

PAUL AUGUST ANDERSON, PhD, CAPM
Capacity Builder • Change Agent • Critical Thinker • Scientist

Dr. Anderson has co-managed over \$1.5 million in grants & scholarships to build capacity, authored 24 scientific & popular publications, delivered over 300 presentations to audiences of all ages across the U.S., & developed 14 exhibits. His work has been featured in programs aired on ABC, National Geographic, & other media outlets.

CORE COMPETENCIES

- **Project Management:** Certified Associate in Project Management, project administration, volunteer & staff supervision & management, team building, project coordination with partner agencies/organizations, Basecamp, Microsoft Teams, & Zoho software
- **Zoology:** Body condition assessment, ethology, hematology, clinical chemistry, enzyme immunoassay, histological preparation & interpretation, diagnostic necropsy, sterile bacterial sampling & culture technique, sterile surgical technique, J-Watcher software
- **Statistical Analysis:** Parametric & non-parametric, ANOVA, MANOVA, GLM, regression models, multivariate techniques, Microsoft Excel & Analyse-It, Minitab, SAS software
- **Writing:** Grant proposal & report writing, authorship of public-facing & peer-reviewed scientific articles
- **Presentation & Dissemination:** Professional, scientific, & public presentations; academic, laboratory & field educational programs to audiences of all ages & backgrounds; exhibit concept, graphic, text development & coordination with graphic design & production teams
- **Field:** NAUI Open water certified (#ande102675pausd)

PROFESSIONAL EXPERIENCE

Founder, Coral Reef Aquarium Fisheries Campaign, Groton, CT (June 2020-Present): Founded the Campaign, a multi-institutional initiative whose goal is to empower sustainable coral reef aquarium fisheries.

ACCOMPLISHMENTS

- Managing a \$30K grant-funded project with Mystic Aquarium and Roger Williams University to develop a cyanide detection assay for wild-caught marine aquarium fishes
- Executed \$13.5K contract with Dynasty Marine Associates, Inc. to analyze the policy landscape of marine ornamental fisheries in the State of Florida
- Co-managed a \$2.1K grant with Connecticut Sea Grant to present the project “Linking the aquaculture workforce’s next generation to aquaculture science” with the Marine Science Magnet High School
- Published a peer-reviewed article advising royal gramma broodstock management in small scale aquaculture in the journal Aquaculture
- Co-presented the Larval Fish Conference with the University of Connecticut and partners in 2020 & 2021
- Submitted 7 grant applications totaling \$69.7K in request to support small business, research, conservation, and education initiatives.
- Advisor to the Association of Zoos & Aquariums’ Aquatic Collections Sustainability Committee

Research Scientist, Mystic Aquarium, Mystic, CT (July 2012-March 2020): Established a multi-institutional campaign to empower the sustainable development of the global marine aquarium industry.

ACCOMPLISHMENTS

- Established a network of partnerships among 8 institutions to leverage resources to drive the campaign
- Established a joint aquaculture R&D program & lab with the Marine Science Magnet High School
- Identified & demonstrated 4 target genes that respond to cyanide exposure in marine fish
- Developed an analytical framework for sustainable species selection & aquaculture R&D recommendations
- Optimized broodstock grouping strategies for aquaculture of a popular marine aquarium fish
- Characterized the economics of the marine ornamental aquaculture industry in the Northeast US
- Characterized environmental effects on behavior in Arctic beluga whales
- Conducted an etiological investigation of molt abnormalities in African penguins
- Acquired \$839K in research grants

- Published 2 peer-reviewed journal articles
- Designed 3 exhibits at Mystic Aquarium & partner sites
- Engaged 23 undergraduate & 1 PhD student(s) in research programs
- Planned & executed a research seminar series
- Delivered 111 presentations at Mystic Aquarium, schools, universities, & professional meetings nationwide

SELECTED MEDIA & PUBLICATIONS

- Vacco, V., Litvinoff, E., Camacho, C., Guinovart, C., **Anderson, P.** 2021. Establishing optimal broodstock sex ratios for the royal gramma (*Gramma loreto*) in small scale system aquaculture. *Aquaculture* 543: 736931.
<https://doi.org/10.1016/j.aquaculture.2021.736931>
- Anderson, P.A.** 2019. Dr. Paul Anderson: Empowering sustainable development of the marine aquarium industry. YouTube, MACNA Channel. <https://youtu.be/Q5U3XzN7-T0>
- Morcom, S., Yang, D., Pomeroy, R.S., **Anderson, P.A.** 2018. Marine ornamental aquaculture in the Northeast U.S.: The state of the industry. *Aquaculture Economics & Management* 22(1): 49-71.
<https://doi.org/10.1080/13657305.2016.1206994>
- Mystic Aquarium, 2017. Learn About Our Joint Aquaculture Research Laboratory. YouTube, Mystic Aquarium Channel.
<https://youtu.be/yM5ekplkM0g>
- Anderson, P.A.** 2016. Fused jaws and male pregnancy: The fascinating world of horses and dragons of the sea. The FisheriesBlog.com October 31, 2016. <https://thefisheriesblog.com/2016/10/31/syngnathiformes/>
- Hyatt, M.W., **Anderson, P.A.**, O'Donnell, P.M. 2016. Behavioral release condition score of bull & bonnethead sharks as a coarse indicator of stress. *Journal of Coastal Research* 32(6): 1464-1472. <https://doi.org/10.2112/JCOASTRES-D-15-00108.1>
- Whitney, N.M., White, C.F., Gleiss, A.C., Schwieterman, G.D., **Anderson, P.A.**, Hueter, R.E., Skomal, G.B. 2016. A novel method for determining post-release mortality, behavior, & recovery period using acceleration data loggers. *Fisheries Research* 183: 210-221. <https://doi.org/10.1016/j.fishres.2016.06.003>
- Anderson, P.A.** 2013. Acoustic characterization of seahorse tank environments in public aquaria: A citizen science project. *Aquacultural Engineering* 54: 72-77. <https://doi.org/10.1016/j.aquaeng.2012.11.004>
- Anderson, P.**, Huber, D., Berzins, I. 2012. Correlations of capture, transport, & nutrition with vertebral deformities in captive sandtiger sharks, *Carcharias taurus*. *Journal of Zoo & Wildlife Medicine* 43(4): 750-758.
<https://doi.org/10.1638/2011-0066R1.1>
- Hyatt, M. W., **Anderson, P. A.**, O'Donnell, P. M., Berzins, I. K. 2012. Assessment of acid-base derangements among bonnethead (*Sphyrna tiburo*), bull (*Carcharhinus leucas*), & lemon (*Negaprion brevirostris*) sharks from gillnet & long line capture & handling methods. *Comparative Biochemistry & Physiology A* 162: 113-120.
<https://doi.org/10.1016/j.cbpa.2011.05.004>
- Anderson, P. A.**, Berzins, I. K., Fogarty, F., Hamlin, H. J., Guillette, L. J. Jr. 2011. Sound, stress, & seahorses: The consequences of a noisy environment to animal health. *Aquaculture* 311: 129-138.
<https://doi.org/10.1016/j.aquaculture.2010.11.013>

SELECTED GRANTS, FELLOWSHIPS, & SCHOLARSHIPS (\$1.5M IN TOTAL AWARDS)

- \$ 80,000** Paul M. Angell Family Foundation (2019-2020)
- 703,658** National Science Foundation Research Experience for Undergraduates (2017-2020)
- 25,000** Sea World/Busch Gardens Conservation Grants Fund (2016-2017)
- 192,325** NOAA National Marine Fisheries Service Cooperative Research Program (2011)
- 78,776** National Fish & Wildlife Foundation (2010)

EDUCATION

- PhD, Fisheries & Aquatic Sciences** (GPA: 3.90), University of Florida, Gainesville, FL (Aug 2002-Aug 2009)
- BS, Marine Biology, Chemistry Minor** (GPA: 3.97), Eckerd College, St. Petersburg, FL (Aug 1993-May 1997)

CONTACT INFORMATION

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