# **Curriculum Vitae**

### **Daniel Rittschof**

Duke Marine Lab

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135 Duke Marine Lab Road

Beaufort, NC 28516

#### Education

PhD The University of Michigan

#### Areas of Research

Antifouling technology, chemical and behavioral ecology

## Awards, Honors, and Distinctions

Highlighted Article, Quarterly Journal of Ship Hull Performance, August, 2011 Community Choice Award, Langmuir, 2011 Outstanding Research Article, 2010 NRL Review, 2011 L.H. Snodown Professor of Ecology, May, 2009 Robert B. Cox Distinguished Teaching Award, Duke University, April, 2008

## **Recent Grant Support**

- Rapid Empirical Development of Novel Antifouling Technology, Interlux (Akzo Nobel), 2000/02-2024/01
- Rapid Empirical Development of Novel Antifouling Technology, Interlux (Akzo Nobel), 2000/02-2024/01.
- Whooping Cranes and Blue Crabs, Oak Foundation, OCAY-11-293-KP, 2011/08-2014/07.
- *Graduate Research Enhancement*, OAK Foundation, 2011/07-2014/06.
- Barnacle Glue Curing. Biological functions and their Inhibitors: Theory and Practice, ONR, 2011/01-2013/12.
- Establishing a U.S.-Turkey collaboration on the introduction of blue crabs to the Mediterranean and their effects on the native ecosystems., National Science Foundation, 2011/09-2012/08.
- Whooping cranes and crabs, a conservation coupling, Oak FDTN, 2011/08-2012/07.
- Genetic contributions to body size in blue crabs. NC Sea Grant. 2004-1773-108. 2011/05-2012/04.
- *REU: Undergraduate Research in Estuarine and Coastal Marine Systems*, National Science Foundation, OCE-0850116, 2009/05-2012/04.
- Adhesion, Materials Science, Temperature and Gene Expression of Barnacle Glue Components, Office of Naval Research, N00014-10-1-0850, 2010/05-2012/03.
- Rapid Empirical Development of Novel Antifouling Technology, Interlux (Akzo Nobel), 56-0532129, 2009/03-2012/02

- Is North Carolina Seafood Safe: Mercury and Polychlorinated Biphenyl Levels in NC Seafood, #2004-1772-68, 2010/06-2011/12.
- Genetic and Environmental Contributions to Body Size in Blue Crabs, #2004-1772-68, 2009/06-2011/12.
- Barnacles for Reattachment Assays, North Dakota University, 2010/10-2011/09.
- Barnacles for Reattachment Assays, North Dakota State University Nanotechnology Center, 2010/10-2011/09.
- Barnacles for Reattachment Assays, North Dakota State University, 1015, 2010/10-2011/09.
- Is North Carolina Seafood Wholesome? Mercury and Polychlorinated Biphenyl Levels in North Carolina Seafood, NC Sea Grant, 2004-1773-101, 2010/06-2011/05.
- Oak Foundation Global Fellows, Graduate and Undergraduate Programs, Oak Foundation, OUSA 08-045, 2008/06-2011/05.
- *Temperature System for Study of Natural Glues and Novel Materials*, Office of Naval Research, N00014-10-1-0790, 2010/05-2011/05.
- Rapid Empirical Development of Novel Antifouling Technology, Interlux (Akzo Nobel), 2009/02-2011/02.
- *Graduate Program Enhancement*, OAK Foundation, 2008/08-2011/01.
- Use of Genetic Lines of Barnacles and Foul Release Polymer Coatings, Components and Catalysts to Study Properties and Polymerization Chemistry of Barnacle Bioadhesive, Office of Naval Research, N00014-08-1-0158, 2008/01-2010/12.
- Barnacles for Antifouling, Foul-Release and Adhesion Research, Office of Naval Research, N00014-07-1-0949, 2007/05-2010/12.
- REU Site: Undergraduate Research in Estuarine and Coastal Marine Systems, NSF 0CE-0850116, 2009/01-2010/09.
- , NSF, 2012/05.

## **Professional Service**

### **University Committee**

Marine Lab Representative, IACAC, January 2011 Oceanographer serch, October 30, 2008 Target of Opportunity Search, 2008 Biological Oceanography Search, 200

#### **DGS**

Advisor, Marine Sci. and Conservation-PHD, January 2011 Advisor, Coastal Environmental Mgmt-MEM, January 2011 Advisor, Psychology, January 2011 Advisor, Environmental Sciences, January 2011

#### **DUS**

Marine Laboratory, January 2013 Marine Laboratory, 2007 - May 30, 2012

## **Major Advisor**

Env, 2012 - present Advisor, Biology, 1989 - present

# **PreMajor Advisor**

Advisor, Pre-major advising, 2009 - present

# **Dept Committee**

Biology Curriculum Committee, 2007 - present

### **Editorial Board**

Biofouling, 2006 - present

## **Dept Service**

Oversight Committee, 2008 - present

Chair, McCurdy Scholar Committee, 2012-2013

## **Community Service**

School outreach, 2012 - present

### **School**

Development Interface for OAK Foundation, 2013 - present Director of Undergraduate Studies, Spring and Summer 2011, undefined, 2005 Representative, IACAC, January 2011 committee member, Reappointment/Promotion Committee (3 total), January 2011

## **Selected Recent Invited Talks**

A day in the life of Balanus amphitrite: Spatial and temporal variations in newly formed barnacle adhesive., 16th International Conference on Marine Coatings and Fouling - Seattle, WA, June 24-28, 2012

A hard and gummy problem: Understanding variations in barnacle cement properties., 16th International Conference on Marine Coatings and Fouling - Seattle, WA, June 24-28, 2012 Observations on the locations of adrenergic-like receptors in the barnacle (Balanus amphitrite) cyprid larvae and oyster (Cassostrea gigas) pediveliger larvae., 16th International Conference on Marine Coatings and Fouling - Seattle, WA, June 24-28, 2012

Restriction enzyme Associated DNA Sequencing of Barnacles with Hard and Gummy Glue Phenotypes on T2 silicone films (Session Plenary)., 16th International Conference on Marine Coatings and Fouling - Seattle, WA, June 24-28, 2012

*Bricks and Mortar Model of Barnacle Adhesion*, Society of Integrative Biology - Charleston, SC, January 06, 2012

TMSI, August 16, 2011

103rd National Shellfisheries Meeting, March 27-30

*Barnacle Glue: An evolutionary perspective.*, Clemson University, Clemson South Carolina, October 23, 2008

*Workshop on Marine Chemical Ecology*, Nanyang Technical University, Singapore, October 13-16,2008

Frontiers of Marine Ecology, Nanyang Technical University, Singapore, October 1316, 2008 Restriction enzyme Associated DNA Sequencing of Barnacles with Hard and Gummy Glue Phenotypes on T2 silicone films (Session Plenary)., 16th International Conference on Marine Coatings and Fouling - Seattle, WA, June 2428, 2012

#### **Publications**

### **Papers Published**

- 1. P. Shivapooja, Q. Wang, B. Orihuela, D. Rittschof, G. Lopez and X. Zhao, *Bioinspired Surfaces with dynamic topography for active control of biofouling*, Advanced Materials (2013)
- 2. Nerraj V. Gohad, Nick Aldred, Beatriz Orihuela, Anthony S. Clare, Dan Rittschof, and Andrew S. Mount., *Observations on the settlement and cementation of barnacle (Balanus amphitrite) cyprids larvae after artificial exposure to noradrenaline and the locations of adrenergic receptors in the organism.*, Journal of Experimental Marine Biology and Ecology (2012)
- 3. D. Feng, D. Rittschof, B. Orihuela, K.W. Hin Kwok, S. Stafslien, and B. Chrisholm, *The effects of model polysiloxane and fouling-release coatings on embryonic development of a sea urchin (Arbacia punctulata) and a fish (Oryzias latipes).*, Aquatic Toxicol (2012)
- 4. Mansfield K.M., Wyneken J., Stiles, A., Rittschof, D., Lim, L., Walsh, M., *Satellite tag attachment methods for tracking neonate loggerhead (Caretta caretta) sea turtles.*, Marine Ecology Progress Series (2012)
- 5. Wen Jin Yang, Dicky Pranantyo, Koon-Gee Neoh, En-Tang Kang, Serena Lay-Ming Teo, Daniel Rittschof, *Layer-by-Layer Click Deposition of Functional Polymer Coatings for Combating Marine*

- *Biofouling*, Biomacromolecules (2012)
- 6. W.J. Yang, K.G. Neoh, E. T. Kang, S. S. C. Lee, S. L. M. Teo and D. Rittschof, *Functional polymer brushes via surface-initiated atom transfer radical graft polymerization for combating marine biofouling*, Biofouling (2012)
- 7. D. Rittschof, Functional polymer brushes via surface-initiated atom transfer radical graft polymerization for combating marine biofouling (2012)
- 8. N. Aldred, N.V. Gohad, L. Petrone, B. Orihuela, B. Liedberg, T. Ederth, A. Mount, D. Rittschof and A.S. Clare, *Confocal Microscopy based goniometry of barnacle cyprid permanent adhesive*, J. Exp. Biol. (2012)
- 9. W.J. Yang, K.G. Neoh, E.T. Kang, S.S.C. Lee, S.L.M. Teo, and D. Rittschof, *Functional polymer brushes via surface-initiated atom transfer radical graft polymerization for combating marine biofouling*, Biofouling (2012)
- 10.Hines AH, Johnson EG, Darnell MZ, Rittschof D, Aguilar R, Rodgers P, *Predicting effects of climate change on blue crab demography*, Biology and Management of Exploited Crab Populations under Climate Change: Proceedings of the 25th Lowell Wakefield Fisheries Symposium. (2011)
- 11.Rittschof D, Darnell MZ, Darnell KM, Goldman M, Ogburn MB, McDowell R, *Informing managers:* blue crab spawning biology and stock assessment, Informing managers: blue crab spawning biology and stock assessment (2011)
- 12.Darnell, M.Z., T.G. Wolcott, D. Rittschof, *Environmental and endogenous control of selective tidal-stream transport behavior during blue crab Callinectes sapidus spawning migrations.*, Biology and Management of Exploited Crab Populations under Climate Change: Proceedings of the 25th Lowell Wakefield Fisheries Symposium (2011)
- 13.Rittschof, D., M.Z. Darnell, K.M. Darnell, M. Goldman, M.B. Ogburn, R.E. McDowell, *Estimating relative abundance of the female blue crab spawning stock in North Carolina*, Biology and Management of Exploited Crab Populations Under Climate Change (2011) (Alaska Sea Grant College Program, University of Alaska Fairbanks, Fairbanks..)
- 14.Darnell, M.Z., K.M. Darnell, R.E. McDowell, D. Rittschof, *Postcapture survival and future reproductive potential of ovigerous blue crabs Callinectes sapidus caught in the central North Carolina pot fishery*, Transactions of the American Fisheries Society, vol. 139 (2011), pp. 1677-1687
- 15.Barlow, Daniel; Dickinson, Gary; Orihuela, Beatriz; Kulp, John;, *Characterization of the adhesive plaque of the barnacle Balanus*, Langmuir (2011) (Manuscript ID: la-2009-041309.R1.)
- 16.Rittschof D, Orihuela B, Harder T, Stafslien S, Chisholm B, Dickinson GH, *Compounds from Silicones Alter Enzyme Activity in Curing Barnacle Glue and Model Enzymes*, PLoS ONE, vol. 6 no. 2 (2011), pp. 16487
- 17. Yang WJ, Cai T, Neoh K-G, Kang E-T, Dickinson GH, Teo SL-M, Rittschof D, *Biomimetic anchors for antifouling and antibacterial polymer brushes on stainless steel*, Langmuir, vol. 27 (2011), pp. 7065-7076
- 18. Wahl KJ, Barlow DE, Everett RK, Dickinson GH, Orihuela B, Rittschof D, *Marine biofouling: Grasping barnacle cement curing from the inside out*, 2010 NRL Review (2011), pp. 89-96
- 19.Irving E Vega, Dan Rittschof, Gary H. Dickinson and Ian Musgrave, *Evolutionary Proteomics: Empowering Tandem Mass Spectrometry and Bioinformatics Tools for the Study of Evolution*, in Applications of Tandem mass Spectrometry, In Tech. ISBN 978-953-307-870-0 (2011)
- 20. Pradhan, N.N., Gohad, N.V., Orihuela, B., Burg, T. C., Birchfield, S.T. Rittschof, D., and A. Mount., *Development of an automated algorithm for tracking and quantifying Barnacle cyprid settlement behavior.*, Exp Mar Biol. Ecol. (2011)
- 21.Darnell, M.Z., Wolcott, T., and D. Rittschof., *Environmental and endogenous control of selective tidal-stream transport behavior during blue crab Callinectes sapidus spawning migrations.*, Marine Biology (2011)
- 22.Darnell MZ, Rittschof D, Forward. R.B. jr, *Endogenous swimming rhythms underlying ebb tide* transport during the blue crab, Callinectes sapidus, spawning migration, Marine Biology no. 157 (2010), pp. 2415-2425
- 23.Darnell MZ, Rittschof D, Role of peptide pheromones in larval release and migratory behavior of female blue crabs, Callinectes sapidus, Journal of Experimental Marine Biology and Ecology no. 391

- (2010), pp. 112-117
- 24.Barlow, D., Dickinson, G. H., Orihuela-Diaz, Kulp, J., Rittschof, D., and K. Wahl, *Functional amyloid and bio-adhesion: Characterization of amyloid-like nanofibrils composing the adhesive plaque of the barnacle Balanus Amphitrite*, Langmuir (2010)
- 25.Mcdonald, Michelle R. and Mcclintock, James B. and Amsler, Charles D. and Rittschof, Daniel and Angus, Robert A. and Orihuela, Beatriz, *Effects of ocean acidification on larval development and settlement of the common intertidal barnacle Amphibalanus amphitrite*, INTEGRATIVE AND COMPARATIVE BIOLOGY, vol. 49 no. Suppl. 1 (February, 2009), pp. E270, ISSN 1540-7063
- 26.Boudreaux, Michelle L. and Walters, Linda J. and Rittschof, Daniel, *INTERACTIONS BETWEEN NATIVE BARNACLES, NON-NATIVE BARNACLES, AND THE EASTERN OYSTER CRASSOSTREA VIRGINICA*, BULLETIN OF MARINE SCIENCE, vol. 84 no. 1 (January, 2009), pp. 43-57, ISSN 0007-4977
- 27.Perez-Roa, Rodolfo E. and Anderson, Marc A. and Rittschof, Dan and Hunt, Christopher G. and Noguera, Daniel R., *Involvement of reactive oxygen species in the electrochemical inhibition of barnacle (Amphibalanus amphitrite) settlement*, BIOFOULING, vol. 25 no. 6 (2009), pp. 563-571, ISSN 0892-7014
- 28.Darnell, M. Zachary and Rittschof, Dan and Darnell, Kelly M. and McDowell, Ruth E., *Lifetime reproductive potential of female blue crabs Callinectes sapidus in North Carolina, USA*, MARINE ECOLOGY-PROGRESS SERIES, vol. 394 (2009), pp. 153-163, ISSN 0171-8630
- 29.McDonald, Michelle R. and McClintock, James B. and Amsler, Charles D. and Rittschof, Dan and Angus, Robert A. and Orihuela, Beatriz and Lutostanski, Kay, *Effects of ocean acidification over the life history of the barnacle Amphibalanus amphitrite*, MARINE ECOLOGY-PROGRESS SERIES, vol. 385 (2009), pp. 179-187, ISSN 0171-8630
- 30.Sullan, Ruby May A. and Gunari, Nikhil and Tanur, Adrienne E. and Yuri, Chan and Dickinson, Gary H. and Orihuela, Beatriz and Rittschof, Dan and Walker, Gilbert C., *Nanoscale structures and mechanics of barnacle cement*, BIOFOULING, vol. 25 no. 3 (2009), pp. 263-275, ISSN 0892-7014
- 31.D. Rittschof, *Novel Antifouling Coatings: Amulticonceptual approach*, in Marine and Industrial Biofouling. Springer Publishing, NY (2009)
- 32.Holm, Eric R. and Kavanagh, Christopher J. and Orihuela, Beatriz and Rittschof, Daniel, *Phenotypic variation for adhesive tenacity in the barnacle Balanus amphitrite*, JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY, vol. 380 no. 1-2 (2009), pp. 61-67, ISSN 0022-0981
- 33.Schmidt, Gesine and Rittschof, Dan and Lutostanski, Kay and Batchelder, Alexander and Harder, Tilmann, 3-Decanol in the haemolymph of the hermit crab Clibanarius vittatus signals shell availability to conspecifics, JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY, vol. 382 no. 1 (2009), pp. 47-53, ISSN 0022-0981
- 34.Gohad, N. V. and Dickinson, G. H. and Orihuela, B. and Rittschof, D. and Mount, A. S., Visualization of putative ion-transporting epithelia in Amphibalanus amphitrite using correlative microscopy: Potential function in osmoregulation and biomineralization, JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY, vol. 380 no. 1-2 (2009), pp. 88-98, ISSN 0022-0981
- 35.Dickinson, Gary H. and Vega, Irving E. and Wahl, Kathryn J. and Orihuela, Beatriz and Beyley, Veronica and Rodriguez, Eva N. and Everett, Richard K. and Bonaventura, Joseph and Rittschof, Daniel, *Barnacle cement: a polymerization model based on evolutionary concepts*, JOURNAL OF EXPERIMENTAL BIOLOGY, vol. 212 no. 21 (2009), pp. 3499-3510, ISSN 0022-0949
- 36.DE Barlow, GH Dickinson, B Orihuela, D Rittschof, KJ Wahl, *In situ ATR-FTIR characterization of primary cement interfaces of the barnacle Balanus amphitrite.*, Biofouling, vol. 25 no. 4 (2009), pp. 359-66, ISSN 1029-2454
- 37.D.B. Ramsay, Dickinson G.H., Orihuela B., Rittschof D., Wahl K.J., *Base plate mechanics of the barnacle Balanus Amphitrite* (= *Amphibalanus amphitrite*), Biofouling, vol. 24 no. 2 (2008), pp. 109-118
- 38.D. Rittschof, Bonaventura, C., Wilker J., Van Dover C., *Oxidative Iron Species and Ocean Challenges: A Perspective*, Biofouling, vol. 24 no. 3 (2008), pp. 173-5

- 39.Pérez-Roa R.E., Anderson M.A., Rittschof D., Orihuela B., Wendt D.E., Kowalke G.L., Noguera D.R., *Inhibition of barnacle (Amphibalanus amphitrite) cyprid settlement by means of localized*, *pulsed electric fields*, Biofouling, vol. 24 no. 3 (2008), pp. 177-84
- 40.D. Rittschof, Orihuela B., Stafslien S., Daniels J., Christianson D., Chisholm B., Holm E., *Barnacle reattachment: a tool for studying barnacle adhesion*, Biofouling, vol. 24 no. 1 (2008), pp. 1-9
- 41.D. Rittschof, Sin T-M., Teo S.L-M., Coutinho R., *Fouling in natural flows: cylinders and panels as collectors of particles and barnacle larvae*, Journal of Experimental Marine Biology and Ecology, vol. 348 no. 1-2 (2007), pp. 85-96
- 42.Tremblay R, Olivier F, Bourget E, D. Rittschof, *Physiological condition of Balanus amphitrite cyprid larvae determines habitat selection success*, Marine Ecology Progress Series, vol. 340 (2007), pp. 1-8
- 43.C.E. Bach, Hazlett, B.A., Rittschof, D., *Sex-specific differences and the role of predation in the interaction between the hermit crab*, *Pagurus longicarpus*, and its epibiont, *Hydractinia symbiolongicarpus*, Journal of Experimental Marine Biology and Ecology, vol. 333 no. 2 (2006), pp. 181-189
- 44.G.H. Dickinson, D. Rittschof, Latanich C., *Spawning biology of the blue crab, Callinectes sapidus, in North Carolina*, Bulletin of Marine Science, vol. 79 no. 2 (2006), pp. 273-285
- 45.D. Rittschof, Becerro, M.A., McClintock, J.B., *The use of computer-assisted motion analysis for quantitative studies of the behaviour of barnacle (Balanus amphitrite) larvae*, Marine andFreshwater Behaviour and Physiology, vol. 39 no. 4 (2006), pp. 259-268
- 46.P. McClellan-Green, Romano, J., Rittschof, D., *Imposex induction in the mud snail, Ilyanassa obsoleta by three tin compounds*, Bulletin of Environmental Contamination and Toxicology, vol. 76 no. 4 (2006), pp. 581-588
- 47.D. Rittschof and P. McClellan-Green, *Mollusks as Multidisciplinary Models in Environmental Toxicology*, Marine Pollution Bulletin (2005)
- 48.D. Rittschof & J.H. Cohen, *Crustacean peptide and peptide like pheromones and kairomones*, Peptides, vol. 25 (2004), pp. 1503-1516

# **Papers Accepted**

- 1. Shane Stafslien, Justin Daniels, James Bahr, Bret Chrisholm, Abdullah Ekin, Dean Webster, Beatriz Orihuela, and Daniel Rittschof, *An improved laboratory reattachment method for the rapid assessment of adult barnacle adhesion strength to fouling release marine coatings.*, Journal of Coatings Technology and Research (2012) (Paper is currently In Press..)
- 2. Philip M. Imbesi, Neeraj V. Gohad, Michael J. Eller, Beatriz Orihuela, Dan Rittschof, Emile A. Schweikert, Andrew S. Mount, and Karen L. Wooley, *Noradrenaline-Functionalized Hyperbranched Fluoropolymer\_Poly(ethylene glycol) Cross-Linked Networks as Dual-Mode, Anti-Biofouling Coatings.*, ACS NANO (2012) (Paper is In Press..)
- 3. Daniel K. Burden, Daniel E. Barlow, Christopher M. Spillman, Beatriz Orihuela, Daniel Rittschof, R.K. Everett, and Kathryn J. Wahl, *The Barnacle Balanus Amphitrite Adheres by a Stepwise Cementing Process.*, Langmuir (2012) (Paper is In Press..)
- 4. Mansfield KL, Wyneken, JL, Rittschof D, Walsh M, Lim C.W, and Paul Richards, *Satellite tag attachment methods for tracking neonate sea turtles*, Marine Ecoloogy Progress Series (2011)
- 5. Danqing Feng, Daniel Rittschof, Beatriz Orihuela, Kevin Kwok, Shane Stafslien, Bret Chisholm, *The effects of model polysiloxane and fouling-release coatings on embryonic development of a sea urchin (Arbacia punctulata) and a fish (Oryzias latipes)* (2011)
- 6. Darnell MZ, Rittschof D, Darnell K.M. and McDowell, *Post-capture survival, larval viability, and future reproductive potential of ovigerous blue crabs caught in the central North Carolina pot fishery,* Transactions of the American Fisheries Society. (2010)
- 7. Darnell MZ, Darnell KM, McDowell R, Rittschof D, *Post-capture survival, larval viability, and future reproductive potential of ovigerous blue crabs caught in the central North Carolina pot fishery*, Tran. Am. Fish. Soc. (2010)
- 8. Rittschof D, Dickinson GH, Orihuela B, Harder T, Stafslien S, Chisholm B, *Extracts Alter Barnacle Cement Enzymatic Activity* (2010)

- 9. R.M.A. Sullivan, N. Gunari, A. Tanur, Y. Chan, G.H. Dickinson, B. Orihuela, D. Rittschof, G. Walker., *Nanoscale structures that contribute to the toughness of barnacle adhesive.*, Biofouling (January, 2009)
- 10.E. Holm, J. Romano, B. Orihuela, D. Rittschof, *'Variation in toxicity of copper pyrithione among populations and families of the barnacle, Balanus amphitrite*, Marine Environmental Research (2008)
- 11.Boudreaux, M. L, Walters L. J. and D. Rittschof, *Competition Between Native Barnacles, Non-native Barnacles and the Eastern Oyster (Crassostrea virginica.*, Marine Ecology Progress Series (2008)

## **Papers Submitted**

- 1. Daniel K. Burden, Daniel E. Barlow, Beatriz Orihuela, Daniel Rittschof, Kathryn J. Wahl, *Relationships between Cement Production Cycles and Adhesive Strength of the Barnacle Balanus Amphitrite* (2012) (In review..)
- 2. Phanindhar Shivapooja, Qiming Wang, Beatriz Orihuela, Daniel Rittschof, Gabriel P. Lopez, Xuanhe Zhao, *Bioinspired Surfaces with Dynamic Topography for Active Control of Biofouling* (2012) (In Review..)
- 3. Maki, J., Chen, C.L., Choong, A.M. F. Rittschof, D. S. L.M. Teo., *Adsorption of ondansetron and olansapine to hydrophobic substrata inhibits colonization by marine bacteria.* (2012) (In Revision..)
- 4. Wen Jing Yang, Koon-Gee Neoh, En-Tang, Serina Siew Chen Lee, Serena Lay-Ming Teo Kang, Daniel Rittschof, *Functional polymer brushes via surface-initiated atom transfer radical graft polymerization for combating marine biofouling* (2011)
- 5. N. Gohad, N. Aldred B. Orihuela, D. Rittschof, A. S. Clare., A. Mount, *Observations on the settlement and cementation of barnacle (Balanus amphitrite) cyprid larvae after artificial exposure to noradrenaline and the locations of adrenergic-like receptors* (2011) (This paper has been sumbitted to the Journal of Experimental Marine Biology and Ecology and has been assigned a manuscript number..)

## **Book Reviews**

1. Christy, J. H. and D. Rittschof, *Deception in Visual and Chemical Communication in Crustaceans* (2010)

### Other

- 1. Teo Lay Ming Serena; Rittschof Dan; Moore Felicity Kate; Chai L L Christina; Che Chia Lung; Lee Siew Chen Serina, *Antifouling Compounds and Use Thereof* (2011) (Japanese Patent Application No. 2011-509447; ETPL Ref: ICES/P/04940/04/JP; ICES Ref: NSTA/TMSI/MPA-0055.)
- 2. Rittschof D, Dickinson GH, Orihuela B, Holm ER, Wahl KJ, Harder T., *Anticoagulants as antifouling agents. USPPO #60/936,284. USA. Pending* (2008) (Pending patent..)

### **Books Published**

1. Choong, A.M.F. Maki, J.S., Ikhwan, J.T.B., Chen, C-L., Rittschof, D., and S. L\_M Teo, *Pharmaceuticals as Antifoulants: Inhibition of Growth and Effects on Adhesion of Marine Bacteria pp Biofouling: Types, Impact and Anti-Fouling.*, in Nova Publishing (2010)

## **Book Chapters**

- 1. D. Rittschof, *Research on Environmentally Benign Antifouling Coatings*, in Biofouling Wiley-Blackwell (2009)
- 2. D. Rittschof, Research Methodologies and future Directions, in Biofouling Wiley-Blackwell (2009)
- 3. Choong, Maki, Tan, Chen, Rittschof teo, Pharmaceuticals as Antifoulants: inihibition and

- growtheffects on adhesion of marine bacteria, in Marine Biology (2009)
- 4. D. Rittschof, *Future trends in antifouling research*, in Advances in Antifouling Coatings and Technologies. Woodhead Publishing (2009)
- 5. D. Rittschof, *Novel antifouling coatings: a multiconceptual approach*, in Marine and Industrial Biofouling, edited by Venkatesan, Murthy and Flemming (2008), Springer Publishing, NY. (In press.)
- 6. D. Rittschof, *Ships as habitats: Biofouling– a problem that requires global solutions*, in Fouling and Antifouling, edited by C Chai (2008), Singapore National Academy of Sciences (In press.)
- 7. D. Rittschof, *Fouling Antifouling Future directions: research on practical environmentally benign antifouling coatings*, in Advances in Antifouling Coatings and Technologies, Woodhead Publishing, Biofouling (2008, In press)
- 8. D. Rittschof, *Future trends in antifouling research*, in Advances in Antifouling Coatings and Technologies (2008)
- 9. D. Rittschof, *Hermit Crabs*, in Encyclopedia of Tidepools and Rocky Shores, edited by M.W. Denny and S.D. Gaines (2007), pp. 273-275, University of California Press

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