. Schmidt

II. Feeding Biology of Tessellated Darter (Etheostoma olmstedi atromaculatum) at Tivoli North Bay, Hudson River, New York - Maria Duryea and Robert E. Schmidt

III. Characterization of Spawning and Nursery Habitats of Largemouth Bass (Micropterus salmoides) in the Stockport Component of the Hudson River National Estuarine Research Reserve - Steven Nack and William Cook
IV. The Contribution of Bacteria to Benthic Processes in the Hudson River Estuary - H. Kay Austin Gill and Stuart G. Findlay

V. Identification, Distribution and Abundance Patterns of Aquatic Algae and Herbivores in Marshlands of the Hudson River National Estuarine Research Reserve (Stockport Flats Component) - Matthew Campbell and Barbara L. Dexter

VI. Colonization of Artificial Substrate by the Chironomidae (Diptera) of Tivoli South Bay - Bruce Wagner and Stuart G. Findlay

VII. Geology, Hydrology and Related Historical Aspects of the Tivoli Bays, Cruger Island and Magdalen Island, Town of Red Hook, Dutchess County, New York, and of Stockport Flats, Town of Stockport, Columbia County New York, Including a Study of the Relationship of a Proposed Landfill and Stockport Flats - Katherine M. Carey and Russell H. Waines

VIII. Freshwater Tidal Wetlands Community Description and Relation of Plant Distribution to Elevation and Substrate - Caryl DeVries and Calvin B. DeWitt

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I. Comparison of Vascular Plant Zonation at Iona Island Marsh (Hudson River Estuary) and Lord's Cove Marsh (Connecticut River Estuary) - Patricia Senechia-Nardone, Anne Reilly and Marjorie M. Holland

II. Flora of Freshwater Tidal Swamps at Tivoli Bays Hudson River National Estuarine Sanctuary - Kristin E. Westad and Eric Kiviat

III. A Survey of Lepidoptera in Tivoli North Bay (Hudson River Estuary) - Spider Barbour and Eric Kiviat

IV. The Life History of the Chrysomelid Beetle Pyrrhalta nymphaeae (Galerucinae) on Water Chestnut, Trapa natans (Hydrocariciaceae), in Tivoli South Bay, Hudson River, NY - Kathleen A. Schmidt

V. Geological History of Marshes in the Hudson River National Estuarine Sanctuary - Sloane Six and John Sanders

VI. Recent Sediment and Pollutant Accumulation in the Hudson River National Estuarine Sanctuary - Pearl Peller and Richard Bopp

VII. Chronological Determination of Mercury, Lead, and Cadmium in Two Hudson River Freshwater Tidal Marshes - Karen A. Stevenson, Roger Armstrong and W. R. Schell

VIII. Salinity Effects on Naphthalene and Anthracene Mineralization by Sediment Microbes in the Hudson River Estuary and Two Coastal Environments of Long Island - Robert P. Kerr and Douglas G. Capone