

Delbert M. Gatlin III

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Education

1983	Ph.D.	Mississippi State University	Nutrition/Biochemistry
1980	B.S.	Texas A&M University	Fisheries Ecology and Aquaculture

Research and Professional Experience

2013 - present: Regents Professor, Dept. of 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 - present: 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 Society Memberships

American Fisheries Society
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

Awards and Service/Leadership

2013: Designated Regents Professor of Texas A&M University
2011: Senior Faculty Fellow of Texas 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
1996-1999: Elected to serve on the Committee on Animal Nutrition (CAN) of the National Research Council
1990: Researcher of the Year, Texas Aquaculture Association
1986: Certified Fisheries Scientist, American Fisheries Society

Seventeen awards received by student co-authors for presentations at scientific meetings

Grants and Contracts (last 4 years)

Southern Regional Aquaculture Center, “Improving catfish broodstock management by manipulating diets, stocking densities and sex ratios”, \$388,385/3 yr. total; \$80,000 TAMU (R. Lochmann et al., Co-PIs).

USDA/National Institute of Food and Agriculture, Agriculture and Food Research Initiative, “Improving productivity, efficiency, product quality and sustainability of aquaculture through systematic integration of information”, \$9,906/1 yr.

Omega Protein Corporation, “Evaluation of fishmeal analogs in the diet of hybrid striped bass”, \$20,000/1 yr.

Soy Aquaculture Alliance, “Effect of extrusion processing on the stability of taurine and subsequent bioavailability to red drum and rainbow trout”, \$59,526/1 yr.

Texas A&M and CONACyT Collaborative Research Grant Program, “Reducing dependence on fishmeal by using plant protein feedstuffs in the diets of sciaenid species for enhanced aquacultural production”, \$24,000/1 yr. (M. Perez co-PI).

Soy Aquaculture Alliance, “Determination and validation of transcriptomic and metabolite biomarkers for dietary soybean meal utilization”, \$150,000/1 yr total; \$25,774 TAMU (M. Powell and several co-PI).

Texas Parks and Wildlife Department Wildlife Research Grant, “Development of techniques to improve the production of southern flounder (*Paralichthys lethostigma*) fingerlings for restoration and enhancement”, \$80,000/1 yr total; \$40,000 TAMU (J. Tomasso Co-PI).

Southern Regional Aquaculture Center, “Evaluation of probiotic and prebiotic supplements for catfish, golden shiners, hybrid striped bass and tilapia under conditions of commercial production”. \$300,000/2 yr. total; \$75,000 TAMU (T. Sink et al., Co-PI).

NOAA Saltonstall-Kennedy Program, “Application of dry-extrusion technology using by-products from seafood processing to produce novel marine ingredients for aquafeeds”, \$288,845/2 yr. (J. Tomasso and M. Riaz, Co-PIs).

Texas Parks and Wildlife Department Wildlife Research Grant, “Refined larval rearing techniques for enhanced production of southern flounder (*Paralichthys lethostigma*) juveniles for stock enhancement”, \$64,975/1 yr.

Texas AgriLife Research Bioenergy/Bioproducts Seed Grant Program, “Production of microalgae biomass from mixed cultures with optimized protein and lipid composition for aquatic feeds”, \$150,000/2 yr. (A. Siccardi Co-PI).

Texas Parks and Wildlife Department Wildlife Research Grant, “Development of new reproductive and larval rearing methods to eliminate major constraints during production of Southern flounder for stock enhancement”, \$82,825/1 yr. (T. Sink Co-PI).

PUBLICATIONS FROM LAST FOUR YEARS

(total of 252 peer-reviewed articles, 18 book chapters, 4 books)

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., In press.

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 doi: 10.1111/raq.12197.

Hussain, D., A. Mateen, and D. M. Gatlin III (2017) Alleviation of aflatoxin B1 (AFB1) toxicity by calcium bentonite clay: Effects on growth performance, condition indices and bioaccumulation of AFB1 residues in Nile tilapia (*Oreochromis niloticus*). Aquaculture, 475:8–15.

Rossi, W., M. Newcomb and D. M. Gatlin III (2017) Assessing the nutritional value of an enzymatically processed soybean meal in early juvenile red drum, *Sciaenops ocellatus* L. Aquaculture, 467:94-101.

Pewitt, E., S. Castillo, A. Velásquez and D. M. Gatlin III (2017) The dietary tryptophan requirement of juvenile red drum, *Sciaenops ocellatus*. Aquaculture 469:112–116.

Pereira, R. T., P. V. Rosa and D. M. Gatlin III (2017) Arginine and glutamine in diets for Nile tilapia: innate immune responses, amino acids circulating profile and whole-body deposition. Aquaculture, 473:135–144.

Molina, E. M., D. M. Gatlin III and J. R. Tomasso, Jr. (2016) Survival and physiological responses of juvenile red drum exposed to hypersalinity and elevated temperatures. North Am. J. Aquaculture, 78:174-177.

Sutili, F., D. M. Gatlin III, W. Rossi Jr., B. M. Heinzmann and B. Baldisserotto (2016) In vitro effects of plant essential oils on non-specific immune parameters of red drum, *Sciaenops ocellatus* L. J. Animal Phys. and Animal Nutr., DOI: 10.1111/jpn.12488.

Anuta, D. J., A. Buentello, S. Patnaik, M. E. Hume, A. Mustafa, D. M. Gatlin III, and A. L. Lawrence (2016) Effects of dietary supplementation of a commercial prebiotic Previda[®] on survival, growth, immune responses and gut microbiota of Pacific white shrimp, *Litopenaeus vannamei*. Aquaculture Nutr., 22:410-418.

Sutili, F., B. Baldisserotto and D. M. Gatlin III (2016) Evaluation of *Ocimum americanum* essential oil as an additive in red drum (*Sciaenops ocellatus*) diets. Fish & Shellfish Immunol., 56:155–161.

Raggi, T., A. Buentello and D. M. Gatlin III (2016) Characterization of pantothenic acid deficiency and the dietary requirement of juvenile hybrid striped bass, *Morone chrysops* x *M. saxatilis*. Aquaculture, 451:326–329.

Mendoza Rodriguez, M. G., C. Pohlenz, and D. M. Gatlin III (2016) Supplementation of organic acids and algae extracts in the diet of red drum *Sciaenops ocellatus*: immunological impacts. *Aquaculture Res.* doi:10.1111/are.13015.

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.

Wang, J., D. Zhang, Y. Sun, S. Wang, P. Li, D. M. Gatlin, III and L. Zhang (2016) Effect of a dairy–yeast prebiotic (GroBiotic®-A) on growth performance, body composition, antioxidant capacity and immune functions of juvenile starry flounder (*Platichthys stellatus*). *Aquacult. Res.*, 47:398-408.

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.

Rossi, W., J. T. Tomasso and D. M. Gatlin III (2015) Production performance and non-specific immunity of cage-raised red drum, *Sciaenops ocellatus*, fed soybean-based diets. *Aquaculture*, 443:84-89.

Castillo, S., S. Halligan and D. M. Gatlin III (2015) Dietary phenylalanine and tyrosine influence growth responses of juvenile red drum *Sciaenops ocellatus* as the basis for quantifying the total aromatic amino acid requirement. *J. Nutr.*, 145:2341-2346.

Rossi, W., J. T. Tomasso and D. M. Gatlin III (2015) Performance of cage-raised, overwintered hybrid striped bass fed fishmeal- or soybean-based diets. *North Am. J. Aquaculture*, 77:178–185.

Velasquez, A., C. Pohlenz, F. T. Barrows, T. G. Gaylord and D. M. Gatlin III (2015) Assessment of taurine bioavailability in pelleted and extruded diets with red drum *Sciaenops ocellatus*. *Aquaculture*, 449:2-7.

Fausi, I. A. and D. M. Gatlin III (2015) Evaluation of elevated dietary aluminum and iron on red drum *Sciaenops ocellatus*. *J. World Aquacult. Soc.*, 45:475-480.

Peredo, A. M., A. Buentello, M. E. Hume and D. M. Gatlin III (2015) Evaluation of a dairy-yeast prebiotic in the diet of juvenile Nile tilapia, *Oreochromis niloticus*. *J. World Aquacult. Soc.*, 46:92-101.

Wu, X., S. Castillo, M. Rosales, A Burns, M. Mendoza and D. M. Gatlin III (2015) Relative use of dietary carbohydrate, non-essential amino acids, and lipids for energy by hybrid striped bass, *Morone chrysops* ♀ × *M. saxatilis* ♂. *Aquaculture*, 435:116-119.

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

Sanchez, D., R., J. M. Fox, D. M. Gatlin III, and A. L. Lawrence (2014) Dietary effect of fish oil and soybean lecithin on growth and survival of juvenile *Litopenaeus vannamei* in the presence or absence of phytoplankton in an indoor system. *Aquaculture Res.*, 45:1367-1379.

Mashoof, S., C. Pohlenz, P. L. Chen, T. C. Deiss, D. Gatlin III, A. Buentello and M. F. Criscitiello. (2014) Expressed Ig mu and tau transcripts share diversity segment in ranched *Thunnus orientalis*. *Developmental & Comparative Immunology*, 43:76-86.

Tomasso, J. T., W. Rossi, A. Buentello, C. Pohlenz, D. M. Gatlin (2014) Replacement of fishmeal with plant feedstuffs in the diet of red drum *Sciaenops ocellatus*: effects on production characteristics and tolerance to aquaculture-related stressors. *J. World Aquacult. Soc.*, 45:199-205.

Pohlenz, C., A. Buentello, S. J. Helland and D. M. Gatlin III (2014) Effects of dietary arginine supplementation on growth, protein optimization and innate immune response of channel catfish *Ictalurus punctatus* (Rafinesque 1818). *Aquaculture Res.*, 45:491-500.

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

Mendoza-Rodriguez, M. G. and D. M. Gatlin III (2014) Effects of various levels of silica ash in the diet of juvenile red drum (*Sciaenops ocellatus*). *J. World Aquacult. Soc.*, 45:199-205.

Wu, Y. and D. M. Gatlin III (2014) Effects of altering dietary protein content in morning and evening feedings on growth and ammonia excretion of red drum (*Sciaenops ocellatus*). *Aquaculture*, 434:33-37.

Liu, W., Y. Yang, J. Zhang, D. M. Gatlin III, E. Ringo and Z. Zhou (2014) Effects of dietary microencapsulated sodium butyrate on growth, intestinal mucosal morphology, immune response, and adhesive bacteria of juvenile common carp (*Cyprinus carpio*) pre-fed with or without oxidised oil. *Br. J. Nutr.*, 112:15-29.

Castillo, S., M. Rosales, C. Pohlenz and D. M. Gatlin III (2014) The effects of organic acids on growth performance and digestive enzyme activities of juvenile red drum *Sciaenops ocellatus*. *Aquaculture*, 433:6-12.