



## Cooperative Oxford Laboratory

Peer-reviewed Publications Prior to 2015

### 2014

Arnold, J.E., M.A. **Matsche**, and K. **Rosemary**. 2014. Preserving whole blood in formalin extends the specimen stability period for manual cell counts for fish. *Veterinary Clinical Pathology* 43(4): 613-620.

Bronson, E., H. Spiker, and C.P. **Driscoll**. 2014. Serosurvey for selected pathogens in free-ranging American black bears (*Ursus americanus*) in Maryland, USA. *Journal of Wildlife Diseases* 50(4): 829–836.

Carey, M. P., Levin, P. S., **Townsend**, H., Minello, T. J., Sutton, G. R., Francis, T. B., Ruckelshaus, M. (2014). Characterizing coastal foodwebs with qualitative links to bridge the gap between the theory and the practice of ecosystem-based management. *Ices Journal of Marine Science*, 71(3): 713-724.

da Silva, P.M., M.P. Scardua, R.T. Vianna, R.C. Mendonça, C.B. Vieira, C.F. **Dungan**, G.P. Scott, and K.S. Reece. 2014. Two *Perkinsus* spp. infect *Crassostrea gasar* oysters from cultured and wild populations of the Rio São Francisco estuary, Sergipe, northeastern Brazil. *Journal of Invertebrate Pathology* 119: 62-71.

Flowers, J.R. and M.A. **Matsche**. 2014. Notes on the fish parasite *Nitzschia* (Monogenoidea: Capsalidae) in North America. *Northeastern Naturalist* 21(3): N18-N27.

**Jacobs**, J.M., M. **Rhodes**, C. Brown, R. Hood, A.K. **Leight**, W. Long, and R.J. **Wood**. 2014. Modeling and forecasting the distribution of *Vibrio vulnificus* in Chesapeake Bay. *Journal of Applied Microbiology* 117: 1312-1327.

**Matsche**, M. A., Arnold, J., Jenkins, E., **Townsend**, H., & **Rosemary**, K. (2014). Determination of hematology and plasma chemistry reference intervals for 3 populations of captive Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). *Veterinary Clinical Pathology*, 43(3), 387-396.

**McLaughlin**, S.M., C. Sindermann, and R. Cipriano. 2014. In Memoriam – Aaron Rosenfield. (1924-2013). *Journal of Shellfish Research* 33(2): 331-335.

Rodgers, C., S. Parveen, P. Chigbu, J. **Jacobs**, M. **Rhodes**, and J. Harter-Dennis. 2014. Assessments of the levels of *Vibrio parahaemolyticus* and *V. vulnificus* in blue crabs (*Callinectes sapidus*), seawater, and sediments of the Maryland coastal bays. *Journal of Applied Microbiology* 117(4): 1198-1209.

Shaw, K.S., J.M. **Jacobs**, and B.C. Crump. 2014. Impact of Hurricane Irene on *Vibrio vulnificus* and *Vibrio parahaemolyticus* concentrations in surface water, sediment and cultured oysters in the

Chesapeake Bay, Maryland, USA. *Frontiers in Microbiology* 5:1-10.

Shaw, K.S, R.E. Rosenberg Goldstein, X. He, J.M. **Jacobs**, B.C. Crumps, and A.R. Sapkota. 2014. Antimicrobial susceptibility of *Vibrio vulnificus* and *Vibrio parahaemolyticus* recovered from recreational and commercial areas of Chesapeake Bay and Maryland coastal bays. *PLoS One* 9(2): e89616.

Toft, J. E., Burke, J. L., Carey, M. P., Kim, C. K., Marsik, M., Sutherland, D. A., **Townsend**, H. M. 2014. From mountains to sound: modelling the sensitivity of Dungeness crab and Pacific oyster to landsea interactions in Hood Canal, WA. *ICES Journal of Marine Science*, 71(3): 725-738.

**Townsend, H.** 2014. Comparing and coupling a water quality and a fisheries ecosystem model of the Chesapeake Bay for the exploratory assessment of resource management strategies. *Ices Journal of Marine Science*, 71(3): 703-712.

## 2013

Blazer, V.S., A.E. Pinkney, J.A. Jenkins, L.R. Iwanowicz, S. Minkinen, R.O. Draugelis-Dale, and J.H. **Uphoff**. 2013. Reproductive health of yellow perch *Perca flavescens* in selected tributaries of the Chesapeake Bay. *Science of the Total Environment* 447: 198-209.

Brown, C.W., R.R. Hood, W. Long, J. **Jacobs**. D.L. Ramers, C. Wazniak, J.D. Wiggert, R. **Wood**, and J. Xu. 2013. Ecological forecasting in Chesapeake Bay: Using a mechanistic-empirical modeling approach. *Journal of Marine Systems* 125: 113-125.

Dubey, J.P., D. Hill, D. Zarlenga, S. Choudhary, L.R. Ferreira, S. Oliveira, S.K. Verma, O.C.H. Kwok, C.P. **Driscoll**, and H. Spiker. 2013. Isolation and genetic characterization of *Toxoplasma gondii* and *Trichinella murelli* from black bear (*Ursus americanus*). *Veterinary Parasitology* 196: 24-30.

Hanif, A., W. Dyson, H.A Bowers, J.S Pitula, G.A. **Messick**, R. Jagus, and E.J. Schott. 2013. Variation in temporal and spatial incidence of the crustacean pathogen *Hematodinium perezii* in environmental samples from Atlantic coastal bays. *Aquatic Biosystems* 9:11.

Ihde, T., and H. **Townsend**. 2013. Interview with Jason Link: Champion for Ecosystem Science and Management. *Fisheries*, 38(8): 363-369.

**Jacobs, J. M.**, R.M. Harrell, J. **Uphoff**, H. **Townsend**, and K. Hartman. 2013. Biological Reference Points for the Nutritional Status of Chesapeake Bay Striped Bass. *North American Journal of Fisheries Management*, 33(3), 468-481.

**Marcino, J.** 2013. A comparison of two methods for colorimetric *in situ* hybridization using paraffin-embedded tissue sections and digoxigenin-labeled hybridization probes. *Journal of Aquatic Animal Health* 25(2): 119-124.

**Matsche, M.A.** 2013. A portable electro-immobilization and laparoscopy system for sex determination and gonadal biopsy in largemouth bass *Micropterus salmoides*. *Journal of Fish Biology* 83(5): 1391-1400.



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**Matsche, M.A., K.M. Rosemary, H.M. Brundage III, and J.C. O'Herron II.** 2013. Hematology and plasma chemistry of wild shortnose sturgeon *Acipenser brevirostrum* from Delaware River, USA. *Journal of Applied Ichthyology* 29(1): 6-14.

**Matsche, M.A.** 2013. Relative physiological effects of laparoscopic surgery and anesthesia with tricaine methanesulfonate (MS-222) in Atlantic sturgeon *Acipenser oxyrinchus oxyrinchus*. *Journal of Applied Ichthyology* 29(3): 510-519.

**Matsche, M.A., K.M. Rosemary, H.M. Brundage III, and J.C. O'Herron II.** 2013. Reproductive demographics, intersex, and altered hormone levels in shortnose sturgeon *Acipenser brevirostrum* from Delaware River, USA. *Journal of Applied Ichthyology* 29(2): 299-309.

Miller, E.A., E. Brunner, C. **Driscoll**, and P. McGowan. 2013. Botulism...or is it? *Wildlife Rehabilitation Bulletin*. 31(1): 1-12.

Ng, T.F.F., C.P. **Driscoll**, M.P. Carlos, A. Prioleau, T. Schmieder, B. Dwivedi, J. Wong, Y. Cha, S. Head, M. Breitbart, and E. Delwart. 2013. A distinct lineage of vesiculovirus from big brown bats, United States. *Emerging Infectious Diseases* 19(12): 1981-1983.

**Rhodes, M., H. Bhaskaran, and J.M. Jacobs.** 2013. Short term variability in the abundance of *Vibrio vulnificus* and *Vibrio parahaemolyticus* in a tidal estuary. *Journal of Marine Biology and Oceanography* 2:2.

Zhang, H., D.A. Campbell, N.R. Sturm, M.A. Rosenblad, C.F. **Dungan**, and S. Lin. 2013. Signal recognition particle RNA in dinoflagellates and the perkinsid *Perkinsus marinus*. *Protist* 164(5): 748-761.

### 2012

**Dungan, C.F., R.B. Carnegie, K.M. Hill, C.B. McCollough, S.E. Laramore, C.J. Kelly, N.A. Stokes, and J. Scarpa.** 2012. Diseases of oysters *Crassostrea ariakensis* and *C. virginica* reared in ambient waters from the Choptank River, Maryland and the Indian River Lagoon, Florida. *Diseases of Aquatic Organisms* 101(3): 173-183.

Link, J.S., T.F. Ihde, C.J. Harvey, S.K. Gaichas, J.C. Field, J.K.T. Brodziak, H.M. **Townsend**, and R.M. Peterman. 2012. Dealing with uncertainty in ecosystem models: The paradox of use for living marine resource management. *Progress in Oceanography* 102: 102-114.

**Matsche, M.A., E. Markin, E. Donaldson, A. Hengst, and A. Lazur.** 2012. Effect of chloride on nitrite-induced methemoglobinemia in Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus* Mitchill). *Journal of Fish Diseases* 35(12): 873-885.

**Matsche**, M.A. and J. Gibbons. 2012. Annual variation of hematology and plasma chemistry in shortnose sturgeon, *Acipenser brevirostrum*, during a dam-impeded spawning run. *Fish Physiology and Biochemistry* 38(6): 1679-1696.

## 2011

Banaker, V., G. Constantin de Mangy, J. **Jacobs**, R. Murtugudde, A. Huq, B. Wood, and R. Colwell. 2011. Temporal and spatial variability in the distribution of *Vibrio vulnificus* in the Chesapeake Bay: A hindcast study. *Eco Health* 8(4): 456-467.

Jeon, S.J., L.C. **Gonsalves**, J.M. **Jacobs**, M. **Rhodes**, J. **Councilman**, A. **Baya**, E.B. May, and M.D. Fast. 2011. Short-term infection of striped bass *Morone saxatilis* with *Mycobacterium marinum*. *Diseases of Aquatic Organisms* 94(2): 117-124.

**Leight**, A.K., W.H. Slacum, E.F. Wirth, and M.H. Fulton. 2011. An assessment of benthic condition in several small watersheds of the Chesapeake Bay, USA. *Environmental Monitoring and Assessment* 176(1-4): 483-500.

**Matsche**, M.A. 2011. Evaluation of tricaine methanesulfonate (MS-222) as a surgical anesthetic for Atlantic sturgeon *Acipenser oxyrinchus oxyrinchus*. *Journal of Applied Ichthyology* 27(2): 600-610.

**Matsche**, M.A., R.S. Bakal, and K.M. **Rosemary**. 2011. Use of laparoscopy to determine sex and reproductive status of shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). *Journal of Applied Ichthyology* 27(2): 627-636.

Prasad, M.B.K., L. Wen, X. **Zhang**, R.J. **Wood**, and R. Murtugudde. 2011. Predicting dissolved oxygen in the Chesapeake Bay: applications and implications. *Aquatic Sciences* 73(3): 437- 451.

Tang, F.J., G.A. **Messick**, C.R. Pantoja, R.M. Redman, and D.V. Lightner. 2011. Histopathological characterization and *in situ* detection of *Callinectes sapidus* reovirus. *Journal of Invertebrate Pathology* 108(3): 226-228.

**Uphoff**, J.H., M. McGinty, R. Lucacovic, J. Mowrer, and B. Pyle. 2011. Impervious surface, summer dissolved oxygen, and fish distribution in Chesapeake Bay subestuaries: Linking watershed development, habitat conditions, and fisheries management. *North American Journal of Fisheries Management* 31(3): 554-566.

Zhang, H., C.F. **Dungan**, and S. Lin. 2011. Introns, alternative splicing, spliced leader trans-splicing and differential expression of *pcna* and *cyclin* in *Perkinsus marinus*. *Protist* 162(1): 154-167.

Zhang, H., D.A. Campbell, N.R. Sturm, C.F. **Dungan**, and S. Lin. 2011. Spliced leader RNAs, mitochondrial gene frameshifts, and multi-protein phylogeny expand support for the genus *Perkinsus* as a unique group of alveolates. *PLoS ONE* 6(5): e19933.



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Peer-reviewed Publications Prior to 2015

### 2010

Abbe, G.R., C.B. **McCullough**, L.S. Barker, and C.F. **Dungan**. 2010. Performance of disease-tolerant strains of eastern oyster (*Crassostrea virginica*) in the Patuxent River, Maryland, 2003 to 2007. *Journal of Shellfish Research* 29(1): 161-175.

Bowers, H.A., G.A. **Messick**, A. Hanif, R. Jagus, L. Carrion, O. Zmora, and E.J. Schott. 2010. Physicochemical properties of double-stranded RNA used to discover a reo-like virus from blue crab *Callinectes sapidus*. *Diseases of Aquatic Organisms* 93(1): 17-29.

**Kelsey**, R.H., G.I. Scott, D.E. Porter, D. Edwards, and T.C. Siewicki. 2010. Improvements to shellfish harvest area closure decision-making using GIS, remote sensing, and predictive models. *Estuaries and Coasts* 33(3): 712–722.

Kimmel, D.G., W.C. Boicourt, J.J. Pierson, M.R. Roman, and X. **Zhang**. 2010. Mesozooplankton diel variability in response to seasonal hypoxia in the northern Gulf of Mexico USA. *Journal of Plankton Research* 32(8): 1185-1202.

Ladman, B.S., C.P. **Driscoll**, C.R. Pope, R.D. Slemmons, and J. Gelb Jr. 2010. Potential of low pathogenicity avian influenza viruses of wild bird origin to establish experimental infections in turkeys and chickens. *Avian Diseases* 54(3): 1091–1094.

**Ma H.**, H. **Townsend**, X. **Zhang**, M. **Sigrist**, and V. Christensen 2010. Using a fisheries ecosystem model with a water quality model to explore trophic and habitat impacts on blue crabs: A case study using models of the Chesapeake Bay. *Ecological Modeling* 221(7): 997-1004.

**Martino**, E.J. and E.D. Houde. 2010. Recruitment of striped bass in Chesapeake Bay: spatial and temporal environmental variability and availability of zooplankton prey. *Marine Ecology Progress Series* 409: 213-228.

**Matsche**, M.A., J.R. Flowers, E.L. Markin, and C.P. Stence. 2010. Observations and treatment of *Nitzschia sturionis* on Atlantic sturgeon from Chesapeake Bay. *Journal of Aquatic Animal Health* 22(3): 174-181.

**Matsche**, M.A., A. Overton, J. **Jacobs**, M.R. **Rhodes**, and K.M. **Rosemary** 2010. Low prevalence of splenic mycobacteriosis in migratory striped bass (*Morone saxatilis*) from North Carolina and Chesapeake Bay. *Diseases of Aquatic Organisms* 90(3): 181-189.

Najjar, R., C.R. Pyke, M.B. Adams, D. Breitburg, C. Hershner, M. Kemp, R. Howarth, M.R. Mulholland, M. Paolisso, D. Secor, K. Sellner, D. Wardrop, and R. **Wood**. 2010. Potential climate-change impacts on the Chesapeake Bay. *Estuarine, Coastal and Shelf Science* 86(1): 1-20.

O'Connell, S.G., M. Arendt, A. Segars, T. **Kimmel**, J. Braun-McNeill, L. Avens, B. Schroeder, L. Ngal, J. Kucklick, and J. Keller. 2010. Temporal and spatial trends of perfluorinated compounds in juvenile loggerhead sea turtles (*Caretta caretta*) along the east coast of the United States. *Environmental Science and Technology* 44(13): 5202-5209.

Stout, J.D., D.F. Brinker, C.P. **Driscoll**, S. Davison, and L.A. Murphy 2010. Serum biochemistry values, plasma mineral levels, and whole blood heavy metal measurements in wild northern goshawks (*Accipiter gentilis*). *Journal of Zoo and Wildlife Medicine* 41(4): 649-655.

## 2009

**Jacobs**, J.M., D.W. **Howard**, M.R. **Rhodes**, M.W. **Newman**, E.B. May, and R.M. Harrell. 2009. Historical presence (1975-1985) of mycobacteriosis in Chesapeake Bay striped bass *Morone saxatilis*. *Diseases of Aquatic Organisms* 85(3): 181-186.

**Jacobs**, J.M., M.R. **Rhodes**, A. Baya, R. Reimschuessel, H. **Townsend**, and R.M. Harrell. 2009. Influence of nutritional state on the progression and severity of mycobacteriosis in striped bass *Morone saxatilis*. *Diseases of Aquatic Organisms* 87(3): 183-197.

**Jacobs**, J.M., M. **Rhodes**, B. Sturgis, and R. **Wood**. 2009. The influence of environmental gradients on the abundance and distribution of *Mycobacterium* spp. in a coastal lagoon estuary. *Applied and Environmental Microbiology* 75(23): 7378-7384.

**Jacobs**, J.M., C.S. Stine, A. Baya, and M. Kent. 2009. A review of mycobacteriosis in marine fish. *Journal of Fish Diseases* 32(2): 119-130.

Kerr, L.A., B. Connelly, E. **Martino**, A. Peer, D.H. Secor, and R. Woodland. 2009. Climate change in the U.S. Atlantic affecting recreational fisheries. *Reviews in Fisheries Science* 17(2): 267-289.

Kimmel, D.G., W.C. Boicourt, J.J. Pierson, M.R. Roman, and X. **Zhang**. 2009. Zooplankton and fish response to hypoxia in Chesapeake Bay and the Northern Gulf of Mexico: evidence from biomass size spectra. *Journal of Experimental Marine Biology and Ecology* 381(S1): S65-S73.

Ludsin, S.A., X. **Zhang**, S.B. Brandt, M.R. Roman, W.C. Boicourt, D.M. Mason, and M. Costantini 2009. Hypoxia avoidance by planktivorous fish in Chesapeake Bay: implications for food web interactions and their recruitment. *Journal of Experimental Marine Biology and Ecology* 381: S121-S131.

**Messick**, G.A. 2009. Description of a haplosporidian parasite in *Diporeia* spp. amphipods from the Great Lakes region, USA. *Diseases of Aquatic Organisms* 83(2): 153-157.

**Messick**, G.A. 2009. Haplosporidian parasite in *Diporeia* spp. amphipods from the Great Lakes region, USA. *Diseases of Aquatic Organisms* 83(2): 153-157.

Morton, S.L., A. Vershinin, L.L. **Smith**, T.A. Leighfield, S. Pankov, and M.A. Quilliam. 2009. Seasonality of *Dinophysis* spp. and *Prorocentrum lima* in Black Sea phytoplankton and associated shellfish toxicity. *Harmful Algae* 8(5): 629-636.

Nagle, L., A.R. Place, E.J. Schott, R. Jagus, G. **Messick**, and J.S. Pitula. 2009. Real-time PCR-based assay for quantitative detection of *Hematodinium* sp. in the blue crab *Callinectes sapidus*. *Diseases of Aquatic Organisms* 84(1): 79-87.



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Pierson, J.J., M.R. Roman, D.G. Kimmel, W.C. Boicourt, and X. **Zhang**. 2009. Quantifying changes in the vertical distribution of mesozooplankton in response to hypoxic bottom waters. *Journal of Experimental Marine Biology and Ecology* 381(S1): S74-S79.

Sheppard, B.J. and C.F. **Dungan**. 2009. Exotic *Perkinsus* sp. protozoa in an imported Vietnamese ornamental clam, *Tridacna crocea*, maintained in a home aquarium. *Journal of Zoo and Wildlife Medicine* 40(1): 140-146.

Stine, C.B., J.M. **Jacobs**, A.S. Overton, M. **Rhodes**, and A. Baya. 2009. Expanded range and new host species of *Mycobacterium shottsii* and *M. pseudoshottsii*. *Journal of Aquatic Animal Health* 21(3): 179-183.

**Wood**, R.J. and H.M. Austin. 2009. Synchronous multidecadal fish recruitment patterns in Chesapeake Bay, USA. *Canadian Journal of Fisheries and Aquatic Sciences* 66(3): 496-508.

Zhang, H., S.A. Ludsin, M.R. Roman, W.C. Boicourt, X. **Zhang**, D.G. Kimmel, A.T. Adamack, D.M. Mason, and S.B. Brandt. 2009. Hypoxia-driven changes in the behavior and spatial distribution of pelagic fish and zooplankton in the Northern Gulf of Mexico. *Journal of Experimental Marine Biology and Ecology* 381(S1): S80-S91.

### 2008

Costantini, M., S.A. Ludsin, D.M. Mason, X. **Zhang**, W.C. Boicourt, and S.B. Brandt. 2008. Effect of hypoxia on habitat quality of striped bass *Morone saxatilis* (Walbaum) in Chesapeake Bay. *Canadian Journal of Fisheries and Aquatic Sciences* 65(5): 989-1002.

Hall, J.S., K.T. Bentler, G. Landolt, S.A. Elmore, R.B. Minnis, T.A. Campbell, S.C. Barras, J.J. Root, J. Pilon, K. Pabilonia, C. **Driscoll**, D. Slate, H. Sullivan, and R.G. McLean. 2008. Influenza infection in wild raccoons. *Emerging Infectious Diseases*. 14(12): 1842-1848.

**Jacobs**, J.M., M. **Rhodes**, B. Martin, D. McIntosh, and R. Harrell. 2008. Tissue specific sampling for the estimation of proximate compositional components in striped bass (*Morone saxatilis*). *Transactions of the American Fisheries Society* 137(2): 386-392.

**McCullough**, C.B. 2008. Application of an aqueous acid-fast staining technique for detection of pathogens of aquatic species. *Biotechnic and Histochemistry* 83(4): 191-197.

Moss, J.A., J. Xiao, C.F. **Dungan**, and K.S. Reece. 2008. Description of *Perkinsus beihaiensis* n. sp., a new *Perkinsus* sp. parasite in oysters of southern China. *Journal of Eukaryotic Microbiology* 55(2): 117-130.

Reece, K.S., C.F. **Dungan**, and E.M. Burreson. 2008. Molecular epizootiology of *Perkinsus*

*marinus* and *P. chesapeaki* infections among wild oysters and clams in Chesapeake Bay, USA. *Diseases of Aquatic Organisms* 82(3): 237-248.

Remacha-Triviño, A., D. Borsay-Horowitz, C. **Dungan**, X. Gual-Arnau, J. Gómez-Leon, L. Villamil, and M. Gómez-Chiari. 2008. Numerical quantification of *Perkinsus marinus* in the American oyster *Crassostrea virginica* (Gmelin, 1791) (Mollusca: Bivalvia) by modern stereology. *Journal of Parasitology* 94(1): 125-136.

## 2007

Albright, B.W., G.R. Abbe, C.B. **McCullough**, L.S. Barker, and C.F. **Dungan**. 2007. Growth and mortality of dermo-disease-free juvenile oysters (*Crassostrea virginica*) at three salinity regimes in an enzootic area of Chesapeake Bay. *Journal of Shellfish Research* 26(2): 451-463.

**Dungan**, C.F., K.S. Reece, R.M. **Hamilton**, N.A. Stokes, and E.M. Burreson. 2007. Experimental cross-infections by *Perkinsus marinus* and *P. chesapeaki* in three sympatric species of Chesapeake Bay oysters and clams. *Diseases of Aquatic Organisms* 76(1): 67-75.

**Dungan**, C.F., K.S. Reece, J.A. Moss, R.M. **Hamilton**, and B.K. Diggles. 2007. *Perkinsus olseni* in vitro isolates from the New Zealand clam *Austrovenus stutchburyi*. *Journal of Eukaryotic Microbiology* 54(3): 263-270.

Graczyk, T.K., E.J. **Lewis**, G. Glass, A.J. Dasilva, L. Tamang, A.S. Girouard, and F.C. Curriero. 2007. Quantitative assessment of viable *Cryptosporidium parvum* load in commercial oysters (*Crassostrea virginica*) in the Chesapeake Bay. *Parasitological Research* 100: 247-253.

Kane, A.S., C.B. Stine, L. Hungerford, M. **Matsche**, C.P. **Driscoll**, and A.M. Baya. 2007. Mycobacteria as environmental portent in Chesapeake Bay fishes. *Emerging and Infectious Diseases* 13(2): 329-331.

**McCullough**, C.B., B.W. Albright, G.R. Abbe, L.S. Barker, and C.F. **Dungan**. 2007. Acquisition and progression of *Perkinsus marinus* infections by specific-pathogen-free juvenile oysters (*Crassostrea virginica* Gmelin) in a mesohaline Chesapeake Bay tributary. *Journal of Shellfish Research* 26(2): 465-477.

Morton, S.L., A. Vershinin, T. Leighfield, L. **Smith**, and M. Quilliam. 2007. Identification of yessotoxin in mussels from the Caucasian Black Sea Coast of the Russian Federation. *Toxicon* 50(4): 581-584.

Moss, J.A., E.M. Burreson, J.F. Cordes, C.F. **Dungan**, G.D. Brown, A. Wang, X. Wu, and K.S. Reece. 2007. Survey of *Crassostrea ariakensis* and other oyster species in Asia for *Perkinsus* spp., molluscan herpesviruses, and other parasites: implications for non-native oyster introduction to Chesapeake Bay. *Diseases of Aquatic Organisms* 77(3): 207-223.



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Peer-reviewed Publications Prior to 2015

**Townsend, H. M., & Anderson, D. J.** 2007. Assessment of costs of reproduction in a pelagic seabird using multistate mark-recapture models. *Evolution*, 61(8): 1956-1968.

**Townsend, H. M., & Anderson, D. J.** 2007. Production of insurance eggs in Nazca boobies: costs, benefits, and variable parental quality. *Behavioral Ecology*, 18(5): 841-848.

**Townsend, H. M., Maness, T. J., & Anderson, D. J.** 2007. Offspring growth and parental care in sexually dimorphic Nazca boobies (*Sula granti*). *Canadian Journal of Zoology*, 85(6): 686-694.

### 2006

Domart-Coulon, I.J., N. Taylor-Knowles, E. Peters, D. Elbert, C.A. Downs, K. **Price**, J. Stubbs, S. **McLaughlin**, E.Cox, G. Aeby, P.R. Brown, and G.K. Ostrander. 2006. Comprehensive characterization of skeletal tissue growth anomalies of the finger coral *Porites compressa*. *Coral Reefs* 25: 531-543.

**Dungan, C.F.** and K.S. Reece. 2006. In vitro propagation of two *Perkinsus* spp. parasites from Japanese Manila clams, *Venerupis philippinarum*, and description of *Perkinsus honshuensis* n. sp. *Journal of Eukaryotic Microbiology* 53(5): 316-326.

Gelder, S.R. and G.A. **Messick**, 2006. First report of the aberrant association of branchiobdellidans (Annelida: Clitellata) on blue crabs (Crustacea: Decapoda) in the Chesapeake Bay, Maryland, USA. *Invertebrate Biology* 125(1): 51-55.

Fulton, M., P. Key, E. Wirth, A.K. **Leight**, J. Daugomah, D. Bearden, S. Silvertsen, and G. Scott. 2006. An evaluation of contaminated estuarine sites using sediment quality guidelines and ecological assessment methodologies. *Ecotoxicology* 15(7): 573-581.

Hood, R.R., X. **Zhang**, P.M. Glibert, M.R. Roman, and D.K. Stoecker. 2006. Modeling the influence of nutrients, turbulence and grazing on *Pfiesteria* population dynamics. *Harmful Algae* 5(4): 459-479.

Hsia, M.H., S.L. Morton, L.L. **Smith**, K.R. Beauchesne, K.M. Huncik, and P.D.R. Moeller. 2006. Production of goniodomin A by the planktonic, chain-forming dinoflagellate *Alexandrium monilatum* (Howell) Balech isolated from the Gulf Coast of the United States. *Harmful Algae* 5(3): 290-299.

Kimmel, D.G., M.R. Roman, and X. **Zhang**. 2006. Spatial and temporal variability in factors affecting mesozooplankton dynamics in Chesapeake Bay: Evidence from biomass size spectra. *Limnology and Oceanography* 51(1): 131-141.

Lazur, A., S. **Early**, and J.M. **Jacobs**. 2006. Acute toxicity of 5% rotenone to northern snakeheads. *North American Journal of Fisheries Management* 26(3): 628-630.

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