

The University of South Alabama

John F. Valentine Faculty Research Summary January 2022

I. Background

Date and Place of Birth: January 28, 1953 San Diego, California

Graduate Institution: University of Alabama, Ph.D. in Biology, 1989

II. Professional History

1. Professional History at DISL/USA:

<u>From - To</u>	<u>Position</u>	<u>Institution</u>
2021-2022	Board Vice Chair	Mississippi-Alabama Sea Grant
2011-	Executive Director	MESC
2001	Board Member	Gulf of Mexico University Research Collaborative
2011-	Board Member	Mississippi-Alabama Sea Grant Consortium
2011-	Board Member	Mobile Bay National Estuary Program Executive Committee Board Member
2011-	Board Member	Mississippi-Alabama Sea Grant Consortium
2011-	Director Alabama Center of Excellence	MESC
2011-	Committee Member	Weeks Bay National Estuarine Reserve
2008	Chair	DISL University Programs
2008	Professor	U. South Alabama
2008-present	Senior Marine Scientist III	DISL
2008-present	Senior Marine Scientist II	DISL
2001-2007	Associate Professor	U. South Alabama
2001-2007	Senior Marine Research Scientist I	DISL
1994-2000	Assistant Professor	DISL
1994-2001	Technical Advisor for Environmental Studies	U. South Alabama
1990-1995	Adjunct Assistant Professor	US Army Corps of Engineers
1990-1995	Adjunct Assistant Professor	Auburn University
1992-2001	Adjunct Assistant Professor	UAB
1995-2001	Adjunct Assistant Professor	U. Alabama

III. Teaching and Advisement Activities

1. Undergraduate/Graduate Courses taught while at DISL/USA

<u>Course Description</u>	<u>Semester</u>	<u>Credit Hours</u>
Marine Science Seminar	Fall 2010	1
Advanced Marine Ecology	Spring 2009	4
Marine Ecology	Summer 2007	4
Coral Reef Ecology	Summer 2007	4
Advanced Marine Ecology	Spring 2007	4
Field Marine Science	Fall 2006	4
Marine Ecology	Summer 2006	4
Field Marine Science	Fall 2005	4
Marine Ecology	Summer 2005	4
Seminar	Spring 2005	1
Marine Ecology	Summer 2004	4
Advanced Marine Ecology	Spring 2004	2
Marine Ecology	Summer 2003	4
Advanced Marine Ecology	Spring 2003	2
Field Marine Science-Maine	Fall 2002	2
Marine Ecology	Summer 2002	4
Field Marine Science-Finland	Fall 2001	3
Marine Conservation Biology	Summer 2001	4
Advanced Marine Ecology	Spring 2001	3
Marine Conservation Biology	Summer 2000	4

¹Team taught hours; ²Quarter Credit Hours

2. Seminar Speakers Hosted while at DISL

<u>Year</u>	<u>No. Hosted</u>
2007	1
2006	1
2005	1
2004	1
2002	4
2001	1
2000	6
1999	1
1998	1

3. Students for whom I have been the Major Professor

<u>Name</u>	<u>Degree</u>	<u>Status</u>	<u>University</u>
Dorothy Byron	Ph.D.	Ongoing	USA
Ashley McDonald	Ph.D.	Ongoing	USA
Larissa Lee	M.S.	Graduated (2015)	USA
Charles Stapleton	Ph.D.	Graduated (2013)	USA
Shanna Madsen	M.S.	Graduated (2012)	USA
Charles Martin	Ph.D.	Graduated (2010)	USA
Riika Puntilla	M.S.	Graduated (2010)	USA
LaTina Steele	Ph.D.	Graduated (2010)	USA

Nathan Lemoine	M.S.	Graduated (2010)	USA
Derrick Blackmon	Ph.D.	Graduated (2005)	USA
Ryan Kroutil	M.S.	Graduated (2005)	USA
Fennel Blythe ¹	M.S.	Graduated (2003)	USA
Julie Christian	M.S.	Graduated (2003)	USA
Geremea Fioravanti	M.S.	Graduated (2003)	USA
Leslie Baggett	M.S.	Graduated (2002)	UAT
Theresa Berrell	M.S.	Graduated (2002)	USA
Glen Chaplin	M.S.	Graduated (2001)	USA
Kevin Kirsch	M.S.	Graduated (1999)	USA

¹ Co-chair with Dr. T. Sherman.

4. Students Committees on which I have served other than as Major Professor

<u>Name</u>	<u>Degree</u>	<u>Status</u>	<u>University</u>	<u>Advisor</u>
Reid Nelson	Ph.D.	Graduated (2019)	USA	Powers
Emily Seubert	M.S.	Graduated (2019)	USA	Drymon
Alex Rodriguez	M.S.	Graduated (2019)	USA	Heck
Roberta Challenger	Ph.D.	Graduated (2013)	UAB	McClintock
Tony Marshak	Ph.D.	Graduated (2015)	USA	Heck
Joe Myers	M.S.	Graduated (2012)	USA	Heck
Anthony Vedral	M.S.	Graduated (2012)	UAT	Mortazavi
Matt Ajemian	Ph.D.	Graduated (2011)	USA	Powers
Karen Fisher	M.S.	Graduated (2011)	USA	Heck
Rebecca Gericke	M.S.	Graduated (2011)	USA	Heck
Glenn Miller	Ph.D.	Graduated (2011)	USA	Powers
Nancy Hilbun	Ph.D.	Graduated (2009)	USA	Aronson
Ryan Moody	Ph.D.	Graduated (2009)	USA	Aronson
Mairi Miller	M.S.	Graduated (2008)	USA	Graham
Kelly McKay	M.S.	Graduated (2008)	USA	Heck
Thaddeus Murdoch	Ph.D.	Graduated (2007)	USA	Aronson
Deborah Schaefer	Ph.D.	Graduated (2007)	USA	Sherman
Jason Stutes	Ph.D.	Graduated (2007)	USA	Cebriän
Yusheng Huang	Ph.D.	Graduated (2006)	UAB	McClintock
Matthew Johnson	Ph.D.	Graduated (2006)	USA	Heck
Brad Furman	M.S.	Graduated (2006)	USA	Heck
Jered Jackson	M.S.	Graduated (2004)	USA	Cowan
Julie Prerost	M.S.	Graduated (2004)	USA	Aronson
Margene Goecker	M.S.	Graduated (2003)	USA	Heck
Cheryl Wapnick	M.S.	Graduated (2003)	USA	Aronson
Stacey Harter	M.S.	Graduated (2002)	USA	Heck
Leslie Gallagher	M.S.	Graduated (2001)	USA	Heck
George Kroll	Ph.D.	Graduated (2001)	UAB	McClintock
Chris Thoman	M.S.	Graduated (2000)	USA	Aronson
Jason Stutes	M.S.	Graduated (2000)	USA	Heck
Paul Bologna	Ph.D.	Graduated (1998)	USA	Heck
Katherine Canter	M.S.	Graduated (1998)	USA	Heck
Jennifer Harrison	M.S.	Graduated (1998)	UAT	Hopkins
Patricia Spitzer	M.S.	Graduated (1998)	USA	Heck
Brad Peterson	Ph.D.	Graduated (1998)	USA	Heck
Kirsten Walker	M.S.	Graduated (1998)	USA	Heck
Mike Chadwick	M.S.	Graduated (1997)	AU	Feminella
Claire Williams	M.S.	Graduated (1996)	UAB	McClintock
Barbara Gibbs	M.S.	Graduated (1994)	USA	Heck
Susan Sklenar	M.S.	Graduated (1994)	USA	Heck

3. Undergraduate Directed Studies

<u>Name</u>	<u>Year</u>	<u>Home University</u>	<u>Topic</u>
Chris Cacciapaglia	2011	Florida Institute of Technology	Impacts of lost biodiversity on food web interactions
Laura Ellis	2010	University of Tennessee	Facilitation in predator-prey interactions
Kristin Gloecker	2010	Syracuse University	Impacts of food quality on cannibalism in omnivorous amphipods
Steven Canter	2006	University of Alabama at Huntsville	Predator-prey interactions in Mobile Delta SAV
Megan Cooke	2006	Salem College	Indirect effects of a common predator in seagrass herbivory
Joseph Tyson	2006	University of Alabama at Birmingham	Palatability tests of Mobile Delta SAV
Gretchen Goodrich	2005	University of Virginia	Effects of grazing on production of chemical defenses turtlegrass meadows
Kristin Dormsjo	2004	Florida State University	Effects of herbivory on seagrass demography
Bradley Klement	2002	Eckerd College	Effects of predator community structure on seagrass invertebrate survivorship
Maurice Lightbourne	2001	University of North Alabama	Seagrass grazers facilitate feeding by seagrass omnivores
Dawn Reding	2000	University of Dubuque	Seagrass grazers facilitate feeding by seagrass omnivores
Bryan McCloskey	1999	U. Kansas	Ophiuroids as ecosystem engineers
Leslie Bibb	1999	Birmingham Southern	Bedload transport of invertebrates
Gustavo Rubio	1999	U. Mobile	Environmentally induced variability in amphipod morphology
Sarah Jolly	1997	Earlham College	Herbivory on oyster reef algal communities
Jason Adams	1995	Jacksonville State University	Blue crab foraging

4. Professional Technicians

<u>Name</u>	<u>Dates</u>
Scott Alford	2016-2018
Katy Blankenhorn	2005-2011
Margene Goecker	2003-2004
Susan Sklenar	2003-2008

5. Postdoctoral Associates

<u>Name</u>	<u>Dates</u>
Derrick Blackmon	2006-2007
Charles Martin	2010-2012
Latina Steele	2010-2012

III. Research Interests, Bibliography and Creative Achievement

1. Research Interests

My research interests focus on the role of biotic processes in controlling the flow of energy among trophic levels in marine habitats, in general, and the structuring of seagrass food webs more specifically. Of special interest is the application of quantitative techniques to describe the structure and productivity of coastal food webs. Emerging areas of interest include the degree to which overfishing and the introduction of exotic species have altered the strength of interactions within marine food webs.

2. Refereed Publications

Martin, C.W., A. M. McDonald, J.F. Valentine., B. Roberts. (2023) Towards relevant ecological experiments and assessments of coastal oil spill effects: Insights from the 2010 Deepwater Horizon oil spill. *Frontiers in Environmental Science*. 10:2665.

Blackmon, D., J.F. Valentine. (2022) Predation induced benthic diel vertical migration along the seagrass-coral reef interface. *Biodiversity* 149-762

Martin, C., J.F. Valentine. (2022) Climate-Induced Changes in Consumer Expansions in Seagrass Ecosystems: Lessons from Invasion Ecology. *Frontiers in Marine Science*

Zerebecki, R.A., K.L. Heck, Jr., J.F. Valentine (2022) Biodiversity influences the effects of oil disturbance on coastal resources. *Ecology and Evolution* 12 (1):
<https://doi.org/10.1002/ece3.8532>

Lewis, K.A., Christian, R. C., Martin, C.W., *Allen, K., McDonald, A.M., *Roberts, V., *Shaffer, M., Valentine, J.F.. (2022) Complexities of disturbance response in a marine food web. *Limnology & Oceanography: Special Issue: Nonlinear dynamics, resilience, and regime shifts in aquatic communities and ecosystems*. 67 S352 – S364.

Weisenberg, D.A., Shipp, J.Fodrie, S.Powers, J. Lartigue, K.M. Darnell, M.M. Baustian, C.Ngo, J. F. Valentine, K.Wowk (2021). Prospects for Gulf of Mexico environmental recovery and restoration. *Oceanography* 34:165-173

Lewis K.A, R.R. Christian, C.W. Martin, K.L. Allen, A.M. McDonald, V.M. Roberts, M.N. Shaffer, J.F.Valentine (2021) Complexities of disturbance response in a marine food web. *Limnology and Oceanography* 9999: 1-13

Valentine, J.F., K. L. Heck, Jr. (2021) Herbivory in seagrass meadows: an evolving paradigm. *Estuaries* <https://doi.org/10.1007/s12237-020-00849-3>

Martin, C.W., K. A. Lewis, A. M. McDonald, T.K. Spearman, R.C. Christian, J.F. Valentine. (2020) Disturbance-driven changes to northern Gulf of Mexico nekton communities following the Deepwater Horizon oil spill: Evidence for the need for expanded coastal monitoring systems. *Marine Pollution Bulletin*. 155:111098

Stapleton, C.A. D. W. Haywick, M. L. Julius, L. Novoveská, J. F. Valentine (2020) How anthropogenic activities impacted Polecat Bay near Mobile, Alabama, USA: a paleoecological study and forensic investigation. *Environmental Forensics* DOI: 10.1080/15275922.2020.1836073

- Martin, C. W., J.F. Valentine. (2019). Does invasion of Eurasian milfoil *Myriophyllum spicatum* lead to a “trophic dead end” and reduced food web complexity in Gulf of Mexico estuarine food webs?. *Frontiers in Environmental Science* 7:166.
- Seubert E.A., N. Hussey, S.P. Powers, J.F. Valentine, J.M. Drymon. (2019). Assessing trophic flexibility of a predator assemblage across a large estuarine seascape using blood plasma stable isotope analysis. *Food Webs* (21). DOI: 10.1016/j.fooweb.2019.e00132
- Kauffman, T.C., C.W. Martin, J.F. Valentine. (2018). Hydrological alteration exacerbates the negative impacts of invasive Eurasian milfoil *Myriophyllum spicatum* by creating hypoxic conditions in a northern Gulf of Mexico estuary. *Marine Ecology Progress Series*. 592: 97-108.
- Bearden, B., J. Valentine, P. O’Neil, S. Jones. (2016). Emerging Water Policy Issues in Coastal Alabama. *Wave* 37: 15-23.
- Martin, C. W, J.F. Valentine, J.J. Dindo, S.B. Scyphers, T.C. Kauffman. (2016). Preliminary analysis of the effects of the Macondo Oil Spill on coastal diving ducks in the northern Gulf of Mexico. *Journal of Applied Life Sciences International* 8: 1-9
- Steele, L., J. Valentine. (2015). Seagrass deterrence to mesograzher herbivory: evidence from mesocosm experiments and feeding preference trials. *Marine Ecology Progress Series*. 524: 83-94.
- Martin, C.W., J.F. Valentine. (2014). Tolerance of Embryos and Hatchlings of the Invasive Apple Snail *Pomacea maculata* to Estuarine Conditions. *Aquatic Ecology* 48: 321-326.
- Martin, C.W., J.F. Valentine. (2014). Sexual and asexual reproductive strategies of invasive eurasian milfoil (*Myriophyllum spicatum*) in estuarine environments. *Hydrobiologia*. 727: 177-184.
- Blackmon, D., J.F. Valentine. (2013). Recurring nocturnal benthic emergence along the coral reef-seagrass interface in the Florida Keys National Marine Sanctuary: evidence of a possible novel prey escape response. *Journal of Experimental Marine Biology and Ecology*. 448: 220-227.
- Peterson, B.J., J.F. Valentine K.L. Heck, Jr. (2013). The Snapper-Grunt pump: habitat modification and facilitation of the associated benthic plant communities by reef resident fish. *Journal of Experimental Marine Biology and Ecology*. 441: 50-54.
- Rozas, L.P., C.W. Martin, J.F. Valentine. (2013). Effects of reduced hydrological connectivity on the nursery function of shallow estuarine habitats within a river delta. *Marine Ecology Progress Series*. 492: 9-20.
- Shepard, A., J.F. Valentine, C. F. D’Elia, D.W. Yoskowitz, D. E. Dismukes. (2013). Economic impact of Gulf of Mexico: integrating ecosystem service values into restoration decision-making. *Gulf of Mexico Science*. 31: 10-27
- Martin, C.W., K.M. Baya, J.F. Valentine. (2012). Establishment of the invasive island apple snail *Pomacea insularum* (Gastropoda: Ampullaridae) and eradication efforts in Mobile, Alabama, USA. *Gulf of Mexico Science*. 30: 30-38.
- Puntilla, R.I., C.W. Martin, J.F. Valentine. (2012). Measuring predation with a new design of submersible chronographic timer. *Bulletin of Marine Science* 88: 1115-1122.
- Steele, L., J.F. Valentine. (2012). Idiosyncratic responses of seagrass phenolic production following sea urchin grazing. *Marine Ecology Progress Series*. 466:81-92.

- Lemoine, N.P., J.F. Valentine. (2012). Structurally complex habitats provided by *Acropora palmata* influence ecosystem processes on a reef in the Florida Keys National Marine Sanctuary. *Coral Reefs*. 31: 779-786
- Martin, C.W. J.F. Valentine. (2012). Eurasian milfoil invasion in Mobile Bay, Alabama: Evidence that disturbance can reduce the proliferation of an aquatic nuisance species. *Marine Ecology Progress Series*. 449:109-119.
- Hayworth, J.S., T.P. Clement, J.F. Valentine. (2011). Deepwater Horizon oil spill impacts on Alabama beaches. *Hydrology and Earth System Sciences*.15::3639-3649.
- Valentine, J.F. (2011). Gulf of Mexico, Origin, Waters, and Biota. *The Quarterly Review of Biology*. 86: 1-1
- Martin, C.M., J.F. Valentine. (2011). Impacts of a habitat-forming exotic species on estuarine structure and function: an experimental assessment of eurasian milfoil. *Estuaries and Coasts*. 34: 364-372.
- Martin, C.M., M. Valentine, J.F. Valentine. (2010). Competitive interactions between invasive Nile Tilapia and native fish: the potential for altered trophic exchange and modification of food webs. *PLoS ONE*. 5:1-6
- Chaplin, G., J.F. Valentine. (2009). Secondary production of macroinvertebrates in the tidal influenced Mobile Bay Delta. *Estuaries and Coasts*. 32:319-332
- Goecker, M., J.F. Valentine, S. S. Sklenar, G. Chaplin. (2009). Influence from hydrological modification on energy and nutrient transference in a deltaic food web. *Estuaries and Coasts*. 32: 173-187.
- Valentine J.F., K.L. Heck, Jr., D. Blackmon, B. J. Peterson, M. E. Goecker, J. Christian, R.M. Kroutil, M. A. Vanderklift, Kevin. D. Kirsch, M. Beck. (2008). Exploited species impacts on trophic linkages along reef-seagrass interfaces in the Florida Keys. *Ecological Applications* 18: 1501-1515.
- Park, K., J. F. Valentine, S., K. R. Weis, M. R. Dardeau. (2007). Effects of Hurricane Ivan on Mobile Bay, Alabama. *Journal of Coastal Research*. 23: 1332-1336.
- Heck, K.L., J.F. Valentine. (2007). The primacy of consumers in benthic ecosystems of the coastal zone. *Estuaries and Coasts*. 30: 371-381
- Vanderklift, M.A., J. How, T. Wernberg, L.D. MacArthur, K.L. Heck, Jr., J.F. Valentine. (2007). Proximity to reef influences the density of small predatory fishes while type of seagrass influences intensity of predation on crabs. *Marine Ecology Progress Series*. 340: 235-243.
- Fioravanti, G., J. F. Valentine. (2007). Impacts of reef architecture and fishing on food webs in back reef environments of the upper Florida Keys national marine sanctuary. *Florida Scientist*. 70: 120-136.
- Valentine, J.F., K.L.Heck, Jr., D.Blackmon, M.E.Goecker, J. Christian, R.M. Kroutil, K.D. Kirsch, B.J. Peterson, M. Beck, M.A.Vanderklift. (2007). Food web interactions along seagrass-coral reef boundaries: An experimental test of the impacts of piscivore reductions on cross-habitat energy exchange using the marine protected areas of the Florida Keys National Marine Sanctuary *Marine Ecology Progress Series*. 333: 37-50.
- Goecker, M., J.F. Valentine, S.Sklenar. (2006). Effects of exotic submerged aquatic vegetation on waterfowl in the Mobile-Tensaw Delta. *Gulf of Mexico Science*. 2006: 68-80.

- Heck, K.L., and J.F. Valentine. (2006). Plant - Herbivore interactions in seagrass meadows. *Journal of Experimental Marine Biology and Ecology*. 330: 420-436.
- Heck, K.L., J.F. Valentine, J.R. Pennock, G. Chaplin, P.M. Spitzer. (2006). How herbivores can mediate the effects of nutrient enrichment on seagrass meadows: unexpected results of a field experiment. *Marine Ecology Progress Series*. 326: 145-156.
- Valentine, J. F., K. L. Heck, Jr. (2005). Interaction strength at the coral reef-seagrass interface: has overfishing diminished the importance of seagrass habitat production for coral reef food webs? *Coral Reefs*. 24: 209–213.
- Goecker, M.E., K.L. Heck, Jr., J.F. Valentine. (2005). Effects of nitrogen content in turtlegrass, *Thalassia testudinum*, on consumption by the bucktooth parrotfish, *Sparisoma radians*. *Marine Ecology Progress Series*. 286: 239-248.
- Valentine, J. F., E.F., Blythe, S. Madhavan, T. Sherman. (2004). Turtlegrass responses (*Thalassia testudinum*) to leaf defoliation in a subtropical seagrass meadow: field tests of the impact of simulated herbivory on seagrass nitrogen assimilation and translocation. *Aquatic Botany*. 79: 235-255.
- Spitzer, P., K.L. Heck, J.F. Valentine. (2003). Then and Now: a comparison of Blue Crab Research During the Early and Late 1990's in the Mobile Bay System. *Bulletin of Marine Science* 72: 435-452.
- Valentine, J.F., K.L. Heck Jr., A.M. Cinkovich. (2003). Impacts of seagrass food webs on marine ecosystems: a need for a broader perspective. *Bulletin of Marine Science*. 71: 1361–1368.
- Kirsch, K. D., J. F. Valentine, K. L. Heck Jr. (2002). Seagrass consumption by herbivorous fish: an underestimated trophic pathway in Florida Keys national marine sanctuary. *Marine Ecology Progress Series*. 227: 71-85.
- Aronson, R.B., K. L. Heck Jr., J. F. Valentine. (2001). Measuring predation with tethering experiments. *Marine Ecology Progress Series*. 214: 311-312.
- Valentine, J. F., K. L. Heck, Jr. (2001). The role of leaf nitrogen content in determining turtlegrass (*Thalassia testudinum*) grazing: field and laboratory tests with a generalized herbivore. *Journal of Experimental Marine Biology and Ecology*. 258: 65-86.
- Heck, K.L. Jr., J. R. Pennock, J. F. Valentine, L. D. Coen, S. A. Sklenar. (2000). Effects of nutrient enrichment and overfishing on seagrass ecosystems: an experimental assessment. *Biologia Marina Mediterranea*. 7: 220-222
- Heck, K. L., J. R. Pennock, J. F. Valentine, L. D. Coen, S. Sklenar. (2000). Effects of nutrient enrichment and large predator removal on seagrass nursery habitats: an experimental assessment. *Limnology and Oceanography* 45: 1041-1057.
- Valentine J.F., K.L. Heck, Jr., K.D. Kirsch. (2000). The importance of the grazing pathway in seagrass food webs: a changing paradigm. *Biologia Marina Mediterranea*. 7: 290-293
- Valentine, J. F., K. L. Heck, Jr, K. D. Kirsch, D. Webb. (2000). Seagrass herbivory in the turtlegrass habitats of the Florida Keys. *Marine Ecology Progress Series*. 200: 213-228.
- Rose, C. D., W. S. Sharp, W. J. Kenworthy, J. H. Hunt, W. G. Lyons, E. J. Prager, J. F. Valentine, M. O. Hall, P. Whitfield, J. W. Fourqurean. (1999). Overgrazing of a large seagrass bed by the sea urchin *Lytechinus variegatus* in outer Florida Bay. *Marine Ecology Progress Series* 190: 211-222.

Mattila, J., G. Chaplin, M. R. Eilers, K. L. Heck, Jr., J. P. O'Neal, J. F. Valentine. (1999). Spatial and diurnal distribution of invertebrate and fish fauna of a *Zostera marina* bed and nearby unvegetated sediments in Damariscotta River, Maine (USA). *Netherlands Journal Sea Research* 41:321-332.

Valentine, J. F., K. L. Heck, Jr. (1999). Seagrass herbivory: evidence for the continued grazing of marine grasses. *Marine Ecology Progress Series* 176:291-302.

Valentine, J. F., K. L. Heck, Jr., J. Busby, D. Webb. (1997). Experimental evidence that herbivory increases shoot density and productivity in a subtropical turtlegrass (*Thalassia testudinum*) meadow. *Oecologia* 112:193-200.

Heck, K. L., Jr., J. F. Valentine. (1995). Sea urchin herbivory and seagrasses. *Journal of Experimental Marine Biology and Ecology* 189:205-217.

Valentine, J. F., K. L. Heck, Jr., P. Harper, M. Beck. (1994). An experimental examination of the role of bioturbation in the maintenance of seagrass sand flat patch mosaics. *Journal of Experimental Marine Biology and Ecology* 178:181-192.

Valentine, J. F. and K. L. Heck, Jr. (1993). Mussels in seagrass meadows: their influence on macroinvertebrate abundance, and production and macrophyte biomass in the northern Gulf of Mexico. *Marine Ecology Progress Series* 96:63-74.

Valentine, J. F. and K. L. Heck, Jr. (1991). The role of sea urchin grazing in regulating seagrass meadow size. *Journal of Experimental Marine Biology and Ecology* 154:215-230.

Valentine, J. F. (1991). Reproductive periodicity of the ophiuroids *Microphiopholis atra* (Stimpson, 1852) and *Hemipholis elongata* (Say, 1825) (Echinodermata: Ophiuroidea) in eastern Mississippi Sound. *Ophelia* 33:121-129.

Valentine, J. F. (1991). Temporal variation in populations of the brittlestars, *Hemipholis elongata* (Say, 1925) and *Microphiopholis atra* (Stimpson, 1852) (Echinodermata: Ophiuroidea) in eastern Mississippi Sound. *Bulletin of Marine Science* 48:597-605.

Hopkins, T. S., J. F. Valentine, J. B. McClintock, K. Marion S. A. Watts. (1991). Community patterns of echinoderms associated with substrate and depth in the northern Gulf of Mexico. Pages: 231-238. In: Biology of Echinodermata. Yanagisawa, Yasumasu, Oguro, and Motokawa (eds). Proceedings of the Sixth International Echinoderm Conference.

Valentine, J. F. G. D. Goeke. (1983). The first reported occurrence of *Holothuria lentigenosa enodis* in the northern Gulf of Mexico. *Northeast Gulf Science* 6:155.

Pawson, D. L. J. F. Valentine. (1980). *Psolidium prostratum*, new species, from the east coast of the U.S.A. (Echinodermata: Holothuroidea). *Proceedings of the Biological Society of Washington* 94:450-454.

3. Manuscripts Submitted for review

None currently in review

4. Manuscripts in Preparation (Titles tentative, Data in Hand)

Valentine, J.F., C. Martin, and S. Alford. Impacts of variation in density and species richness on prey assemblage structure in a northcentral Gulf of Mexico trophic compartment.

Valentine, J.F., C. Martin, and S. Alford. Impacts of the Deepwater Horizon oil spill on food web function: does biodiversity lead to resiliency

Valentine, J.F., C. Martin, and S. Alford. Does loss of habitat diversity lead to loss of food web function

Valentine J.F. D.David and K.Heck. Macroinvertebrate production in the disturbed vegetated habitats in the northcentral Gulf of Mexico.

Sura, S. K.Heck, D. David, and J.F.Valentine. Does distance from source beds determine recovery rates of seagrass restoration in the northern Gulf of Mexico?

5. Book Contributions

Lewis, K.A., R. C Christian., C.W.Martin, A,M McDonald, J.F.Valentine, (2024) Ecosystem response to anthropogenic disturbances in the coastal zone. Treatise on Estuarine and Coastal Science- Second Edition. Elsevier. 2nd Edition

Valentine, J.F., K.L. Heck, Jr., M.R. Dardeau, H. Burch. (2013). Ecosystem-based management of Mobile Bay, Alabama. Pp 71-92 In J.W. Day and A. Yanez-Arancibia (eds.). Gulf of Mexico Origin, Waters, and Biota - Volume 4, Ecosystem-Based Management. Texas A&M University Press, College Station. 460pp

Valentine, J. F. and J. Emmett Duffy. (2006). The central role of grazing in seagrass ecology. Pages: 463-501 In: "Seagrass: Biology, Ecology and their Conservation" T. Larkum, R. Orth and C. Duarte (eds.) Springer

Hopkins, T.S., J. F Valentine, J.B McClintock, K. Marion, S.A Watts. (2020). Community patterns of echinoderms associated with substrate and depth in the northern Gulf of Mexico. Biology of Echinodermata: 231-239

6. Technical Reports

Valentine, J.F., D. DeVries, P. Srivastava. R. Wright, C. Blankenship. (2016). Appendix E. Instream flows for the Mobile-Tensaw River Delta, and Mobile Bay Estuary. In: A report by the Instream Flow Focus Area Panel of the Alabama Water Agencies Working Group. 139 pages/

Valentine, J. F., K.D. Kirsch, D.C. Blackmon. (2006). An analysis of the long-term fisheries assessment and monitoring program data set collected by the Marine Resources Division of the Alabama Department of Conservation and Natural Resources. Final Report to the Mobile Bay National Estuary Program 17 pages.

Valentine, J. F., S. Sklenar. (2006). Mobile – Tensaw Delta hydrological modifications impact study. A final report. Mobile Bay Keepers and Mobile Bay National Estuary Program. 176 pages.

Valentine, J. F., S. Sklenar. (2005). Assessment of sediment contamination in the Lower Mobile-Tensaw Delta (*Rangia* Study). Final Report to the Mobile Bay National Estuary Program. 38 pages.

Valentine, J. F., S. Sklenar, M. Goecker. (2004). Mobile – Tensaw Delta hydrological modifications impact study. Final Report to the Mobile Bay National Estuary Program. 139 pages.

Valentine, J. F. K. Kirsch. (1999). The role of sea urchin grazing and predation in regulating subtropical turtlegrass meadow size: evidence from field manipulations in the Florida Keys. A report to the National Park Service and U.S. Environmental Protection Agency. 47 Pages.

Stout J., J. F. Valentine and K. Heck, Jr. (1998). Characterization of habitat loss: Soft sediment habitats within the Mobile Bay estuary. A report to the habitat loss committee of the Mobile Bay NEP. 179 Pages¹.

Hutchings, T., C. Bolling, J. Carlton, M. Dardeau, D. Dealy, M. Graham, S. Heath, K. Summers, J.F. Valentine and B. Vittor. (1998). A comprehensive monitoring strategy for monitoring Alabama coastal waters. A report to the Mobile Bay National Estuary Program. 25 pages.

Valentine, J.F., T. Lynn. (1996). Pollution: The human role past and present, pages 75-80m In: Miller-Way T., M. Dardeau, and G. Crozier (eds). Weeks Bay National Estuarine Research Reserve: An estuarine profile and bibliography. Dauphin Island Sea Lab Technical Report 96-01.

Valentine, J.F., M. Dardeau, M. Zolkewitz, G. Crozier. (1995). An environmental assessment of the health of Mobile Bay Using benthic infaunal organisms: A Report to the Gulf Coast Industrial Environmental Forum. 37 pages plus appendices.

U.S. Army Corps of Engineers. (1993). Regional Implementation Manual: Requirements and procedures for evaluation of the ocean disposal of dredged materials in southeastern and Gulf of Mexico waters. U.S. Army Corps of Engineers South Atlantic Division. 57 pages plus appendices.

Hopkins, T. S., J. F. Valentine, L. L. Lutz. (1990). An illustrated guide with key to the selected benthic invertebrate fauna of the northern Gulf of Mexico. MASGP-87-10, 250pp. including 59 line drawing plates.

7. Published Abstracts

Valentine, J.F., K. L. Heck, Jr. (2020). Alabama's Center of Excellence: ready for kick-off. GOMOSSES, Tampa, FL

Zerebecki, R.A., K. L. Heck, Jr., and J. Valentine. (2020). The role of biodiversity on the resistance of coastal ecosystems to oil disturbance. GOMOSSES. Tampa FL

Martin, C., K. Able, R. Christian, F. Fodrie, O. Jensen, K. Lewis, P. Lopez-Duarte, A. McDonald, K. Oken, J. Olin, B. Roberts, and J. Valentine. (2019). Nine years after Deepwater Horizon, what have we learned about nearshore fishes? Coastal Estuarine Research Federation Meeting, Mobile, AL

Seubert, E.A., J. Valentine, S.P. Powers, N. Hussey, and J.M. Drymon. (2019) Not So Stable: Investigating the trophic flexibility of predatory species using stable isotope analysis. July 2019. Annual meeting of the American Elasmobranch Society. Snowbird, UT

Martin, C. W., J.F. Valentine. (2018). Invasive Eurasian milfoil (*Myriophyllum spicatum*) in northern Gulf of Mexico estuaries: reviewing a decade of research on invasion dynamics and food web effects. Benthic Ecology Meeting, Corpus Christi, TX

Seubert, E.A., J. Valentine, S.P. Powers, J.M. Drymon. (2018). Evaluating trophic diversity in a northcentral Gulf of Mexico elasmobranch assemblage. Mississippi-Alabama Sea Grant Consortium Bays and Bayous Symposium. Mobile, AL.

Seubert E.A., J. Valentine, J.M. Drymon. (2018). Trophic niche variability of an elasmobranch assemblage revealed through stable isotope analysis. June 2018. Sharks International. João Pessoa, Brazil.

Alford, S., D. Valdez, J. Valentine, C. Martin. (2017) Effects of oil exposure on predator-prey interactions in northern Gulf of Mexico nekton. GOMOSSES, New Orleans, LA.

- Martin, C.W. J.F. Valentine, S. Alford, T. Spearman. (2017). Long-term Dataset Indicates Heterogeneous Impacts of Multiple Stressors on Nekton in the Northern Gulf of Mexico. GOMOSEs New Orleans, LA
- Valentine, J.F., C. Martin, S. Alford (2017). Impacts of Multiple Predators on Prey Assemblages in the northern Gulf of Mexico: a mesocosm test using additive and substitutive designs GOMOSEs New Orleans, LA
- Seubert E.A., J. Valentine, J.M. Drymon. (2017). Evaluating ecosystem resiliency through catch data and stable isotope analysis of common elasmobranchs across the northern Gulf of Mexico. Annual meeting of the American Elasmobranch Society. Austin, TX.
- Seubert E.A., J.M. Drymon, J. Valentine. (2017). Species and functional diversity of apex and mesopredators in the northern Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science conference. New Orleans, LA.
- Seubert E.A., J.M. Drymon, J. Valentine. (2017). Species and functional diversity of apex and mesopredators in the northern Gulf of Mexico. Mississippi-Alabama Sea Grant Consortium Bays and Bayous Symposium. Biloxi, MS.
- Seubert E.A., J.M. Drymon, J. Valentine. (2016). Species and functional diversity of apex and mesopredators in the northern Gulf of Mexico. Annual Meeting of the American Elasmobranch Society. New Orleans, LA.
- Martin, C. W., J.F. Valentine. (2018). Invasive Eurasian milfoil (*Myriophyllum spicatum*) in northern Gulf of Mexico estuaries: reviewing a decade of research on invasion dynamics and food web effects. Benthic Ecology Meetings. Corpus Christi, Tx.
- Valentine, J.F., C.W. Martin, S.B. Alford. (2018). Impacts of multiple predator effects on prey assemblages in the northern Gulf of Mexico: a mesocosm test using additive and substitutive designs. GoMOSES New Orleans., LA.
- Martin, C.W., J.F. Valentine. (2017). Invasive Eurasian milfoil (*Myriophyllum spicatum*) in estuaries: consequences for coastal food webs and fisheries. Coastal Estuaries Research Federation.
- Seubert, E.A., J.M. Drymon, J.F. Valentine. (2017). Species and functional diversity of apex and mesopredators in the Northern Gulf of Mexico. American Elasmobranch Society Conference/ Joint Meeting of Ichthyologists and Herpetologists, New Orleans LA.
- Seubert, E.A., J. Valentine, J.M. Drymon. (2017). Evaluating ecosystem resiliency through stable isotope analysis of common elasmobranchs across the northern Gulf of Mexico. American Elasmobranch Society
- Valentine, J.F. (2017). Importance of maintaining natural levels of freshwater inflow into Alabama's coastal waters. Water Policy Summit, National Water Center, Tuscaloosa, AL. 2017.
- Valentine, J. F., C.W. Martin, S.B. Alford (2017). Impacts of multiple predator effects on prey assemblages in the northern Gulf of Mexico: a mesocosm test using additive and substitutive designs. Benthic Ecology Meeting, Myrtle Beach, SC. 2017.
- Alford, S. B., J. F. Valentine, C.W. Martin. (2017). Small scale effects of oil exposure on food webs in the Gulf of Mexico. Benthic Ecology Meeting. Myrtle Beach SC.
- Alford, S.; D.R. Valdez, J.F. Valentine, C.W. Martin. (2017). Effects of oil exposure on predator-prey Interactions in northern Gulf of Mexico Nekton. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA.

- Martin, C.W.; J.F. Valentine, J.F., S. Alford, T. Spearman, T. (2017). Analysis of long-term datasets indicates heterogeneous impacts resulting from the Deepwater Horizon accident on nekton in the northern Gulf of Mexico. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA.
- Seubert, E.A., J.M. Drymon, J.F. Valentine. (2017). Species and functional diversity of apex and mesopredators in the Northern Gulf of Mexico. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA.
- Valentine, J.F.; Martin, C.W., Drymon, M., Spearman, T., Powers, S.P. (2016). Analysis of long-term datasets indicates heterogeneous impacts resulting from the DwH accident on nekton in the northcentral Gulf of Mexico. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Tampa FL.
- Valentine, J.F., Martin, C.W., Drymon, M., Spearman, T., Powers, S.P. (2016). Analysis of long-term datasets indicates heterogeneous impacts resulting from the DwH accident on nekton in the northcentral Gulf of Mexico. Benthic Ecology Meeting, Portland, ME.
- Martin, C.W. and J.F. Valentine. (2013). Sexual and asexual reproductive strategies of Eurasian milfoil in estuaries. Benthic Ecology Meeting, Savannah, GA. March 20-24, 2013.
- Martin, C.W., J.F. Valentine. (2011) Apple snail invasion of the Mobile-Tensaw Delta: a risk assessment. Benthic Ecology Meeting, Mobile, AL March 16-20, (2011; and Benthic Ecology Meeting, Norfolk, VA. March 21-24, 2012.
- Martin, C.W., S.L. Madsen, J.F. Valentine. (2011) Changes to coastal fish communities following Deepwater Horizon oil spill. Poster presentation presented at: Northern Gulf Institute Annual Meeting (Mobile, AL) May 17-19, 2011; Benthic Ecology Meeting (Mobile, AL) March 16-20, 2011; and Mississippi-Alabama Bays and Bayous Symposium (Mobile, AL) Dec 1-2, 2010.
- Martin, C.W., J.F. Valentine. (2013) Sexual and asexual reproductive strategies of Eurasian milfoil in estuaries. Benthic Ecology Meeting, Savannah, GA. March 20-24, 2013.
- Martin, C.W., J.F. Valentine, J.J. Dindo, S.K. Scyphers, T.C. Kauffman. (2013) Polycyclic aromatic hydrocarbon accumulation in coastal Alabama waterfowl after the Deepwater Horizon Oil Spill. ASLO (February 16-22, 2013) and GOMRI (January 18-24, 2013) meetings, New Orleans, LA.
- Martin, C.W., J.F. Valentine. (2013). Sexual and asexual reproductive strategies of Eurasian Milfoil in estuarine environments. Benthic Ecology Meeting, Savannah, GA.
- Rozas L.P., J.F. Valentine, C. Martin, L. Steele. (2011). Use of shallow estuarine habitats by nekton in the Mobile-Tensaw River Delta, Alabama. NGI (Northern Gulf Institute) Meeting. Mobile, AL
- Martin, C.W., M.M. Valentine, J.F. Valentine. (2009 & 2010) Impacts of invasive Nile Tilapia (*Oreochromis niloticus*) on estuarine food webs. Benthic Ecology Meeting, Corpus Christi, TX. March 4-7, 2009, and Benthic Ecology Meeting, Wilmington, NC. March 10-13, 2010.
- Martin, C.W., J.F. Valentine, K. Blankenhorn, S.A. Sklenar. (2008). The invasion of Eurasian milfoil in Mobile Bay: does a reduction in disturbance frequency facilitate invasion success? Benthic Ecology Meeting, Providence, RI. April 9-12, 2008.

- Martin, C.W. and J.F. Valentine. (2007). Impacts of invasive Eurasian milfoil on fish communities in the Mobile-Tensaw Delta. Invited Seminar, Gadsden State Community College, April 5, 2007; Benthic Ecology Meeting; Atlanta, GA. March 25-29, 2007.
- Valentine, J.F., and C.W. Martin. (2013). Impacts of restoration of predators with teeth and foundation species on energy exchange among trophic levels: results from a mesocosm experiment. Benthic Ecology Meeting, Savannah, GA.
- Martin, C.W., J.F. Valentine, J.J. Dindo, S. Scyphers, T.C. Kauffman. (2013). Investigation of polycyclic aromatic hydrocarbon accumulation in coastal Alabama waterfowl after the Deepwater Horizon oil spill. Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- Martin, C.W., J.F. Valentine, J.J. Dindo, S. Scyphers, T.C. Kauffman. (2013). Investigation of polycyclic aromatic hydrocarbon accumulation in coastal Alabama waterfowl after the Deepwater Horizon oil spill. 2013 Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans, LA.
- Shepard, A., J. Valentine, C. D'Elia. (2013). Value of ecosystem services. 2013 Gulf of Mexico Oil Spill & Ecosystem Science Conference. New Orleans, LA.
- Dueker, M., L. Steele, J. F. Valentine. (2012) Do visual cues determine bucktooth parrotfish (*Sparisoma radians*) feeding patterns? Benthic Ecology Meeting, Norfolk, VA
- Kauffman, T.C., C.W. Martin, J.F. Valentine, L. Steele. (2012). Changes in Coastal Fish Communities Following Deepwater Horizon Oil Spill. Benthic Ecology Meeting, Norfolk, VA
- Steele, L.; J.F. Valentine, B. Mortazavi, L. Rozas. (2012). Seasonal and annual variation in habitat linkages in a northern Gulf of Mexico estuary: effects of climate Benthic Ecology Meeting, Norfolk, VA.
- Madsen, S. L., J.F. Valentine, J. F. (2011). The impacts of exploited higher-order consumers on the structure and function of a species-rich community. Coastal and Estuarine Research Federation, Jacksonville, FL.
- Heck, K. L., and J.F. Valentine. (2011). The enduring primacy of top-down effects in shallow benthic ecosystems. Coastal and Estuarine Research Federation, Jacksonville, FL.
- Lee, L., J.F. Valentine, J. (2011). Impacts of foundation species richness on ecosystem structure and function. Coastal and Estuarine Research Federation, Jacksonville, FL.
- Valentine, J. F., K.L. Heck. (2011). Impacts of intense fishing pressure on community-level trophic cascades: an assessment using no-take and fished reefs throughout the Florida Keys national marine sanctuary. Coastal and Estuarine Research Federation, Jacksonville, FL.
- Dueker, M.A., L.T. Lee, J. F. Valentine (2010). What would Bucktooths do? Do Bucktooth parrotfish have a turtlegrass (*Thalassia testudinum*) feeding preference? Benthic Ecology Meetings, Wilmington N.C.
- Lemoine, N. P., J.F Valentine. (2010). Successional trajectories of food web reorganizations on Caribbean coral reefs. Benthic Ecology Meetings, Wilmington N.C.
- Madsen, S., M. Dueker, J.F. Valentine. (2010). Impacts of intense fishing pressure on energetic pathways in a coral reef ecosystem. Benthic Ecology Meetings, Wilmington N.C.

- Martin, C., M.M. Valentine, J.F. Valentine. (2010). Impacts of invasive Nile tilapia (*Oreochromis niloticus*) on coastal food webs. Benthic Ecology Meetings, Wilmington, N.C.
- Puntilla, R.I., J.F. Valentine. (2010). Piscivorous fish abundance has potential for cascading indirect impacts through invertivore abundance and behaviour in coral reef ecosystem. Benthic Ecology Meetings, Wilmington, N.C.
- Steele, L., J. F. Valentine. (2010). Phenolic content of two subtropical seagrasses affects feeding behavior of mesograzers but not macrograzers. Benthic Ecology Meetings, Wilmington N.C.
- Valentine, J.F., K.L. Heck, R. Puntilla, N. Lemoine, C. Martin, L. Lee, M. Dueker, S. Madsen, (2010). Food web impacts of intense fishing pressure throughout the Florida Keys National Marine Sanctuary: an assessment using no-take and fished reefs. Benthic Ecology Meetings, Wilmington N.C.
- Heck, K.L. Jr., J. F. Valentine. (2009). Consumers Rule: The Primacy of Top-down Effects in Shallow Benthic Ecosystems. Coastal and Estuarine Research Foundation. 20th Biennial Conference, Portland, Oregon.
- Martin, Charles W., M. M. Valentine, J. F. Valentine. (2009). Impacts of invasive Nile Tilapia (*Oreochromis niloticus*) on estuarine food webs. Northern Gulf Institute Annual Conference, Mobile, AL.
- Martin, C.W., M. M. Valentine, J. F. Valentine. (2009). Impacts of invasive Nile Tilapia (*Oreochromis niloticus*) on estuarine food webs. Gulf of Mexico Graduate Student Symposium, Dauphin Island, AL.
- Martin, C.W., M.M. Valentine, J. F. Valentine. (2009). Impacts of invasive Nile Tilapia (*Oreochromis niloticus*) on estuarine food webs. Southeastern Ecology and Evolution Conference, Gainesville, FL.
- Martin, Charles W., M.M. Valentine, J.F. Valentine. (2009). Impacts of invasive Nile Tilapia (*Oreochromis niloticus*) on estuarine food webs. Benthic Ecology Meeting, Corpus Christi, TX.
- Puntilla, R.I., J.F. Valentine (2009). Piscivores can have cascading impacts on lower trophic levels in diverse coral reef ecosystem. Benthic Ecology Meetings, Corpus Christi, TX
- Dueker, M.A. S. Madsen, J.F. Valentine. (2009). Impacts of intense fishing pressure on energy transmittance in coral reef ecosystems. Benthic Ecology Meeting, Corpus Christi, TX
- Martin C.W., J. F. Valentine, K.Blankenhorn, and S.Sklenar. (2008). The invasion of Eurasian Milfoil in Mobile Bay: does a reduction in disturbance frequency facilitate invasion success? Benthic Ecology Meetings, Providence RI.
- Heck, K.L., J.F. Valentine. (2007). The primacy of consumers in benthic ecosystems of the coastal zone. Benthic Ecology Meetings, Georgia Tech.
- Martin, C., J. F. Valentine. (2007). Effects of invasive Eurasian Milfoil (*Myriophyllum spicatum*) on trophic interactions and community structure of estuarine and freshwater fishes in the Mobile-Tensaw Delta. Benthic Ecology Meetings, Georgia Tech.
- Peterson, B J., J. F. Valentine, K. L. Heck. (2007). Dine out, dung in: habitat modification and facilitation of benthic plant communities by reef resident fish. Benthic Ecology Meetings, Georgia Tech.

- Steele, L., J.F. Valentine, and A. Boettcher. (2007). Impacts of grazing on the production of chemical deterrents - evidence for inducible defenses in seagrasses? Benthic Ecology Meetings, Georgia Tech.
- Steele, L., J.F. Valentine, and A. Boettcher. (2007). Impacts of grazing on the production of chemical deterrents - evidence for inducible defenses in seagrasses? Southern Section of the American Society of Plant Biologists Meeting 2007
- Valentine, J.F., K.L. Heck. (2007). Impacts of overfishing on trophic links between coral reefs and seagrasses: an evaluation using “no-take” zones in the Florida Keys. Benthic Ecology Meetings, Georgia Tech.
- Valentine, J.F. (2007). Hurricanes Ivan and Katrina impacts on environmental assessments in the Lower Mobile-Tensaw Delta. Alabama Academy of Science, Tuskegee University.
- Martin, C., J. F. Valentine. (2006). Effects of invasive Eurasian Milfoil (*Myriophyllum spicatum*) on trophic interactions and community structure of estuarine and freshwater fishes in the Mobile-Tensaw Delta. Alabama Mississippi Bays and Bayous Symposium. Mobile Alabama.
- Valentine, J.F. , K.L. Heck, Jr. (2006). Impacts of overfishing on trophic links at the coral reef-seagrass interface: an evaluation using “no-take” zones in the Florida Keys National Marine Sanctuary. 2006. Benthic Ecology Meeting, Quebec, Canada.
- Valentine, J. F., S. A. Sklenar, C. Martin, and M. Goecker. (2006). Impacts of the Mobile Bay Causeway on ecosystem structure and function in the lower Mobile-Tensaw Delta. Alabama Mississippi Bays and Bayous Symposium. Mobile Alabama.
- Heck, K.L., J.F. Valentine. (2005). Plant-herbivore interactions in seagrass meadows. Invited presentation. 2005 Benthic Ecology Meeting Williamsburg, VA.
- Blackmon, D., J.F. Valentine. (2005). Evidence of a new pathway for the allochthonous input of seagrass-based production for coral reef predators in the Florida Keys. Benthic Ecology Meeting Williamsburg, VA
- Goecker, M., J.F. Valentine, K.L. Heck, Jr., D. Blackmon, J. Christian, R.M. Kroutil, K.D. Kirsch, and B. J. Peterson. (2004). Cross-habitat energy exchange at coral-reef-seagrass interface: experimental evidence that seagrass production subsidizes coral reef food webs. 2004 International Seagrass Workshop, Townsville, Australia.
- Valentine, J.F., K.L. Heck, Jr., M. Beck, B.J. Peterson, D. Blackmon, J. Christian, M. Goecker, R. M. Kroutil and M. Vanderklift. (2004). Impacts of overfishing on marine ecosystems: experimental evidence that large coral reef piscivores once controlled the structure and intensity of trophic interactions in seagrass-coral reef landscapes 2004 International Seagrass Workshop, Townsville, Australia.
- Blackmon, D., and J.F. Valentine. (2004). Food web interactions at the seagrass-coral reef interface: evidence of a diel vertical migration that may decouple the direct transfer of some seagrass production to coral reef consumers. 2004 Benthic Ecology Meetings, Mobile AL.
- Cinkovich, A., J. F. Valentine. (2004). The role of seagrass detritus in food webs of shallow water lagoons in the Northern Gulf of Mexico: An examination of the role of hydrography and detritus export in determining community structure in Big Lagoon, Florida. 2004 Benthic Ecology Meetings, Mobile AL.
- Kroutil, R. M., J. F. Valentine. (2004). Habitat selection in coral reef fish: using coral replicas to experimentally assess the relationship of habitat complexity to community structure. 2004 Benthic Ecology Meetings, Mobile AL.

- Heck, K.L. Jr. J.F. Valentine, P. Spitzer. (2004). Predicting the effects of eutrophication on seagrass meadows: the importance of manipulative experiments and the underappreciated role of herbivores. 2004 International Seagrass Workshop, Townsville, Australia.
- Blackmon, D.C., J.F. Valentine. (2003). Nocturnal emergence: a predatory escape response of small invertebrates from lower order reef fish in the Florida Keys. International Estuarine Research Federation Meeting. Seattle Washington.
- Blackmon, D.C., J.F. Valentine. (2003). Nocturnal emergence: a predatory escape response of small invertebrates from lower order reef fish in the Florida Keys. Benthic Ecology Meetings, Groton CN.
- Chaplin, G.I., J.F. Valentine. (2003). Linking marine and freshwater food webs in the Gulf of Mexico: exciting new evidence from the lower Mobile-Tensaw Delta. Alabama Fisheries Association Meeting, Auburn AL.
- Christian, J., J.F. Valentine. (2003). Evaluating the energetic value and structural contributions of mangroves and seagrasses to local fish populations: the importance of habitat connectivity. Benthic Ecology Meetings, Groton CN.
- Goecker, M., K.L.Heck, J.F. Valentine. (2003). The effects of nitrogen content of turtlegrass, *Thalassia testudinum*, on rates of herbivory by the bucktooth parrotfish, *Sparisoma radians*. Benthic Ecology Meetings, Groton CN.
- Goecker, M., K.L.Heck, J.F. Valentine. (2002). The effects of nitrogen content of turtlegrass, *Thalassia testudinum*, on rates of herbivory by the bucktooth parrotfish, *Sparisoma radians*. ISBW5. Ensenada, Mexico.
- Heck, K.L., J. F. Valentine, P.M. Spitzer. (2002). Plant - Animal Interactions in Seagrass Meadows: A Review and Prospectus. International Seagrass Biology Workshop (ISBW5). Ensenada, Mexico. Invited Talk.
- Heck, K.L., J.F.Valentine, J.R.Pennock, P.M. Spitzer and G. Chaplin. (2003). Predicting the effects of eutrophication on seagrass meadows: the importance of manipulative experiments and the underappreciated role of algal herbivores. International Estuarine Research Federation Meeting. Seattle Washington.
- Kroutil, R., J.F. Valentine. (2003). Impacts of fishing pressure on marine communities: evidence of unanticipated changes in food web architecture using the marine protected areas of the Florida Keys National Marine Sanctuary. Benthic Ecology Meetings, Groton CN.
- Kroutil, R., J.F. Valentine. (2003). Impacts of fishing pressure: evidence of unanticipated changes in coastal food web architecture using the marine protected areas of the Florida Keys national marine sanctuary. International Estuarine Research Federation Meeting. Seattle Washington.
- Valentine, J.F. (2003). Biodiversity in the Mobile-Tensaw Delta: A jewel in denial. Mobile Bay Watch Executive Committee.
- Valentine, J.F., K.L. Heck, Jr., M. Beck, B.J. Peterson, D. Blackmon, J. Christian, M. Goecker, G. Fioravanti, And R. Kroutil. (2003). Trophic exchange at the coral reef-seagrass interface: a multitrophic level test of effects of overfishing on coral reef food webs. International Estuarine Research Federation Meeting. Seattle Washington.
- Valentine, J.F., K. L. Heck, Jr., B. J. Peterson, D. Blackmon, J. Christian, M. Goecker, G. Fioravanti, and R. Kroutil. (2003). Habitat reconstruction in the nation's coastal ecosystems: if you build it

will they come? Submerged Aquatic Habitat Restoration in Estuaries: Issues, Options and Priorities Workshop. Mote Marine Laboratory Sarasota, FL.

- Valentine, J.F. (2002). Seagrass herbivory: new evidence of dynamical interactions between seagrasses and their consumers ISBW5. Ensenada, Mexico. Invited Talk.
- Valentine, J.F., K.L. Heck, Jr. (2002). Interaction strength at the coral reef-seagrass interface: has overfishing diminished the importance of seagrass habitat production for coral reef food webs? Benthic Ecology Meetings, Orlando, FL
- Blackmon, D. J.F. Valentine. (2002). Life on the edge: Nocturnal prey emergence may lower energy transfer at the coral reef-seagrass interface. Benthic Ecology Meetings, Orlando, FL
- Christian, J. J.F. Valentine. (2002). Plant-animal interactions in the seagrass-coral reef landscape: Correlative evidence that grazers control seagrass demography and reproductive potential. Benthic Ecology Meetings, Orlando, FL
- Fioravanti, G., J.F. Valentine. (2002). Investigating the relative importance of shelter and landscape complexity in determining fish community structure within the northern Florida Keys National Marine Sanctuary Benthic Ecology Meetings, Orlando, FL.
- Sherman, T.D., J.F. Valentine, F. Blythe-Lehrter, S. Madvavan. (2002). Physiological response of turtlegrass (*Thalassia testudinum*) to defoliation. American Society of Plant Biologists.
- Valentine, J.F., and K.L. Heck, Jr. (2001). Human-induced changes in habitat linkages: experimental assessment using the marine reserves in the Florida Keys National Marine Sanctuary. Estuarine Research Conference St. Petersburg, Florida. Invited Talk.
- Heck, K.L., J. F. Valentine, Jonathan Pennock. (2001). When nutrient enrichment does not lead to seagrass overgrowth by algae: results from three field experiments. Estuarine Research Conference, St. Petersburg, Florida.
- Berrell, T. A., J.F. Valentine. (2000). Correlation between RNA:DNA and growth of brackish water clam, *Rangia cuneata*. Benthic Ecology Meetings, Wilmington, NC.
- Berrell, T. A., J.F. Valentine. (2000). Correlation between RNA:DNA and growth of brackish water clam, *Rangia cuneata*. University of South Alabama, 6th Annual Research Forum.
- Chaplin, G. I. J. F. Valentine. (2000). Linking marine and freshwater foodwebs: Spatial subsidies for adult freshwater consumers from migratory fishes and crustaceans in the Mobile Bay Delta. Benthic Ecology Meetings, Wilmington, NC.
- Chaplin, G. I. J. F. Valentine. (2000). Linking marine and freshwater foodwebs: Spatial subsidies for adult freshwater consumers from migratory fishes and crustaceans in the Mobile Bay Delta. University of South Alabama, 6th Annual Research Forum.
- McCloskey, B.J., J.F. Valentine. (2000). The positive influences of burrowing brittlestars (Echinodermata: Ophiuroidea) on benthic community structure and dynamics. Abstract OS12F-10 - Eos, Transactions, American Geophysical Union 80:OS49
- Spitzer, P., K.L. Heck, J.F. Valentine. (2000). Then and now: a comparison of Blue Crab research during the early and late 1990's in the Mobile Bay System. Benthic Ecology Meetings (Blue Crab Symposium), Wilmington, NC.
- Heck, Jr., K.L., J. F. Valentine (2000). Plant-animal interactions in a seagrass-dominated ecosystems. New Approaches to Studies of Marine Plant-Animal Interactions. Society Integrative and Comparative Biology, Atlanta GA.

- Chaplin, G. I., J. F. Valentine. (1999). Linking marine and freshwater foodwebs: marine organisms subsidize freshwater consumers in the Mobile Bay Delta. 1999 International Estuarine Research Federation, New Orleans, LA.
- Eilers, M. R., J. F. Valentine, K. L. Heck, Jr. (1999). Differential mortality and gender specific behavioral responses of *Palaemonetes pugio* to predation by *Lagodon rhomboides*. 1999 International Estuarine Research Federation, New Orleans, LA.
- Kirsch, K. D., J. F. Valentine, K. L. Heck, Jr. (1999). Seagrass consumption by herbivorous fish: an underestimated trophic pathway in Florida Keys national marine sanctuary. 1999 International Estuarine Research Federation New Orleans, LA.
- Spitzer, P. M., K. L. Heck, Jr., J. F. Valentine. (1999). Larval supply, post-settlement mortality, and the size of blue crab populations: an experimental assessment. 1999 International Estuarine Research Federation, New Orleans, LA.
- Valentine, J. F., K. L. Heck, Jr. (1999). Seagrass herbivory: evidence that grazing on marine angiosperms is widespread and greatly underestimated. 1999 International Estuarine Research Federation, New Orleans, LA.
- Chaplin, G., J. F. Valentine. (1999). Linking marine and freshwater food webs: spatial subsidies for freshwater consumers from migratory fishes and crustaceans in the Mobile Bay Delta. Benthic Ecology Meetings. Baton Rouge, LA.
- Eilers, M. R., J. F. Valentine, K. L. Heck. (1999). Differential mortality and gender specific behavioral responses of *Palaemonetes pugio* (grass shrimp) to predation by *Lagodon rhomboides* (pinfish). Benthic Ecology Meetings. Baton Rouge, LA.
- Kirsch, K. D., J. F. Valentine, K. L. Heck. (1999). Seagrass consumption by herbivorous fish: an underestimated trophic pathway in the Florida Keys National Marine Sanctuary. Benthic Ecology Meetings. Baton Rouge, LA.
- Sharp, W. C., W. J. Kenworthy, J. H. Hunt, W. G. Lyons, C. Rose, E. J. Prager, J. F. Valentine, J. W. Fourqurean and P. Whitfield. (1999). The short-term impacts of overgrazing in a seagrass meadow by the urchin *Lytechinus variegatus* in the Florida Keys. Benthic Ecology Meetings. Baton Rouge, LA.
- Spitzer, P., K. L. Heck, J. Valentine. (1999). Larval supply, post settlement mortality, and the size of blue crab populations: an experimental assessment in Alabama coastal waters. Benthic Ecology Meetings. Baton Rouge, LA.
- Valentine, J. F., K. L. Heck, Jr. (1999). Seagrass herbivory: additional that grazing on marine angiosperms has been greatly underestimated. Benthic Ecology Meetings. Baton Rouge, LA.
- Chaplin, G., J. F. Valentine. (1998). Energy flow in a tidal freshwater-estuarine ecotone. Benthic Ecology Meetings, Melbourne, FL.
- Kirsch, K. K., J. F. Valentine, K. L. Heck. (1998). Herbivory on *Thalassia testudinum* by fish in the Florida Keys. Benthic Ecology Meetings, Melbourne, FL
- Chaplin, G., J. F. Valentine. (1998). Energy flow in a tidal freshwater-estuarine ecotone. University of South Alabama, 5th Annual Research Forum.
- Kirsch, K. K., J. F. Valentine, K. L. Heck. (1998). Herbivory on *Thalassia testudinum* by fish in the Florida Keys. University of South Alabama, 5th Research Council Forum.

- Valentine, J. F., K. L. Heck, Jr., L. Scarborough, J. Zande. (1997). Low nutritive quality in seagrass leaves: A defense against sea urchin herbivory? Benthic Ecology Meetings. Portland, ME.
- Valentine, J. F., K. L. Heck, Jr, L. Scarborough, J. Zande. (1997). Low nutritive quality in seagrass leaves: A defense against sea urchin herbivory? 14th ERF (1997) International Conference, Providence, RI.
- Heck, K. L., J. F. Valentine, J. R. Pennock, S. A. Sklenar. (1997). Nutrient enrichment a necessary but insufficient condition for epiphyte overgrowth of seagrasses? 14th ERF (1997) International Conference, Providence, RI.
- Valentine, J. F., K. L. Heck, J. Busby, D. Webb. (1995). Sea urchins and seagrass: evidence that sea urchin herbivory can stimulate seagrass production. Benthic Ecology Meetings. Rutgers, NJ.
- Heck, K. L., J.F. Valentine, J. Pennock, S.A. Sklenar. (1995). Effects of food web manipulations in seagrass ecosystems of the northern Gulf of Mexico. Benthic Ecology Meetings-Rutgers, NJ.
- Valentine, J. F., K. L. Heck, D. Webb. (1994). Sediment nutrient supply v. herbivory: evidence for the importance of both in structuring seagrass ecosystems. Benthic Ecology Meetings, Mystic, CN.
- Valentine, J. F., K. L. Heck, J. Busby, D. Webb. (1993). Sea urchins and seagrass: evidence for beneficial effects of sea urchin herbivory on seagrasses. 12th Biennial International Estuarine Research Federation Conference, Hilton Head, SC.
- Valentine, J. F., K. L. Heck, P. Harper, M. Beck. (1992). The role of bioturbation in the maintenance of seagrass sand flat patch mosaics. Benthic Ecology Meetings, University of Rhode Island, Newport RI.
- Valentine, J. F., K. L. Heck. (1991). Role of sea urchin herbivory in regulating seagrass meadow size. International Estuarine Research Federation. San Francisco, CA.
- Valentine, J. F. (1990). Spatial distribution patterns of the sympatric brittlestars *Hemipholis elongata* and *Microphiopholis atra* in eastern Mississippi Sound. Friends of Echinoderms. Dauphin Island, Alabama.
- Valentine, J. F., K. L. Heck. (1990). Studies on the effects of the sea urchin, *Lytechinus variegatus* on *Thalassia testudinum* seagrass meadows in St. Joseph's Bay, Florida. Friends of Echinoderms. Dauphin Island, AL.
- Valentine, J. F., K. L. Heck. (1990). Role of sea urchin herbivory in regulating seagrass meadow size. Benthic Ecology Meetings, Mobile, AL.
- Valentine, J. F., K. L. Heck. (1989). Effects of bioturbation and seasonal herbivory on seagrass meadows in the northern Gulf of Mexico. International Estuarine Research Foundation. Baltimore, MD.
- Valentine, J. F. and K. L. Heck, Jr. (1989). Effects of herbivory and bioturbation on seagrass meadows in the northern Gulf of Mexico. Benthic Ecology Meetings, Solomons, MD.
- Valentine, J. F. (1988). Spatial and seasonal distribution of the sympatric ophiuroids, *Hemipholis elongata* and *Microphiopholis atra*, in eastern Mississippi Sound. In: R. Burke (ed.), Proceedings of the Sixth International Echinoderm Conference, Victoria. A.A. Balkema, Rotterdam.

Hopkins, T. S. and J. F. Valentine. (1981). The echinoderm fauna of the continental shelf of east and central Gulf of Mexico. J.M. Lawrence (ed.), Proceedings of the Third International Echinoderm Conference, Tampa Bay. A.A. Balkema Rotterdam.

8. Papers presented where abstracts were not published

Academics and Government Institutions

Valentine, J.F., K. L. Heck, Jr. (2000). Top-down control of seagrass habitat persistence: new evidence that herbivores can control seagrass density. Tampa Bay NEP Seagrass Workshop.

W. J. Kenworthy, P. Whitfield, J. Hunt, J. F. Valentine, K. Heck, E. Prager, W. Sharp, M. Hall, C. Rose. (1998). An extraordinary urchin, *Lytechinus variegatus*, grazing event in a large *Syringodium filiforme* meadow in the southeastern Gulf of Mexico. AERS Meeting Beaufort, NC.

Sharp, W. C., W. J. Kenworthy, J. H. Hunt, W. G. Lyons, C. Rose, E. J. Prager, J. F. Valentine, J. W. Fourqurean, P. Whitfield. (1998). The short-term impacts of overgrazing in a seagrass meadow by the urchin *Lytechinus variegatus* in the Florida Keys. Florida Bay Program Committee Meeting.

V. Contracts and Grants

1. *Ongoing Funding*

NOAA, Integrated Multi-Trophic Aquaculture (IMTA) demonstration, research, training, and outreach. Total support in hand \$6,453,757 for years 1-4 Lead PI, CO PI Reg Blaylock USM.

Alabama Center for Excellence-\$11,809,244. (2019-2024). Center Director 2019-2024

2. *Past Funding*

Gulf of Mexico Research Initiative. Alabama Center for Ecological Resilience. - \$7,124,052. (2015-2020). Lead PI

Food and Drug Administration. Leveraging FDA Safety Research through Marine Environmental Sciences Consortium- Dauphin Island Sea Faculty Training and Graduate Student Internship Program Lab Collaboration (DISL). \$790,000 (2010-2016). PI

National Science Foundation - "Collaborative Proposal: Gulf Coast ADVANCE: Cross Institutional Synergy for Women Scientist - \$44,652.00 Co-PI

BP. MESC Rapid response studies of the impacts of DWH on the coastal resources of Alabama. \$5,000,000. State PI.

NSF-OCE REU Site: Undergraduate Research Experiences in Coastal and Nearshore Marine Systems of the Northeastern Gulf of Mexico. \$258,552 over 3 years. PI

Northern Gulf Institute. Impacts of the Deepwater Horizon Accident on food web structure in the north-central Gulf of Mexico. \$165,416, 1 year, Lead PI.

Northern Gulf Institute. Food webs without borders: a case for ecosystem-based management in the northern Gulf of Mexico. \$185,000 over 2 years. Lead PI

Northern Gulf Institute. Supplemental funding to re-establish the Marine Scholars Program at DISL. PI \$100,000

Northern Gulf Institute. Supplemental funding to support undergraduate intern and graduate student fellowships at Dauphin Island Sea Lab. \$100,000.

Northern Gulf Institute. Acute impacts of the DwH Oil Spill on Natural Resources in Coastal Alabama. \$989,000. Lead PI.

NMFS. Mesocosm Construction Program. Project Manager. \$500,000. Project Manager

NMFS. Experimental Fisheries Ecology: Impacts of variation in exploited species harvests on lower order indirect effects in the Northern Gulf of Mexico. PI \$290,000 Lead PI

NOAA-NURC. Marine Reserve Effectiveness in Restoring Coastal Food Webs: A Multitrophic Assessment Using Special Protection Areas in the Florida Keys National Marine Sanctuary. 2008-2009. \$64,199. CO-PI, with D. Blackmon, K. Heck, and B. Peterson.

Alabama Center for Estuarine Research. Invasion Ecology: Effects of Habitat Alteration on the Survival of an Exotic Species. Funded 2006-2007, estimated \$155, 000 (Co-PI with D. Blackmon).

NOAA-CIAP. Assessments of Hurricane Katrina Impacts on the lower Mobile-Tensaw Delta. \$150,000 for one year. 2008. Lead PI

USEPA Gulf of Mexico Program. Environmental Assessment of Hydrological Modifications on Ecosystem Function in lower Mobile Tensaw Delta. 2004-2006 \$127, 000. Lead PI

Andrew Mellon Foundation-Nature Conservancy Ecosystem Research Program. Human-induced changes in the cross-habitat flow of energy in a subtropical marine ecosystem: experimental assessments using newly created marine reserves in the Florida Keys. 2001-2004, \$180,000 (Co-Principal Investigator with M. Beck, and K. L. Heck).

MARFIN. Marine reserve effectiveness in restoring coastal food webs: an experimental test using special protection areas and an ecological reserve in the Florida Keys National Marine Sanctuary. Funded. \$183,584. 2002-2004 (Co-Principal Investigator with K. L. Heck and B.J. Peterson).

Mobile Bay National Estuary Program. Analyses of Alabama Department of Conservation and Natural Resources, Marine Resources Division twenty-year database. 2003-2004, \$40, 000.

Mobile Bay National Estuary Program. Environmental Assessment of Mobile Bay Causeway impacts of Ecosystem Function. 2003-2004, \$88, 000.

Alabama Center for Estuarine Studies. Predicting seagrass survival: towards a new view of an existing paradigm. Funded 2001-2003. \$105,000. (Co-Principal Investigator with K. L. Heck and J. Pennock).

Alabama Center for Estuarine Studies. The influence of shallow water hydrodynamics on the importance of seagrass detritus in estuarine food webs. Funded. 2001-2002. \$19,425. (Co-principal Investigator with Anna Cinkovich).

Alabama Center for Estuarine Studies. Effects of variation in river discharge and wind driven resuspension on the potential for regulating human-induced impacts on the Mobile Bay ecosystems. Funded. \$306,405. 1999-2002. (Co-Principal Investigator with J. Cowan and M. Graham).

Alabama Center for Estuarine Studies. Fisheries induced changes in the structure and function of shallow water nursery habitats: an experimental assessment. Funded. \$261,062. 1999-2002. (Co-Principal Investigator with K. Heck, J. Cowan, and D. DeVries).

Alabama Center for Estuarine Studies. Food web interactions, spatial subsidies, and the flow of energy between the Mobile Bay Delta and offshore waters: A SGER proposal to the Alabama Center for Estuarine Studies. Funded. 2000-2001, \$22,348. (Co-Principal Investigator with T. Sherman T., J. Cowan, and S. Madhavan).

Alabama Center for Estuarine Studies. Role of invasive species in shaping plant-animal interactions in the Mobile Bay Delta. Funded. 2000-2001. \$34,113. (Co-Principal Investigator with A. Boettcher, and T. Sherman).

U.S. Environmental Protection Agency. Effects of fragmentation on the structure and function of submerged aquatic vegetation (SAV) habitats in the northern Gulf of Mexico. Funded-2001. \$61,235. (Co-Principal Investigator with Kenneth L. Heck Jr.).

National Oceanic and Atmospheric Administration-National Undersea Research Program. Trophic cascades and spatial subsidies in a coral reef ecosystem: a field test using no take areas in the Florida Keys National Marine Sanctuary. Funded. 2000-2001. Estimated budget \$64,600 each year (Co-Principal Investigator with K. L. Heck).

U.S. Environmental Protection Agency. Effects of nutrient enrichment and large predator removal on seagrass nursery habitats: an experimental assessment. Funded. 1997-2000. \$184,155. (Co-Principal Investigator with K. L. Heck and J. Pennock).

National Oceanic and Atmospheric Administration-National Undersea Research Program. Sea urchins and seagrasses: an experimental examination of the impact of chronic sea urchin grazing on turtlegrass habitats in the Florida Keys. 1994-1995, \$64,600. (Co-Principal Investigator with K. L. Heck).

Alabama Dept. Of Conservation and Natural Resources. Biological Diversity in Coastal Alabama. 1998-1999, \$35,000. (Principal Investigator).

U.S. Environmental Protection Agency. Seagrass herbivory in the Florida Keys: EPA Intensive Site Study Demonstration Project. 1997-1998. (Principal Investigator). \$20,000.

U.S. Environmental Protection Agency. Preliminary characterization of habitat loss: A proposal to the Mobile Bay National Estuary Program. \$61,590, 1998-1999. (Co-Principal Investigator with J. Stout and K. L. Heck).

Alabama Dept. of Conservation. Blue crab recruitment in Mobile Bay Estuary. 1997-1999, \$120,000, (Co-Principal Investigator with K.L. Heck).

U.S. Environmental Protection Agency -National Estuary Program. Mobile Bay National Estuary Program Nomination Package. (est. \$1.5 million), 1995 (Co-author with C. Arceneaux and G. Crozier).

U.S. Army Corps of Engineers. Interpersonal Agreements with the U.S. Army Corps of Engineers-Mobile District to develop and implement environmental investigations of dredging activities in the U.S. Army South Atlantic Division. 1991-1995, \$95,613.

National Science Foundation EPSCoR Program. Alternative stable states in coastal marine ecosystems: interactions between nutrient enrichment and manipulation of top-level consumers. 1991-1995, \$302,159. (Co-Principal Investigator with K. L. Heck, J. Pennock and L. Coen).

National Science Foundation (Biological Oceanography). Herbivory, bioturbation and the regulation of seagrass meadow size: field tests of the impacts of sea urchin grazing and sediment disturbance by macrofauna. 1991-1994. \$215,000, (Co-Principal Investigator with Dr. K. Heck).

National Science Foundation (Biological Oceanography). An REU supplement to: Herbivory, bioturbation, and the regulation of seagrass meadow size: Field tests of the impacts of sea urchin grazing and sediment disturbance. 1991-1993, \$12,000. (Co-Principal Investigator with Dr. K. Heck).

National Science Foundation (Biological Oceanography). Herbivory and bioturbation as regulators of seagrass meadow size in northern Gulf of Mexico. 1988-1990, \$95,500. (Co-Principal Investigator with Dr. K. Heck).

National Science Foundation, EPSCOR. Herbivory and bioturbation as regulators of seagrass meadow size in northern Gulf of Mexico. 1988-1990, \$110,000. (Co Principal Investigator with Dr. K. Heck).

National Science Foundation (Biological Oceanography). An REU supplement to: "Herbivory and bioturbation as regulators of seagrass." 1989-1990, \$12,000 with Dr. K. Heck.

Smithsonian Institution. Short-term Visitor Award. 1987, \$1,300. Student Award.

Mississippi-Alabama Sea Grant Competitive Fellowship Award. \$8,700 each year 1984, 1986-1988.

Mississippi-Alabama Sea Grant. Travel Grant Award. \$300, 1987.

3. Grants submitted but not funded

NSF-IGERT. IGERT: Complex and sustainable coastal systems. \$3,141,861 over 3 years. CO-PI

NSF-OIA. Renovation of Research Infrastructure at the Dauphin Island Sea Lab. \$1,986, 930 over 2 years, PI.

Gulf of Mexico Program. Mobile Bay Hydrological Modifications Impact Study Year III. In collaboration with Mobile Bay Keepers and the Nature Conservancy (Valentine lead PI). \$350,000.

USEPA Gulf of Mexico Program. Environmental Assessment of Hydrological Modifications on Ecosystem Function in lower Mobile Tensaw Delta. 2005-2006 \$140, 000.¹

NOAA-National Sea Grant College Program: National Strategic Investment in Aquatic Invasive Species Research. Effects of habitat alteration on the survival of exotic species. \$ 160, 000 (Co-PI with D. Blackmon).

The Nature Conservancy-RJ/Kose-Impacts of Hydrologic Alteration on Estuarine Resilience and Productivity: Mobile-Tensaw Delta. Nicole Vickey, J. Valentine, and D. Braun Co-PI's. \$60,594.

The role of marine reserves on reef resident fish habitat modification and facilitation of seagrass communities. Bradley J. Peterson and John F. Valentine. NOAA Coral Reef Conservation Program. \$40,000

Marine reserve effectiveness in restoring coastal food webs: a multitrophic level assessment using Special Protection Areas and an Ecological Reserve in the Florida Keys National Marine Sanctuary. Co-Principal Investigators: Drs. John F. Valentine, Kenneth L. Heck, Jr, and Derrick Blackmon. USEPA, requested amount is \$85,000

Marine reserve effectiveness in restoring coastal food webs: a multitrophic level assessment using Special Protection Areas and an Ecological Reserve in the Florida Keys National Marine Sanctuary. Co-Principal Investigators: Drs. John F. Valentine and Kenneth L. Heck, Jr. USEPA, requested amount is \$85,000

The role of marine reserves on reef resident fish habitat modification and facilitation of seagrass communities. Bradley J. Peterson and John F. Valentine. NOAA Coral Reef Conservation Program. \$40,000

U.S. Environmental Protection Agency-Gulf of Mexico Program. Invasion Ecology in the lower Mobile-Tensaw Delta: An investigation of exotic species on habitat quality. \$63,710.

NOAA-Sea Grant. Predicting the persistence of a critical nursery habitat in nutrient rich waters: toward a new view of an existing paradigm. \$196,350 over 2 years (Co-PI with K. Heck and P. Spitzer).

National Oceanic and Atmospheric Administration-National Undersea Research Program. Marine reserve effectiveness in restoring food web function: an experimental test using the Special Protection Areas in the northern Florida Keys National Marine Sanctuary. PI. 2002-2003. Estimated budget. \$60,000 over two years.

U.S. Environmental Protection Agency-Gulf of Mexico Program. Fragmentation of SAV beds and its influence on fisheries production: implications for conservation and restoration. \$123,000

Alabama Center for Estuarine Studies. The Mobile Bay Delta as an interface between marine and freshwater environments: considering inputs and subsidies. Pending. 2001-2003. \$236,319. (Co-principal Investigator with Dennis DeVries, Russell Wright and James Cowan).

MacArthur Foundation. Towards sustainable human population development in coastal zones: understanding the role of wealth and environmental education in alleviating anthropogenic eutrophication. 2001-2002. (Co-principal investigator with Drs. J. Cebrian, S. Picou, G. Johnson, and J. Herrera-Silveira). \$187,000.

U.S. Environmental Protection Agency-Gulf of Mexico Program. Invasion Ecology in the lower Mobile-Tensaw Delta: An investigation of exotic species on habitat quality. \$57,776.

U.S. Environmental Protection Agency. Indicators of ecosystem health and sustainability in the Gulf of Mexico Estuaries. \$6, 149, 312. Jan 2001-Dec 2004. (Co-Principal Investigator with Kenneth L. Heck Jr. USA portion-\$75,000 year for three yrs).

Alabama Center for Estuarine Studies. Food web interactions, spatial subsidies, and the flow of energy between the Mobile Bay Delta and offshore waters. 1999-2001, \$ 180,443. (Co-Principal Investigator with T. Sherman, J. Cowan, & S. Madhavan).

NOAA NURP. Trophic cascades and spatial subsidies in a coral reef ecosystem: a field test using no take areas in the Florida Keys National Marine Sanctuary. \$64,000. 1999-2000 (Co-Principal Investigator with K. L. Heck and R. L. Shipp).

Alabama Center for Estuarine Studies. Effects of variation in river discharge and wind driven resuspension on the potential for regulating human-induced impacts on the Mobile Bay ecosystems. 1998-2001, \$ 306,405. (Co-Principal Investigator with J. Cowan, J. Pennock, R. Kiene, J. Valentine, F. Thomas and M. Graham).

South Florida Ecosystem Restoration, Prediction, and Modeling Program. Effects of nutrient enrichment and large predator removal on seagrass nursery habitats: an experimental assessment. 1997-1999, \$223, 000. (Co-Principal Investigator with K. L. Heck and J. R. Pennock).

EPA-Mobile Bay NEP. Preliminary characterization of water quality: A Proposal to Mobile Bay National Estuary Program. 1997-1998, \$177,874. Co-Principal Investigator with J.P. Pennock and W.M. Graham).

National Science Foundation (Biological Oceanography). Trophic transfer in seagrass ecosystems: field test of a marine food-web paradigm. 1997-2000, \$316,903. (Co Principal Investigator with K. L. Heck).

National Science Foundation (Biological Oceanography). Trophic transfer in seagrass ecosystems: field test of a marine food-web paradigm. 1996-1999, \$294,964. (Co Principal Investigator with K.L. Heck).

NOAA-MSAL SGC. Seagrass loss in coastal ecosystems: Can increased fishing pressure induce a "trophic cascade" that causes the decline of submerged aquatic vegetation? 1994-1997, \$329,000. (Co-Principal Investigator with K. L. Heck and J. Pennock).

NOAA - National Estuarine Reserve System. Nutrient enhanced production and trophic dynamics in Weeks Bay, Alabama. 1992-1994, \$145,000. (Co Principal Investigator with J. Cowan and J. Pennock).

Mar. Fish. Init. Prog. (MARFIN). An assessment of the effects of large predator removal on coastal nursery habitats. 1991-1994, \$276,615. (Co Principal Investigator with L. Coen and K. Heck).

4. Infrastructure Improvements Projects Initiated since becoming Executive Director

- Alabama Aquarium renovation of original exhibits Phase 1-(S588,000) State Appropriation
- Alabama Aquarium renovation of original exhibits Phase _2-(S305,000) DISL Foundation and GOMESA
- Beagle and Challenger Restorations (\$6,800,000) State of Alabama Supplementary Award
- DISL Pool (\$780,000) DISL Foundation
- DISL Pool House Classroom (\$591,000) DISL Foundation, and Mobile County Commission.
- Mays Café HVAC and Serving Line renewal (\$340,00) State of Alabama Supplementary Award
- Multistressor Laboratory (\$1,000,000) Alabama Supplementary Award
- Research Vessel (Cost \$6.550,000), GOMESA

VI. Institutional and Community Service

1. Committee Assignments

		<u>Year</u>
USA	Faculty Search Committee	2011-2012
DISL	Dive Control Board	2011-Present
USA	Tenure and Promotion Committee Chair	2010
USA	Faculty Search Committee	2007-2008
UA	Faculty Search Committee (U. Alabama)	2006-2007
USA	Tenure and Promotion Committee	2005 & 2006
DISL	Summer School Recruitment Presentation (AU)	2005
DISL	Faculty Search Committee	2005
DISL	Summer School Recruitment Presentation (JSU)	2004
DISL/USA	Curriculum Committee	2003-
DISL	MASGC Marine Science Scholars Program	2002-2004
USA	Recruitment Committee	2003-
DISL	Graduate Student Association Meeting Judge	2003
DISL	Coastal Marine Scholar Search Committee-Chair	2003
DISL	Faculty Search (Phytoplankton Ecologist)	2002
USA	Tenure and Promotion Committee	2001
DISL	Faculty Search (Marine Scientist), Chair (2 times)	2000-2002
USA/DISL	Wiese Distinguished Lecture Series Committee-Chair	2001-2002
DISL	Faculty Search (Ecological Modeler)	2000-2001
DISL	Estuarium Advisory Committee	1996
DISL	Space Committee, Chair	1998-1999
DISL	Vessels and Small Boats Committee	1996- 1999

DISL	Library Committee	1998- 1999
DISL	Faculty Search (Small-Scale Hydrodynamicist)	1995
DISL/USA	Seminar Series Chair	1996-1997
USA	Wiese Lecture Series Committee	1997-2001
USA	Marine Science Department Student Organization Sponsor	1997-
USA	Graduate Student Recruitment Chair	1995-1997

2 Service to the Surrounding Community

<u>Committee or Service</u>	<u>Year</u>
Sunrise Rotary Presentation	2024
Bellingrath Gardens	2023
Gulf Shores Winter Show Case	2023
Mobile Chamber of Commerce	2023
West Mobile Rotary Presentation	2023
Mobile Downtown Rotary Presentation	2023
Leadership Alabama Presentation	2023
Ono Island Homeowners Association	2023
Orange Beach Public Library	2023
Creighton Optimist Presentation	2022
Downtown Mobile Rotary	2022
Mobile Sunrise Rotary	2022
University of Florida Nature Coast Marine Laboratory Presentation	2021
Birmingham Rotary Presentation	2021
Huntsville Rotary Presentation	2021
Orange Beach School Administrators Presentation	2021
Alabama Public Radio Presentation (Guy Busby)	2021
Gulf Shores First Friday Presentation	2021
Gulf Coast Financial Planners	2021
Bellingrath Biodiversity Lecture	2021
WALA Interview (Perspectives with Eric Reynolds)	2021
Mobile Sunrise Rotary Presentation	2021
Radio Interview 106.5 Sean Sullivan	2021
AL.Com News Interview	2020
WKRG Interview Mobile Bay Condition	2020
Leadership Alabama	2019/2020
West Mobile Rotary Presentation	2019
League of Women Voters Mobile Presentation	2019
National Water Center-Tuscaloosa AL Presentation	2017
Dauphin Island Municipal Dinner Presentation	2017
Mobile Kiwanis Club Presentation	2016
Birmingham Downtown Rotary Presentation	2016
Alabama Water Agency Working Group Presentation	2015-2016
Bays and Bayous Steering Committee	2014 & 2018
Mobile County Rotary Club-West Mobile Presentation	2013
Mobile County Rotary Club-Sunrise Chapter Presentation	2012
Mobile Chamber of Commerce Round Table Presentation	2012
Coastal Zone Managers Meeting-Presentation	2012
Leadership Alabama Class 23	2012-2013
Mobile County Schools Environmental Sciences Presentation	2012
Coastal Resources Assessment Committee	2012-Present
Mobile County Audubon Club Presentation	2012
Mobile County Retired Agents Presentation	2012
Baldwin County Rotary Club Presentation	2012

Mobile Rotary Club Member	2012-present
Bureau of Ocean Energy Management, Regulation and Enforcement Presentation	2011
Weeks Bay Advisory Committee	2011-present
Mobile Bay National Estuary Program Executive Committee	2011-present
Forever Wild Board of Directors	2011-present
Mississippi-Alabama Sea Grant Consortium Board of Directors	2011-present
Northern Gulf Institute Council of Fellows	2011-present
Leadership Alabama	2011-present
Gulf of Mexico Alliance Presentation	2011
Mobile County Environmental Sciences Center Presentation	2011
Mobile County Rotary Club Presentation	2011
Mobile Athelstan Club	2010
Mobile Rotary Club Presentation	2010
Gulf of Mexico University Collaborative	2010-present
Member Mobile Bay NEP Executive Committee Board Member	2007-present
Co-Chair Mobile Bay NEP Scientific Advisory Committee	2007-2010
Mobile United Natural Resources Presentation	2006
Baldwin County League of Women Voters Presentation	2006
GMAC Bowl: 1 st and 10 Club	2005-2008
Mobile Bay NEP Mobile and Baldwin County Elected Officials	2006
Environmental Awareness Forum	
Azalea Trail Run Volunteer Judge	2006
Alba Elementary School Presentation	2004
USA Representative to Mississippi-Alabama Sea Grant	2004
Board of Directors Meeting	
ADECA Coastal Programs-Tech. Adv. Comm.	2004
Presentation on Delta Research Activities	
Participant in TNC Mobile Delta and Bay Bio-Hydrology Workshop	2004
Auburn University Landscape Ecology Class Presentation	2001
Baldwin County Audubon Society Chapter	2001
Mobile County School System Environmental	2001
Sciences Seminar	
University of South Alabama Elderhostel	2001
Gulf of Mexico Symposium 2000 Research Track Co-organizer	2000
Causeway Steering Council Research Committee Co-chair	2000
Alabama Society of Professional Engineers Presentation	2000
Coastal Habitat Enhancement and Restoration Technology	2000
NOAA Workshop-Co-Chair	
Mobile Bay NEP Living Resource Workshop Organizer	1997
Mobile Bay NEP Habitat Loss Subcommittee	1997-1999
Mobile Bay NEP Technical Advisory Committee	1996-1999
Mobile Bay NEP Living Resources Subcommittee	1996-1999
Mississippi-Alabama Coastal Zone Management Information	
Exchange Workshop-Organizer	1996
EPA Gulf of Mexico Program Toxics and Pesticides Committee	1995-1997
Mobile Bay Benthic Community Structure Trend Study	1995
Technical Advisory Committee for the Coastal Adaptive	
Resource Management Council	1995-1996
Alabama Coastal Foundation: Presentation on State of Mobile Bay	1995
Mobile Rotary Club: Presentation on the Management of Mobile Bay	1995
Mobile Optimist Club: Presentation on State of Mobile Bay	1995

3. Professional Memberships

American Association for the Advancement of Science
American Society of Limnology and Oceanography

Consortium for Ocean Leadership
 Ecological Society of America
 Estuarine Research Federation
 Sigma Xi
 Society for Conservation Biology
 National Association of Marine Laboratories
 Organization of Biological Field Stations

4. Professional Service

a) Meetings and Sessions Organized

2023 Southern Association of Marine Labs
 2010 Benthic Ecology Meeting-Co-Organizer
 2004 Benthic Ecology Meetings-Lead Organizer
 2000 Gulf Coast Environmental Symposium-Scientific Program Lead Organizer
 1993 Benthic Ecology Meetings-Co-Organizer

b) Invited Seminars

<u>Institution</u>	<u>Year</u>	<u>Title</u>
Auburn University	2014	Impacts of Intense Fishing Pressure on Community Level Trophic Cascades: An Assessment throughout the Florida Keys National Marine Sanctuary
Old Dominion University	2013	Impacts of Intense Fishing Pressure on Community Level Trophic Cascades: An Assessment throughout the Florida Keys National Marine Sanctuary
Gulf of Mexico Research Institute	2011	Alabama Marine Environmental Sciences Consortium Assessments: Field and Experimental Rapid Response Assessments of Ecosystem Resilience to Hydrocarbon Pollution and Dispersants in the northern Gulf of Mexico
University of Alabama	2011	Impacts of Intense Fishing Pressure on Community Level Trophic Cascades: An Assessment throughout the Florida Keys National Marine Sanctuary
Dauphin Island Sea Lab	2010	Impacts of food web alterations on trophic transfers at the coral reef-seagrass interface: evidence from marine protected areas in the Florida Keys National Marine Sanctuary
Florida International University	2009	Impacts of food web alterations on trophic transfers at the coral reef-seagrass interface: evidence from marine protected areas (MPA's)
Cape Eleuthera Institute	2007	Trophic exchanges among tropical marine habitats
Edith Cowan University (Perth Australia)	2006	Impacts of food web alterations on trophic transfers at the coral reef-seagrass interface: evidence from marine protected areas (MPA's)
University of Alabama at Birmingham	2006	Impacts of food web alterations on trophic transfers at the coral reef-seagrass interface: evidence from marine protected areas (MPA's) in the Florida Keys National Marine Sanctuary.
Hüso Biological Station	2005	Marine Food Web Interactions in the 21st Century: Experimental evaluation of the impacts of overfishing on trophic interactions at the coral reef-seagrass interface
Kristineberg Marine Station	2005	Marine Food Web Interactions in the 21st Century: Experimental evaluation of the impacts of overfishing on trophic interactions at the coral reef-seagrass interface

Jacksonville State University	2004	Marine reserve effectiveness in restoring coastal food webs: multitrophic level comparison
Southampton College	2004	a) Marine food web interactions in the 21st century: experimental evidence that intense harvests of large predators has altered trophic exchanges at the coral reef-seagrass interface b) Mobile-Tensaw Delta: A jewel in denial
Auburn University	2003	Seagrass Community Ecology
Hüso Biological Station	2001	Seagrass herbivory: a changing paradigm
University of North Carolina at Wilmington	2001	Seagrass herbivory: a changing paradigm
Dauphin Island Sea Lab	1999	Seagrass herbivory: additional that grazing on marine angiosperms has been greatly underestimated.
Auburn University	1995	Sea urchins in seagrasses: a reexamination of the role of herbivores in structuring sea grass meadows in the western Atlantic Ocean
University of Alabama	1995	Sea urchins and seagrass: evidence for beneficial effects of sea urchin herbivory on seagrasses

f) National Panel Activities

U.S. E.P.A. STAR Panel	2012
National Science Foundation-Research Experiences for Undergraduate (REU)	2010
National Science Foundation-Integrative Graduate Education and Research Traineeship Program (IGERT)	2007
National Science Foundation-Long Term Ecological Research (LTER)	2004
U.S. Geological Survey-Global Change Research Program	2003
NOAA-National Undersea Research Program (UNCW)	2003
National Science Foundation-Biological Oceanography Program	2000

g) Editorial Activities

Marine Ecology Progress Series Review Editor	2006-present
Marine Ecology Progress Series Review Staff	2002-2005
PLoS One Editorial Board	2013-2020