

Daniel Huber, Ph.D.  
**Associate Professor of Biology**

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**CONTACT INFORMATION**

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**ACADEMIC HISTORY**

Associate Professor, Department of Biology, The University of Tampa, Tampa, FL (2012- present)  
Assistant Professor, Department of Biology, The University of Tampa, Tampa, FL (2006-2012)  
Ph.D. (Biology), University of South Florida, Tampa, Florida (2006)  
B.S. (Biology), Duke University, Durham, North Carolina (2000)

**AWARDS AND HONORS**

2010 Outstanding Scholar Award, The University of Tampa College of Natural & Health Sciences  
2006 University of South Florida Tharpe Scholarship  
2006 University of South Florida Provost's Commendation for Outstanding Teaching by a Graduate Student  
2004 American Elasmobranch Society conference travel award  
2003 Mote Marine Laboratory-University of South Florida Graduate Research Fellowship in Elasmobranch Biology  
2003 University of South Florida Graduate Student Research Symposium – First Place Poster Award  
2002 American Society of Ichthyologists and Herpetologists conference travel award  
2002 Mote Marine Laboratory-University of South Florida Graduate Research Fellowship in Elasmobranch Biology  
2001 University of Washington Friday Harbor Laboratories summer research fellowship  
2000-2005 University of South Florida Foundation Presidential Fellowship  
2000 Graduation with Distinction, *cum laude*, Duke University Biology Department  
1999 Maryland Sea Grant Summer Research Fellowship

**TEACHING EXPERIENCE**

The University of Tampa

Environmental Science (lecture), Biological Science (lecture), General Biology I (lecture & lab), General Biology I Honors (lecture & lab), General Biology II (lecture & lab), Ecological Physiology (lecture & lab), Comparative Vertebrate Anatomy (lecture & lab), Senior Seminar (seminar), Gateways (seminar)

University of South Florida

Comparative Vertebrate Anatomy (lab), Human Anatomy and Physiology (lab)

Duke University

Masculinity and Gender Roles (seminar)

## **RESEARCH EXPERIENCE**

University of Tampa, Biomechanics Laboratory (2006–present)

Investigating biomechanics of feeding and locomotion in cartilaginous fishes through analyses of structural and material properties of skeletal elements, digital imaging technologies (CT, MRI), theoretical modeling of musculoskeletal systems, finite element analysis, force transduction, and high-speed digital videography.

University of South Florida, Functional Morphology Laboratory (2000–2006)

Investigated the evolution and performance of feeding mechanisms in cartilaginous fishes.

Shriners Hospital for Children, Skeletal Biology Laboratory (2004–2006)

Investigated the structural and material properties of elasmobranch cartilage through biochemical assays and material science.

Duke University, Molecular Systematics Laboratory (1999–2000)

Investigated the evolution of visual systems in ostracod crustaceans through molecular analyses of opsin genes.

University of Maryland, Horn Point Environmental Laboratory (1999)

Investigated the environmental conditions facilitating Harmful Algal Blooms of “brown tide” in the Chesapeake Bay Watershed.

## **GRANTS**

2015 The University of Tampa Learning Enrichment Grant: Electrophysiology of muscle contractile properties (\$1,290); Co-PI's: Belfiore, N. and McMahon, T.

2015 The University of Tampa Learning Enrichment Grant: Evolutionary robotics for natural selection education (\$1,039); Co-PI's: Belfiore, N. and McMahon, T.

2014 The University of Tampa Alumni Foundation Grant: Flume for hydrodynamic studies at the UT Marine Science Field Station (\$3,513)

2012 The University of Tampa Learning Enrichment Grant: Curricular revision for BIO 203 Biological Diversity (\$6,000); Co-PI's: Hulathduwa, Y., Waggett, R., Yokota, K.

2012 The University of Tampa Delo Grant: Structural mechanics of the jaws of cartilaginous fish (\$4,536)

2009 National Science Foundation: “Symposium – Functional morphology of cartilaginous fishes (July 22 – 27, Portland, OR)” (\$10,000); Co-PI: Dean, M.N.

2009 The University of Tampa Delo Grant: Finite element modeling of cranial biomechanics & evolution of feeding mechanisms in cartilaginous fish (\$5,000)

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2008 Association of Zoos and Aquariums Conservation Endowment Fund Award: “The shark spine survey: Biomechanics of spinal deformities in captive sandtiger sharks” (\$20,000); Co-PI’s: Anderson, P.A., Berzins, I.K., Norkus, E., Murie, D.

2008 The University of Tampa Dana Grant: Finite element modeling of cranial biomechanics & evolution of feeding mechanisms in cartilaginous fish (\$1,836)

2007 The University of Tampa Teaching Innovation Grant: Human anatomy content for instruction of Comparative Vertebrate Anatomy (\$1,485)

2002 University of South Florida Research and Creative Grant Scholarship: Measurement of bite forces in cartilaginous fishes (\$5,000)

2002 PADI Project A.W.A.R.E. Foundation Grant: Feeding behavior of cartilaginous fishes (\$2,000)

### BOOK CHAPTERS

Motta, P.J. and Huber, D.R. (2012). Prey capture behavior and feeding mechanics of elasmobranchs. In (Eds: Carrier, J., Musick, J., and Heithaus, M.) *Biology of Sharks and Their Relatives, 3rd Edition*. CRC Press LLC. Boca Raton, FL.

Huber D.R., Soares M.C., and de Carvalho M.R. (2011) Cartilaginous Fishes Cranial Muscles. In: Farrell A.P., (ed.), *Encyclopedia of Fish Physiology: From Genome to Environment*, volume 1, pp. 449–462. San Diego: Academic Press.

### PEER REVIEWED PUBLICATIONS

Kolmann, M.A., Huber, D.R., Motta, P.J., and Grubbs, F.D. (2015). Feeding biomechanics of the cownose ray, *Rhinoptera bonasus*, over ontogeny. *Journal of Anatomy*. 227 (3): 341-351.

Huber, D., Jones, L.B., and Helminski, C. (2015). The Importance of mathematical models to scientific discovery: A case study on the feeding mechanism of the goliath grouper *Epinephelus itajara*. *The Australian Mathematics Teacher*. 71 (3): 24-30.

Jones, L.B., Huber, D., and Waggett, R.J. (2015). Geometric analysis of shark teeth. *Dimensions in Mathematics*. 35 (1): 16-22.

Ferguson, A., Huber, D., and Motta, P. (2015). Feeding performance of king mackerel, *Scomberomorus cavalla*. *Journal of Experimental Zoology Part A*. 323 (7): 399-413.

Habegger, M.L., Motta, P.J., Dean, M., Huber, D., Dunlop, J., Mullins, G., Stokes, M.J., and Winters, D. (2015). Feeding biomechanics in billfish: Inferring the role of the rostrum during feeding in two billfish species. *Journal of Experimental Biology*. 218: 824-836.

Kolmann, M.A., Huber, D.R., Dean, M.N., Grubbs, F.D. (2014). Myological variability in a decoupled skeletal system: batoid cranial anatomy. *Journal of Morphology*. 275(8): 862-881.

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- Jones, L., Huber, D. and Waggett, R. (2014). Otter versus pufferfish: The functional importance of geometry in nature. *Dimensions in Mathematics*. 34(1): 21-24.
- Huber, D.R., \*Neveu, D.E., \*Stinson, C.M., Anderson, P.A., and Berzins, I.K. (2013). Mechanical properties of sand tiger shark *Carcharias taurus* vertebrae in relation to spinal deformity. *Journal of Experimental Biology*. 216: 4256-4263.
- \*Tate, E.E., Anderson, P.A., Huber, D.R., and Berzins, I.K. (2013). Correlations of swimming patterns with spinal deformities in the sandtiger shark, *Carcharias taurus*. *International Journal of Comparative Psychology*. 26: 75-82.
- Anderson, P.A., Huber, D.R., and Berzins, I.K. (2012). Correlations of capture, transport, and nutrition with vertebral deformities in captive sandtiger sharks, *Carcharias taurus*. *Journal of Zoo and Wildlife Medicine*. 43 (4): 750-758.
- Habegger, M.L, Motta, P.J, Huber, D.R., and Dean, M.N. (2012). Feeding biomechanics and theoretical calculations of bite force in bull sharks (*Carcharhinus leucas*) during ontogeny. *Zoology*. 115 (6): 354-364.
- Habegger, M.L, Motta, P.J, Huber, D.R. and Deban, S. (2011). Feeding biomechanics in the great barracuda (*Sphyraena barracuda*) during ontogeny. *Journal of Zoology*. 283 (1): 63 – 72. (DOI: 10.1111/j.1469-7998.2010.00745.x).
- Ferrara, T.L., Clausen, P., Huber, D.R., McHenry, C.R., Peddemors, V., and Wroe, S. (2011). Force versus speed: Mechanics of biting in great white and sandtiger sharks. *Journal of Biomechanics*. 44 (3): 430 – 435. (DOI: 10.1016/j.jbiomech.2010.09.028).
- Mara, K.R., Motta, P.J., and Huber, D.R. (2010). Bite force and performance in the durophagous bonnethead shark *Sphyrna tiburo*. *Journal of Experimental Zoology*. 313A (2): 95 – 105. (DOI:10.1002/jez.576).
- \*Kolmann, M.A. and Huber, D.R. (2009). Scaling of feeding biomechanics in the horn shark *Heterodontus francisci*: Ontogenetic constraints on durophagy. *Zoology*. 112: 351 – 361. (DOI: 10.1016/j.zool.2008.11.002).
- Huber, D.R., Claes, J.M., Mallefet, J., and Herrel, A. (2009). Is extreme biting performance associated with extreme morphologies in sharks? *Physiological and Biochemical Zoology*. 82 (1): 20 – 28. (DOI: 10.1086/588177).
- Wroe, S., Huber, D., Lowry, M., McHenry, C., Moreno, K., Clausen, T.L. \*Ferrara, P., Cunningham, E., Dean, M., and Summers, A. (2008). Three-dimensional computer analysis of white shark jaw mechanics: How hard can a great white bite? *Journal of Zoology*. 276: 336 – 342. (DOI: 10.1111/j.1469-7998.2008.00494.x).

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- Motta, P.J., Hueter, R.E., Tricas, T.C., Summers, A.P., Huber, D.R., Lowry, D., Mara, K.R., Matott, M.P., Whitenack, L.B., and Wintzer, A.P. (2008). Functional morphology of the feeding apparatus, feeding constraints, and suction performance of the nurse shark *Ginglymostoma cirratum*. *Journal of Morphology*. 269: 1041 – 1055. With cover. (DOI: 10.1002/jmor.10626).
- Huber, D.R., Dean, M.N., and Summers, A.P. (2008). Hard prey, soft jaws, and the ontogeny of feeding mechanics in the spotted ratfish *Hydrolagus colliei*. *Journal of the Royal Society Interface*. 5: 941 – 952. (DOI: 10.1098/rsif.2007.1325).
- Huber, D.R., \*Weggelaar, C.L., and Motta, P.J. (2006). Scaling of bite force in the blacktip shark *Carcharhinus limbatus*. *Zoology*. 109: 109 – 119.
- Dean, M., Huber, D., and Nance, H. (2006). Functional morphology of jaw trabeculation in the lesser electric ray *Narcine brasiliensis*. *Journal of Morphology*. 267: 1137 – 1146. With cover. (DOI: 10.1002/jmor.10302).
- Huber, D.R., Eason, T.G., Hueter, R.E., and Motta, P.J. (2005). Analysis of the bite force and mechanical design of the feeding mechanism of the durophagous horn shark *Heterodontus francisci*. *Journal of Experimental Biology*. 208: 3553 – 3571.
- Lowry, D., Patel, A.N., Matott, M.P., Whitenack, L.B., Huber, D.R., Dean, M.N., and Motta, P.J. (2005). Aerial and aquatic feeding in the silver arawana *Osteoglossum bicirrhosum*. *Environmental Biology of Fishes*. 73: 453 – 462.
- Huber, D.R. and Motta, P.J. (2004). Comparative analysis of methods for determining bite force in the spiny dogfish *Squalus acanthias*. *Journal of Experimental Zoology*. 301A(1): 26 – 37.
- Oakley, T.H. and Huber, D.R. (2004). Differential expression of duplicated opsin genes in two eye-types of ostracod crustaceans. *Journal of Molecular Evolution*. 59: 239 – 249.

\* Undergraduate researcher

**NON-PEER REVIEWED PUBLICATIONS**

- Huber, D. And Jones, L.B. (2015). Life on the edge: Water striders use geometry to master physics. *Mathematics in School*. March: 25-27.
- Huber, D.R., Jones, L.B., and Waggett, R.J. (2014). Geometric analysis of stingray feeding behavior. *Mathematics in School*. January: 14 – 15.

**CONFERENCE PRESENTATIONS**

- Luger, A., Schotte, M., Baum, D., Huber, D., and Dean, M. (2015). On the jaws of lamniform sharks. Tomography for Scientific Advancement Symposium. Manchester, UK. September 3-4.

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- Huber, D. Loya, B., Decker, S., and Ford, J. (2015). Structural mechanics of mako and sixgill shark jaws: Evolutionary considerations. American Elasmobranch Society. July 15 – 19, Reno, NV.
- Seidel, R., Knoetel, D., Schotte, M., Baum, D., Huber, D., Blumer, M., Weaver, J., and Dean, M. (2015). Interdisciplinary approaches to skeletal biology and mechanics: Design lessons from shark skeletons. American Elasmobranch Society. July 15 – 19, Reno, NV.
- Seidel, R., Knoetel, D., Schotte, M., Baum, D., Huber, D., Blumer, M., Li, L., Weaver, J.C., and Dean, M. (2015). Ontogeny, ultrastructure and mechanics of shark and ray tessellated cartilage. International Symposium on Paleohistology. July 2 – 5, Bonn, Germany.
- Huber, D.R. and Jones, L.B. (2014). Bones, muscles, and math: Biology and geometry working together. Mathematical Association of America. August 6-9. Portland, OR.
- Habegger, M.L., Motta, P.J., Pulaski, D.R., Huber, D.R. and Dumont, E.R. (2014). Feeding biomechanics in billfishes: inferring the role of the rostrum using FEA. American Society of Ichthyologists and Herpetologists. Chattanooga, TN. July 30 – August 3.
- Habegger, M.L., Motta, P.J., Pulaski, D.R., Huber, D.R. and Dumont, E.R. Feeding biomechanics in billfishes: inferring the role of the rostrum using FEA. Society for Integrative and Comparative Biology. Austin, TX. January 3-7.
- Jones, L., Huber, D., and Waggett, R. (2013). The Functional Importance of Geometry in Nature. Florida Council of Teachers of Mathematics. Orlando, FL. October 17-19.
- Habegger, M.L., Motta, P.J., Dean, M., Huber D., Dunlop, J., Mullins, G., Stokes, M. J. and Winters, D. (2013). Feeding biomechanics in billfish: Inferring the role of the rostrum during feeding in two billfish species. International Congress of Vertebrate Morphology. July 8 – 12, Barcelona, Spain.
- Habegger, M.L., Motta, P. and Huber, D. (2013). Theoretical calculations of bite force in billfishes. International Congress of Vertebrate Morphology. July 8 – 12, Barcelona, Spain.
- Kolmann, M.A., Huber, D.R., Dean, M.N., & Grubbs, R.D. (2013). Feeding ecomorphology of durophagous stingrays. American Elasmobranch Society. July 10 – 15, Albuquerque, NM.
- Huber, D., Jones, L., and Waggett, R. (2013). The geometry of shark teeth. Mathematical Association of America. January 9 – 12, San Diego, CA.
- Huber, D.R., Noaker, D.E., \*Stinson, C.M., Tate, E.E., Anderson, P.A., and Berzins, I.K. (2013). Etiology of spinal deformities in captive sand tiger sharks *Carcharias taurus*. Society for Integrative and Comparative Biology. January 3 – 7, San Francisco, CA.
- Kolmann, M.A., Huber, D.R., Dean, M., and Grubbs, R.D. (2012). Feeding performance of a durophagous ray. American Elasmobranch Society. August 8 – 14, Vancouver, Canada.

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- Kolmann, M.A., Huber, D.R., Dean, M., Erickson, G.M., and Grubbs, R.D. (2012). Muscle, shell, and tooth: A comprehensive investigation of durophagy in the cownose ray. Society for Integrative and Comparative Biology. January 3 – 7, Charleston, SC.
- Dean, M., Huber, D., Goo, B., Danos, N., Shimada, K., and Summers, A. (2012). On the jaws of lamniform sharks. Society for Integrative and Comparative Biology. January 3 – 7, Charleston, SC.
- Kolmann, M.A., Huber, D.R., Dean, M.N., & Grubbs, R.D. (2011). Scaling of bite force generation in the Cownose Ray, *Rhinoptera bonasus*, with comments regarding on-bottom aquaculture. 8<sup>th</sup> International William R. & Lenore Mote Symposium. November 8 – 10, Sarasota, FL.
- Kolmann, M.A., Huber, D.R., Dean, M.N., & Grubbs, R.D. (2011). Scaling of bite force generation in the Cownose Ray, *Rhinoptera bonasus*, with comments regarding on-bottom aquaculture. American Fisheries Society: Symposium on Elasmobranch Fisheries. September 4 – 8, Seattle, WA.
- Kolmann, M.A., Huber, D.R., Dean, M.N., & Grubbs, R.D. (2011). Scaling of bite force generation in the Cownose Ray, *Rhinoptera bonasus*, with comments regarding on-bottom aquaculture. Southeastern Ecology and Evolution Conference. March 25 – 27, Auburn, AL.
- Anderson, P., Huber, D.R., \*Noaker, D., & Berzins, I.K. (2010). Correlations of capture, transport, and nutrition with vertebral deformities in captive sandtiger sharks (*Carcharias taurus*). International Symposium for Aquatic Animal Health. September 5 – 9, Tampa, FL.
- Huber, D. \*Noaker, D., Anderson, P., & Berzins, I.K. (2010). Biomechanics of spinal deformities in captive sandtiger sharks *Carcharias taurus*. American Elasmobranch Society. July 7 – 12, Providence, RI.
- Dean, M., Huber, D., Bizzarro, J., & Ferry-Graham, L. (2010). Durophagy in cartilaginous fishes. American Elasmobranch Society. July 7 – 12, Providence, RI.
- Anderson, P., \*Tate, E., Huber, D., \*Noaker, D., & Berzins, I.K. (2010). Potential etiologies of spinal deformity in captive sandtiger sharks (*Carcharias taurus*). American Elasmobranch Society. July 7 – 12, Providence, RI.
- Kolmann, M.A., Huber, D.R., Dean, M., & Grubbs, R.D. (2010). Ecomorphological consequences of the feeding mechanism in the cownose ray. American Elasmobranch Society. July 7 – 12, Providence, RI.
- Anderson, P., \*Tate, E., Huber, D., \*Noaker, D., & Berzins, I.K. (2010). The shark spine study. Regional Aquatics Workshop. June 7 – 11, Omaha, N.E.
- Berzins, I.K., Anderson, P., \*Tate, E., \*Noaker, D., Huber, D. (2010). Further studies on spinal deformities in captive sand tiger sharks (*Carcharius taurus*). International Association for Aquatic Animal Medicine. May 8 – 12, Vancouver, BC, Canada.

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- Kolmann, M.A. and Huber, D.R. (2010). Ontogenetic constraints on the feeding ecology of the horn shark *Heterodontus francisci*. Southeastern Ecology and Evolution Conference. March 26 – 28, Atlanta, GA.
- \*Noaker, D., Huber, D., Anderson, P., & Berzins, I.K. (2010). Biomechanics of spinal deformities in captive sandtiger sharks *Carcharias taurus*. Florida Academy of Sciences. March 19, Ft. Pierce, FL.
- \*Jagnandan, K. and Huber, D. (2010). Structural and material properties of the jaws of the lemon shark *Negaprion brevirostris* and horn shark *Heterodontus francisci*. Florida Academy of Sciences. March 19, Ft. Pierce, FL.
- \*Siu, N., Huber, D.R., and Whitenack, L. (2010). Claw biomechanics of the Stone crab *Menippe mercenaria*. Florida Academy of Sciences. March 19, Ft. Pierce, FL.
- \*Goo, B.Y., Dean, M.N., Huber, D.R., Summers, A.P. (2010). Jaw morphology and structure in lamniform sharks. Society for Integrative and Comparative Biology. January 3 – 7, Seattle, WA.
- Ferry-Graham, L.A., Huber, D.R., Dean, M.N., Claes, J.M., and Mallefet, J. (2010). Prey processing in chimaeroid fishes. Society for Integrative and Comparative Biology. January 3 – 7, Seattle, WA.
- Ferry-Graham, L.A., Huber, D.R., Dean, M.N., Claes, J.M., and Mallefet, J. (2009). Hard prey processing in chimaeroid fishes. Western Society of Naturalists. November 12 – 15, Monterey, CA.
- Huber, D., Whitenack, L., and Wroe, S. (2009). Structural mechanics of primitive and derived shark jaws and teeth. American Elasmobranch Society. July 22 – 27. Portland, OR.
- Huber, D. and Dean, M. (2009). Functional morphology of cartilaginous fishes: Past, present, and future. American Elasmobranch Society. July 22 – 27. Portland, OR.
- Ferrara, T., Wroe, S., Huber, D., McHenry, C., Clausen, P., Peddemors, V., Dean, M. and Lowry, M. (2009). Three dimensional computer analysis of jaw mechanics in great white and sandtiger sharks. American Elasmobranch Society. July 22 – 27. Portland, OR.
- Ferrara, T., Huber, D., McHenry, C., Clausen, P., Peddemors, V., Lowry, M., and Wroe, S. (2009). Three dimensional computer analysis of jaw mechanics in white, tiger, bull, and grey nurse sharks. Australian Society for Fish Biology. June 1– 5. Fremantle, Western Australia.
- Habegger, M.L., Motta, P., Huber, D.R. (2009). Theoretical calculations of feeding biomechanics in bull sharks over ontogeny. Society for Integrative and Comparative Biology. January 3 – 7. Boston, MA.



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- Huber, D.R., \*Kolmann, M.A., Herrel, A., and Claes, J. (2008). Chondrichthyan feeding biomechanics: Intra- and inter-specific scaling patterns. American Elasmobranch Society. July 23 – 28, Montreal, QC, CA.
- Habegger, M.L., Motta, P., Huber, D.R. (2008). Theoretical calculations of feeding biomechanics in bull sharks over ontogeny. American Elasmobranch Society. July 23 – 28, Montreal, QC, CA.
- Habegger, M.L., Motta, P., Huber, D.R. (2008). Theoretical calculations of bite force in the great barracuda *Sphyraena barracuda*. Society for Integrative and Comparative Biology. January 2 – 6, San Antonio, TX.
- Mara, K.R., Huber, D.R., and Motta, P.J. (2008). Bite force and performance in the durophagous bonnethead shark, *Sphyrna tiburo*. Society for Integrative and Comparative Biology. January 2 – 6, San Antonio, TX.
- \*Kolmann, M.A. and Huber, D.R. (2007). Ontogenetic constraints on the feeding ecology of the horn shark *Heterodontus francisci*. Florida Ichthyology Student Congress. November 16 – 18, Tampa, FL.
- \*Flint, S.G., \*Kolmann, M.A., Huber, D.R., and Dean, M.N. (2007). Functional morphology and feeding biomechanics of the cownose ray *Rhinoptera bonasus*. Florida Ichthyology Student Congress. November 16 – 18, Tampa, FL.
- Habegger, M.L., Motta, P., Huber, D.R. (2007). Bite force of the great barracuda *Sphyraena barracuda*. American Society of Ichthyologists and Herpetologists. July 11 – 16, St. Louis, MO.
- Mara, K.R., Huber, D.R., and Motta, P.J. (2007). Durophagy in the bonnethead shark *Sphyrna tiburo*: an ecomorphological conundrum. American Elasmobranch Society. July 11 – 16, St. Louis, MO.
- Huber, D.R. and Motta, P.J. (2006). Mechanical factors in the evolution of chondrichthyan jaw suspension mechanisms. American Elasmobranch Society. July 12 – 17, New Orleans, LA.
- Motta, P.J., Hueter, R.E., Tricas, T.C., Summers, A.P., Lowry, D., Matott, M.P., Whitenack, L.B., Wintzer, A.P., and Huber, D.R. (2005). Functional morphology, suction performance, and the enigma of protrusion in the nurse shark *Ginglymostoma cirratum*. American Elasmobranch Society. July 7 – 11, Tampa, FL.
- Huber, D.R., Dean, M.N., and Summers, A.P. (2005). The crushing bite of the water bunny *Hydrolagus colliei*. Society for Integrative and Comparative Biology. January 4 – 8, San Diego, CA.

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- Huber, D.R. and Motta, P.J. (2004). Cranial biomechanics of sharks utilizing durophagous and piscivorous feeding mechanisms. International Congress of Vertebrate Morphology. July 27 – August 1, Boca Raton, FL.
- Huber, D.R., Motta, P.J., and Hueter, R.E. (2004). Crushing and gouging: a bite performance analysis of durophagous and piscivorous sharks. American Elasmobranch Society. May 26 – June 1, Norman, OK.
- Huber, D.R. (2004). Bite force and cranial design of a hard-prey specialist the horn shark *Heterodontus francisci*. Society for Integrative and Comparative Biology. January 5 – 9, New Orleans, LA.
- Dean, M.N., Huber, D.R., and Nance, H. (2004). Functional morphology of jaw trabeculation in *Narcine brasiliensis*. Society for Integrative and Comparative Biology. January 5 – 9, New Orleans, LA.
- Patel, A., Lowry, D., Whitenack, L., Matott, M., Huber, D., Dean, M., Barker, A. and Motta, P. (2003). Getting high with arawana: Aquatic and aerial prey capture in the silver arawana *Osteoglossum bicirrhosum*. American Society of Ichthyologists and Herpetologists, June 26 – July 2, Manaus, Brazil.
- Matott, M., Lowry, D., and Huber, D. (2003). Feeding kinematics of the sandtiger shark *Carcharias taurus*: Contributions of cranial elevation and jaw protrusion to gape. American Society of Ichthyologists and Herpetologists, June 26 – July 2, Manaus, Brazil.
- Huber, D.R. (2002). A comparative analysis of methods for determining bite force in the spiny dogfish *Squalus acanthias*. Society for Integrative and Comparative Biology, January 3 – 8, 2002, Anaheim, CA.
- Huber, D.R. (2002). Continuity of locomotor force generation in the longnose killifish *Fundulus similis*. American Society of Ichthyologists and Herpetologists, July 3 – 8, 2002, Kansas City, MO.

\* Undergraduate researcher

### KEYNOTES SPEECHES & INVITED SEMINARS

- Florida Undergraduate Research Conference (2016): “Inquiry, Integration, and Aesthetics.”
- College of Charleston (2015): “Musculoskeletal biomechanics of cartilaginous fishes.”
- College of Charleston (2015): “Teaching philosophy: Theory, application, and extension.”
- Florida Marine Science Educators Association (2015): “Conservation biomechanics: Etiology of spinal deformities in captive sandtiger sharks.”
- Clearwater Marine Aquarium (2014): “Conservation biomechanics: Etiology of spinal deformities in captive sandtiger sharks.”
- The Florida Aquarium (2013): “Sandtiger shark spinal deformities: What have we learned?”
- Allegheny College (2012): “Conservation biomechanics: Etiology of spinal deformities in captive sandtiger sharks.”

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The University of Tampa Faculty Colloquium (2012): "Conservation biomechanics: Etiology of spinal deformities in captive sandtiger sharks."

The University of Tampa Honors Program (2011): "Conservation biomechanics: Etiology of spinal deformities in captive sandtiger sharks."

Tampa Theatre (2011): "Jaws: Fact, Fiction, and Shark Feeding."

Eckerd College (2011): "Feeding biomechanics of cartilaginous fishes: Ontogeny, Ecology, and Evolution."

Bimini Biological Field Station (2010): "Feeding biomechanics of cartilaginous fishes: Ontogeny, Ecology, and Evolution."

Florida Aquarium (2010): "Engineering meets Jaws: Evolutionary mechanics of shark feeding."

The University of Tampa Honors Program (2009): "Feeding biomechanics of cartilaginous fishes: Ontogeny, Ecology, and Evolution."

American Elasmobranch Society (2008): "Is graduate school enough? How to get a job in academia."

Teak Fellowship (2007): "Shark tales: diversity, mythology, and biomechanics."

The University of Tampa (2006): "Cranial biomechanics and feeding performance of sharks."

Eckerd College (2004): "Shark feeding mechanics and why you shouldn't believe everything you see on TV."

Mote Marine Laboratory, Center for Tropical Research (2003): "Functional diversity of the cartilaginous fishes."

### UNDERGRADUATE RESEARCH MENTORING

Haley Amplo (2015-present, The University of Tampa): Fluid dynamics of the hammerhead shark cephalofoil

Alexander Famigletti (2015-present, The University of Tampa): Body morphology and community structure of Tampa Bay fishes

Lauren LaMonica (2014-present, The University of Tampa): Jaw mechanics of parrotfish

Kevin Travis (2014-present, The University of Tampa): Feeding biomechanics of cookie cutter sharks (*Isistius spp.*)

Joanna Burr (2014 – 2015, The University of Tampa): Jumping biomechanics of Cuban tree frogs *Osteopilus septentrionalis*

Ryan Harvey (2013, The University of Tampa): Structural mechanics of shark jaws

Bayleigh Benner (2013, The University of Tampa): Feeding biomechanics of deep sea squaliform sharks

Bethany Loya (2012–2014, The University of Tampa): Finite element analysis of shark jaw evolution

Aleksander Simon (2012–2013, The University of Tampa): Functional morphology of billfish respiratory systems; Structural mechanics of shark jaws

Nolan Padilla (2012–2013, The University of Tampa): Biomechanical modeling of shark jaw mineralization patterns.

Amelia Winston (2012, The University of Tampa): Structural mechanics of shark jaws

Jason Gomez (2012, The University of Tampa): Neurocranial ecology of cartilaginous fishes

Janae Johnson (2011, The University of Tampa): Claw biomechanics of the Florida stone crab *Menippe mercenaria*

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- Charlotte Stinson (2010–2012, The University of Tampa): Jaw biomechanics of the Florida gar *Lepisoosteus platyrhincus*; Biomechanics of spinal deformities in captive sandtiger sharks *Carcharias taurus*
- Devon Moore (2010–2011, The University of Tampa): Biomechanics of the elongated rostrum in sawfish and sawsharks
- Nam Siu (2009–2010, The University of Tampa): Claw biomechanics of the Florida stone crab *Menippe mercenaria*
- Kevin Jagnandan (2009–2010, The University of Tampa): Structural and material properties of the jaws of the lemon shark *Negaprion brevirostris*, blacktip shark *Carcharhinus limbatus*, and horn shark *Heterodontus francisci*
- Danielle Noaker (2009–2010, The University of Tampa): Biomechanics of spinal deformities in captive sandtiger sharks *Carcharias taurus*
- Kevin Campbell (2008, The University of Tampa): Feeding biomechanics of deep sea cartilaginous fishes; Theoretical modeling of muscle force for finite element analysis
- Samantha Flint (2007–2008, The University of Tampa): Feeding biomechanics and functional morphology of the cownose ray *Rhinoptera bonasus*
- Matthew Kolmann (2007–2008, The University of Tampa): Scaling of feeding biomechanics in the horn shark *Heterodontus francisci*: ontogenetic constraints on feeding ecology
- Christina Weggelaar (2004–2006, University of South Florida): Scaling of feeding biomechanics in the blacktip shark *Carcharhinus limbatus*

### GRADUATE RESEARCH MENTORING

- Charlotte Stinson (2012–present, University of South Florida): Functional morphology of salamander feeding.
- Amber Ferguson (2012–2014, University of South Florida): Feeding Performance of King Mackerel *Scomberomorus cavalla*
- Nicholas Larghi (2011–2013, University of South Florida): Feeding biomechanics of the hellbender salamander *Cryptobranchus alleganiensis*
- Matthew Kolmann (2009–2012, Florida State University): Feeding biomechanics and functional morphology of the cownose ray *Rhinoptera bonasus*
- Toni Ferrara (2008–2011, University of New South Wales): Finite element modeling of shark feeding mechanisms
- Laura Habegger (2006–2014, The University of South Florida): Scaling of feeding biomechanics in the bull shark *Carcharhinus leucas* and great barracuda *Sphyraena barracuda*; Functional morphology of the billfish feeding mechanism.

### MEDIA CONSULTING

- Daily Planet Television: Shark feeding biomechanics consultant: “Shark Bite” (2007)
- Discovery Channel: Shark feeding biomechanics and behavior consultant: “Animal Face Off: Bull Shark vs. Hippo” (2004), “Animal Face Off: White Shark vs. Crocodile” (2004), “Everything You Need to Know: Sharks” (2005), “Shark Attack: Predator in the Panhandle” (2005), “Shark Rebellion” (2006), “Mythbusters” (2008), “River Monsters” (2009).
- Hillman, B. (2008). How Strong Is It? A Mighty Book About Strength. Scholastic Publishing. New York.
- History Channel: Shark feeding biomechanics and behavior consultant: “Evolve: Jaws” (2008).

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- National Geographic Television: Shark feeding biomechanics and behavior consultant: "Dangerous Encounters/Shark Bite" (2010), "When Sharks Attack: Florida Frenzy" (2013), "When Sharks Attack: Panic in Paradise" (2013), "When Sharks Attack: In Shallow Water" (2015), "When Sharks Attack: Hawaiian Terror" (2015), "When Sharks Attack: Gulf Coast Killers" (2015), "When Sharks Attack: Cape Cod" (2015), "When Sharks Attack: The Carolinas" (2015), "When Sharks Attack: The Bahamas" (2015), "Sea Monsters (2015)".
- Science World Magazine: Physical forces for primary education. In: O'Hanlon, L. (2004). SHARK-BITE Science. *Science World*. 60 (14): 13-15.
- Smithsonian Magazine: Shark feeding biomechanics consultant. In: Kemper, S. (2005). Shark. *Smithsonian Magazine*. 36 (5): 42-51.
- Smithsonian Networks: Shark feeding biomechanics and behavior consultant: "World's Biggest Beasts" (2015).
- United Kingdom Television: Shark feeding biomechanics consultant: "Shark Watch: Live" (2005).
- Weighing and Measurement Magazine: Featured article on the use of engineering equipment in biological research. In: Levine, J. (2005). The force of JAWS. *Weighing and Measurement*. November/December.

### UNIVERSITY SERVICE

- The University of Tampa Faculty Sustainability Committee (2008–present) – Chair (2008–2012)
- The University of Tampa Academic Standards Committee (2007–2008)
- The University of Tampa College of Natural and Health Sciences Tenure and Promotion Committee (2015 – present)
- The University of Tampa Department of Biology Budget Committee (2007–2011, 2014–present); Curriculum, Outcomes, & Planning Committee (2008–2012, 2013–present); General Biology I Lab Coordinator (2009–2011); General Biology II Lab Coordinator (2008–2009, 2011–2012, Fall 2013); Introductory Biology Revision Committee (2008–present); Schedule and Catalog Committee (2014–2015); Summer Research Fellowship Committee (2008–2011, 2014–present, Chair 2014–present); Tenure and Promotion Committee (2013–present, Chair 2013); Website Committee (2006–2012)
- The University of Tampa Focus UT – faculty advisor (2011–2013)
- The University of Tampa Beta Beta Beta National Biological Honor Society – faculty advisor (2009-2012)
- The University of Tampa Environmental Protection Coalition – faculty advisor (2007–2012)
- The University of Tampa Theta Chi Fraternity – faculty advisor (2007–2012)

### PROFESSIONAL ORGANIZATIONS & ACTIVITIES

- American Elasmobranch Society, (1999–present); Grant Committee (2012–present), Student Affairs Council Chairman (2004–2005), Newsletter Coordinator (2003–2005), Webmaster (2005–2006)
- Florida Aquarium Research and Conservation Committee (2008–2013)
- Society for Integrative and Comparative Biology, (2001–present); Division of Vertebrate Morphology nominating committee (2008–2009)

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Reviewer for Belgian Journal of Zoology, Biological Journal of the Linnean Society, Biology Letters, Comparative Biochemistry and Physiology, Copeia, Functional Ecology, Journal of Applied Ichthyology, Journal of Experimental Biology, Journal of Experimental Zoology, Journal of Fish Biology, Journal of Morphology, Journal of the Royal Society Interface, Journal of Zoo and Aquarium Research, Journal of Zoology, National Science Foundation, Northeastern Naturalist, PeerJ, Zoology