Delbert M. Gatlin, III
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Education

B.S.	Texas A&M University Major: Wildlife and Fisheries Sciences, Fisheries Ecology/Aquaculture Option	1980
Ph.D.	Mississippi State University Major: Nutrition/Biochemistry, Minor: Wildlife and Fisheries	1983

Professional Experience

2013 – present: Regents Professor, Dept. of Ecology and Conservation Biology, formerly Wildlife and Fisheries Sciences, Texas A&M University (TAMU)
1998 – 2012: Professor, Dept. of Wildlife and Fisheries Sciences, TAMU
2006 – 2007: Interim Head, Dept. of Wildlife and Fisheries Sciences, TAMU
1994 – 2019: Associate Head for Research and Graduate Programs, Dept. of Wildlife and Fisheries Sciences, TAMU
1993 – 1998: Associate Professor, Dept. of Wildlife and Fisheries Sciences, TAMU
1990 – present: Assistant/Associate/Professor, Intercollegiate Faculty of Nutrition, TAMU
1987 – 1993: Assistant Professor, Dept. of Wildlife and Fisheries Sciences, TAMU
1985 – 1987: Assistant Professor, University of Arkansas at Pine Bluff

Professional Memberships

American Fisheries Society (Certified Fisheries Scientist)
American Society for Nutritional Sciences (formerly American Institute of Nutrition)
Fish Culture Section of the American Fisheries Society
World Aquaculture Society including U.S. Chapter

Selected Awards

2020 Distinguished Lifetime Achievement Award, United States Aquaculture Society
2020 Outstanding Fisheries Worker of the Year Award, Texas Chapter of the American Fisheries Society
2013 Designated Regents Professor of Texas A&M University
2011 Senior Faculty Fellow of Texas A&M AgriLife Research
2010 Researcher of the Year, Texas Aquaculture Association
2007 Vice Chancellor's Award in Excellence for Administration, Texas A&M AgriLife
2006 Faculty Fellow of the Texas Agricultural Experiment
2002 Researcher of the Year, Texas Aquaculture Association
2001 Faculty Fellow of Texas A&M University
2001 Vice Chancellor's Award in Excellence for Graduate Teaching, TAMU
1990 Researcher of the Year, Texas Aquaculture Association

Selected Academic and Professional Service

2019 – present Editor-In-Chief of the journal *Aquaculture*
2016 – present Member, Coordinating Committee of the National Animal Nutrition Program
2009 – present Nutrition Section Editor of the journal *Aquaculture*
2001 – present Member, Nutrition Advisory Board of International Ingredient Corporation
1987 – present Member, Technical Committee of the Southern Regional Aquaculture Center, Co-chair for Research from 2009-2012
2009 – 2018 Member, Board of Directors, Striped Bass Growers Association
2009 – 2011 Member and Vice Chair, Committee on Nutrient Requirements of Fish and Shrimp, National Research Council, National Academies
2005 – 2015 Chair, Plant Products in Aquafeeds Working Group
2003 – 2005 Member, Professional Development Committee of the American Fisheries Society Board of Professional Certification
2003 Member, The National Catfish Information Database, lead editor for nutrition and feeding
2003 – 2010 Member, Texas Sea Grant Extension Advisory Committee
2001 – 2004 Member, Nutrition Subgroup of the Aquaculture Effluents Task Force as selected by the USDA Joint Subcommittee on Aquaculture
1998 – 2003 Chair, Southern Extension and Research Activities – Information Exchange Group for Aquaculture (SERA-IEG-9)
1997 – 2008 Member, Nutrition Scientific Advisory Group of the American Zoo and Aquarium Association
1996 –1999 Member, Committee on Animal Nutrition of the National Research Council, National Academy of Science
1995 – 2008 Member, Editorial Board of the journal *Aquaculture Nutrition*
1994 – 2008 Member, Editorial Board of the journal *Aquaculture*
1993 – 2008 Member, Editorial Board of the *Journal of the World Aquaculture Society*

Selected publications

(total of 305 peer-reviewed journal articles, 19 book chapters, 5 books)

Gatlin, D. M., III and F. Y. Yamamoto (2022) Nutritional supplements and fish health (Chapter 14) In: Fish Nutrition (R. Hardy ed.), Academic Press, 745-769.

Yamamoto, F. Y., B. A. Suehs, M. Ellis, P. R. Bowles, C. E. Older, M. E. Hume, G. G. Bake, J. A. Cammack, J. K. Tomberlin and D. M. Gatlin III (2022) Dietary replacement of fishmeal with black soldier larvae meals (*Hermetia illucens*) affect red drum (*Sciaenops ocellatus*, L.) growth performance, whole-body composition, and the intestinal microbiota depending on insect larvae feed substrate. Animal Feed Sci. and Tech., 283; https://doi.org/10.1016/j.anifeedsci.2021.115179.

Suehs, B. A. and D. M. Gatlin III (2022) Evaluation of a commercial high-protein distillers dried grain with solubles (DDGS) product in the diet of juvenile Nile tilapia (*Oreochromis niloticus*). Aquaculture Nutr., https://doi.org/10.1155/2022/1648747.

Selected publications (continued)

McLean, E., F. Barrows, K. Affrey and D. M. Gatlin III (2022) Responses of largemouth bass (Micropterus salmoides, Lacépède, 1802) to fishmeal-, and fish oil-free diets. Aquaculture Nutr. https://doi.org/10.1111/are.15815.

Suehs, B. A., K. Alfrey, F. Barrows and D. M. Gatlin III (2022) Evaluation of growth performance, condition indices and body composition of juvenile red drum (Sciaenops ocellatus) fed fishmeal- and fish-oil-free diets. Aquaculture, 551; https://doi.org/10.1016/j.aquaculture.2022.737961.

Zhang, Y., W. Rossi, Jr, F. Y. Yamamoto, A. M. Velasquez, A. Wang, and D. M. Gatlin III (2022) Effects of dietary aflatoxin B1 on hybrid striped bass (Morone chrysops × M. saxatilis) and assessment of supplemental arginine as a potential aflatoxicosis alleviator. Aquaculture Nutr., 5161222; https://doi.org/10.1155/2022/5161222.

Cai, Q., X. Wu, D. M. Gatlin, L. Zhang, H. Zhai, Z. Zhou, H. Yin, L. Geng, M. Irm (2022) Dietary vitamin C affects growth, antioxidant status and serum immune parameter of juvenile hybrid grouper (Epinephelus fuscoguttatus ♀ × Epinephelus lanceolatus ♂) fed low fishmeal diets. Aquaculture, 556, 738285; https://doi.org/10.1016/j.aquaculture.2022.738285.

Patterson, D., D. Gatlin, D. Prangnell and B. Ray (2021) Effects of feeding regimens on the proximate composition and condition indices of juvenile koi *Cyprinus carpio* used as forage. North Am. J. Aquaculture, 83:114-124.

Castillo, S., C. O'Reilly, J. D. Fluckey and D. M. Gatlin III (2021) Assessing protein synthesis rate in muscle of juvenile red drum (*Sciaenops ocellatus*) using deuterium oxide (2H2O)-Effects of feeding a diet deficient in valine. Amino Acids, 53:1431-1439.

Burns, A. and D. M. Gatlin III (2021) Effects of dietary creatine on juvenile hybrid striped bass in low-salinity and brackish waters. J. World Aquaculture Soc.; https://doi.org/10.1111/jwas.12843.

Chen, K., F. Y. Yamamoto and D. M. Gatlin (2020) Effects of inorganic and organic dietary copper supplementation on growth performance and tissue composition of juvenile red drum (*Sciaenops ocellatus*). Aquaculture Nutrition, 26:820-827.

de Cruz, C. R., F. Y. Yamamoto, M. Ju, K. Chen, A. Velasquez and D. M. Gatlin III (2020) Efficacy of purified nucleotide supplements on the growth performance and immunity of hybrid striped bass *Morone chrysops* x *Morone saxatilis*. Fish & Shellfish Immunol. 98:868-874.

Yamamoto, F. Y. C. R. de Cruz, W. Rossi Jr. and D. M. Gatlin III (2020) Nutritional value of dry-extruded blends of seafood processing waste and plant-protein feedstuffs in diets for juvenile red drum (*Sciaenops ocellatus*). Aquaculture Nutrition, 26:88-97.

Selected publications (continued)

Farzad, R., D. D. Kuhn, S. A. Smith, S. F. O'Keefe, N. V. C. Ralston, A. P. Neilson, and D. M. Gatlin, III (2019) Trace minerals in tilapia fillets: Status in the United States marketplace and selenium supplementation strategy for improving consumer's health. PLOS ONE, https://doi.org/10.1371/journal.pone.0217043.

Perez-Velazquez, M., D. M. Gatlin III, M. L. González-Félixa, A. García-Ortega, C. R. de Cruz, M. L. Juárez-Gómez and K. Chen (2019) Effect of fishmeal and fish oil replacement by algal meals on biological performance and fatty acid profile of hybrid striped bass (*Morone chrysops* ♀ × *M. saxatilis* ♂). Aquaculture 507, 83-90.

Yamamoto, F. Y., F. J. Sutili, M. Hume and D. M. Gatlin III (2018) The effect of β-1,3-glucan derived from *Euglena gracilis* (Algamune™) on the innate immunological responses of Nile tilapia (*Oreochromis niloticus* L.). J. Fish Diseases, 41:1579-1588.

Xu, Q. and D. M. Gatlin III (2018) Effects of alpha-ketoglutarate (AKG) on growth performance and non-specific immunity of juvenile red drum fed diets with low or adequate phosphorus levels. Fish Physiol. Biochem., 44: 573-582.

Carvalho, P., F. Y. Yamamoto, M. M. Barros, and D. M. Gatlin III (2018) L-glutamine in vitro supplementation enhances Nile tilapia leukocyte function. Fish & Shellfish Immunol. 80:592-599.

Sutili, F. J., D. M. Gatlin III, B. M. Heinzmann and B. Baldisserotto1 (2017) Plant essential oils as fish diet additives: benefits on fish health and stability in feed. Reviews in Aquaculture 10, 716–726.

Rossi, W., Jr., M. Ju, M. E. Hume, J. R. Tomasso, and D. M. Gatlin III (2017) A more comprehensive evaluation of soybean products in the diet of red drum, *Sciaenops ocellatus* L. Aquaculture Res. 48:5224-5234.

Minjarez-Osorio, C., S. Castillo-Alvarado, D.M. Gatlin III, M. L. González-Félix, M. Perez-Velazquez and W. Rossi, Jr. (2016) Plant protein sources in the diets of the sciaenids red drum (*Sciaenops ocellatus*) and shortfin corvina (*Cynoscion parvipinnis*): A comparative study. Aquaculture, 453:122–129.

Montalban-Arques, A, P. De Schryver, P. Bossier, G. Gorkiewicz, V. Mulero, D. M. Gatlin III and J. Galindo-Villegas (2015) Selective manipulation of the gut microbiota improves immune status in vertebrates. Frontiers in Immunology, 6:1-14.

Castillo, S. and D. M. Gatlin III (2015) Dietary supplementation of exogenous carbohydrase enzymes in fish nutrition: A review. Aquaculture, 435:286-292.

Pohlenz, C. and D. M. Gatlin III (2014) Interrelationships between fish nutrition and health. Aquaculture, 431:111-117.

Naylor, R., R. W. Hardy, D. P. Bureau, A. Chiu, M. Elliott, A. P. Ferrell, I. Forster, D. M. Gatlin III, R. J. Goldberg, K. Hua and P.D. Nichols (2009) Feeding aquaculture in an era of finite resources. PNAS, 106:15103-15110.

Gatlin, D. M., III, F. T. Barrows, P. Brown, K. Dabrowski, T. G. Gaylord, R. W. Hardy, E. Herman, G. Hu, Å. Krogdahl, R. Nelson, K. Overturf, M. Rust, W. Sealey, D. Skonberg, E. J. Souza, D. Stone, R. Wilson, E. Wurtele (2007) Expanding the utilization of sustainable plant products in aquafeeds – a review. Aquaculture Res., 38:551-579.

Recent Grants/Contracts (career total of 90 different awards totaling over $8.5 million)

US Agency for International Development, "Replacing fishmeal with single cell proteins in tilapia *Oreochromis niloticus* diets in Zambia. A "Quick Start" project of the Feed the Future Innovation Lab for Fish. $100,000/1 yr. total; $35,284 TAMU.

USDA Special Aquaculture Research Grants Program, "Integrated studies of poly-ß-hydroxybutyrate production and dietary administration to improve health and resistance of hybrid striped bass and Nile tilapia to bacterial pathogens". $161,291/2 yr. (K. Chu Co-PI).

USDA Southern Regional Aquaculture Center, "Managing larval feeding for improved survival by reduction of *Artemia* use and replacement with fortified rotifers or artificial feeds". $300,000/2 yr. total; $106,919 TAMU (T. Sink et al. Co-PIs).

Texas A&M-FAPESP Research Program SPRINT– São Paulo Researchers in International Collaboration, "The effects of dietary orange peel fragments, zinc, and vitamins C and E supplementation on growth performance, antioxidant enzyme activity, and hemato-immunological responses of Nile tilapia subjected to transport and bacterial challenges". $20,000/1 yr. total; $10,000 TAMU (M. Barros Co-PI).

Qatar National Research Fund, "Sustainable and cost-effective production of microalgae-based superior fish feed in Qatar". $60,000/1 yr.

Cotton Incorporated, "Follow-up studies to evaluate the fate and effects of synthetic and cotton fibers on red drum, shrimp and oysters under aquaculture conditions. $32,476/1 yr.

National Science Foundation, "IUCRC Phase I Texas A&M: Center for Environmental Sustainability through Insect Farming (CEIF)". $2.2 million total; $874,786/4 yr TAMU portion (J. Tomberlin and D. M. Gatlin Co-PIs).

USDA-AFRI, "Biosynthesis and role of glycine in hybrid striped bass nutrition". $650,000/3 yr (G. Wu and D. M. Gatlin Co-PIs).

United Sorghum Check-off Program, "Value-added sorghum protein evaluation and development" $752,141/2 yr. total; $66,353 TAMU (R. Ovissipour and co-PIs).