

MEMORANDUM

Agenda Item No. 8(L)(3)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: June 2, 2021

FROM: Geri Bonzon-Keenan
County Attorney

SUBJECT: Resolution waiving, by a two-thirds vote of the full membership of the Board of County Commissioners, the residency requirement of section 2-11.38 of the Code, to appoint Mark Meade Ph.D., to serve as a member of the Miami-Dade County Environmental Quality Control Board

Resolution No. R-555-21

The accompanying resolution was prepared by the Regulatory and Economic Resources Department and placed on the agenda at the request of the PortMiami and Environmental Resilience Committee.



Geri Bonzon-Keenan
County Attorney

GBK/jp

Memorandum



Date: June 2, 2021

To: Honorable Chairman Jose “Pepe” Diaz
and Members, Board of County Commissioners

From: Daniella Levine Cava
Mayor

A handwritten signature in blue ink that reads "Daniella Levine Cava".

Subject: Resolution Waiving Residency Requirement and Appointing Dr. Meade to the
Environmental Quality Control Board

Recommendation

It is recommended that the Board of County Commissioners (Board) approve the attached resolution waiving the residency requirement and appointing Dr. Mark Meade to the Miami-Dade County Environmental Quality Control Board (EQCB).

Scope

The Environmental Quality Control Board hears cases from all jurisdictional areas of Miami-Dade County.

Fiscal Impact/Funding Source

This resolution has no fiscal impact because members of the EQCB are not compensated for their duties.

Track Record/Monitor

The Assistant Director of the Department of Regulatory and Economic Resources, Division of Environmental Resources Management, Lee Hefty, will monitor the outcome of this resolution.

Background

The EQCB is a quasi-judicial board that convenes monthly to hear cases for variances from, or time extensions to comply with, the requirements of the Environmental Protection Ordinance (Chapter 24 of the Code of Miami-Dade County) and appeals from decisions of the Assistant Director of the Division of Environmental Resources Management in the Department of Regulatory and Economic Resources. The EQCB’s membership, terms of office, organization, duties and powers, and procedures are set forth in section 24-8 of the Code. Section 2-11.38 of the Code provides that “[a]ll members of County boards shall be permanent residents and electors of Miami-Dade County unless the Board of County Commissioners, by a two-thirds vote of its membership, waives this requirement.”

EQCB member Dr. Steven Ritter gave notice of his retirement from the EQCB effective December 2020. Dr. Meade’s appointment would replace Dr. Ritter. Dr. Meade’s resume is Exhibit A to the accompanying resolution.

The EQCB is composed of five members appointed by the Board. Members serve staggered three-year terms. Quorum requires three members, and a supermajority of four votes is required for cases within specific wellfield protection areas. Due to the highly scientific and technical

nature of the matters that the EQCB reviews, the five members of the EQCB are required to have advanced scientific or engineering qualifications as follows:

- a) Two members shall be scientists possessing Ph.D. degrees in biology or marine biology.
- b) One member shall be a scientist possessing a Ph.D. degree in biochemistry or chemistry.
- c) Two members shall be licensed professional engineers in the field of chemical, civil, or environmental engineering or in lieu of one licensed professional engineer, one member may have a Ph.D. degree in chemical, civil, or environmental engineering or one member may be a licensed professional geologist.


Of the four current members, the EQCB has one member with a Ph.D. in biology, one member with a Ph.D. in biochemistry, one member with a Ph.D. in civil engineering, and one member who is a Professional Engineer with a valid license issued by the Professional Board of Engineers in the State of Florida.

Dr. Meade has a Ph.D. in biology, meets the scientific qualifications to serve on the EQCB, and is recommended for appointment. Dr. Meade is a resident of Broward County but currently works in Miami-Dade County as the Chair of the Biology Department at Miami-Dade College North Campus. Due to the high volume of cases heard by the EQCB, the appointment of Dr. Meade is necessary to avoid possible delays.

Therefore, the attached resolution waives the residency requirement and appoints Dr. Mark Meade to the Miami-Dade County EQCB.

Delegation of Authority

The attached resolution does not delegate authority to the County Mayor or County Mayor's designee.



Jimmy Morales
Chief Operations Officer



MEMORANDUM

(Revised)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: June 2, 2021

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 8(L)(3)

Please note any items checked.

- ☐ "3-Day Rule" for committees applicable if raised
- ☐ 6 weeks required between first reading and public hearing
- ☐ 4 weeks notification to municipal officials required prior to public hearing
- ☐ Decreases revenues or increases expenditures without balancing budget
- ☐ Budget required
- ☐ Statement of fiscal impact required
- ☐ Statement of social equity required
- ☐ Ordinance creating a new board requires detailed County Mayor's report for public hearing
- ☐ No committee review
- ☒ Applicable legislation requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ☒, 3/5's ____, unanimous ____, CDMP 7 vote requirement per 2-116.1(3)(h) or (4)(c) ____, CDMP 2/3 vote requirement per 2-116.1(3)(h) or (4)(c) ____, or CDMP 9 vote requirement per 2-116.1(4)(c)(2) ____ to approve
- ☐ Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 8(L)(3)
6-2-21

RESOLUTION NO. _____ R-555-21

RESOLUTION WAIVING, BY A TWO-THIRDS VOTE OF THE FULL MEMBERSHIP OF THE BOARD OF COUNTY COMMISSIONERS, THE RESIDENCY REQUIREMENT OF SECTION 2-11.38 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA, TO APPOINT MARK MEADE Ph.D., TO SERVE AS A MEMBER OF THE MIAMI-DADE COUNTY ENVIRONMENTAL QUALITY CONTROL BOARD

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board, by a two-thirds vote of its full membership, waives the residency and elector requirement of section 2-11.38 of the Code of Miami-Dade County and appoints Dr. Mark Meade to serve a three-year term as a member of the Miami-Dade County Environmental Quality Control Board. Dr. Meade's resume is attached hereto as Exhibit A.

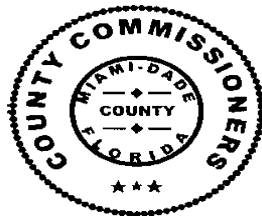
The foregoing resolution was offered by Commissioner **Sally A. Heyman** , who moved its adoption. The motion was seconded by Commissioner **Rebeca Sosa** and upon being put to a vote, the vote was as follows:

Jose "Pepe" Diaz, Chairman	aye		
Oliver G. Gilbert, III, Vice-Chairman	aye		
Sen. René García	aye	Keon Hardemon	aye
Sally A. Heyman	aye	Danielle Cohen Higgins	aye
Eileen Higgins	aye	Joe A. Martinez	absent
Kionne L. McGhee	aye	Jean Monestime	aye
Raquel A. Regalado	aye	Rebeca Sosa	aye
Sen. Javier D. Souto	aye		

The Chairperson thereupon declared this resolution duly passed and adopted this 2nd day of June, 2021. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK



By: Melissa Adames
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Cristina M. Rabionet

EXHIBIT A

DR. MARK MEADE Curriculum Vita

BIRTHPLACE
Bluefield, WV

RESIDENCE
Coral Springs, FL

EDUCATION

University of Alabama at Birmingham, Biology, Ph.D., 1995. (Dissertation: Role of diet and environment on growth, survival, and physiology of juvenile crayfish, *Cherax quadricarinatus*)

University of Alabama at Birmingham, Biology, M.S., 1990. (Thesis: The effect of diet on biochemical composition of developing prawn larvae, *Macrobrachium rosenbergii*)

University of Alabama at Birmingham, Biology, B.S., 1988.

EMPLOYMENT

Chair – Biology Department (includes Health & Wellness/Funeral Services Education programs)
Miami Dade College North Campus (September 2017 – present)

Professor – Biology Dept., Jacksonville State University (October 2011 – August 2017)

Associate Professor – Biology Dept., Jacksonville State University (October 2005 – September 2011)

Assistant Professor – Biology Dept., Jacksonville State University (September 1999 – September 2005)

Adjunct Faculty – University of Southern Mississippi (Jan 2001 – 2005; Marine aquaculture)

Visiting Assistant Professor – Jacksonville State University (September 1998 – August 1999)

Director/Instructor - Gadsden State Community College Aquaculture Education and Development Center (June 1995 – August 1998)

Research Assistant Professor - University of Alabama at Birmingham, Biology Dept. (Sept. 1995 - Sept. 1997)

Instructor - Princeton Review: Medical College Admissions Test (MCAT) preparation (June 1995-August 1999)

Teaching Assistant (1988-1995): Department of Biology, University of Alabama at Birmingham.
Courses: Human Physiology, Mammalian Physiology, Cellular Physiology, Cell Biology, Freshwater Biology.

PROFESSIONAL ACTIVITIES

A. Manuscripts (published, in review, or in preparation)

White, D., **Meade, M.**, and Greg Scull. In preparation. Choccolocco creek: A beacon of biodiversity in the Southeast.

Meade, M., C. Murdock, B. Blair, and J. Kelly. Submitted April 2018. Evaluation of the anaerobic bacterium *Eubacterium cellulosolvens* as a potential aquaculture probiotic. Alabama Academy of Sciences.

White, Lindsay, **M. Meade**, and B.A. Staton. 2017. Physiological Ecology of Four Endemic Alabama Species and the Exotic Asiatic Weatherfish, *Misgurnus anguillicaudatus* (Cantor, 1842). Southeastern Fishes Council Proceedings 57(1):17-30.

A. Manuscripts (continued)

- Meade, M.**, C. Murdock, and B. Salverda. 2017. Survey report: Occurrence of Blue shiner, *Cyprinella caerulea*, in Alabama using eDNA detection. Final Report: Endangered Species Program. Prepared for the Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries, 24p.
- Meade, M.**, L. White, R. Zettili, M. Meade, S. Almani, and A. Qureshi. 2015. Metabolic physiology of the Southeastern USA crayfish, *Cambarus latimanus* (Leconte), in response to different temperatures. *Freshwater crayfish* 21(1):171-177.
- White, L. and **M. Meade**. 2015. Occurrence of the Asiatic weatherfish, *Misgurnus anguillicaudatus*, in Alabama. *Bioinvasions Records* 4(2):125-132.
- Figiel, C.R., G. Scull, B. Hickson, **M. Meade**, and R. Watkins. 2014. The use of Environmental DNA and qPCR to Determine *Bd*/Chytrid distribution in the Southeast United States. USFW Technical Report. March 2014.
- Scull, G., C. Figiel, **M. Meade**, and R. Watkins. 2013. Baseline Population Inventory of Amphibians on the Mountain Longleaf National Wildlife Refuge and Screening for the Amphibian Disease *Batrachochytrium dendrobatidis*. USFW Technical Report. September 2013.
- White, D., **M. Meade** and G. Scull. 2012. Ichthyofaunal survey of Choccolocco Creek watershed: with emphasis on conservation need species. Report to the USFW Mississippi Field Office. Jacksonville State Univ. 40 pp.
- Nelson, L, B. Blair, **M. Meade**, C. Murdock, S. Watts, and L. Addison. 2010. Molecular analysis of gut microflora in captive-raised sea urchins (*Lytechinus variegates*). *J. World Aqua. Soc.* 41(5):807-815.
- Barron, S.K., B. Blair, **M. Meade**, T.W. Barger, and C. Murdock. 2010. Molecular analysis of bacterial diversity in soils from Blowing Springs Cave (Lauderdale County, AL). *Ala. Acad. Sci.* 81(1):1-11.
- Meade, M.** 2009. Survey report: Holiday darter, *Etheostoma brevirostrum*, occurrence in Shoal Creek, Talladega National Forest (Heflin AL). Final Report: Endangered Species Program, Grant Number E-1, Segment 19, Project 129. Prepared for the Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries, 15p.
- Meade, M.**, J. O'Kelly, G. Scull, and J. Turner. 2009. Fish Assemblages in Talladega National Forest's Choccolocco, Scarbrough, and Shoal Creeks. *Southeastern Naturalist* 8(4):677-686.
- Chapman, M.A., J.C. Beavers, **M.E. Meade**, B.G. Blair, and C.P. Olander. 2007. Effect of various photosensitive dyes on the growth of *Tetrahymena* in vitro. *Ala. Acad. Sci.* 78(1):11-18.
- Kohute, C., A. C. Nichols, D. A. Steffy, and **M. E. Meade**. 2006. Mobilization of mercury from contaminated soil into an aquatic food chain. *Al. Acad. Sci.*, 77(3-4):160-167.
- Guthrie, J., and **M. Meade**. 2003. Genetic diversity among commercial tilapia species, *Oreochromis honorum*, *O. mossambicus*, and *O. nilotica*, as determined using IEF electrophoresis of isozymes. *Bios* 74(3):87-92.
- Blair, B, S. Blair, and **M. Meade**. 2002. Phylogenetic analysis of four estrilidid finch spp. and an interspecific hybrid. *Ala. Acad. Sci.* 73(1):1-6.

A. Manuscripts (continued)

- Meade, M.E.**, J. Doeller, D. Kraus, and S. Watts. 2002. Temperature and salinity dependence on growth, energy utilization, and growth efficiency in juvenile Australian crayfish, *Cherax quadricarinatus*. J. World Aqua. Soc., 33(2):188-198.
- Meade, M.E.** and S.A. Watts. 2000. Physiological compensation in unilateral ablated crayfish, *Cherax quadricarinatus*. J. Exp. Zool., 289(3):184-189.
- Meade, M.E.** and J. Gladden. 1998. Biochemical identification of channel catfish, *Ictalurus punctatus*, blue catfish, *Ictalurus furcatus*, and their hybrid using IEF fingerprints. J. Ala. Acad. Sci., 69(4):223-227.
- Meade, M.E.** and S.A. Watts. 1997. Patterns of growth in juvenile Australian freshwater crayfish, *Cherax quadricarinatus*, during nutrient deprivation and recovery. Freshwater Crayfish XI, pp. 403-416.
- Meade, M.E.** and G.B. Cline. 1996. Growth and survival of prawn larvae, *Macrobrachium rosenbergii*, fed *Artemia* nauplii from different geographical areas. J. Ala. Acad. Sci., 64(4):233-242.
- Meade, M.E.** and S.A. Watts. 1995. Toxicity of ammonia and nitrite to juvenile Australian crayfish, *Cherax quadricarinatus*. J. Shell. Res., 14(2):341-346.
- Powell, M.L., **M.E. Meade**, and S.A. Watts. 1995. Identification of six commercially cultured crayfish species using total protein separation by isoelectric focusing. J. Crus. Bio., 15(4):763-770.
- Meade, M.E.** and S.A. Watts. 1995. Weight gain and survival of juvenile Australian crayfish, *Cherax quadricarinatus*, fed formulated feeds. J. World Aqua. Soc., 26(4):469-474.
- Meade, M.E.**, J.E. Doeller, D.W. Kraus, and S.A. Watts. 1994. Heat and oxygen flux as a function of environmental pO_2 in juvenile Australian crayfish, *Cherax quadricarinatus*. J. Exp. Zool., 270(5):460-466.

B. Published Abstracts (2011-2019; ~250 career total)

- T. Desporte, T. Laberge, and **M. Meade**. Electrofishing and eDNA: Two methods for determining the presence of the invasive Asiatic swamp eel (*Monopterus albus*). MDC School of Science Annual STEM symposium. Sept. 21, 2019.
- M. Cutino, T. Laberge, and **M. Meade**. eDNA: A method for distinguishing between the presence of native Florida apple snail, *Pomacea paludosa*, and non-native *Pomacea* spp. MDC School of Science Annual STEM symposium. Sept. 21, 2019.
- A. Guerro, T. Laberge, and **M. Meade**. A novel method for the detection of invasive walking catfish, *Clarias batrachus*, in southern Florida freshwaters. MDC School of Science Annual STEM symposium. Sept. 21, 2019.
- M. Meade**, T. Laberge, D. Carballosa, T. Desporte, Y. Fioryale, and S. Sierra. The use of traditional and contemporary (eDNA) methods for surveying fish fauna in South Florida inland waters. Annual meeting of the Florida Chapter of the American Fisheries Society. April 3-5, 2019. Haines City FL.
- A. Lian, E. Fortune, and **M. Meade**. Water quality in southern Florida urban watersheds. MDC School of Science Annual STEM symposium. Sept. 22, 2018.
- E. Fortune, A. Lian, and **M. Meade**. Water parameters in the MDC North Campus lake. MDC School of Science Annual STEM symposium. Sept. 22, 2018.

B. Published Abstracts (continued)

- B. Blair, R.C. Watson, **M. Meade**, M. Fields, C. Steed. R. Watkins, and C. Murdock. Pyrosequencing survey of bacterial associates within the gastrointestinal tract of the Coosa darter, *Etheostoma coosae*. Annual meeting of the Alabama Chapter of the American Fisheries Society. February 22-23, 2018. Fort Payne AL.
- M. Meade**. Metabolic physiology of the Chattahoochee crayfish, *Cambarus howardi*, acclimated to different environmental temperatures. Annual meeting of the Alabama Chapter of the American Fisheries Society. February 22-23, 2018. Fort Payne AL.
- J. Metcalfe, C. Murdock, **M. Meade**, and B. Salverda. Assessment of Blue shiner, *Cyprinella caerulea*, and Holiday darter, *Etheostoma brevirostrum*, population distribution in Alabama via environmental DNA (eDNA) analysis. Annual meeting of the Alabama Chapter of the American Fisheries Society. February 22-23, 2018. Fort Payne AL.
- M. Meade**, C. Murdock, K. Gregory, M. Meade, L. White, and R. Zettili. Thermal performance of native and non-native aquatic species in NE Alabama. 2017 Annual joint meeting of the Alabama and Mississippi chapters of the American Fisheries Society. February 22-24, 2017. Biloxi MS.
- C. Murdock, **M. Meade**, and B. Salverda. Assessment of Blue shiner, *Cyprinella caerulea*, population distribution in Alabama via environmental DNA (eDNA) analysis. 2017 Annual joint meeting of the Alabama and Mississippi chapters of the American Fisheries Society. February 22-24, 2017. Biloxi MS.
- M. Meade**, K. Gregory, L. White, and R. Zettili. Abiotic competition between Alabama native and non-native aquatic species. 2016 Annual joint meeting of the Georgia and Alabama chapters of the American Fisheries Society. February 9-11, 2016. Columbus GA.
- K. Gregory and **M. Meade**. Effect of elevated temperature on the metabolic physiology of non-native Alabama Asiatic clam, *Corbicula fluminea*. 2016 Annual joint meeting of the Georgia and Alabama chapters of the American Fisheries Society. February 9-11, 2016. Columbus GA.
- B. Salverda, C. Murdock, and **M. Meade**. Environmental DNA Monitoring for Blue Shiners in the Coosa and Cahaba River Systems in Alabama. 2016 Annual joint meeting of the Georgia and Alabama chapters of the American Fisheries Society. February 9-11, 2016. Columbus GA.
- R. Zettili and **M. Meade**. Extreme temperature tolerance of the Alabama non-native Asiatic weatherfish, *Misgurnus anguillicaudatus*. 2016 Annual joint meeting of the Georgia and Alabama chapters of the American Fisheries Society. February 9-11, 2016. Columbus GA.
- M. Meade**, L. White, and R. Zettili. Competition between Asiatic weatherfish, *Misgurnus anguillicaudatus*, and native Southeastern fish species: biotic and abiotic factors. Southeastern Fisheries Council 41st Annual meeting. November 11-13, 2015. Gainesville FL.
- L. White, **M. Meade**, and M. E. Meade. An update on the range of the Asiatic weatherfish, *Misgurnus anguillicaudatus*, in the Coosa River watershed. 31st Annual meeting of the AFA, February 11-12, 2015, Prattville AL.

B. Published Abstracts (continued)

- M. **Meade**, R. Zettili, M.E. Meade, S. Almani, and A. Qureshi. Physiological ecology of Alabama crayfishes in response to temperature and hypoxia stress: implications on energy availability and use. Southern Division of the American Fisheries Society 2015 Spring Meeting. Savannah, GA. January 28-February 1, 2015.
- M. **Meade**, L. White, and M.E. Meade. Occurrence of Asiatic weatherfish, *Misgurnus anguillicaudatus*, in Northeast Alabama. 2014 Joint meeting of Ichthyologists and Herpetologists. Chattanooga, TN. July 30-August 3, 2014.
- L. White and M. **Meade**. The effect of elevated temperature on metabolic physiology of endemic Alabama fishes and an exotic. 2014 Joint meeting of Ichthyologists and Herpetologists. Chattanooga, TN. July 30-August 3, 2014.
- L. Tolley-Jordan, M. **Meade**, C. Murdock, and J. Triplett. Active Science for Active Minds: A hands-on approach to educating elementary school students on the local Alabama environment. 91st Annual meeting of the Alabama Academy of Sciences. Auburn, AL. March 12-14, 2014.
- T. Hood, H. Mayfield, T. Robertson, and K. Sarro (M. **Meade**, faculty mentor). Fish Finders: Surveys of the Choccolocco creek watershed. Annual meeting of the Junior Alabama Academy of Sciences. Auburn, AL. March 12-14, 2014.
- T. Hood, H. Mayfield, T. Robertson, and K. Sarro (M. **Meade**, faculty mentor). Fish Finders. JSU Annual Student Symposium. Jacksonville AL. February 5-6, 2014. **Winner of HS Student Competition.**
- L. White and M. **Meade**. Comparative physiology of endemic and exotic fish species cohabiting Choccolocco spring tributaries. JSU Annual Student Symposium. Jacksonville AL. February 5-6, 2014. **Winner of Graduate Student Competition.**
- S. Moore, O. Oliva, M. Williams, M. Powell, M. **Meade**, V. Antony, and S. Watts. Effects of Corexit 9500A on gill structure and oxygen consumption in *Danio rerio*. Annual meeting of the Society for Integrative and Comparative Biology. Austin, TX. January 3-7, 2014.
- L. White and M. **Meade**. Comparative physiology of endemic and injurious fish species cohabiting Choccolocco spring tributaries. Southeastern Fisheries Council Annual Meeting. Lake Guntersville, AL. November 13-15, 2013.
- M. **Meade**, L. White, M. Cordle, C. Figiel, and G. Scull. The invasive Asiatic weatherfish in Northeast Alabama. Southeastern Fisheries Council Annual Meeting. Lake Guntersville, AL. November 13-15, 2013.
- M. Cordle, M. **Meade**, L. Jordan, and D. White. Fish Assemblages in Snow Creek, Calhoun County, Alabama. 29th. Annual meeting of AFA, Guntersville AL, March 6-8, 2013.
- L. White, M. **Meade**, and D. White. Occurrence of the Asiatic Weatherfish, *Misgurnus anguillicaudatus*, in Northeast Alabama. 29th Annual meeting of AFA, March 6-8, 2013.
- B. Blair, C. Steed, M. **Meade**, M.W. Fields, B.D. Ramsey, C. Watson, and R. Watkins. Gut microflora of the endangered snubnose Holiday Darter, *Etheostoma brevirostrum*. 98th Annual SE Branch of the American Society for Microbiology meeting. Althens, GA. October 25-27, 2012.
- R. Watkins, M. **Meade**, C. Figiel, and G. Scull. Baseline screening of amphibians on the Mountain Longleaf NWR for *Batrachochytrium dendrobatidis*. Alabama Water Resources Conference and Symposium. Orange Beach, AL. September 5-7, 2012.

B. Published Abstracts (continued)

- D. White and **M. Meade**. Fish biodiversity of Choccolocco Creek watershed. Alabama Water Resources Conference and Symposium. Orange Beach, AL. September 5-7, 2012.
- L. White and **M. Meade**. The effect of elevated temperature on metabolism in sensitive endemic fish species on the Choccolocco creek watershed. Alabama Water Resources Conference and Symposium. Orange Beach, AL. September 5-7, 2012.
- M. Cordle and **M. Meade**. Indicators of recovery in the stream minnow, *Campostoma oligolepis*, inhabiting Snow Creek, Calhoun County, Alabama. Alabama Water Resources Conference and Symposium. Orange Beach, AL. September 5-7, 2012.
- M. Cordle and **M. Meade**. Physiology of the stream minnow, *Campostoma oligolepis*, inhabiting a polluted stream. Annual meeting of the Alabama Fisheries Association. Columbiana, AL. Feb. 8-10, 2012.
- D. White and **M. Meade**. Ichthyofaunal diversity within the Choccolocco Creek Watershed. Annual meeting of the Alabama Fisheries Association. Columbiana, AL. Feb. 8-10, 2012.
- M. Meade**, F. Romano, and S. Sewell. Metabolic rates of an aquatic tardigrade, *Dactylobiotus nuovo*. Annual meeting of the Society for Integrative and Comparative Biology. Charleston, NC. January 3-7, 2012.
- M. Cordle, **M. Meade**, and A. Nichols. Metabolic physiology of the stream minnow, *Campostoma oligolepis*, inhabiting a polluted stream. Annual meeting of the Society for Integrative and Comparative Biology. Charleston, NC. January 3-7, 2012.
- D. White, M. Cordle, and **M. Meade**. Ichthyofaunal diversity within the Choccolocco Creek Watershed, Calhoun County, Alabama. Southeastern Fisheries Council Annual Meeting. Chattanooga TN, November 10-11, 2011.
- M. Cordle and **M. Meade**, and A. Nichols. Physiological measurements of Hg stress in the stream minnow, *Campostoma oligolepis*. Annual meeting of the American Fisheries Society. Seattle, WA. Sept. 4-8, 2011.
- Jennifer Kelly, B. Blair, C. Murdock, and **M. Meade**. Exploring *Eubacterium cellulosolvens* 5494 as a possible probiont for *Oreochromis niloticus*. Annual meeting of the American Society of Microbiologists. May 2011.
- M. Meade** and G. Scull. An index of biological integrity for the upper Choccolocco Creek watershed. Annual meeting of the Alabama Fisheries Association. Mobile, AL. Feb. 2-4, 2011.

C. Grants (~ 40 submitted as primary or co-investigator)

- NSF-ATE. \$491,166.00 (October 2019, SUBMITTED). Enhancing Biotechnology competency through pathways in Aquatic Environmental Science. **M. Meade** and P. Sacasa (co-PIs).
- USFW. \$36,364.03. (May 2017, FUNDED) Population status of the endangered watercress darter, *Etheostoma nuchale*, including evaluation of thermal performance. **M. Meade** and C. Murdock (co-PIs).
- JSU REAL (Relevant, engaging, active, learning experiences) classroom design project. (March 2017, FUNDED) \$50,000. Bringing JSU's pre-health professional classroom labs into the 21st Century. **M. Meade**, M. Burns, J. Rayburn, and R. Watkins (co-PIs).

C. Grants (continued)

- Alabama Division of Wildlife and Freshwater Fisheries (ADCNR). (June 2016, FUNDED) \$68,649.00. Population status of the endangered holiday darter, *Etheostoma brevirostrum*, using eDNA and traditional survey methods. **M. Meade** and C. Murdock (co-PIs).
- Alabama Division of Wildlife and Freshwater Fisheries (ADCNR). (May 2015, FUNDED) \$56,900. Surveys of the Coosa River Watershed using Field and Molecular sampling techniques: generating Environmental DNA (eDNA) libraries for surveys for species across taxa. **M. Meade** and C. Murdock (co-PIs).
- Eastman Kodak Inc. (Formerly Solutia, Inc.) (October 2012, FUNDED) \$5,000. Extension of Active Science for Active Minds: remediation of stream banks in the Choccolocco watershed. **M. Meade**, L. Tolley-Jordan, J. Triplett, and C. Murdock.
- Legacy, Partners in Environmental Education (July 2012, FUNDED). \$23,842.00. Active Science for Active Minds: Hands on Science in the Alabama Outdoors. L. Tolley-Jordan, **M. Meade**, J. Triplett, and C. Murdock.
- Aquatic Nuisance Species Proposal: USFW (June 2012, FUNDED) \$29,840.00. Baseline population inventory of amphibians on the Mountain Longleaf NWR and screening for the amphibian disease, *Batrachochytrium dendrobatidis*. G. Scull, C. Figiel, **M. Meade**, and S. Clardy.
- Alabama Division of Wildlife and Freshwater Fisheries (ADCNR). (August 2008, FUNDED) \$26,959.80. Distribution of Holiday darter, *Etheostoma brevirostrum*, in Shoal and Choccolocco creeks and their tributaries. **M. Meade**.
- Smartsystem Real-time PCR Laboratory Collaborative Grant. (July 2007, FUNDED) \$71,995.00. Murdock, C., L. Debro, B. Blair, and **M. Meade**.
- Beckman-Coulter Proteomolab Collaborative Grant (Sept. 2006, FUNDED) \$120,300.00. Incorporation of a Proteomic Analysis System into Jacksonville State University's Science Track in Molecular Biology. **M.E. Meade** and B. Blair.
- Beckman-Coulter Genomics Research and Educational Grant (June 2005, FUNDED) \$98,900.00. Incorporation of a Genetic Analysis system into JSU courses offered to Pre-Health Professional and Cell and Molecular Biology Students. **M.E. Meade**, B. Blair, L. Debro, and M. Hamissou.
- Pest-Offense Inc., (August 2003 & 2007, FUNDED) \$46,200.00. Effects of low intensity EMF on animal behavior. **M.E. Meade**.
- CCCCF Stringfellow Award (2001, FUNDED) \$53,850.00. Incorporation of computerized lab modules for pre-health professional undergraduate biology students. **M. E. Meade** and J. Rayburn.
- TVA (1995, FUNDED) \$190,000.00. Use of formulated diets in crayfish culture. S. Watts and **M. Meade**.
- AUTRC (Alabama Universities, Tennessee Valley Authority Research Consortium) (August 1994, FUNDED) \$30,000.00. The Use of Poultry Meal and Feather Meal as a Supplemental Protein Source in Crayfish and Finfish Diets. S. Watts and **M. Meade**.

D. Teaching publications

J. Brewster, A.M. Davison, V. Jamburuthugoda, and **M. Meade**. 2015. Student solutions manual for Introduction to Genetic Analysis, 11th Edition, W.H. Freeman and Company.

M. Meade and C. Murdock. 2013. Animal Physiology Laboratory manual. E-pub.

C. Murdock and **M. Meade**. 2013. Genetics Laboratory Manual. E-pub.

E. Miami Dade College teaching experience (undergraduate A.S. and B.S. programs)

BCH 3023/3023L Biochemistry

BSC 1005 General Education Biology

BSC 1050 Biology and Environment

BSC 1084 Functional Human Anatomy

BSC 2010/2011 Principles of Biology I and II and labs

BSC 2020 Human Biology: Fundamentals of Anatomy & Physiology

BSC 2085/2086 Human Anatomy & Physiology I and II and labs

BSC 2426/2427/4422 Biotechnology Methods & Applications I, II, and III

BSC 3930 Biological Sciences Seminar

BSC 4434 Bioinformatics for Biologists

OCB 1010/1010L Introduction to Marine Biology and lab

PCB 2061 Genetics

PCB 3060 Principle of Genetics

PCB 4023 Molecular and Cellular Biology

PCB 4097 Human Physiology

ZOO 1010/1010L Zoology and lab

ZOO 3010/3010L Zoology and lab

F. Jacksonville State University teaching experience (B.S. and M.S. programs)

Introductory Biology I and II (BY101/102)

Honors Introductory Biology I (BY 101H)

Anatomy and Physiology I and II (BY 263/264)

Genetics (class and seminar courses) (BY 322/322L/522)

Introduction to Research (BY 370)

Animal Physiology (class and seminar courses) (BY 434/434L/534/534L)

Animal Nutrition (BY 331, new web course for 2009)

Biological Conservation (BY 303)

Public Policy and Ecosystems (BY 408)

Evolutionary Biology (class and seminar courses) (BY 440/440L/540/540L)

Freshwater Biology (BY 438/438G)

Ichthyology (BY 460/460L/460G)

Invertebrate zoology (BY 476; also guest lecturer for UAB course annually)

Physiological Ecology (BY 487/487G)

Special Topics in Biology: Advanced Fisheries Techniques (new und/grad course; BY 488/488G)

Biochemical Adaptations (new graduate course for 2011; BY 525)

MCAT prep course (Princeton Review and JSU study groups)

G. Other teaching experience

JSU Little River Canyon Field School Instructor (various workshops/campfire talks)
Principles of Aquaculture (Gadsden State Community College)
Water Quality and Chemistry (Gadsden State Community College)
Fish Biology and Diseases (Gadsden State Community College)
Aquaculture production/ Fisheries management and policies (Gadsden State Community College)
Marine Aquaculture (University of Southern Mississippi)
MCAT preparation (The Princeton Review)

PROFESSIONAL SERVICE

A. College/University Service/Committees/Public organizations

Director – Miami Dade College Biology Programs (CCC, AS, BS tracks; 2017-present)
Chair – Miami Dade College Earth Day Committee (2019-present)
Co-Chair – Miami Dade College Public Schools Science Fair Steering Committee (2018-present)
Co-Chair – Miami Dade College Community Heart Fair Steering Committee (2018-present)
Co-Chair – Miami Dade College Bank of America Scholarship Committee (2018-present)
Member – Miami Dade College Grade Appeal Committee (2019-present)
Member – Miami Dade College Earth Ethics Institute (2018 – present)
Member – Miami Dade College Green Team (2018 – present)
Member – Miami Dade College FSE program accreditation team (2018 – present)
Member – Miami Dade College CASSC committee (2017-present)
Member – Miami Dade College Academic and Student Support committee (2017-present)
Editorial Board – Journal of Aquatic Research and Marine Sciences (2017-present)
President – Alabama Chapter of the American Fisheries Society (2017-2019)
Member – AFS/Cornell University DOI Climate Centers evaluation team (2017-2018)
President Elect – Alabama Chapter of the American Fisheries Society (2015-2017)
University Liaison Southern Association of the Cooperative Ecosystems Studies Unit (2012-2018)
Executive Officer (Data Collection and Management) – Choccolocco Creek Watershed Alliance (2011-2013; 2017-2018)
JSU Biology Department Graduate Program Coordinator (Jan 2016 – September 2017)
Executive Officer (Membership, Resolutions, Place of Meeting, Meeting Committees) - Alabama Academy of Science (2002 -2010)
JSU Institutional Animal Care and Use Committee Chair (2000-2017).
JSU Institutional Review Board member (2010-2015)
JSU CAS Faculty Council (2004-2012, member; former committee chair, 2008-2011)
JSU Biology Advisor – Tri-Beta honor society (1999-2008).
Awarded ~ \$30,000 in student travel funds)
JSU Strategic Planning Committee member (2005-2007)
JSU Library Council Committee member (2002-2017).
JSU Teacher Education Council member (2002-2017).
JSU Pre-Health Professional Committee co-chair and member (1998-2017)

A. College/University Service/Committees/Public organizations (continued)

JSU Biology Scheduling Committee (1999-2016; member and former Chair)

JSU Graduate Curricula Committee (1999-2017; member and former Chair)

JSU Biology co-Webmaster (2010-2017; with Dr. Murdock)

Acting Biology Chair – Various occasions during 2009-2012

JSU preview day ambassador (1998-2017)

JSU athletic recruit advisor (1998-2017)

Jacksonville Pac 19 Cub scout den leader/assistant scoutmaster (2010-2014)

B. Awards

Alabama Chapter of the American Fisheries Society Recognition of Outstanding Service (2017-2018)

JSU Cleo and Carla Thomas Outstanding Community Education/Service Award (2013-2014)

JSU Student Government Association Golden Apple Award (2002-2003)

JSU Earlon and Betty McWhorter Award for Outstanding Teacher of the Year (2000-2001)

C. Professional Societies

Alabama Academy of Sciences

Alabama Water Resources Association

Association of Southeastern Biologists

American Fisheries Society

Alabama Chapter of the American Fisheries Society

Florida Chapter of the American Fisheries Society

Southeastern Fisheries Council

Southern Appalachian Cooperative Ecosystems Studies Unit

Society of Ichthyologists and Herpetologists

D. Skills and Certifications

Proficient in writing grants and manuscripts, teaching, managing budgets and personnel, organizing resources, and leading community and student groups. Proficient with basic biology laboratory equipment including PCR thermocyclers, DNA sequencers, centrifuges, electrophoresis equipment, microscopes, spectrophotometers, pipettes, etc. Less proficient but some hands-on experience and well knowledgeable of HPLC, MS, TLC, NMR and other chemistry equipment. Also proficient in field equipment including water quality samplers and monitoring equipment (i.e. YSI equipment, HOBO devices, GPS) as well as specialty lab equipment including animal and microbial aquatic respirometers (Loligo systems Inc.). Proficient in field survey methods and tools (such as electrofishing and eDNA surveys). Proficient with computers and most common business/science/statistical software. Proficient with electrical equipment including motors and tools. Proficient in aquaculture and animal husbandry systems and the propagation of species. Proficient in design and monitoring of water filtration systems for large-scale aquatic systems. A brief list of certifications and permits includes:

Aquatic species collecting certificate (Florida Fish and Wildlife Conservation Commission, 2019)
Curriculum System Management – META certified (Miami Dade College COIL, 2019)
Transcript Processing and Evaluation certified (Miami Dade College COIL, 2019)
Data Academy certified – (Miami Dade College COIL, 2018)
Oracle Peoplesoft Certified (Miami Dade College COIL, 2018)
Blackboard Certified Instructor (Miami Dade College COIL, 2018)
Budget and payroll certified (Miami Dade College COIL, 2017)
Performance review evaluations certified (Miami Dade College COIL, 2017)
Certified Online Instructor (Jacksonville State University Faculty Development, 2017)
Indigenous aquatic species collecting permit (Alabama Department of Conservation and Natural resources, 2006 – 2017)
State-Listed aquatic species collecting permit (Alabama Department of Conservation and Natural resources, 2009 – 2018)
Threatened and endangered species collecting permit (USFW, 2013 – 2018)
Electrofishing certified (USFW, 2015)
Certified Fisheries Professional (American Fisheries Society, 2009)
Smart Cycler certification (RT-PCR; Cepheid Inc., 2007)
CEQ8000 certification (DNA sequencing and AFLP, Beckman-Coulter Inc., 2005)
RNAi certification (NIH, 2005)
Radioactive isotope training certification (UAB, 1990)