

CURRICULUM VITAE

JOSEPH E. HIGHTOWER

U. S. Geological Survey
North Carolina Cooperative Fish and Wildlife Research Unit
Box 7617, North Carolina State University
Raleigh, NC 27695-7617
Phone: (919) 515-8836 Fax: (919) 515-4454
E-mail: jhightower@ncsu.edu

Interests: Fisheries management, Population dynamics, Anadromous fishes

EDUCATION:

Ph.D. in Fisheries. University of Georgia, 1984.

M.S. in Fisheries. University of Georgia, 1981.

B.S. in Zoology. North Carolina State University, 1978.

EXPERIENCE:

Assistant Leader (Fisheries), North Carolina Cooperative Fish and Wildlife Research Unit, North Carolina State University. Responsibilities include research on fish population dynamics, directing graduate research, securing research funding, and graduate-level teaching. 1991-present.

Fishery Biologist (Research), National Marine Fisheries Service, Southwest Fisheries Center, Tiburon Laboratory. Responsibilities included preparing stock assessments for use by Pacific Fishery Management Council, serving on the Council Groundfish Management Team, designing surveys to estimate population abundance, and statistical and programming consulting. 1985-1991.

Research Assistant, School of Forest Resources, University of Georgia. Responsibilities included sampling marine and freshwater fish populations, statistical consulting, and lecturing in undergraduate and graduate fisheries management classes. September 1978-1984.

Technician, National Marine Fisheries Service, Southeast Fisheries Center, Beaufort Laboratory, Beaufort, North Carolina. Responsibilities included statistical analyses of Atlantic menhaden data, application of cohort analysis and surplus production models. May 1978-August 1978.

Technician, Cape Fear Estuarine Research Laboratory, Southport, North Carolina. Field and laboratory research to monitor estuarine fish and shellfish populations. May 1977-August 1977.

SELECTED AWARDS:

Best student paper, 1984 Annual Meeting, American Fisheries Society.

National Oceanic and Atmospheric Administration Sustained Superior Performance Award, 1986 and 1987.

Best Publication, *Fishery Bulletin*, 1990: "Multispecies harvesting policies for Washington-Oregon-California rockfish trawl fisheries".

Honorable Mention, *Fishery Bulletin*, 1991: "Age, growth, and potential yield for shortbelly rockfish, *Sebastes jordani*".

USGS Cooperative Units Award for Leadership, 2003

2003-2004 Outstanding Graduate Instructor, College of Agriculture and Life Sciences, NC State University

Award of Merit, NC Chapter, American Fisheries Society, February 2005

Excellence in Education Award, Education Section of American Fisheries Society 2006

Governor's Conservation Achievement Award, 2011 Water Conservationist of the Year

PROFESSIONAL ASSOCIATION:

American Fisheries Society, including Marine Fisheries and Computer Users Sections. Member of AFSCUS software review committee and 1990 nominating committee, Marine Fisheries Section.

SELECTED PROFESSIONAL ACTIVITIES:

Graduate Faculty, Wildlife Ecology Department, University of Maine (5 yr term beginning June 2010)

Co-taught Fishery Science (ZO 621) Fall 1992, Scientific Writing (ZO 593) Spring 1993, taught Quantitative Fisheries Management (ZO 626) Fall 1994, Fall 1996, Fall 1998, Fall 2000, Fall 2002, Fall 2004, Aquatic Ecology Seminar (2003), Aquatic Ecology Seminar (ZO 603, Spring semester, 2005), Management of Small Impoundments (co-taught with T. Kwak, Summer 2006/2008/2010, FW 495/595), Quantitative Fisheries Management (FW/ZO 726) Fall 2006, Fall 2008, Fall 2010, Fall 2012, Scientific Communication in a Digital World (ZO 592), Fall 2011

President, 1996, North Carolina Chapter, American Fisheries Society

Green Sturgeon Biological Review Team, 2002-2005 (National Marine Fisheries Service, Southwest Fisheries Science Center)

American Shad Stock Assessment Subcommittee, Atlantic States Marine Fisheries Commission, January 2005-August 2007.

American Eel Peer Review Panel, Atlantic States Marine Fisheries Commission, November-

December 2005.

Atlantic Sturgeon Status Review Team, 2006-2007, National Marine Fisheries Service.

AFS Skinner Memorial Award Committee – 2006, 2007, 2008, Chair in 2009-2010

SEDAR 15, stock assessment review panelist. Raleigh, NC, Jan. 28-Feb 1, 2008.

THESES:

Mortality and growth of age-0 largemouth bass in a new impoundment. Master's Thesis, University of Georgia, 1981.

Harvest policies for multi-aged fish stocks. Dissertation, University of Georgia, 1984.

REVIEWED PUBLICATIONS:

Pine, W. E., J. E. Hightower, L. G. Coggins, M. V. Laretta, and K. H. Pollock. 2012. Design and analysis of tagging studies. Pages 521-572 in A. V. Zale, D. L. Parrish, and T. M. Sutton, editors. Fisheries techniques, 3rd edition. American Fisheries Society, Bethesda, Maryland.

Hightower, J. E., K. J. Magowan, L. M. Brown, and D. A. Fox. In Press. Reliability of fish size estimates obtained from multibeam imaging sonar. *Journal of Fish and Wildlife Management*.

Hightower, J.E., J. E. Harris, J. K. Raabe, P. Brownell, and C. A. Drew. 2012. A Bayesian habitat suitability model for spawning American shad in southeastern United States rivers. *Journal of Fish and Wildlife Management* 3(2):184–198; e1944-687X. doi: 10.3996/082011-JFWM-047.

Friedl, S. E., J. A. Buckel, J. E. Hightower, F. S. Scharf, and K. H. Pollock. 2013. Telemetry-based mortality estimates of juvenile spot in two North Carolina estuarine creeks. *Transactions of the American Fisheries Society* 142:399-415.

Hightower, J. E., J. C. Taylor, and D. J. Degan. In Press. Estimating abundance of adult striped bass in reservoirs using mobile hydroacoustics. . Pages xx-xx in J. S. Bulak, C. C. Coutant, and J. A. Rice editors. *Biology and management of inland striped bass and striped bass hybrids*. American Fisheries Society, Symposium 79, Bethesda, Maryland.

Hightower, J. E., and K. H. Pollock. In Press. Tagging methods for estimating population size and mortality rates of inland striped bass populations. Pages xx-xx in J. S. Bulak, C. C. Coutant, and J. A. Rice editors. *Biology and management of inland striped bass and striped bass hybrids*. American Fisheries Society, Symposium 79, Bethesda, Maryland.

Harris, J. E., and J. E. Hightower. 2012. Demographic population model for American shad: will access to additional habitat upstream of dams increase population sizes? *Marine and*

Coastal Fisheries: Dynamics, Management, and Ecosystem Services 4:262-283.

- Smith, J. A., and J. E. Hightower. 2012. Effect of low-head lock and dam structures on migration and spawning of American shad and striped bass in the Cape Fear River, North Carolina. *Transactions of the American Fisheries Society* 141:402-413.
- Harris, J. E., and J. E. Hightower. 2011. Identification of American shad spawning sites and habitat use in the Pee Dee River, North Carolina and South Carolina. *North American Journal of Fisheries Management* 31:1019-1033.
- Harris, J. E., and J. E. Hightower. 2011. Spawning habitat selection of hickory shad. *North American Journal of Fisheries Management* 31: 495-505.
- Harris, J. E., and J. E. Hightower. 2011. Movement patterns of American shad transported upstream of dams on the Roanoke River, North Carolina and Virginia. *North American Journal of Fisheries Management* 31: 240-256.
- Allen, M. S., and J. E. Hightower. 2010. Fish population dynamics: mortality, growth, and recruitment. Pages 43-79 in W. A. Hubert and M. C. Quist, editors. *Inland Fisheries Management in North America*. American Fisheries Society.
- Bacheler, N.M., J. E. Hightower, S. M. Burdick, L. M. Paramore, J. A. Buckel, and K. H. Pollock. 2010. Using generalized linear models to estimate selectivity from short-term recoveries of tagged red drum *Sciaenops ocellatus*: effects of gear, fate, and regulation period. *Fisheries Research* 102:266–275.
- Harris, J. E., and J. E. Hightower. 2010. Evaluation of methods for identifying spawning sites and habitat selection for alosines. *North American Journal of Fisheries Management* 30:386–399.
- Smith, W. E., F. S. Scharf, and J. E. Hightower. 2009. Fishing mortality in North Carolina's southern flounder fishery: direct estimates of instantaneous fishing mortality from a tag return experiment. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 1:283-299.
- Bacheler, N. M., J. A. Buckel, J. E. Hightower, L. M. Paramore, and K. H. Pollock. 2009a. A combined telemetry – tag return approach to estimate fishing and natural mortality rates of an estuarine fish. *Canadian Journal of Fisheries and Aquatic Sciences* 66:1230-1244.
- Bacheler, N. M., L. M. Paramore, J. A. Buckel, and J. E. Hightower. 2009b. Abiotic and biotic factors influence the habitat use of an estuarine fish. *Marine Ecology Progress Series* 377: 263–277.
- Bacheler, N. M., L. M. Paramore, S. M. Burdick, J. A. Buckel, and J. E. Hightower. 2009c. Variation in movement patterns of red drum (*Sciaenops ocellatus*) inferred from conventional tagging and ultrasonic telemetry. *Fishery Bulletin* 107:405–419.
- Bacheler, N. M., J. E. Hightower, L. M. Paramore, J. A. Buckel, and K. H. Pollock. 2008. An age-dependent tag return model for estimating mortality and selectivity of an estuarine-dependent fish with high rates of catch and release. *Transactions of the American*

Fisheries Society 137:1422-1432.

- Tuomikoski, J. E., P. J. Rudershausen, J. A. Buckel, and J. E. Hightower. 2008. Effects of age-1 striped bass predation on juvenile fishes in western Albemarle Sound. *Transactions of the American Fisheries Society* 137:324-339.
- Waters, C. T., and J. E. Hightower. 2007. Effect of water quality on hatching success of blueback herring eggs in the Chowan River basin, North Carolina. *Proceedings of the Southeastern Association of Fish and Wildlife Agencies* 61:23-28.
- Adams, P. B., C. Grimes, J. E. Hightower, S. T. Lindley, M. L. Moser, and M. J. Parsley. 2007. Population status of North American green sturgeon *Acipenser medirostris*. *Environmental Biology of Fishes* 79:339-356.
- Thompson, J. S., D. S. Waters, J. A. Rice, and J. E. Hightower. 2007. Seasonal fishing and natural mortality of striped bass in a southeastern reservoir. *North American Journal of Fisheries Management* 27:681-694.
- Jiang, H., C. Brownie, J. E. Hightower, and K. H. Pollock. 2007. Estimating fishing mortality, natural mortality, and selectivity using recoveries from tagging young fish. *North American Journal of Fisheries Management* 27:773-781.
- Jiang, H., K. H. Pollock, C. Brownie, J. E. Hightower, J. M. Hoenig, and W. S. Hearn. 2007. Age dependent tag return models for estimating fishing mortality, natural mortality and selectivity. *Journal of Agricultural, Biological, and Environmental Statistics* 12:177-194.
- Jiang, H., K. H. Pollock, C. Brownie, J. M. Hoenig, R. J. Latour, B. K. Wells, and J. E. Hightower. 2007. Tag return models allowing for harvest and catch-and-release: evidence of environmental and management impacts on striped bass fishing and natural mortality rates. *North American Journal of Fisheries Management* 27:387-396.
- J. Munro, D. Hatin, J. E. Hightower, K. McKown, K. J. Sulak, A. W. Kahnle, and F. Caron, editors. 2007. *Anadromous sturgeons: habitats, threats, and management*. American Fisheries Society, Symposium 56, Bethesda, Maryland.
- Erickson, D. L., and J. E. Hightower. 2007. Oceanic distribution and behavior of green sturgeon. Pages 197-211 *in* J. Munro, D. Hatin, J. E. Hightower, K. McKown, K. J. Sulak, A. W. Kahnle, and F. Caron, editors. *Anadromous sturgeons: habitats, threats, and management*. American Fisheries Society, Symposium 56, Bethesda, Maryland.
- Laney, R. W., J. E. Hightower, B. R. Versak, M. F. Mangold, W. W. Cole, Jr., and S. E. Winslow. 2007. Distribution, habitat use, and size of Atlantic sturgeon captured during cooperative winter tagging cruises. Pages 167-182 *in* J. Munro, D. Hatin, J. E. Hightower, K. McKown, K. J. Sulak, A. W. Kahnle, and F. Caron, editors. *Anadromous sturgeons: habitats, threats, and management*. American Fisheries Society, Symposium 56, Bethesda, Maryland.
- Oakley, N. C., and J. E. Hightower. 2007. Status of shortnose sturgeon in the Neuse River, North Carolina. Pages 273-284 *in* J. Munro, D. Hatin, J. E. Hightower, K. McKown, K. J. Sulak, A. W. Kahnle, and F. Caron, editors. *Anadromous sturgeons: habitats, threats, and management*. American Fisheries Society, Symposium 56, Bethesda, Maryland.

- Hightower, J. E., and C. Nesnow. 2006. Distribution and abundance of American eels in the White Oak River estuary, North Carolina. *Southeastern Naturalist* 5(4):693-710.
- Burdick, S. M., and J. E. Hightower. 2006. Distribution of spawning activity by anadromous fishes in an Atlantic slope drainage, after the removal of a low-head dam. *Transactions of the American Fisheries Society* 135:1290-1300.
- Cope, W. G., M. R. Bartsch, and J. E. Hightower. 2006. Population dynamics of zebra mussels *Dreissena polymorpha* (Pallas, 1771) during the initial invasion of the upper Mississippi River, USA. *Journal of Molluscan Studies* 72:179-188.
- Rudershausen, P. J., J. E. Tuomikoski, J. A. Buckel, and J. E. Hightower. 2005. Prey selectivity and diet of striped bass in western Albemarle Sound, North Carolina. *Transactions of the American Fisheries Society* 134:1059-1074.
- Waters, D. S., R. L. Noble, and J. E. Hightower. 2005. Fishing and natural mortality of adult largemouth bass in a tropical reservoir. *Transactions of the American Fisheries Society* 134:563-571.
- Ricks, B. R., J. E. Hightower, and A. M. Wicker. 2004. Preliminary assessment of an Alaska steep pass fishway on a North Carolina blackwater creek. *Proceedings of the Annual Conference, Southeastern Association of Fish and Wildlife Agencies* 58:92-99.
- Pollock, K. H., H. Jiang, and J. E. Hightower. 2004. Combining telemetry and fisheries tagging models to estimate fishing and natural mortality rates. *Transactions of the American Fisheries Society* 133:639-648.
- Hightower, J. E., and K. L. Sparks. 2003. Migration and spawning habitat of American shad in the Roanoke River, North Carolina. Pages 193-199 in K. E. Limburg and J. R. Waldman, editors. *Biodiversity, status, and conservation of the world's shads*. American Fisheries Society, Symposium 35, Bethesda, Maryland.
- Pine, W. E., K. H. Pollock, J. E. Hightower, T. J. Kwak, and J. A. Rice. 2003. A review of tagging methods for estimating fish population size and components of mortality. *Fisheries* (Bethesda) 28(10): 10-23.
- Schmidt, R. E., B. M. Jessop, and J. E. Hightower. 2003. Status of river herring stocks in large rivers. Pages 171-182 in *Status of river herring stocks in large rivers*. K. E. Limburg and J. R. Waldman, editors. *Biodiversity, status, and conservation of the world's shads*. American Fisheries Society, Symposium 35, Bethesda, Maryland.
- Armstrong, J. L., and J. E. Hightower. 2002. Potential for restoration of the Roanoke River population of Atlantic sturgeon. *Journal of Applied Ichthyology* 18:475-480.
- Erickson, D. L., J. A. North, J. E. Hightower, J. Weber, and L. Lauck. 2002. Movement and habitat use of green sturgeon *Acipenser medirostris* in the Rogue River, Oregon, USA. *Journal of Applied Ichthyology* 18:565-569.
- Fox, D. A., J. E. Hightower, and F. M. Parauka. 2002. Estuarine and nearshore marine habitat use by Gulf sturgeon from the Choctawhatchee River system, Florida. *American*

Fisheries Society Symposium 28:111-126.

- Hightower, J. E., K. P. Zehfuss, D. A. Fox, and F. M. Parauka. 2002. Summer habitat use by Gulf sturgeon in the Choctawhatchee River, Florida. *Journal of Applied Ichthyology* 18:595-600.
- Hightower, J. E., J. R. Jackson, and K. H. Pollock. 2001. Using telemetry methods to estimate natural and fishing mortality of striped bass in Lake Gaston, North Carolina. *Transactions of the American Fisheries Society* 130:557-567.
- Jackson, J. R., and J. E. Hightower. 2001. Reservoir striped bass movements and site fidelity in relation to seasonal patterns in habitat quality. *North American Journal of Fisheries Management* 21:34-45.
- Beasley, C. A., and J. E. Hightower. 2000. Effects of a low-head dam on the distribution and characteristics of spawning habitat used by striped bass and American shad. *Transactions of the American Fisheries Society* 129:1372-1386.
- Fox, D. A., J. E. Hightower, and F. M. Parauka. 2000. Gulf sturgeon spawning migration and habitat in the Choctawhatchee River System, Alabama-Florida. *Transactions of the American Fisheries Society* 129:811-826.
- Hightower, J. E., W. J. Fleming, and M. A. Hayman. 1999. Effects of contaminated sediments on brown bullhead age structure, growth, and condition in a North Carolina tidal creek. *American Fisheries Society Symposium* 24:161-172.
- Zehfuss, K. P., J. E. Hightower, and K. H. Pollock. 1999. Abundance of Gulf sturgeon in the Apalachicola River, Florida. *Transactions of the American Fisheries Society* 128: 130-143.
- Carmichael, J. T., S. L. Haeseker, and J. E. Hightower. 1998. Spawning migration of telemetered striped bass in the Roanoke River, North Carolina. *Transactions of the American Fisheries Society* 127: 286-297.
- Haeseker, S. L., J. T. Carmichael, and J. E. Hightower. 1996. Summer distribution and condition of striped bass within Albemarle Sound, North Carolina. *Transactions of the American Fisheries Society* 125: 690-704.
- Hightower, J. E. 1996. Comparison of reliability of catch-at-age analyses using auxiliary survey estimates of relative or absolute recruitment. *Canadian Journal of Fisheries and Aquatic Sciences* 53:70-79.
- Hightower, J. E., A. M. Wicker, and K. M. Endres. 1996. Historical trends in abundance of American shad and river herring within Albemarle Sound, North Carolina. *North American Journal of Fisheries Management* 16:257-271.
- Bence, J. R., A. Gordo, and J. E. Hightower. 1993. The influence of age-selective surveys on the reliability of stock synthesis assessments. *Canadian Journal of Fisheries and Aquatic Sciences* 50(4): 827-840.
- Gordo, A., and J. E. Hightower. 1991. Changes in catchability in a bottom-trawl fishery for

Cape hake (Merluccius capensis). Canadian Journal of Fisheries and Aquatic Sciences 48:1887-1895.

Pearson, D. E., J. E. Hightower, and J. T. H. Chan. 1991. Age, growth, and potential yield for shortbelly rockfish (Sebastes jordani). Fishery Bulletin 89:403-409.

Hightower, J. E. 1990. Multispecies harvesting policies for Washington-Oregon-California rockfish trawl fisheries. Fishery Bulletin 88:645- 656.

Hightower, J. E., and G. D. Grossman. 1989. Status of the tilefish, Lopholatilus chamaeleonticeps, fishery off South Carolina and Georgia and recommendations for management. Fishery Bulletin 87:177-188.

Hightower, J. E., and W. H. Lenarz. 1989. Optimal harvesting policies for the widow rockfish fishery. American Fisheries Society Symposium 6:83- 91.

Hightower, J. E., and W. H. Lenarz. 1989. Using GENMOD to develop harvesting policies for multiaged fish stocks. American Fisheries Society Symposium 6:209-210.

Hightower, J. E., and G. D. Grossman. 1987. Optimal policies for rehabilitation of overexploited fish stocks using a deterministic model. Canadian Journal of Fisheries and Aquatic Sciences 44: 803-810.

Erickson, D. L., J. E. Hightower, and G. D. Grossman. 1985. The relative gonadal index: an alternative index for quantification of reproductive condition. Comparative Biochemistry and Physiology 81A: 117-120.

Grossman, G. D., M. J. Harris, and J. E. Hightower. 1985. The relationship between tilefish (Lopholatilus chamaeleonticeps) abundance and sediment composition off Georgia, U.S.A. Fishery Bulletin 83: 443-447.

Hightower, J. E., and G. D. Grossman. 1985. Comparison of constant effort harvest policies for fish stocks with variable recruitment. Canadian Journal of Fisheries and Aquatic Sciences 42: 982-988.

Hightower, J. E., and J. P. Geaghan. 1984. Analysis of fishery data. Page 7-1 to 7-30 in C. F. Bryan, editor. Warmwater Streams Techniques Manual: Fishes. Southern Division, American Fisheries Society.

Hightower, J. E., and R. J. Gilbert. 1984. Using the Jolly-Seber model to estimate population size, mortality, and recruitment for a reservoir fish population. Transactions of the American Fisheries Society 113: 633-641.

Hightower, J. E., R. J. Gilbert, and T. B. Hess. 1982. Shoreline and cove sampling to estimate survival of young largemouth bass in Lake Oconee, Georgia. North American Journal of Fisheries Management 2: 257-261.

PRESENTATIONS:

Ellis, T. A., J. A. Buckel, and J. E. Hightower. 2013. A tag-return model for estimating mortality

of spotted seatrout in North Carolina. Tidewater Chapter, American Fisheries Society, March 21-23, 2013.

Brownell, P., J. Ellis, J. E. Hightower, R. W. Laney, A. L. LaRoche III, D. Michaelson, K. Rawls, F. Rohde, G. Wright, and B. Wynne. 2013. Reconnecting American eels to the upper Roanoke basin. American Fisheries Society, Little Rock, Arkansas, September 8-12, 2013.

Flowers, H. J., and J. E. Hightower. Estimating sturgeon abundance in the Carolinas using side-scan sonar and Bayesian models. American Fisheries Society, Little Rock, Arkansas, September 8-12, 2013.

Harris, J. E., and J. E. Hightower. 2013. Migration and mortality of striped bass in the Roanoke River and Albemarle Sound, North Carolina. Southern Division, American Fisheries Society, Nashville, Tennessee, February 7-10, 2013. [Poster]

Raabe, J. K., and J. E. Hightower. 2013. Introduced flathead catfish migrations and potential predation impact in a North Carolina river. Southern Division, American Fisheries Society, Nashville, Tennessee, February 7-10, 2013.

Kaesler, A. J., H. J. Flowers, J. E. Hightower, D. A. Fox, and N. Willett. 2012. Developing and implementing a low-cost side-scan sonar based approach to monitoring Gulf sturgeon. 14th Annual Gulf Sturgeon Workshop, Panama City, Florida, November 14-16, 2012.

Fox, D. A., A. J. Kaesler, H. J. Flowers, N. Willett, and J. E. Hightower. 2012. Pilot evaluation of side-scan sonar for assessing sturgeon abundance. 14th Annual Gulf Sturgeon Workshop, Panama City, Florida, November 14-16, 2012.

Grote, A. B., J. Zydlewski, M. M. Bailey, and J. Hightower. 2012. DIDSON assessment of American shad approaching a hydroelectric dam. 142nd Annual Meeting of the American Fisheries Society, St. Paul, Minnesota, August 19-23, 2012.

Raabe, J. K., B. Gardner, and J. E. Hightower. 2012. A spatial capture – recapture model to estimate fish survival and migration patterns from linear telemetry arrays. 142nd Annual Meeting of the American Fisheries Society, St. Paul, Minnesota, August 19-23, 2012.

Harris, J. E., and J. E. Hightower. 2012. Migration and mortality of tagged striped bass in the Roanoke River and Albemarle Sound, North Carolina. 142nd Annual Meeting of the American Fisheries Society, St. Paul, Minnesota, August 19-23, 2012.

Flowers, H. J., and J. E. Hightower. 2012. A novel approach to surveying sturgeon using side-scan sonar and occupancy modeling. 142nd Annual Meeting of the American Fisheries Society, St. Paul, Minnesota, August 19-23, 2012.

Gardner, B., J.K. Raabe, and J.E. Hightower. July 2012. Spatial capture - recapture in linear networks: estimating survival and migration patterns in fishes. International Statistical Ecology Conference 2012. Krokkleiva, Norway.

Ellis, T. A., J. A. Buckel, J. E. Hightower, and K. H. Pollock. 2012. Estimating fishing and natural mortality of spotted seatrout in North Carolina using conventional and telemetry tagging. CRFL (Coastal Recreational Fishing License) Symposium, New Bern, North

Carolina, May 31, 2012.

- Harris, J. E., and J. E. Hightower. 2012. Migration and mortality of sonic-tagged striped bass in the Roanoke River, North Carolina. Tidewater Chapter, American Fisheries Society, Beaufort, North Carolina, March 8-10, 2012.
- Rudershausen, P. J., T. Dubriel, M. J. O'Donnell, J. A. Buckel, J. E. Hightower, B. H. Letcher, and S. J. Poland. 2012. Using passive integrated transponder (PIT) tags to estimate movement and survival of mummichog (*Fundulus heteroclitus*) in an estuarine tidal creek. Tidewater Chapter, American Fisheries Society, Beaufort, North Carolina, March 8-10, 2012.
- Harris, J. E., and J. E. Hightower. 2012. Identification of American shad spawning sites and habitat use in the Pee Dee River, North Carolina and South Carolina. NC Chapter, American Fisheries Society, Raleigh, North Carolina, February 28-29, 2012.
- Raabe, J. K., and J. E. Hightower. 2012. Restored habitat use by migratory fishes following complete and partial dam removals. NC Chapter, American Fisheries Society, Raleigh, North Carolina, February 28-29, 2012.
- Hughes, J. B., and J. E. Hightower. 2012. Using multiple sonar deployments to improve run-size estimates of anadromous fishes. NC Chapter, American Fisheries Society, Raleigh, North Carolina, February 28-29, 2012.
- Rudershausen, P. J., T. Dubriel, M.J. O'Donnell, J.A. Buckel, J.E. Hightower, and B.H. Letcher. 2011. Using passive integrated transponder (PIT) tags to estimate movement and survival of mummichog (*Fundulus heteroclitus*) in a saltwater estuary. Southeast Tidal Creeks Summit, Charleston, SC. December 5-6, 2011. [Poster]
- Hightower, J. E. 2011. How dams and dam removals affect fish migration and spawning. East Carolina University, Biology Department Seminar. October 20, 2011. Invited.
- Raabe, J. K., and J. E. Hightower. 2011. Habitat use and survival of American shad following dam removals on a North Carolina river. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.
- Flowers, H. J., and J. E. Hightower. 2011. Developing hydroacoustic methods for the study of sturgeons and other large-bodied fishes. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011. [Poster]
- Ellis, T. A., J. A. Buckel, J. E. Hightower, and B. Burns. 2011. Estimating fishing and natural mortality of spotted seatrout in North Carolina using conventional and telemetry tagging. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.
- Hughes, J. B., and J. E. Hightower. 2011. Assessing spawning runs of anadromous fishes using a combination of split-beam and DIDSON count data. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.
- Waine, M. W., J. E. Hightower, K. M. Boswell, and B. J. Reich. 2011. Assessing spawning runs of anadromous fishes using a Bayesian analysis of split-beam and DIDSON count data. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.

- Erbland, P. J., G. B. Zydlewski, J. Zydlewski, and J. E. Hightower. 2011. Fixed, side-aspect acoustic sampling of a diverse diadromous fish community in a tidal river. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.
- Harris, J. E., J. E. Hightower, K. Dockendorf, and B. Wynne. 2011. Designing a stocking program to learn more about population dynamics. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.
- Rudershausen, P., T. Dubriel, M. O'Donnell, J. A. Buckel, B. Letcher, and J. E. Hightower. 2011. Use of passive integrated transponder (PIT) tag antennas to monitor movements of mummichogs *Fundulus heteroclitus* in a tidal saltwater creek. 141th Annual Meeting, American Fisheries Society, Seattle, WA, September 4-8, 2011.
- Raabe, J. K., and J. E. Hightower. 2011. Use of restored habitat by migratory fishes following dam removals on North Carolina rivers. Workshop on dam removal organized by American Rivers, Chapel Hill, NC, June 14.
- Harris, J. E., and J. E. Hightower. 2011. Identification of American shad spawning sites and spawning habitat use in the Pee Dee River, North Carolina and South Carolina. Southern Division, American Fisheries Society, Tampa, Florida, January 13-16.
- Hightower, J. E. 2011. Bayesian methods for analyzing fisheries data. Southern Division, American Fisheries Society, Tampa, Florida, January 13-16.
- Raabe, J. K., and J. E. Hightower. 2011. Behavior of migratory fishes in a North Carolina river following dam removals. Southern Division, American Fisheries Society, Tampa, Florida, January 13-16.
- Waive, M. W., J. E. Hightower, K. M. Boswell, and B. J. Reich. 2011. Assessing spawning runs of anadromous fishes using a Bayesian analysis of split-beam and DIDSON count data. Southern Division, American Fisheries Society, Tampa, Florida, January 13-16. [2nd Place Best Student Presentation Award]
- Friedl, S. E., J. A. Buckel, J. E. Hightower, F. S. Scharf, and K. H. Pollock. 2010. Telemetry-based mortality estimates of juvenile spot in two North Carolina estuarine creeks. American Fisheries Society, 140th Annual Meeting, Pittsburgh, PA, September 12 – 16, 2010.
- Raabe, J. K., and J. E. Hightower. 2010. Evaluating benefits to American shad of habitat restored by dam removals. American Fisheries Society, 140th Annual Meeting, Pittsburgh, PA, September 12 – 16, 2010.
- Harris, J. E., and J. E. Hightower. 2010. A demographic population model for American shad: Will access to additional spawning habitat upstream of dams increase population sizes?. American Fisheries Society, 140th Annual Meeting, Pittsburgh, PA, September 12 – 16, 2010.
- Hightower, J. E. 2010. Characterizing habitat use and availability for diadromous fishes. Invited presentation, NOAA Northeast and Southeast Diadromous Fish Science and Research Workshop, March 31, 2010, Silver Spring, MD.

- Friedl, S. E., J. A. Buckel, J. E. Hightower, F. S. Scharf, and K. H. Pollock. 2010. Telemetry-based mortality estimates of juvenile spot in two North Carolina estuarine creeks. 24th Annual Meeting, Tidewater Chapter, American Fisheries Society, Annapolis, Maryland, March 18 – 20, 2010.
- King, T., S. Bolden, J. Bowers-Altman, M. Collins, K. Damon-Randall, M. Fisher, J. Fleming, D. Hartley, K. A. Hattala, J. E. Hightower, M. Kieffer, B. Kynard, R. W. Laney, S. Mierzykowski, S. Minkinen, and M. Mohead. Identifying the fundamental unit of management and historical demographic patterns in U.S. Atlantic Coast sturgeons: A genetic perspective. 2010 Meeting, Southern Division of the American Fisheries Society, Asheville, NC. February 26-28.
- Harris, J. E., and J. E. Hightower. 2010. Demographic population model for American shad: will access to additional spawning habitat above dams increase population sizes? 2010 Meeting, Southern Division of the American Fisheries Society, Asheville, NC. February 26-28.
- Friedl, S. E., J. A. Buckel, J. E. Hightower, F. S. Scharf, and K. H. Pollock. 2010. Telemetry-based mortality estimates of juvenile spot in two North Carolina estuarine creeks. 2010 Meeting, Southern Division of the American Fisheries Society, Asheville, NC. February 26-28. [Poster]
- Flowers, H. J., and J. E. Hightower. 2009. Potential for the Use of Hydroacoustic Technologies in the Study of Sturgeons. 11th Annual Workshop on Gulf Sturgeon, Cedar Key, Florida. [Invited]
- Hightower, J. E., and K. H. Pollock. 2009. Tagging methods for estimating population size and mortality rates of striped bass. American Fisheries Society, Nashville, Tennessee, August 30-September 3, 2009.
- Hightower, J. E., J. C. Taylor, and D. J. Degan. 2009. Can we estimate abundance of adult striped bass in reservoirs using hydroacoustics? American Fisheries Society, Nashville, Tennessee, August 30-September 3, 2009.
- Waine, M. W., and J. E. Hightower. 2009. Assessing spawning runs of anadromous fishes using split-beam and multi-beam sonar systems. American Fisheries Society, Nashville, Tennessee, August 30-September 3, 2009.
- Raabe, J. K., and J. E. Hightower. 2009. Assessing benefits to American shad of habitat restored by dam removals. American Fisheries Society, Nashville, Tennessee, August 30-September 3, 2009.
- Friedl, S. E., J. A. Buckel, J. E. Hightower, F. S. Scharf, and K. H. Pollock. 2009. Telemetry-based survival estimates of juvenile spot in two North Carolina estuaries. American Society of Ichthyologists and Herpetologists, Portland, Oregon, July 24, 2009.
- Hightower, J. E. 2009. Hydroacoustic survey methods, Roanoke River, NC. University of Maine, Orono, ME, July 24, 2009.
- Hightower, J. E. 2009. Estimating fish mortality rates using conventional tagging and telemetry.

Conservation Science Web Conference Series, U. S. Fish and Wildlife Service, Shepherdstown, WV, July 16, 2009.

- Friedl, S. E., J. A. Buckel, J. E. Hightower, F. S. Scharf, and K. H. Pollock. 2009. Effects of implanting a relatively large sonic telemetry tag on growth, survival, and tag retention in age-1 spot. Tidewater Chapter, American Fisheries Society, Wilmington, North Carolina, March 12-14, 2009.
- Taylor, J. C., Mitchell, W. A., J. E. Hightower, J. A. Buckel, and M. T. Pratt. 2009. Feasibility of using mobile hydroacoustic surveys for estimating spawning stock size of blueback herring in western Albemarle Sound, North Carolina. Tidewater Chapter, American Fisheries Society, Wilmington, North Carolina, March 12-14, 2009.
- Mitchell, W. A., J. C. Taylor, J. A. Buckel, J. E. Hightower, and M. T. Pratt. 2009. Feasibility of using mobile hydroacoustic surveys for estimating spawning stock size of blueback herring in western Albemarle Sound, North Carolina. NC Chapter, American Fisheries Society, Burlington, North Carolina, February 23-25, 2009.
- Harris, J. E., and J. E. Hightower. 2009. Migratory patterns of American shad transported above dams on the Roanoke River. NC Chapter, American Fisheries Society, Burlington, North Carolina, February 23-25, 2009.
- Smith, J. A., and J. E. Hightower. 2009. Spawning activity and migratory characteristics of American shad and striped bass in the Cape Fear River, NC. NC Chapter, American Fisheries Society, Burlington, North Carolina, February 23-25, 2009.
- Graham, R., J. E. Hightower, J. W. Kornegay, and C. Thomas. 2009. Fisheries management on the Roanoke River. NCSU Fisheries and Wildlife Seminar Series, Raleigh NC. Feb. 11, 2009. [Four speakers, listed in alphabetical order.]
- Hightower, J. E. 2008. Are tagging studies the best approach for assessing fish stocks? Virginia Tech Chapter of the American Fisheries Society, Blacksburg, VA, Feb. 17, 2009. Invited.
- Waine, M. W., J. E. Hightower, and K. M. Boswell. 2008. Deployment of split-beam and DIDSON systems to estimate abundance of anadromous species in the Roanoke River, NC. DIDSON-Based Fish Assessment Workshop, Alaska Chapter of the American Fisheries Society, Anchorage. October 26-28, 2008. [Poster]
- Hightower, J. E., K. J. Magowan, L. M. Brown, and D. A. Fox. 2008. Reliability of fish length estimates using a DIDSON multibeam sonar. DIDSON-Based Fish Assessment Workshop, Alaska Chapter of the American Fisheries Society, Anchorage. October 26-28, 2008.
- Bacheler, N. M., J. A. Buckel, J. E. Hightower, L. M. Paramore, S. Burdick, K. H. Pollock, and H. Takade. 2008. Using tagging to aid the assessment of North Carolina red drum. American Fisheries Society Meeting, Ottawa, Canada. August 17-21, 2008.
- Harris, J. E., and J. E. Hightower. 2008. Migratory patterns of American shad transported above dams on the Roanoke River, NC. American Fisheries Society Meeting, Ottawa, Canada. August 17-21, 2008.

- Smith, J. A., and J. E. Hightower. 2008. Spawning activity and migratory characteristics of American shad and striped bass in the Cape Fear River, NC. American Fisheries Society Meeting, Ottawa, Canada. August 17-21, 2008.
- Smith, W., F. Scharf, J. E. Hightower, and K. Craig. 2008. Fishery management and tag-return estimates of fishing mortality: an example in the NC southern flounder fishery. American Fisheries Society Meeting, Ottawa, Canada. August 17-21, 2008.
- Hightower, J. E. 2008. Historical and current abundance of river herring within Albemarle Sound, North Carolina. Forage Fish Workshop, Marine Fish Conservation Network. Raleigh, NC. April 18, 2008. [Invited]
- Bacheler, N.M., L.M. Paramore, J.A. Buckel, and J.E. Hightower. 2008. Abiotic and biotic factors influence the habitat use of North Carolina subadult red drum. Tidewater American Fisheries Society Meeting, Gloucester Point, VA. March 6-8, 2008. [Best Student Paper award]
- Bacheler, N.M., J.A. Buckel, J.E. Hightower, L.M. Paramore, and K.H. Pollock. 2008. A combined telemetry - tag return approach to estimate mortality rates of an estuarine fish. Tidewater American Fisheries Society Meeting, Gloucester Point, VA. March 6-8, 2008.
- Magowan, K. J., and J. E. Hightower. 2008. Use of split-beam sonar to estimate anadromous fish runs in the Roanoke River. NC Chapter, American Fisheries Society, Greenville, North Carolina, February 19-20, 2008.
- Smith, W., F. Scharf, J. E. Hightower, and K. Craig. 2008. Fishery management and tag-return estimates of fishing mortality: an example in the NC southern flounder fishery. NC Chapter, American Fisheries Society, Greenville, North Carolina, February 19-20, 2008. [Richard L. Noble Best Student Paper Award]
- Bacheler, N.M., J.E. Hightower, J.A. Buckel, L.M. Paramore, and K.H. Pollock. 2007. A novel combined telemetry and tag return method to estimate fishing and natural mortality rates of an estuarine fish species. ECU AFS Student Subunit, Greenville, NC. Invited.
- Hightower, J. E., K. J. Magowan, L. M. Brown, and D. A. Fox. 2007. Estimating anadromous fish abundance using a DIDSON multibeam sonar. Alden Research Laboratory, Holden, Massachusetts, October 23, 2007.
- Waters, C. T., and J. E. Hightower. 2007. Effect of Water Quality on Hatching Success of Blueback Herring Eggs in the Chowan River Basin, North Carolina. Southeastern Association of Fish and Wildlife Agencies, Charleston, West Virginia, October 21-24, 2007.
- Hightower, J. E.. 2007. Effects of dams on migration and spawning of anadromous fishes. U. S. Geological Survey, Water Resources Division, Raleigh, North Carolina. October 17, 2007. [Invited]
- Harris, J. E., and J. E. Hightower. 2007. Spawning habitat of hickory shad in the Roanoke River, North Carolina. American Fisheries Society, San Francisco, California, September 2-6, 2007.

- Erickson, D., G. Bryja, S. Lindley, M. Moser, M. Belchik, A. Kahnle, M. Millard, J. Weber, J. Hightower, E. Pikitch, and P. Doukakis. 2007. Spatial habitat use in anadromous North American sturgeons and its importance for conservation. American Fisheries Society, San Francisco, California, September 2-6, 2007.
- Magowan, K. J., and J. E. Hightower. 2007. Use of split-beam sonar to estimate anadromous fish runs in a southeastern river. American Fisheries Society, San Francisco, California, September 2-6, 2007.
- Brown, L. M., K. J. Magowan, D. A. Fox, and J. E. Hightower. 2007. Comparison of split-beam and DIDSON hydroacoustic gears for conducting sturgeon surveys. American Fisheries Society, San Francisco, California, September 2-6, 2007.
- Bacheler, N., J. Hightower, J. Buckel, L. Paramore, and K. Pollock. 2007. A novel combined telemetry and tag return method to estimate fishing and natural mortality rates of an estuarine fish species. American Fisheries Society, San Francisco, California, September 2-6, 2007.
- Bacheler, N.M., J.A. Buckel, J.E. Hightower, K.H. Pollock, and L.M. Paramore. 2007. Using telemetry and tagging to estimate mortality rates and selectivity of red drum. Invited talk for the Student Fisheries Society, UNC-Wilmington, April 19, 2007.
- Magowan, K. J., L. M. Brown, D. A. Fox, and J. E. Hightower. 2007. Comparison of split-beam and DIDSON hydroacoustic gears for conducting sturgeon surveys. Joint Meeting of the North Carolina and Virginia Chapters, American Fisheries Society, Danville, Virginia, February 26-28, 2007.
- Harris, J. E., and J. E. Hightower. 2007. Hickory shad spawning habitat in the Roanoke River, North Carolina. Joint Meeting of the North Carolina and Virginia Chapters, American Fisheries Society, Danville, Virginia, February 26-28, 2007.
- Bacheler, N., J. E. Hightower, L. Paramore, J. Buckel, and K. Pollock. 2007. Changes in fishing mortality and selectivity of North Carolina red drum due to fishery regulations. Joint Meeting of the Tidewater and Mid-Atlantic Chapters, American Fisheries Society, Lewes, Delaware, February 1-3, 2007.
- Brown, L. M., K. J. Magowan, D. A. Fox, and J. E. Hightower. 2007. Comparison of split-beam and DIDSON hydroacoustic gears for conducting sturgeon surveys. Joint Meeting of the Tidewater and Mid-Atlantic Chapters, American Fisheries Society, Lewes, Delaware, February 1-3, 2007.
- Fox, D. A., P. Simpson, L. Brown, K. J. Magowan, and J. E. Hightower. 2007. Atlantic sturgeon of the Delaware: historical perspectives and current approaches to understanding habitat requirements. Delaware Estuary Science Conference, Cape May, New Jersey, January 22-24, 2007.
- Bacheler, N.M., S.M. Burdick, J.E. Hightower, J.A. Buckel, L.M. Paramore, and K.H. Pollock. Estimating vital rates for North Carolina red drum from tagging experiments. Cape Lookout Flyfisher's Association, September 20, 2006.

- Bacheler, N.M., J.A. Buckel, J.E. Hightower, and K.H. Pollock. 2006. Testing the combined telemetry and tag-return method to estimate components of mortality in an estuarine fish species. Presentation to 8-12th grade teachers at the Center for Ocean Sciences Education Excellence Leadership Institute, Pine Knoll Shores, NC.
- Bacheler, N.M., J.A. Buckel, J.E. Hightower, and K.H. Pollock. 2006. Testing the combined telemetry and tag-return method to estimate components of mortality of an estuarine fish species. NC Sea Grant 30th anniversary, North Carolina Museum of Natural Sciences, Raleigh, NC, June 20, 2006. (poster, invited)
- Bacheler, N.M., J.A. Buckel, J.E. Hightower, and K.H. Pollock. 2006. Testing the combined telemetry and tag-return method to estimate components of mortality of an estuarine fish species. NC Sea Grant/Division of Marine Fisheries Public Fisheries Forum, New Bern, NC, March 14, 2006. (poster)
- Burdick, S., J. E. Hightower, J. A. Buckel, K. Pollock, and L. Paramore. 2006. Selectivity and survival of North Carolina red drum using 20 years of mark and recapture data. Tidewater Chapter, American Fisheries Society, Atlantic Beach, North Carolina. January 26-28, 2006.
- Bacheler, N., J. Buckel, J. E. Hightower, and K. H. Pollock. 2005. Testing the combined telemetry and tag-return method to estimate components of mortality of an estuarine fish species. American Fisheries Society, Anchorage, Alaska, September 11-15, 2005.
- Hightower, J. E. 2005. Telemetry methods for estimating mortality rates in fish. American Fisheries Society, Anchorage, Alaska, September 11-15, 2005. [Invited]
- Mitchell, W. A., and J. E. Hightower. 2005. Estimating run size of anadromous fishes in a southeastern coastal river using hydroacoustics. American Fisheries Society, Anchorage, Alaska, September 11-15, 2005.
- Hightower, J. E., and S. M. Burdick. 2005. Spawning habitat of anadromous fishes in the Roanoke and Neuse rivers. Workshop on southeastern diadromous fish habitat and production. Duke Power, Lancaster, South Carolina. April 22, 2005. [Invited]
- Kwak, T. J., and J. E. Hightower. 2005. Fish Surgical Techniques Workshop. Technical training for agency and utility company biologists to surgically implant radio or ultrasonic transmitters into fish. April 18, Raleigh, North Carolina.
- Bacheler, N.M., J.A. Buckel, J.E. Hightower, and K.H. Pollock. 2005. Estimating fishing and natural mortality rates of juvenile red drum using the combined telemetry and tag-return method. Red drum Symposium, SC Department of Natural Resources, Charleston, SC. March 22, 2005.
- Hightower, J. E., and J. R. Bence. 2005. Strategies for estimating natural mortality of fishes. Atlantic States Marine Fisheries Commission Natural Mortality Workshop, Baltimore, MD. March 31-April 1, 2005. [Invited]
- Mitchell, W. A., and J. E. Hightower. 2005. Estimating run size of anadromous fishes in a southeastern coastal river using hydroacoustics. North Carolina Chapter, American

Fisheries Society, Brown Summit, North Carolina, February 8-9, 2005.

- Hightower, J. E. 2004. The effect of dam removal on fish resources. Succeeding with a dam removal project. University of Wisconsin, Madison, College of Engineering, Department of Engineering Professional Development. Raleigh, NC. November 30-December 2, 2004. Invited.
- Hightower, J. E. 2004. Restoration of diadromous fish habitat on the Neuse River, NC. U. S. Fish and Wildlife Service, Roanoke-Tar-Neuse-Cape Fear Ecosystem Team Meeting, Atlantic Beach, NC. Nov 17-18, 2004. Invited.
- Ricks, B. R., J. E. Hightower, and A. M. Wicker. 2004. Preliminary assessment of an Alaska steep pass fishway on a North Carolina blackwater creek. Southeastern Association of Fish and Wildlife Agencies. October 31-November 3, 2004.
- Burdick, S. M., and J. E. Hightower. 2004. Distribution of spawning activity by migratory fishes in the upper Neuse River drainage. North Carolina Chapter, American Fisheries Society, Asheville, NC, Feb. 4-5, 2004.
- Burdick, S. M., and J. E. Hightower. 2004. Distribution of spawning activity by migratory fishes in the upper Neuse River drainage, North Carolina. 134th Annual Meeting, American Fisheries Society, Madison, WI, August 22-26, 2004.
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2004. Population dynamics and stock assessment of the blue crab in North Carolina. NC Marine Fisheries Commission meeting, New Bern, NC, May 2004.
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2004. Population dynamics and stock assessment of the blue crab in North Carolina. NC Commercial Fishing Show, New Bern, NC, February 2004.
- Hewitt, D. A., J. E. Hightower, and K. H. Pollock. 2004. A model for estimating the size of anadromous fish spawning runs using hydroacoustic monitoring data. 134th Annual Meeting, American Fisheries Society, Madison, WI, August 22-26, 2004.
- Hightower, J. E. 2004. Research focus: anadromous fishes and coastal rivers. U.S. Fish and Wildlife Service, Regional Director's Retreat. February 2, 2004. Invited.
- Hightower, J. E. 2004. Striped bass and American shad spawning habitat in the Neuse River. U. S. Army Corps of Engineers, Falls Lake Visitor's Center, Raleigh. May 18, 2004.
- Hightower, J. E., and J. R. Bence. 2004. Strategies for estimating natural mortality of fishes. Lake Whitefish Natural Mortality Workshop, Great Lakes Fisheries Commission, Ann Arbor, MI, September 21-22, 2004. [Invited plenary]
- Pollock, K. H., H. Jiang, J. M. Hoenig, C. Brownie, J. E. Hightower, J. B. Dempson, B. Wells, R. J. Latour. 2004. Parsimonious age-dependent fisheries tagging models. 134th Annual Meeting, American Fisheries Society, Madison, WI, August 22-26, 2004. [Invited]
- Read, A. N., and J. E. Hightower. 2004. Assessment tool for identifying American shad spawning and nursery habitat. North Carolina Chapter, American Fisheries Society, Asheville, NC,

Feb. 4-5, 2004. [NC AFS Chapter award: Richard L. Noble Best Student Paper Award]

- Read, A. N., and J. E. Hightower. 2004. Assessment tool for identifying American shad spawning and nursery habitat. 134th Annual Meeting, American Fisheries Society, Madison, WI, August 22-26, 2004.
- Ricks, B. R., and J. E. Hightower. 2004. Evaluation of a denil fishway on a North Carolina blackwater creek. North Carolina Chapter, American Fisheries Society, Asheville, NC, Feb. 4-5, 2004.
- Tuomikoski, J. E., J. A. Buckel, P. J. Rudershausen, and J. E. Hightower. 2004. Effects of age-1 striped bass predation on *Alosa spp.* in western Albemarle Sound. 134th Annual Meeting, American Fisheries Society, Madison, WI, August 22-26, 2004. [Invited]
- Tuomikoski, J. E., J. A. Buckel, P. J. Rudershausen, and J. E. Hightower. 2004. Effects of age-1 striped bass predation on *Alosa spp.* in western Albemarle Sound. North Carolina Chapter, American Fisheries Society, Asheville, NC, Feb. 4-5, 2004.
- Rudershausen, P. J., J. E. Tuomokowski, J. A. Buckel, and J. E. Hightower. 2004. Diet and selectivity of age-1 striped bass in the western Albermarle Sound, NC. 18th Annual Meeting of the Tidewater Chapter, American Fisheries Society, Salisbury, Maryland, January 8-10, 2004.
- Hightower, J. E. 2003. Juvenile Atlantic sturgeon habitat in North Carolina. Atlantic sturgeon workshop, sponsored by the Atlantic States Marine Fisheries Commission, NOAA Fisheries and the U.S. Fish and Wildlife Service. November 4, 2003. Invited.
- Hightower, J. E. 2003. Critical habitat for sturgeons in the southeastern United States. NC State University, College of Veterinary Medicine, Population Medicine Seminar. October 28, 2003. Invited.
- Laney, R.W., J. E. Hightower, M. Mangold, W. W. Cole, Jr., and S. E. Winslow. 2003. Distribution and habitat use of Atlantic sturgeon captured during the southeast area monitoring and assessment (SEAMAP) cooperative winter tagging cruises, 1988-2003. Atlantic States Marine Fisheries Commission, Habitat Committee, Arlington, VA, August 25, 2003.
- Laney, R.W., J. E. Hightower, M. Mangold, W. W. Cole, Jr., and S. E. Winslow. 2003. Distribution and habitat use of Atlantic sturgeon captured during the southeast area monitoring and assessment (SEAMAP) cooperative winter tagging cruises, 1988-2003. South Atlantic Fishery Management Council, Habitat and Environmental Protection Advisory Panel, Charleston, SC, August 21, 2003.
- Wicker, A. M., J. E. Hightower, and S. M. Burdick. 2003. Habitat-based fish restoration through dam removal in North Carolina. 133rd Annual Meeting, American Fisheries Society, Quebec City, Canada, August 10-14, 2003.
- Pollock, K. H., H. Jiang, and J. E. Hightower. 2003. Combining radio-telemetry and fisheries tagging models to estimate fishing and natural mortality rates. 133rd Annual Meeting, American Fisheries Society, Quebec City, Canada, August 10-14, 2003.

- Oakley, N.C., and J. E. Hightower. 2003. Status of shortnose sturgeon in the Neuse River, North Carolina. 133rd Annual Meeting, American Fisheries Society, Quebec City, Canada, August 10-14, 2003.
- Laney, R.W., J. E. Hightower, M. Mangold, W. W. Cole, Jr., and S. E. Winslow. 2003. Distribution and habitat use of Atlantic sturgeon captured during the southeast area monitoring and assessment (SEAMAP) cooperative winter tagging cruises, 1988-2003. 133rd Annual Meeting, American Fisheries Society, Quebec City, Canada, August 10-14, 2003.
- Erickson, D.L., and J. E. Hightower. 2003. Oceanic distribution and behavior of green sturgeon (*Acipenser medirostris*) off the Oregon and Washington coasts. 133rd Annual Meeting, American Fisheries Society, Quebec City, Canada, August 10-14, 2003.
- Hightower, J. E. 2003. Status of shortnose sturgeon in North Carolina. Shortnose sturgeon recovery conference, Armstrong Atlantic State University, Savannah, Georgia, July 7-9, 2003.
- Erickson, D., and J. E. Hightower. 2003. Oceanic distribution and behavior of green sturgeon off the Oregon and Washington coasts. 2003 Annual Meeting, Oregon Chapter, American Fisheries Society, Eugene, Oregon, February 26-28, 2003.
- Oakley, N. C., and J. E. Hightower. 2003. Status of shortnose sturgeon in the Neuse River, North Carolina. 2003 Spring Meeting, Southern Division, American Fisheries Society, Wilmington, North Carolina. February 12-16, 2003.
- Hewitt, D. A., and J. E. Hightower. 2003. Estimating the size of anadromous fish spawning runs using stationary, side-looking hydroacoustics. 2003 Spring Meeting, Southern Division, American Fisheries Society, Wilmington, North Carolina. February 12-16, 2003. [NC AFS Chapter awards: Richard L. Noble Best Student Paper Award; W. Don Baker Memorial Award for best overall scientific presentation; SDAFS Award, Best Student Paper]
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2002. Population dynamics and stock assessment of the blue crab in North Carolina. NC Commercial Fishing Show. New Bern, NC, March, 2002.
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2002. Population dynamics of the blue crab, *Callinectes sapidus*, in North Carolina. NC Marine Fisheries Commission – Crustacean Advisory Committee, Washington, NC. February, 2002.
- Hewitt, D. A., and J. E. Hightower. 2002. Strategies for assessing the total size and migratory patterns of anadromous fish spawning runs. 132th Annual Meeting, American Fisheries Society, Baltimore, Maryland. August 19-22, 2002.
- Hightower, J. E. 2002. Restoration strategies for anadromous fishes in the Roanoke River. Presentation to NC Wildlife Resources Commission, Boydton, Virginia, April 9, 2002. Invited.
- Hightower, J. E. 2002. History of striped bass fishery in central-southern North Carolina. Presentation to Central-Southern Advisory Committee, Striped Bass Plan Development

- Team, New Bern, North Carolina. February 25, 2002. Invited.
- Hightower, J. E. 2002. Restoration of spawning habitat for striped bass and American shad through removal of the Quaker Neck Dam. 22nd Annual North Carolina Commercial Fishing Show, New Bern, North Carolina. February 23-24, 2002. Invited.
- Hightower, J. E. 2002. History of striped bass fishery in the Albemarle Sound area. Presentation to Albemarle-Roanoke Advisory Committee, Striped Bass Plan Development Team, Edenton, North Carolina. February 18, 2002. Invited.
- Hewitt, D. A., and J. E. Hightower. 2002. An Evaluation of Anadromous Fish Spawning Runs in the Roanoke River, North Carolina Using a Fishwheel and Stationary, Split-beam Hydroacoustics. North Carolina Chapter, American Fisheries Society, Huntersville, NC, February 5-6, 2002.
- Hightower, J. E. 2002. Restoring habitat for anadromous fishes through dam removal. Western Carolina University, Biology Department Seminar. February 1, 2002. Invited.
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2001. Stock assessment of the blue crab in North Carolina. Duke University Marine Laboratory, Beaufort, NC, November, 2001.
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2001. Stock assessment of the blue crab in North Carolina. NC Commercial Fishing Show. New Bern, North Carolina. February, 2001.
- Eggleston, D. B., E. G. Johnson, J. Hightower. 2001. Population dynamics of the blue crab, *Callinectes sapidus*, in North Carolina. North Carolina Marine Fisheries Commission Meeting. Greenville, North Carolina. January, 2001.
- Hightower, J. E. 2001. Restoration targets for anadromous fishes in the Roanoke River, North Carolina. Determining appropriate restoration targets for fisheries under moratorium: American shad in Chesapeake Bay. Hanover, Maryland. December 12-13, 2001. Invited.
- Hightower, J. E., and A. M. Wicker. 2001. Approaches for fish passage in the southeastern United States. Evaluating the impacts of dam operations on aquatic ecosystems in the southeastern U.S.: the needs and feasibility of decision making tools for relicensing. Hickory Knob State Park, McCormick, South Carolina. October 1-2, 2001. Invited.
- Hightower, J.E., D. A. Fox, K. P. Zehfuss, and F. M. Parauka. 2001. Essential habitats for Gulf sturgeon in the Choctawhatchee River system. Gulf of Mexico Sturgeon, 2001 Status of the Subspecies Workshop. Gulf Coast Community College, Panama City, Florida. September 12, 2001.
- Hightower, J. E. 2001. Restoring habitat for anadromous fishes through dam removal. East Carolina University Student Subunit, American Fisheries Society. September 4, 2001. Invited.
- Hightower, J. E. 2001. History of striped bass fishery in the Albemarle Sound area. Striped Bass Workshop (public meeting), Nags Head, North Carolina. March 15, 2001. Invited.
- Bowman, S., and J. E. Hightower. 2001. American shad and striped bass spawning migration and

- habitat selection in response to dam removal. 131th Annual Meeting, American Fisheries Society, Phoenix, Arizona. August 20-23, 2001.
- Hightower, J. E., J. R. Jackson, and K. H. Pollock. 2001. Using telemetry methods to estimate natural and fishing mortality of striped bass in Lake Gaston, North Carolina. 131th Annual Meeting, American Fisheries Society, Phoenix, Arizona. August 20-23, 2001.
- Hightower, J.E., K. P. Zehfuss, D. A. Fox, and F. M. Parauka. 2001. Summer habitat selection by Gulf sturgeon in the Choctawhatchee River, Florida. 4th International Symposium on Sturgeon. Oskosh, WI, July 9-13, 2001.
- Armstrong, J. L., and J. E. Hightower. 2001. Potential for restoration of the Roanoke River population of Atlantic sturgeon. 4th International Symposium on Sturgeon. Oskosh, WI, July 9-13, 2001.
- Erickson, D. L., J. A. North, J. E. Hightower, J. Weber, and L. Lauck. 2001. Habitat use of green sturgeon (*Acipenser medirostris*) in the Rogue River, Oregon. 4th International Symposium on Sturgeon. Oskosh, WI, July 9-13, 2001.
- Schmidt, R. E., B. M. Jessop, and J. E. Hightower. 2001. River herrings (*Alosa aestivalis*, *A. pseudoharengus*) in their native ranges. Shad 2001: A Conference on the Status and Conservation of Shads Worldwide. Baltimore, MD, May 20-23, 2001. Invited.
- Hightower, J. E., and K. Sparks. 2001. Migration and spawning habitat of American shad in the Roanoke River, North Carolina. Shad 2001: A Conference on the Status and Conservation of Shads Worldwide. Baltimore, MD, May 20-23, 2001.
- Hightower, J. E. 2001. Restoring habitat for anadromous fish through dam removal. North Carolina Water Resources Association, Luncheon and Forum. Raleigh, NC, April 9, 2001. Invited.
- Bowman, S. W., C. A. Beasley, and J. E. Hightower. 2001. Comparison of spawning migrations for striped bass and American shad before and after dam removal. 2001 Southern Division American Fisheries Society Mid-Year Meeting, Jacksonville, Florida, February 22-25, 2001. Invited.
- Eggleston, D. B., E. G. Johnson, and J.E. Hightower. 2000. Population dynamics and density-dependence in the blue crab in NC. Blue Crab Symposium, Wilmington, North Carolina. March, 2000.
- Eggleston, D. B., E. G. Johnson and J. Hightower. 2000. Stock assessment of the blue crab in North Carolina. NC Commercial Fishing Show. New Bern, NC. February, 2000.
- Johnson, E.G., D.B. Eggleston, and J.E. Hightower. 2000. Spatiotemporal variability in abundance of the blue crab in North Carolina. Blue Crab Symposium, Wilmington, NC. March, 2000.
- Hightower, J. E. 2000. Research Strategies for anadromous fishes. Raleigh Sail & Power Squadron, Raleigh, November 7, 2000. Invited.
- Hightower, J. E. 2000. Specific Fisheries Issues in the Roanoke River. Roanoke River Basin

Regional Council, Rich Square, August 18, 2000. Invited.

Bichy, J. B., J. Francesconi, J. E. Hightower, J. M. Miller, and S. W. Ross. 2000. Life history assessment on the reproduction and age and growth of striped mullet in North Carolina. Tidewater Chapter, American Fisheries Society, Kill Devil Hills, NC, March 9-11, 2000.

Lee, L. M., J. E. Hightower, and P. S. Rand. 2000. Use of fishery-independent surveys to assess status of Atlantic croaker. Tidewater Chapter, American Fisheries Society, Kill Devil Hills, NC, March 9-11, 2000.

Lee, L. M., J. E. Hightower, and P. S. Rand. 2000. Use of fishery-independent surveys to assess status of Atlantic croaker. North Carolina Chapter, American Fisheries Society, New Hill, NC, Jan. 11-12, 2000.

Lee, L. M., J. E. Hightower, and P. S. Rand. 2000. Use of fishery-independent surveys to assess status of Atlantic croaker. 130th Annual Meeting, American Fisheries Society, St. Louis, Missouri. August 20-24, 2000.

Jackson, J. R., and J. E. Hightower. 2000. Seasonal movement patterns and home range fidelity of reservoir striped bass. 130th Annual Meeting, American Fisheries Society, St. Louis, Missouri. August 20-24, 2000.

Jackson, J. R., and J. E. Hightower. 2000. Reservoir striped bass movements and site fidelity in relation to seasonal patterns in habitat quality. North Carolina Chapter, American Fisheries Society, New Hill, NC, Jan. 11-12, 2000.

Hightower, J. E., C. A. Beasley, and S. W. Bowman. 2000. Restoration of spawning habitat for striped bass and American shad through dam removal. Fifth Marine and Estuarine Shallow Water Science and Management Conference, Atlantic City, New Jersey, March 12-16, 2000. Invited.

Hightower, J. E., C. A. Beasley, and S. W. Bowman. 2000. Restoration of spawning habitat for striped bass and American shad through dam removal. North Carolina Chapter, American Fisheries Society, New Hill, NC, Jan. 11-12, 2000.

Fox, D. A., J. E. Hightower, and F. M. Parauka. 2000. Gulf sturgeon estuarine and nearshore marine habitat use in Choctawhatchee Bay, Florida. 130th Annual Meeting, American Fisheries Society, St. Louis, Missouri. August 20-24, 2000.

Hightower, J. E., C. A. Beasley, and S. W. Bowman. 1999. Restoration of spawning habitat for striped bass and American shad through dam removal. 61st Midwest Fish and Wildlife Conference, Chicago, Illinois, December 5-8, 1999.

Hightower, J. E. 1999. Historical impacts of fishing versus habitat loss on American shad and river herring in the Roanoke River, North Carolina. 129th Annual Meeting, American Fisheries Society, Charlotte, North Carolina, Aug. 29-Sep. 2, 1999. Invited.

Carmichael, J. T., J. E. Hightower, and S. E. Winslow. 1999. Spreadsheet based catch at age assessment of blueback herring in the Chowan River, North Carolina. 129th Annual Meeting, American Fisheries Society, Charlotte, North Carolina, Aug. 29-Sep. 2, 1999. Invited.

- Hightower, J. E. 1999. Sturgeon research in North Carolina. Savannah-Santee-Pee Dee Sturgeon Passage Workshop. Charleston, SC, Mar. 30-31, 1999. Invited.
- Hightower, J. E., and J. R. Jackson. 1999. Gaston telemetry study. Kerr/Gaston Coordination Meeting, John H. Kerr Resource Management Center, Boydton, VA, March 16, 1999. (Invited)
- Hightower, J. E., and J. R. Jackson. 1999. Natural mortality of stocked striped bass in Lake Gaston, North Carolina. Joint Meeting of the North Carolina and Virginia Chapters, American Fisheries Society, Danville, VA, Jan. 26-28, 1999.
- Cope, W. G., M. R. Bartsch, and J. E. Hightower. 1999. Invasion dynamics of zebra mussels in the upper Mississippi River. The 9th International Zebra Mussel and Aquatic Nuisance Species Conference, Duluth, MN, Apr. 26-30, 1999.
- Hightower, J. E. 1998. USGS-BRD Fisheries and Aquatic Sciences research on population dynamics and modeling. Invited presentation, USGS-BRD Fisheries and Aquatic Sciences program review, Madison, WI, Aug. 12, 1998.
- Waters, C. T., and J. E. Hightower. 1998. The effect of water quality on the hatching success of river herring eggs in the Chowan River basin. Invited presentation to NC Marine Fisheries Commission, Feb. 20, 1998.
- Sparks, K. L., and J. E. Hightower. 1998. Identification of major spawning habitats used by American shad (*Alosa sapidissima*) in the Roanoke River, North Carolina. North Carolina Chapter, American Fisheries Society, Reidsville, NC, Jan. 21-22, 1998. [Received Best Student Paper award; Don Baker Memorial Award]
- Kornegay, J. W., and J. E. Hightower. 1998. The collapse and recovery of the Albemarle Sound/Roanoke River striped bass population: are we really there yet? 128th Annual Meeting, American Fisheries Society, Hartford, Connecticut, Aug. 25-28, 1998. Invited. (Also presented at Southern Division AFS Midyear Meeting, Chatanooga, TN, Feb. 25-28, 1999.)
- Hightower, J. E., W. J. Fleming, and M. A. Hayman. 1998. Effects of Contaminated Sediments on Brown Bullhead Condition, Growth, and Mortality in a North Carolina Tidal Creek. Catfish 2000, 1st International Ictalurid Symposium, Davenport, Iowa. June 23-25, 1998.
- Hightower, J. E. 1998. Status of American shad and river herring in the Albemarle Sound basin. Virginia Tech Chapter of the American Fisheries Society, Blacksburg, VA, Dec. 8, 1998. Invited.
- Hightower, J. E. 1998. Habitat requirements of anadromous fishes. NC Student Sub-Unit of the NC Chapter of the American Fisheries Society, Raleigh, NC. Nov. 3, 1998. Invited.
- Hightower, J. E. 1998. Overview of Roanoke River system and target species. Roanoke River Fish Passage Workshop, Halifax Community College, Weldon, NC, Feb. 10-11, 1998. Invited.
- Hightower, J. E. 1998. Factors affecting the status of anadromous fishes within the Albemarle

- Sound drainage, North Carolina and Virginia. North Carolina Chapter, American Fisheries Society, Reidsville, NC, Jan. 21-22, 1998.
- Beasley, C. A., and J. E. Hightower. 1998. Distribution and characteristics of spawning habitat used by striped bass and American shad in the Neuse River, North Carolina. North Carolina Chapter, American Fisheries Society, Reidsville, NC, Jan. 21-22, 1998.
- Armstrong, J. L., and J. E. Hightower. 1998. Distribution and habitat selection of Atlantic sturgeon in Albemarle Sound, NC. 128th Annual Meeting, American Fisheries Society, Hartford, Connecticut, Aug. 25-28, 1998. Invited.
- Waters, C. T., and J. E. Hightower. 1997. The effect of water quality on the hatching success of river herring eggs in the Chowan River basin. 127th Annual Meeting, American Fisheries Society, Monterey, CA, Aug. 24-28, 1997.
- Sparks, K. L., and J. E. Hightower. 1997. Effects of mainstem impoundments on the spawning migration of American shad in the Roanoke River, North Carolina. 127th Annual Meeting, American Fisheries Society, Monterey, CA, Aug. 24-28, 1997.
- Hightower, J. E. 1997. Factors affecting the status of anadromous fishes within the Albemarle Sound drainage, North Carolina and Virginia. 14th Biennial Estuarine Research Federation International Conference, Providence, RI, October 12-16, 1997. [Invited]
- Fox, D., K. P. Zehfuss, and J. E. Hightower. 1997. Key habitats occupied by Gulf sturgeon in the Choctawhatchee River system. Choctawhatchee River and Bay System Technical Symposium, Destin, FL, May 30, 1997.
- Fox, D. A., and J. E. Hightower. 1997. Identification of Gulf sturgeon spawning habitats in the Choctawhatchee River system, Alabama/Florida. 127th Annual Meeting, American Fisheries Society, Monterey, CA, Aug. 24-28, 1997.
- Beasley, C. A., and J. E. Hightower. 1997. Distribution and characteristics of spawning habitat used by striped bass and American shad in the Neuse River, North Carolina. 127th Annual Meeting, American Fisheries Society, Monterey, CA, Aug. 24-28, 1997.
- Waller, L. M., J. E. Hightower, and W. J. Fleming. 1996. The effects of a tertiary-treated sewage effluent on growth and mortality rates in the tellinid clam, *Macoma mitchelli* in the Neuse River estuary, North Carolina. North Carolina Chapter, American Fisheries Society, White Lake, NC, Jan. 17-18, 1996.
- Hightower, J. E., and A. M. Wicker. 1995. Historical abundance of American shad and river herring within Albemarle Sound, NC. 125th Annual Meeting, American Fisheries Society, Tampa, FL, Aug. 27-31, 1995.
- Zehfuss, K. P., J. E. Hightower, and K. H. Pollock. 1995. Seasonal movements and habitat use of Gulf sturgeon in the Choctawhatchee River, FL. 125th Annual Meeting, American Fisheries Society, Tampa, FL, Aug. 27-31, 1995.
- Waller, L., J. E. Hightower, and W. J. Fleming. 1995. Recruitment, growth, and survival of the Tellinid clam *Macoma mitchelli* in the Neuse River estuary, North Carolina. 1995 Marine Benthic Ecology meeting, New Brunswick, NJ.

- Hightower, J. E., J. T. Carmichael, and S. L. Haeseker. 1995. Management implications of the migratory behavior of Albemarle Sound-Roanoke River striped bass. Symposium on Management of Striped Bass and Striped Bass Hybrids, 1995 Southern Division of the American Fisheries Society Midyear Meeting, Feb. 26, 1995.
- Carmichael, J. T., S. L. Haeseker, and J. E. Hightower. 1995. Effects of flow and temperature on spawning migration behavior of Albemarle Sound-Roanoke River striped bass. North Carolina Chapter, American Fisheries Society, Crossnore, NC, Jan. 17-18, 1995. [Received Best Student Paper award]
- Potak, K. E., J. E. Hightower, and K. H. Pollock. 1994. Estimating abundance of Apalachicola River Gulf sturgeon using capture-recapture methods. North Carolina Chapter, American Fisheries Society, Beaufort, NC, Jan. 18-19, 1994.
- Potak, K. E., J. E. Hightower, and K. H. Pollock. 1994. Estimating abundance of Apalachicola River Gulf sturgeon using capture-recapture methods. 124th Annual Meeting, American Fisheries Society, Halifax, Nova Scotia, Aug. 22-25, 1994.
- Hightower, J. E., and J. R. Bence. 1994. Measuring uncertainty in an age-structured stock assessment. American Fisheries Society, Halifax, Nova Scotia, Aug. 22-25, 1994.
- Haeseker, S., J. T. Carmichael, and J. E. Hightower. 1994. Summer distribution and condition of striped bass within Albemarle Sound, North Carolina. North Carolina Chapter, American Fisheries Society, Beaufort, NC, Jan. 18-19, 1994. [Received Best Student Paper award]
- Haeseker, S., J. T. Carmichael, and J. E. Hightower. 1994. Summer distribution and condition of striped bass within Albemarle Sound, North Carolina. 124th Annual Meeting, American Fisheries Society, Halifax, Nova Scotia, Aug. 22-25, 1994.
- Carmichael, J. T., S. Haeseker, and J. E. Hightower. 1994. Effects of flow and temperature on spawning migration behavior of Albemarle Sound-Roanoke River striped bass. 124th Annual Meeting, American Fisheries Society, Halifax, Nova Scotia, Aug. 22-25, 1994.
- Hightower, Joseph E. 1993. Historical abundance and mortality of Albemarle Sound-Roanoke River striped bass. 123rd Annual Meeting, American Fisheries Society, Portland, Oregon, Aug. 29-Sep.2, 1993.
- Hightower, Joseph E. 1993. Effects of temperature and flow on migratory behavior of Albemarle Sound-Roanoke River striped bass. Roanoke River Wildlife Management Workshop, Aug. 10-12, 1993. Sponsored by USFWS, NC Wildlife Resources Commission, and NC Chapter, The Nature Conservancy.
- Hayman, M. A., D. S. Briley, and J. E. Hightower. 1993. A gross necropsy-based health assessment of contaminant effects in a North Carolina tidal creek. 123rd Annual Meeting, American Fisheries Society, Portland, Oregon, Aug. 29-Sep.2, 1993.
- Hayman, M. A., D. S. Briley, and J. E. Hightower. 1993. A gross necropsy-based health assessment of contaminant effects in a North Carolina tidal creek. North Carolina Chapter, American Fisheries Society, Reidsville, North Carolina, February 8-9, 1993.

- Bence, J. R., A. C. Gordo, and J. E. Hightower. 1991. Estimating abundance using an age-structured model. Joint Statistical Meetings of the American Statistical Association, Biometrics Society, and Institute of Mathematical Statistics. Atlanta, Georgia, August 1991.
- Pearson, D. E., J. E. Hightower, and J. T. H. Chan. 1989. Age, growth, year class strength, and potential yield for shortbelly rockfish. 1989 Western Groundfish Conference, Monterey, California, January 8-11, 1989.
- McBride, A., and J. E. Hightower. 1989. Age determination of sablefish using otolith characteristics. 1989 Western Groundfish Conference, Monterey, California, January 8-11, 1989.
- Hightower, J. E., and W. H. Lenarz. 1989. Management strategies for the widow rockfish fishery, using imprecise or no fishery-independent data. 119th Annual Meeting of the American Fisheries Society, Anchorage, Alaska, September 4-8, 1989.
- Hightower, J. E. 1989. A multispecies harvesting model for rockfish. 1989 Western Groundfish Conference, Monterey, California, January 8-11, 1989.
- Lenarz, W. H., and J. E. Hightower. 1988. An examination of consequences of errors in assessment and management of widow rockfish. 118th Annual Meeting of the American Fisheries Society, Toronto, Ontario, September 9-15, 1988.
- Hightower, J. E. 1987. A multispecies harvesting model for rockfish. 1987 Western Groundfish Conference, Gleneden Beach, Oregon, March 25-27, 1987.
- Hightower, J. E., and W. H. Lenarz. 1986. Using microcomputers to obtain optimal harvesting policies for the widow rockfish fishery. 116th Annual Meeting of the American Fisheries Society, Providence, Rhode Island, September 15-17, 1986. [Invited]
- Hightower, J. E., and G. D. Grossman. 1984. Effect of environmental variability on harvest policies for multi-aged fish stocks. 114th Annual Meeting of the American Fisheries Society, Ithaca, New York, August 13-17, 1984.
- Hightower, J. E. 1984. Predicting fish community structure in southeastern reservoirs. 14th Annual Meeting, Georgia Fisheries Workers Association, Jekyll Island, Georgia, January 17-19, 1984.
- Harris, M., J. E. Hightower, D. Erickson, and G. Grossman. 1984. A preliminary analysis of age structure, sex ratios, and catch rates for a developing tilefish fishery off Georgia. 14th Annual Meeting, Georgia Fisheries Workers Association, Jekyll Island, Georgia, January 17-19, 1984.
- Gilbert, R. J., J. E. Hightower, and A. Rabern. 1983. Assessments of habitat suitability index (HSI) models. 113th Annual Meeting of the American Fisheries Society, Milwaukee, Wisconsin, August 16-20, 1983.
- Hightower, J. E., and R. J. Gilbert. 1981. Mortality and recruitment of largemouth bass in an unfished reservoir. 111th Annual Meeting of the American Fisheries Society, Albuquerque, New Mexico, September 13-18, 1981.

Hightower, J. E., and R. J. Gilbert. 1980. Mortality and growth of age-0 largemouth bass in a new impoundment. 110th Annual Meeting of the American Fisheries Society, Louisville, Kentucky, September 22-24, 1980.