



ECOHAB AND RELATED PAPERS SUBMITTED, IN-PRESS, OR PUBLISHED

Carder, K.L., J. Patch, J.J. Walsh, R. Chen, Z. Lee, C. Heil, and T. Villareal. Submitted. Now-casting red tides in the Gulf of Mexico: An optical view. *Journal of Geophysical Research*.

Culver, M.E., M.P. Soracco, R.P. Stumpf, P.S. Chang, and K.A. Steidinger. 2000. Integrating wind data to determine the influence on movement of a harmful algal bloom event along the northwest coast of Florida. Pp. 509–515 in *Proceedings of the Sixth International Conference on Remote Sensing for Marine and Coastal Environments*.

Darrow, B.P. 2001. An analysis of factors affecting the growth of benthic microalgae following the decline of a surface phytoplankton bloom. M.S. thesis, University of South Florida, Tampa.

Darrow, B.P., J.J. Walsh, G.A. Vargo, R.T. Masserini, Jr., K.A. Fanning, and J. Zhang. 2003. A simulation study of the growth of benthic microalgae following the decline of a surface phytoplankton bloom. *Continental Shelf Research* 23(14–15):1265–1283.

Doucette, G.J., E.R. McGovern, and J.A. Babinchak. 1999. Algicidal bacteria active against *Gymnodinium breve* (Dinophyceae). I. Bacterial isolation and characterization of killing activity. *Journal of Phycology* 35:1447–1454.

Evens, T.J., G.J. Kirkpatrick, D.F. Millie, D.J. Chapman, and O.M.E. Schofield. 2001. Photophysiological responses of the toxic red-tide dinoflagellate *Gymnodinium breve* (Dinophyceae) under natural sunlight. *Journal of Plankton Research* 23(11):1177–1192.

Evens, T.J., G.J. Kirkpatrick, D.F., Millie, and D. Chapman. 2001. Photophysiological responses of the red-tide dinoflagellate *Gymnodinium breve* (Dinophyceae) under natural irradiance. *Journal of Plankton Research* 23:1177–1194.

He, R., and R.H. Weisberg. 2003. West Florida shelf circulation and temperature budget for the 1998 fall transition. *Continental Shelf Research* 23(8):777–800.

He, R., and R.H. Weisberg. 2002. West Florida shelf circulation and temperature budget for the 1999 spring transition. *Continental Shelf Research* 22(5):719–748.

Heil, C.A., G.A. Vargo, D. Spence, M.B. Neely, T. Merkt, K. Lester, and J.J. Walsh. 2001. Nutrient stoichiometry of a *Gymnodinium breve* bloom: What limits blooms in oligotrophic environments? Pp. 165–168 in G.M. Hallegraeff, S.I. Blackburn, C.J. Bolch, R.J. Lewis, eds. *Harmful Algal Blooms 2000*. Intergovernmental Oceanographic Commission of UNESCO.

Kirkpatrick, G.J., O.E. Schofield, D.F. Millie, and M. Moline. 2000. Optical discrimination of a phytoplankton species in natural mixed populations. *Limnology and Oceanography* 45:467–471.

- Lenes, J.M. 2002. Iron fertilization of *Trichodesmium* off the west coast of Barbados: A one-dimensional numerical model. M.S. thesis, University of South Florida, Tampa.
- Lenes, J.M., B.P. Darrow, C. Cattrall, C.A. Heil, M. Callahan, G.A. Vargo, R.H. Byrne, J.M. Prospero, D.E. Bates, K.A. Fanning, and J.J. Walsh. 2001. Iron fertilization and the *Trichodesmium* response on the west Florida shelf. *Limnology and Oceanography* 46:1261–1277.
- Lester, K.M., R. Merkt, C.A. Heil, G.A. Vargo, M.B. Neely, D.N. Spence, L. Melahn, and J.J. Walsh. 2001. Evolution of a *Gymnodinium breve* (Gymnodiniales, Dinophyceae) red tide bloom on the west Florida shelf: Relationship with organic nitrogen and phosphorus. Pp. 161–164 in G.M. Hallegraeff, S.I. Blackburn, C.J. Bolch, R.J. Lewis, eds. *Harmful Algal Blooms 2000*. Intergovernmental Oceanographic Commission of UNESCO.
- Litaker, W., R. Sundseth, M. Wojciechowski, C. Bonaventura, R. Henkens, and P. Tester. 2001. Electrochemical detection of DNA or RNA from harmful algal blooms species. Pp. 242–245 in G.M. Hallegraeff, S.I. Blackburn, C.J. Bolch, R.J. Lewis, eds. *Harmful Algal Blooms 2000*. Intergovernmental Oceanographic Commission of UNESCO.
- Litaker, W., and P.A. Tester. 2001. Molecular methods for detecting and characterizing harmful phytoplankton. In: *Manual of Environmental Microbiology* (2nd ed). American Society for Microbiology Press.
- Liu, G. 2000. A numerical study of the population dynamics of the autotrophic dinoflagellate *Gymnodinium breve*. Ph.D. thesis, North Carolina State University.
- Liu, G., G.S. Janowitz, and D. Kamykowski. 2001. The influence of environmental nutrient condition on *Gymnodinium breve* (Dinophyceae) population dynamics: A numerical study. *Marine Ecology Progress Series* 210:101–124.
- Liu, G., G.S. Janowitz, and D. Kamykowski. 2002. Influence of current shear on *Gymnodinium breve* (Dinophyceae) population dynamics: a numerical study. *Marine Ecology Progress Series* 231:47–66.
- Lohrenz, S.E., G.L. Fahnenstiel, G.J. Kirkpatrick, C.L. Carroll, and K.A. Kelly. 1999. Microphotometric assessment of spectral absorption and its potential application for characterization of harmful algal species. *Journal of Phycology* 35:1438–1446.
- Lohrenz, S.E., D.G. Redalje, and G.J. Kirkpatrick. 2001. Optical variability associated with a *Gymnodinium breve* red tide event off northwestern Florida. *Oceanography* 14(1):34.
- Mahoney, K.L., S.E. Lohrenz, G.J. Kirkpatrick, and G.L. Fahnenstiel. 2001. Mie approximation of light scattering by *Gymnodinium breve* and its relationship to *in situ* scattering during a red tide event. *Oceanography* 14(1):36.
- Millie, D.F., C.P. Dionigi, and P.A. Tester. 1999. What is the importance for understanding the molecular, cellular, and ecophysiological bases of harmful algal blooms? *Journal of Phycology* 35:1353–1355.
- Millie, D.F., O. Schofield, G.J. Kirkpatrick, G. Johnsen, and T.J. Evens. 2002. Using absorbance and fluorescence spectra to discriminate microalgae. *European Journal of Phycology* 37:313–322.
- Pierce, R.H., and G.J. Kirkpatrick. 2001. Innovative techniques for harmful algal toxin analysis. *Environmental Toxicology and Chemistry* 20(1):107–114.

- Pinckney, J.L., T.L. Richardson, D.F. Millie, and H.W. Paerl. 2001. Application of photopigment biomarkers for quantifying microalgal community composition and *in situ* growth rates. *Organic Geochemistry* 32:585–595.
- Schofield, O.E.M., D.F. Millie, and G.J. Kirkpatrick, eds. 1999. Molecular, cellular, and ecophysiological bases of harmful algal blooms. *Journal of Phycology* special issue 35(6):1353–1496.
- Schofield, O.E., S. Glenn, G.J. Kirkpatrick, D.F. Millie, and M.A. Moline. 1999. Optical monitoring and forecasting systems for harmful algal blooms: Possibility or pipe dream? *Journal of Phycology* 35:1476–1496.
- Subramaniam, A., M. Culver, M.E. Geesey, and C.A. Heil. 2000. NOAA Cruise APR00FWS: West Florida Shelf Cruise. CSC Technical Report: NOAA/CSC/20018-PUB, National Oceanic and Atmospheric Administration, Coastal Services Center. 40 pp.
- Tester, P.A., J.T. Turner, and D. Shea. 2000. Vectorial transport of toxins from the dinoflagellate *Gymnodinium breve* through copepods to fish. *Journal of Plankton Research* 22:47–61.
- Van Dolah, F.M. and T.A. Leighfield. 1999. Diel phasing of the cell-cycle in the Florida red tide dinoflagellate, *Gymnodinium breve*. *Journal of Phycology* 35:1404–1411.
- Vargo, G.A., C.A. Heil, D.N. Spence, M.B. Neely, R. Merkt, K.J. Lester, R.H. Weisberg, J.J. Walsh, and K.A. Fanning. 2001. The hydrographic and nutrient setting of a *Gymnodinium breve* Davis (Gymnodiniales, Dinophyceae) red tide. Pp. 157–160 in G.M. Hallegraeff, S.I. Blackburn, C.J. Bolch, R.J. Lewis, eds. *Harmful Algal Blooms 2000*. Intergovernmental Oceanographic Commission of UNESCO.
- Walsh, J.J., R.H. Weisberg, D.A. Dieterle, R. He, B.P. Darrow, W.P. Bissett, G.A. Vargo, G.J. Kirkpatrick, K.A. Fanning, T.T. Sutton, A. Jochens, D.C. Biggs, and F.E. Muller-Karger. 2003. Phytoplankton response to intrusions of slope water on the west Florida shelf: Models and observations. *Journal of Geophysical Research* 108(C6):1–23.
- Walsh, J.J., K.D. Haddad, D.A. Dieterle, R.H. Weisberg, Z. Li, H. Yang, F.E. Muller-Karger, C.A. Heil, and W.P. Bissett. 2002. A numerical analysis of landfall of the 1979 red tide of *Karenia brevis* along the west coast of Florida. *Continental Shelf Research* 22(1):15–38.
- Walsh, J.J., and K.A. Steidinger. 2001. Saharan dust and Florida red tides: The cyanophyte connection. *Journal of Geophysical Research* 106:11597–11612.
- Walsh, J.J., B. Penta, D.A. Dieterle, and W.P. Bissett. 2001. Predictive ecological modeling of harmful algal blooms. *Human Ecology Risk Assessment* 7:1369–1383.
- Walsh, J.J., G.A. Vargo, R.H. Weisberg, G.J. Kirkpatrick, K.A. Fanning, T. Sutton, and W.P. Bissett. In revision. Isotope delineation of the phytoplankton response to a Loop Current intrusion on the west Florida shelf. *Continental Shelf Research*.
- Weisberg, R.H., Z. Li, and F. Muller-Karger. 2001. West Florida shelf response to local wind forcing: April 1998. *Journal of Geophysical Research* 106(C12):31239–31262.
- Weisberg, R.H., B. Black, and Z. Li. 2000. An upwelling case study on Florida's west coast. *Journal of Geophysical Research* 105:11459–11469.

Yang, H., and R.H. Weisberg. 2000. A three-dimensional numerical study of storm surges along the west Florida coast. COMPS Technical Report 2000, College of Marine Science, University of South Florida, St. Petersburg. 53 pp.

Yang, H., and R.H. Weisberg. 1999. Response of the west Florida shelf circulation to climatological wind stress. *Journal of Geophysical Research* 104:5301–5320.

PRESENTATIONS

Barbier, M., T.A. Leighfield, and F.M. Van Dolah. Identification of cell cycle regulators in the Florida red tide dinoflagellate, *Gymnodinium breve*. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Barbier, M., T.A. Leighfield, and F.M. Van Dolah. Cell cycle regulators in the Florida red tide dinoflagellate, *Gymnodinium breve*. Phycological Society of America, July 15–19, 2000. San Diego, CA.

Darrow, B.P., J.M. Lenes, C. Cattral, M. Callahan, R.H. Byrne, J.M. Prospero, D.E. Bates, and J.J. Walsh. Atmospheric deposition of iron on the west Florida shelf. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting, Feb. 12–16, 2001. Albuquerque, NM.

Heil, C.A., G.A. Vargo, K. Lester, R. Merkt, M.B. Neely, D. Spence, and J.J. Walsh. Are all chlorophyll-a measurements created equal? Paper to be presented at 2001 American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting, Feb. 12–16, 2001. Albuquerque, NM.

Heil, C.A., G.A. Vargo, D. Spence, M.B. Neely, R. Merkt, K. Lester, and J.J. Walsh. Nutrient Stoichiometry of a *Gymnodinium breve* Davis (Gymnodiniales: Dinophyceae) bloom: What limits blooms in oligotrophic environments? 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Heil, C.A. Red Tide Problems in Florida. Invited Seminar given to Department of Biological Sciences, Oct. 12, 1999. Kuwait University.

Heil, C.A., G.A. Vargo, D.N. Spence, R. Merkt, M.B. Neely, K. Lester, L. Melahn, and J.J. Walsh. Evolution of a *Gymnodinium breve* red tide bloom on the west Florida shelf: Nutrient Stoichiometry. Poster presented at 1999 Estuarine Research Federation (ERF) Meeting, Oct. 18–23, 1999. New Orleans, LA.

Houchin, D.G., and J.H. Paul. 2000. Exploring lytic and temperate viruses of *Gymnodinium breve* as a mechanism of controlling red tide blooms. American Society of Limnology and Oceanography (ASLO) Summer Meeting, Jun. 5–9, 2000. Copenhagen, DK. Abstract CS16. 13 pp.

Kamykowski, D., G.S. Janowitz, G. Liu, E.J. Milligan, and R.E. Reed. The roll of behavior in *Gymnodinium breve* bloom formation. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Kirkpatrick, G.A., D.F. Millie, S.E. Lohrenz, O. Schofield, G.A. Fahnenstiel, D. Redalje, and T. Evens. ECOHAB:Florida: Bio-optics and physiology. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Kirkpatrick, G.J., A.J. Haywood, and J. Adamson. 2000. Pigment complement support for the assignment of a new genus within Gymnodiniales. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Kirkpatrick, B., R.D. Hautamaki, T. Kane, M. Henry, and R. Pierce. 2000. A pilot study to explore occupational exposure of *Gymnodinium breve* Davis and pulmonary function. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Kirkpatrick, G.J., D.F. Millie, O.M. Schofield, and M. Moline. 2000. Optical discrimination of HAB species in natural mixed populations. HAB-Tech 2000 (Pre-Conference Workshop of the 9th International Conference on Harmful Algal Blooms), Jan. 2000. Nelson, New Zealand.

Landsberg, J., P.A. Tester, R. Pierce, D. Shea, F.M. VanDolah, E. Sosa, M. Henry, J. Fournie, L. Flewelling, S. Varnam, and T.A. Leighfield. ECOHAB:Florida: Fate and effects of brevetoxins in selected biota water and sediments along the west Florida shelf, USA. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Leighfield, T.A., and F.M. Van Dolah. Measurement of microalgal cell volume by flow cytometry. Phycological Society of America, July 15–19, 2000. San Diego, CA.

Lenes, J.M., B.P. Darrow, C. Cattrall, C.A. Heil, M. Callahan, G.A. Vargo, R.H. Byrne, J.M. Prospero, D.E. Bates, K.A. Fanning, and J.J. Walsh. Iron fertilization and the *Trichodesmium* response on the west Florida shelf. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting, Feb. 12–16, 2001. Albuquerque, New Mexico.

Litaker, W., K.S. Reece, N.A. Stockes, K.A. Steidinger, and P. Tester. Polymorphisms in the ITS region of dinoflagellates: Implications for phylogeny and probe development. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Lohrenz, S.E., G.L. Fahnenstiel, and G.J. Kirkpatrick. Microphotometric assessment of spectral absorption and its potential application for characterization of harmful algal species. Phycological Society of America Annual Meeting, Aug. 3–8 1998. Flagstaff, AZ.

Lohrenz, S.E., D.G. Redalje, and G.J. Kirkpatrick. Optical variability associated with a *Gymnodinium breve* red tide event off northwestern Florida. The Oceanography Society Biennial Scientific Meeting, April 2–5, 2001, Miami, FL.

Mahoney, K.L., S.E. Lohrenz, G.J. Kirkpatrick, and G.L. Fahnenstiel. 2001. Mie approximation of light scattering by *Gymnodinium breve* and its relationship to *in situ* scattering during a red tide event. The Oceanography Society Biennial Scientific Meeting, April 2–5, 2001. Miami, FL.

Merkt, R., K. Lester, C.A. Heil, G.A. Vargo, M.B. Neely, D. Spence, and L. Melahn. Evolution of a *Gymnodinium breve* (Gymnodiniales, Dinophyceae) red tide bloom on the west Florida shelf: Relationship with organic nitrogen and phosphorus. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Neely, M.B., G.A. Vargo, C.A. Heil, K. Lester, R. Merkt, D. Spence, K.A. Fanning, and H. Rutherford. Evolution of a *Gymnodinium breve* (Gymnodiniales, Dinophyceae) red tide bloom on the west Florida shelf: Inorganic nutrient sufficiency. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Mayali, X., and G.J. Doucette. Algicidal bacteria active against *Gymnodinium breve*: Use of molecular techniques to assess changes in microbial communities following the introduction of bacteria. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Paul, J.H., L. Houchin, D. Griffin, T. Slikfo, and M. Guo. Searching for viruses infective for *Gymnodinium breve*. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Pederson B.A., G.J. Kirkpatrick, and D.F. Millie. Frontal accumulation of the red tide organism *Gymnodinium breve* (Davis), Eos Trans. AGU, 80(49), Ocean Sciences Meeting, Supplemental, OS41D-04, 2000.

Pierce, R., M. Henry, P. Blum, and S. Payne. *Gymnodinium breve* toxins without cells: Extra-cellular and intra-cellular toxins. Presented at the 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Pierce, R., M. Henry, P. Blum, P. Tester, and D. Shea. Intra-cellular, particulate and dissolved brevetoxin distribution during *Gymnodinium breve* blooms in the Gulf of Mexico, USA. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Spence, D., G.A. Vargo, C.A. Heil, R. Merkt, M.B. Neely, K. Lester, L. Melahn, R. Weisberg, and J.J. Walsh. Evolution of a *Gymnodinium breve* (Gymnodiniales, Dinophyceae) red tide bloom on the west Florida shelf: relationships with physical factors. Presented at the 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Steidinger, K.A., and J.J. Walsh. ECOHAB:Florida: An overview. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Steidinger, K.A., J.J. Walsh, and G.J. Kirkpatrick. ECOHAB:Florida overview— The environment. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Stumpf, R.P., V. Ransibrahmanakul, K.A. Steidinger, and P.A. Tester. Observations of sea surface temperature and winds associated with Florida, USA, Red Tides (*Gymnodinium breve*). Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Thomas, D.G., R.A. Arnone, R.P. Stumpf, K.A. Steidinger, and B.A. Pederson. Tracing Florida's harmful algal blooms using SeaWiFS bio-optical properties, Eos Trans. AGU, 80(49), Ocean Sciences Meeting, Supplemental, OS22E-08, 2000.

Van Dolah F.M., M. Barbier, T.A. Leighfield, K.A. Steidinger, W.P. Richardson, and P.M. McGuire. Roles of endogenous cellular rhythms and life cycle stage recruitment in *Gymnodinium breve* bloom development. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Van Dolah, F.M., and T.A. Leighfield. Cell cycle regulation in the dinoflagellate, *Gymnodinium breve*. Phycological Society of America, Aug. 4–9, 1998, Phoenix, AZ, and 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000, Hobart, Australia.

Vargo, G.A., C.A. Heil, D. Spence, M.B. Neely, R. Merkt, K. Lester, R.H. Weisburg, J.J. Walsh, and K.A. Fanning. An overview of the ECOHAB:Florida region on the west Florida shelf: basic hydrographic information and its relationship to a *Gymnodinium breve* Davis (Gymnodiniales, Dinophyceae) red tide. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia

Vargo, G.A., D.N. Spence, C.A. Heil, R. Merkt, M.B. Neeley, K. Lester, and J.J. Walsh. Evolution of a *Gymnodinium breve* red tide bloom on the west Florida shelf: bloom progression. Poster at 1999 Estuarine Research Federation Meeting, Oct. 18–23, 1999. New Orleans, LA.

Vargo, G.A., C.A. Heil, J.J. Walsh, K. Fanning, K.A. Steidinger, D. Ault, M.B. Neely, K. Lester, and R. Merkt. Hydrography and nutrient characteristics within the ECOHAB: Florida control volume on the west Florida shelf. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Walsh, J.J., and K.A. Steidinger. Saharan dust and Florida red tides: the cyanophyte connection. 9th International Conference on Harmful Algal Blooms, Feb. 7–11, 2000. Hobart, Australia.

Walsh, J.J., W.P. Bissett, B.A. Penta, D.A. Dieterle, R.H. Weisberg, X. Li, and H. Yang. Coupled numerical models of Florida red tides of *Gymnodinium breve*. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.

Walsh, J.J., C.A. Heil, and G.A. Vargo. Isotopic evidence for nitrogen sources supporting *Gymnodinium breve* blooms in the west Florida shelf waters. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting, Feb. 12–16, 2001. Albuquerque, NM.

Weisberg, R.H., R. He, W. Hemme, X. Li, and H. Yang. ECOHAB:Florida: Physical oceanography. Symposium on Harmful Marine Algae in the U.S., Dec. 5–9, 2000. Woods Hole, MA.