

# The Dauphin Island Sea Lab

## John F. Valentine Faculty Summary May 2004

### 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>
2001-present	Senior Marine Scientist II	DISL
2001-present	Associate Professor	USA
1994-2000	Senior Marine Research Scientist I	DISL
1994-2001	Assistant Professor	U. South Alabama
1990-1995	Technical Advisor for Environmental Studies	US Army Corps of Engineers
1990-1995	Adjunct Assistant Professor	Auburn University
1992-present	Adjunct Assistant Professor	UAB
1995-2001	Adjunct Assistant Professor	U. Alabama

#### 2. Students for whom I have been the Major Professor

<u>Name</u>	<u>Degree</u>	<u>Status</u>	<u>University</u>
Derrick Blackmon	Ph.D.	Anticipated Graduation Spring/Summer 2004	USA
Katy Blankenhorn	M.S.	Ongoing	USA
Anna Cinkovich	Ph.D.	Ongoing	USA
Ryan Kroutil	M.S.	Anticipated Graduation Spring/Summer 2004	USA
LaTina Laws Breden	Ph.D.	Ongoing	USA
Charles Martin	M.S.	Ongoing	USA
Leslie Baggett	M.S.	Graduated (2002)	UAT
Theresa Berrell	MS.	Graduated (2002)	USA
Glen Chaplin	M.S.	Graduated (2001)	USA
Julie Christian	MS.	Graduated Fall 2003	USA
Geremea Fioravanti	MS.	Graduated Fall 2003	USA
Kevin Kirsch	MS.	Graduated (1999)	USA
Fennel Blythe-Lehrte	M.S.	Graduated (1996)	USA

<sup>1</sup> Co-chair with Dr. F. Thomas-current status unknown; <sup>2</sup> Co-chair with Dr. T. Sherman

#### 3. 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>
Brad Furman	M.S.	Ongoing	USA	Heck
Nancy Hilhun	Ph.D.	Ongoing	USA	Aronson

Yusheng Huang	Ph.D.	Ongoing	UAB	McClintock
Jered Jackson	M.S.	Graduated Summer 2004	USA	Cowan
Matthew Johnson	Ph.D.	Ongoing	USA	Heck
Suzanne Moseley	M.S.	Ongoing	UAT	Schroeder
Thaddeus Murdoch	Ph.D.	Ongoing	USA	Aronson
Deborah Schaefer	Ph.D.	Ongoing	USA	Sherman
Jason Stutes	Pb.D.	Ongoing	USA	CebriAn
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.	Graduate (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	McClintock
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 Gihbs	M.S.	Graduated (1994)	USA	Heck
Susan Skleoar	M.S.	Graduated (1994)	USA	Heck

### 3. Professional Technicians

<u>Name</u>	<u>Dates</u>
Margene Goecker	2003-Present
Susan Sklenar	2003-Present

## 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

Goecker, M.E., **K.L. Heck, Jr.**, and J.F. Valentine. Accepted Pending Revision. Effects of nitrogen content in turtlegrass, *Thalassia testudinum*, on consumption by the bucktooth parrotfish, *Sparisoma radians* Marine Ecology Progress Series

Valentine, J. F., and **K. L. Heck, Jr.** Accepted Pending Revision. Interaction strength at the coral **reef-seagrass** interface: has overfishing diminished the importance of seagrass habitat production for coral reef food webs? Coral Reefs.

Valentine, J. F., and J. Emmett Duffy. In Press. Grazing seagrass food webs. edited by Tony Larkum, Robert Orth and Carlos Duarte

Valentine, J. F., E.F., Blythe, S. Madhavan and T. Sherman. In press. 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.

Valentine, J.F., K.L. Heck Jr., and A.M. Cinkovich. 2003. Impacts of seagrass food webs on marine ecosystems: a need for a broader perspective. Bulletin of Marine Science. Vol. 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., and J. F. Valentine. 2001. Measuring predation with tethering experiments. Marine Ecology Progress Series. 214: 311-312

Valentine, J. F., and 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. Vol. 258: 65-86.

Heck, K. L., J. R. Pennock, J. F. Valentine, L. D. Coen and 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 and 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 and 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.

Valentine, J. F. and K. L. Heck, Jr. 1999. Seagrass herbivory: evidence for the continued grazing of marine grasses. Marine Ecology Progress Series 176291-302.

Valentine, J. F., K. L. Heck, Jr., J. Busby and 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. and 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 and M. Beck. 1994. An experimental examination of the role of biohabitation 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.

Hopkins, T. S., J. F. Valentine, J. B. McClintock, K. Marion and 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. and G. D. Goeke. 1983. The first reported occurrence of *Holothuria lentiginosa enodis* in the northern Gulf of Mexico. *Northeast Gulf Science* 6:155.

Pawson, D. L. and 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. Relevant Manuscripts Submitted for Review

Baggett, L., and J.F. Valentine. Impacts of the intense harvesting of a mid-trophic level predator: experimental evidence that fishing down the food web can have important indirect impacts on benthic community structure. *Journal of Experimental Marine Biology and Ecology*.

Chaplin, G. and J.F. Valentine. Secondary production of macroinvertebrates in the tidal influenced Mobile Bay Delta. *Ecology*

Heck, K.L., J.F. Valentine, J.R. Pennock, G. Chaplin, and P.M. Spitzer. How herbivores can mediate the effects of nutrient enrichment on seagrass meadows: unexpected results of a field experiment. *Limnology and Oceanography*

### 5. Book contributions-Due March 1,2003

Valentine, J. F., and J. Emmett Duffy. In Review. Grazing seagrass food webs. edited by Tony Larkum, Robert Orth and Carlos Duarte

### 6. Technical Reports

Valentine, J. F. and 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 pages<sup>1</sup>.

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., and 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 and 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. US Army Corps of Engineers South Atlantic Division. 57 pages plus appendices.

Hopkins, T. S., J. F. Valentine and 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.

<sup>1</sup> Complete copy of this report is available if needed.

## 7 . Published Abstracts

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. and 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, Ryan M. and John 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, and 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., and 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., and 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. and 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., and 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, and 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, and J.F. Valentine. 2002. The effects of nitrogen content of turtlegrass, *Thalassia testudinum*, on rates of herbivory by the buctooth parrotfish, *Sparisoma radians*. ISBWS. Ensenada, Mexico.

Heck, K.L., J. F. Valentine and P.M. Spitzer. 2002. Plant - Animal Interactions in Seagrass Meadows: A Review and Prospectus. International Seagrass Biology Workshop (ISBWS). 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., and 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., and 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

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 ISBWS. Ensenada, Mexico. Invited Talk.

Valentine, J.F., and 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. and 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

Chistian, J. and 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. and 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., Valentine, J.F., Blythe-Lehrter, F., Madvavan, S. 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 and 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, Raneia cuneata. Benthic Ecology Meetings, Wilmington, NC.
- Berrell, T. A., J.F. Valentine. 2000. Correlation between RNA:DNA and growth of brackish water clam, Raneia cuneata. University of South Alabama, 6<sup>th</sup> Annual Research Forum.
- Chaplin, G. I. and 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. and 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, 6<sup>th</sup> Annual Research Forum.
- McCloskey, B.J. and J.F. Valentine, J.F. 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, and 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., and 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. and 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 and 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 and 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. and 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, L. F. and 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. and 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 and K. L. Heck. 1999. Differential mortality and gender specific behavioral responses of *Palaeomonetes pugio* (grass shrimp) to predation by *Lagodon rhomboides* (pinfish). Benthic Ecology Meetings. Baton Rouge, LA.

Kirsch, K. D., J. F. Valentine and 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 *Lyttechinus variegatus* in the Florida Keys. Benthic Ecology Meetings. Baton Rouge, LA.

Spitzer, P., K. L. Heck and 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. and 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. and J. F. Valentine. 1998. Energy flow in a tidal freshwater-estuarine ecotone. Benthic Ecology Meetings, Melbourne, FL.

Kirsch, K. K., J. F. Valentine and K. L. Heck. 1998. Herbivory on *Thalassia testudinum* by fish in the Florida Keys. Benthic Ecology Meetings, Melbourne, FL.

Chaplin, G. and J. F. Valentine. 1998. Energy flow in a tidal freshwater-estuarine ecotone. University of South Alabama, 5<sup>th</sup> Annual Research Forum.

Kirsch, K. K., J. F. Valentine and K. L. Heck. 1998. Herbivory on *Thalassia testudinum* by fish in the Florida Keys. University of South Alabama, 5<sup>th</sup> Research Council Forum.

Valentine, J. F., K. L. Heck, Jr., L. Scarborough and 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 and 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 and 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 and 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, and 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 and 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 and 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 and M. Beck. 1992. The role of hioturbation in the maintenance of seagrass sand flat patch mosaics. Benthic Ecology Meetings, University of Rhode Island, Newport RI.

Valentine, J. F. and 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. and 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. and K. L. Heck. 1990. Role of sea urchin herbivory in regulating seagrass meadow size. Benthic Ecology Meetings, Mobile, AL.

Valentine, J. F. and K. L. Heck, Jr. 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. Pavers vresented where abstracts were not published

*Academics and Government Institutions*

Valentine, J.F. and 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 and 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 and 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.

## VI. Institutional and Community Service

1.	<u>Committee Assignments</u>	<u>Year</u>
	DISL Curriculum Committee	<b>2003-</b>
	DISL Graduate Student Association Meeting Judge	<b>2003</b>
	DISL Coastal Marine Scholar Search Committee-Chair	<b>2003</b>
	DTSL MASGC Marine Science Scholars Program	<b>2002-</b>
	USA Recruitment Committee	<b>2003-</b>
	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
	USA/DISL Curriculum Committee	2000-
	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.	<u>Service to the Surrounding Community</u>	
	<u>Committee or Service</u>	<u>Year</u>
	Alba Elementary School Presentation	<b>2004</b>
	USA Representative to Mississippi-Alabama Sea Grant Board of Directors Meeting	<b>2004</b>
	Auburn University Landscape Ecology Class Presentation	2001
	Baldwin County Audubon Society Chapter	2001
	Mobile County School System Environmental Sciences Seminar	2001
	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  
 Ecological Society of America  
 Estuarine Research Federation  
 Sigma Xi  
 Society for Conservation Biology

### 4. Professional Service

- a) Meetings and Sessions Organized  
 2004 Benthic Ecology Meetings-Lead Organizer  
 2000 Gulf Coast Environmental Symposium-Scientific Program Lead Organizer  
 1993 Benthic Ecology Meetings

#### b) Invited Seminars

<u>Institution</u>		<u>Title</u>
Auburn University	1995	Sea urchins in seagrasses: a reexamination of the role of herbivores in <b>structuring</b> 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
Dauphin Island Sea Lab	1999	Seagrass herbivory: additional that grazing on marine angiosperms has been greatly underestimated.
University of North Carolina at Wilmington	2001	Seagrass herbivory: a changing paradigm
Hüso Biological Station	2001	Seagrass herbivory: a changing paradigm
Auburn University	2003	Seagrass Community Ecology
Jacksonville State University	2004	Marine reserve effectiveness in restoring coastal food webs: multitrophic level comparison
Southampton College	2004	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 Mobile-Tensaw Delta: A jewel in denial

#### f) National Panel Activities

National Science Foundation-Biological Oceanography Program	2000
US. Geological Survey-Global Change Research Program	2003
NOAA-National Undersea Research Program (UNCW)	2003
National Science Foundation-Long Term Ecological Research	2004

#### g) Editorial Activities

Marine Ecology Progress Series Review Staff	<b>2002-present</b>
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h) Review Activities'

	<u>Number Reviewed</u>
1) Grants and contracts	
American Academy of Underwater Scientists	9
U.S. Army Corps of Engineers	2
U.S. Environmental Protection Agency	<b>3</b>
<b>U.S. Geological Suwey</b>	<b>6 this year</b>
NOAA-COP	4
NOAA-National Undersea Research Program	<b>3</b>
National Science Foundation-Bio Oce., Ecosystems, Facilities	12
California, Louisiana, Maine, New York, North Carolina, Rhode Island and Washington Sea Grants	16
Total	51
2) Journal Reviews	<u>Number Reviewed</u>
Botanica Marina	<b>3</b>
Bulletin of Marine Science	6
Coastal Shelf Research	1
Coral Reefs	1
Ecology	1
Estuarine, Coastal Shelf Science	1
Estuaries	3
Gulf Research Reports	1
Invertebrate Biology	1
Journal of Experimental Marine Biology and Ecology	10
Journal of Coastal Research	1
Journal of Sea Research	2
Northeast Gulf Science	<b>3</b>
Marine Ecology Progress Series	29
Marine Biology	3
Naturwissenschaften	1
Oecologia	1
U.S. Environmental Protection Agency	4
U.S. National Marine Fisheries	1
Wetlands	1

<sup>1</sup>Copies of these reviews can be provided if needed.