Brad J. Gemmell
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The University of South Florida
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PROFESSIONAL PREPARATION

B.Sc., Biology, University of Victoria, B.C. Canada. 2006
Ph.D., Marine Science, University of Texas at Austin, Austin, T.X. 2011
Postdoctoral researcher, University of Minnesota, Minneapolis, M.N. 2011
Postdoctoral researcher, Marine Biological Laboratory, Woods Hole, M.A. 2012-2013

APPOINTMENTS

2015-present, Assistant Professor, University of South Florida, Tampa, F.L.
2013-present, Adjunct Research Scientist, Marine Biological Laboratory, Woods Hole, M.A.
2013-2015, Research Associate, University of Texas at Austin, Port Aransas, T.X.
2006-2011, Graduate Research Assistant, University of Texas at Austin, Port Aransas, T.X.
2006-2007, Teaching Assistant, University of Texas at Austin, Austin, T.X.
2004-2005, Research Assistant, University of Victoria, B.C. Canada.
2001-2005, Marine Aquatic Biology Manager, University of Victoria, B.C. Canada.

PRODUCTS - FIVE MOST RELEVANT TO THIS PROPOSAL

Gemmell, B. J., Costello, J. H., Colin, Dabiri, J. O. 2015. Suction-based propulsion as a basis for efficient animal swimming. *Nature Communications*. 6 (8790). doi:10.1038/ncomms9790

Gemmell, B. J., Jiang, H., Buskey, E. J. 2014. A new approach to micro-scale particle image velocimetry (μPIV) for quantifying flows around free-swimming zooplankton. *J. Plankton Res.* 36 (5). doi:10.1093/plankt/fbu067

Gemmell, B. J., Sheng, J. and Buskey, E. 2013. A Compensatory Escape Mechanism at Low Reynolds Number. *Proc. Nat. Acad. Sci. USA.* doi: 10.1073/pnas.1212148110.

Gemmell, B. J., Sheng, J. and Buskey, E. J. 2013. Morphology of seahorse head hydrodynamically aids in capture of evasive prey. *Nature Comm.* 4 (2840). doi: 10.1038/ncomms3840.

Gemmell, B. J., Costello, J. H., Colin, S. P., Stewart, C. J., Dabiri, J. O., Tafti, D., Priya, S. 2013. Passive energy recapture in jellyfish contributes to propulsive advantage over other metazoans. *Proc. Nat. Acad. Sci. USA.* doi:10.1073/pnas.1306983110

FIVE OTHER RELEVANT PRODUCTS

Gemmell, B. J., Adhikari, D., & Longmire, E. K. 2014. Volumetric quantification of fluid flow reveals fish's use of hydrodynamic stealth to capture evasive prey. *J. R. Soc. Interface,* 11(90), 20130880. doi: 10.1098/rsif.2013.0880

Lucas, K. N., Johnson, N., Cathcart, E., Tirrell, G., Colin, S. P., **Gemmell, B. J.**, John O. Dabiri, J. O., Priya, S. and Costello, J. H. 2014. Bending rules for animal propulsion. *Nature Comm.* 5 (3293). doi:10.1038/ncomms4293

Colin, S. P., Costello, J. H, Dabiri, J. O., Villanueva, A., Blottman, J. B., **Gemmell, B. J.**, Priya, S. 2012. Biomimetic and live medusae reveal the mechanistic advantages of a flexible bell margin. *PLoS ONE*. 7 (11): e48909.

Gemmell, B. J, Jiang, H., Strickler, R. and Buskey, E. 2012. Plankton Reach New Heights in Effort to Avoid Predators. *Proc. R. Soc. B.* 279: 2786-2792.

Gemmell, B. J., Buskey, E. J. 2011. The transition from nauplii to copepodites: susceptibility of developing copepods to fish predators. *J. Plankton Res.*, 33(11), 1773-1777.

SYNERGISTIC ACTIVITIES

1. *Communicating science to the public*:
Contributed to written/video publications in BBC News, NY Times, LA Times, Discovery Channel, National Geographic, Smithsonian, ABC News, Popular Mechanics and Nature News, regarding my published manuscripts.
Participation in multiple live-link K-12 classroom activities where scientists give interactive lessons remotely to classrooms around the country.

2. *Service to science community*:
Proposal reviewer for NSF and the National Estuarine Research Reserve (2011-present);
Manuscript reviewer for *Journal of the Royal Society Interface, Journal of Experimental Biology, Journal of Plankton Research, Crustacean Biology, PLoS ONE, Marine Ecology Progress Series, ICES Journal of Marine Science* (2012-present).

3. *Mentoring*:
Currently mentoring:
Three graduate students: Sara Garcia (MS), Nils Tack (MS) and David Durieux (PhD)
Four undergraduates doing a directed studies project in my lab: Michele Stapleton, Kathrene Lo, Sarah Strauss and Lama Alqasemi.

COLLABORATORS WITHIN THE PAST 48 MONTHS (13)

Dr. Sean Colin	Roger Williams University
Dr. John Costello	Providence College
Dr. John Dabiri	Stanford University
Dr. Houshuo Jiang	Wood Hole Oceanographic Institution
Dr. Joseph Katz	Johns Hopkins University
Dr. George Lauder	Harvard University
Dr. Ellen Longmire	University of Minnesota
Dr. Jennifer Morgan	Marine Biological Laboratory
Dr. Mark Reed	SINTEF (Norway)
Dr. Jian Sheng	Texas Tech University
Dr. Rudi Strickler	University of Wisconsin, Milwaukee
Dr. Dan Troolin	TSI Incorporated

GRADUATE AND POSTDOCTORAL ADVISOR (3)

Edward Buskey	University of Texas at Austin
Ellen Longmire	University of Minnesota
John Costello	Providence College