**Dr. Kathryn Schoenrock**

Phycologist studying in kelp forests and coralline algae in the NE Atlantic, specializing in ecophysiology, marine and chemical ecology, polar marine habitats, population genetics, and species response to climate change. @katesrock

Irish Research : KelpRes, at www.kateschoenrock.com/KelpRes, @ResKelp

Israël Research : https://www.quooddy.com/collaborators.html

**Research Positions**

**2019-2021** EPA-Ireland, Primary Investigator and Postdoctoral Researcher, National University of Ireland (NUI) Galway

**Nov 2018 - May 2019:** Postdoctoral Researcher, Krueger-Hadfield & Rivlov Labs, University of Alabama at Birmingham (UAB) and Haifa National Institute of Oceanography

**2016-2018:** Irish Research Council government postdoctoral fellow at NUI Galway

**2015-2016:** Research Associate in Global Marine Change at the University of Glasgow, School of Geographical and Earth Sciences.

**2009-2014:** Graduate Research and Teaching Assistant, UAB

**2007- 2009:** Research assistant and field technician, Potts Lab, University of California, Santa Cruz (UCSC)

**2006-2008:** Research assistant and field technician, Raimondi-Carr Lab, UCSC

**2002-2006:** Lab technician and marine mammal trainer, Williams Lab, UCSC

**Education**

*Degrees*

**2014 Ph.D.** **Biology** University of Alabama at Birmingham “Ecology and physiology of Antarctic macrophytes under the influence of abiotic and biotic stressors”

**2011 M.S. Biology** University of Alabama at Birmingham “The effect of endophyte presence on growth and survival of Antarctic macroalgae”

**2006 B.S. Marine Biology** University of California, Santa Cruz

*External courses taken*

**2018** Foundations of teaching for learning: being a teacher, Commonwealth Education Trust

**2018** The Art of Print Making

**2017** The Art of Science: Scientific Illustration, European Credit Transfer System

**2017** Mass Spectrometry enabling info-chemicals identification, Phycomorph-COST training

School

**2015** NERC scientific diving training course, SAMS

**2014** Taxonomy, NERC short course, Natural History Museum London

**2013** Aquatic Photosynthesis, Universidad Nacional Autónoma de México

**2013** Primer Workshop, International Phycological Congress 10

**2008** Assessing predation in the marine environment, Friday Harbor Labs, UW

**Publications**

|  |  |  |  |
| --- | --- | --- | --- |
| **Citations~ 97** | **H index: 6** | **i10: 5** | Source: google scholar 10/18 |

<https://scholar.google.com/citations?user=VNXQcwEAAAAJ&hl=en>

\*Corresponding author

*Book Chapters*

Salm, J.L., **K.M. Schoenrock**, J.B. McClintock, C.D. Amsler, and B.J. Baker\*. (2018) The Status of Marine Chemical Ecology in Antarctica: Form and Function of Unique High-Latitude Chemistry. In: Marine Natural Products and Chemical Ecology. Eds. M. Puglisi and K.L. Van Alstyne. CRC Press. Chapter 2: 27-69

Young, R.M., **K.M. Schoenrock**, J.L. von Salm, C.D. Amsler, and B.J. Baker\*. (2015) Structure and Function of Macroalgal Natural Products. In: Natural Products from Marine Algae. Eds. D. Stengel and S. Connan. Springer, Berlin. pp. 39-73

*Peer-reviewed Journal Articles*

**Schoenrock, K.M.**\***,** J. Vad, A. Muth, D. M. Pearce, B. R. Rea, J.E. Schofield, and N.A. Kamenos (2018). Biodiversity of kelp forests and coralline algae habitats in southwestern Greenland. Diversity, 10(4): 117. doi.org/10.3390/d10040117

Hofmann, L.\*, **K. Schoenrock,** D. de Beer (2018). Arctic coralline algae elevate surface pH and carbonate in the dark. Frontiers in Plant Sciences, 9:1416. Doi: 10.3389/fpls.2018.01416

**Schoenrock, K**.**M.\***, M. Bacquet, N.A. Kamenos, D.M. Pearce, B.R. Rea, J.E. Schofield, J. Lea, and D. Mair (2018). Influences of salinity on the physiology and distribution of the Arctic coralline algae, *Lithothamnion glaciale* Kjellman (Corallinales, Rhodophyta). Journal of Phycology, doi: 10.1111/jpy.12774

Pearce, D.M.\*, D. Mair, B.R. Rea, E. Schofield, J. Lea, N. Kamenos, and **K. Schoenrock** (2018). The glacial geomorphology of upper Godthåbsfjord (Nuup Kangerlua) in south-west Greenland. Journal of Maps. Vol 14 (2): 45-55.

Schram, J.B.\*, **K.M. Schoenrock,** J.B. McClintock, C.D. Amsler, and R.A. Angus. (2017) Ocean warming and acidification alter Antarctic macroalgal biochemical composition but not amphipod grazer feeding preferences. Marine Ecology Progress Series, 581:45-56

Schram, J.B.\*, **K.M. Schoenrock**, J.B. McClintock, C.D. Amsler and R.A. Angus. (2016) Seawater acidification more than warming presents a challenge for two Antarctic macroalgal-associated amphipods. Marine Ecology Progress Series, 554:81-97

Schram, J.B.\*, M.O. Amsler, C.D. Amsler, **K.M. Schoenrock**, J.B. McClintock, and R.A. Angus. (2016) Antarctic crustacean grazer assemblages exhibit resistance following exposure to decreased pH. Marine Biology, 163: 106. DOI 10.1007/s00227-016-2894-y

**Schoenrock, K.M.\***, J.B. Schram, C.D. Amsler, J.B. McClintock, R.A. Angus, and YK Vohra. (2016) Climate change confers a potential advantage to fleshy Antarctic crustose macroalgae over calcified species. Journal of Experimental Marine Biology and Ecology, 474: 58-66.

Schram, J.B.\*, **K.M. Schoenrock**, J.B. McClintock, C.D. Amsler and R.A. Angus (2015).Testing Antarctic resilience: the effects of elevated seawater temperature and decreased pH on two gastropod species. ICES Journal of Marine Science. DOI: 10.1093/icesjms/fsv233.  529-536

Schram, J.B.,\* **K.M. Schoenrock**, J.B. McClintock, R.A. Angus, and C.D. Amsler. (2015) Multi-frequency observations of seawater carbonate-chemistry on the central coast of the western Antarctic Peninsula. Polar Research, 34, 25582. DOI: 10.3402/polar.v34.25582.

**Schoenrock, K.M.\***, C.D. Amsler, J.B. McClintock, and B.J. Baker. (2015) A comprehensive study of Antarctic algal symbioses: minimal impact of endophyte presence in most species of macroalgal hosts. European Journal of Phycology. 50 (3). 271-287. DOI:10.1080/09670262.2015.1031189

**Schoenrock, K.M.\***, C.D. Amsler, J.B. McClintock, B.J. Baker. (2015) Life history bias in endophyte infection of the Antarctic rhodophyte, *Iridaea cordata*. Botanica Marina, 58 (1). 1-8. DOI [10.1515/bot-2014-0085](http://dx.doi.org/10.1515/bot-2014-0085)

**Schoenrock, K.M.\***, J.B. Schram, C.D. Amsler, J.B. McClintock, and R.A. Angus. (2014) Climate change impacts on over-story *Desmarestia* spp. from the western Antarctic Peninsula. Marine Biology, 162 (2): 377-389. DOI 10.1007/s00227-014-2582-8

Schram, J.B.\*, **K.M. Schoenrock**, J.B. McClintock, C.D. Amsler, R.A. Angus. (2014). Multiple stressor effects of near future elevated seawater temperature and decreased pH on righting and escape behaviors of two common Antarctic gastropods. Journal of Experimental Marine Biology and Ecology, 457: 90-96

**Schoenrock, KM.\***, C.D. Amsler, J.B. McClintock, and B.J. Baker (2013). Endophyte presence as a potential stressor on growth and survival in Antarctic macroalgal hosts. Phycologia, 52: 595-599

O’Leary, J.K.\*, D. Potts, **K. Schoenrock**, T. McClanahan (2013). Fish and sea urchin grazing opens settlement space equally but urchins reduce survival of coral recruits. Marine Ecology Progress Series, 493: 165-177

*Manuscripts*

J. Edward Schofield\*, Danni M. Pearce, Douglas, W.F. Mair, Brice R. rea, James M. Lea, Nicholas Kamenos, **Kathryn M. Schoenrock**, Iestyn D. Barr, and Kevin J. Edwards (submit to *Environmental Archaeology*). ‘Pushing the Envelope’: a Palynological Investigation of Norse Settlement from a Remote Farmstead near the Margin of the Greenland Ice Sheet.

Lea J\*, Pearce D\*, Mair D, Rea B, Schofield E, Kamenos N, Lewis, B and **Schoenrock K**. (in preparation for *Nature*). Rapid Greenlandic tidewater glacier advance during the era of Norse Settlement.

**Schoenrock, K.M.**\* and C.D. Amsler (*rejected from Polar Biology, in revision*). Photosynthetic performance of eighteen macroalgae from the western Antarctic Peninsula.

**Schoenrock, K.M.\***, C.D. Amsler, J.B. McClintock, and B.J. Baker (*rejected from Polar Biology, in revision*). Depth and site related settlement patterns of subtidal invertebrate larvae along the western Antarctic Peninsula.

**Schoenrock**, **K.M.\***, Matterson, L. Hofmann, D. de Beer, N. Kamenos, D. Pearce, B. Rea, J.E. Schofield, J. Lea and D. Mair (*in prep for FEMS Microbiology Ecology*). A comparison of bacterial diversity and function in the maerl *Lithothamnion glaciale* Kjellman (Corallinales, Rhodophyta) from southwestern Greenland.

**Schoenrock, K.M.**\*, R. Young, C.D. Amsler, B.J. Baker (*in prep for Antarctic Science*). The changing metabolomic profile of two canopy-forming macroalgae from the western Antarctic Peninsula in near future marine conditions.

**Schoenrock, K.M.**\*, T. O'Callaghan, R. O'Callaghan, A.M. O'Connor, and D.B. Stengel (*in prep for Oecologia*). A comprehensive description of diversity in subtidal kelp habitats in Ireland.

**Schoenrock, K.M.\***, A.M. O'Connor\*, D.B. Stengel and S.A. Krueger-Hadfield (*in prep for Journal of Phycology* ). *Population structure in subtidal populations of* Laminariahyperborea *along the western Irish coast*

**Schoenrock, K.M.**\*, T. O'Callaghan, R. O'Callaghan, and S.A. Krueger-Hadfield (*in prep for Journal of the Marine Biological Association of the United Kingdom*). First record of non-native *Laminaria ochroleuca* Bachelot de la Pylaie in Ireland found in Béal an Mhuirthead, County Mayo.

**Schoenrock, K.M.\*,** J.A. Adams, J.J. Ratcliff, and D.B. Stengel (*in prep for Marine Ecology Progress Series*). Multiple measures of kelp forest productivity in Ireland: insights to population dynamics, stability, and potency as a carbon resource and store.

**Schoenrock, K.M**. \*, T. O'Callaghan and R. O'Callaghan. (*in prep for Biology and the Environment*). SeaSearch data records for Ireland from 2010-2017.

**Schoenrock, K.M.**, T. Rossiter, T. O'Callaghan, R. O'Callaghan, J. Breen. (*in prep for The Irish Naturalist*). An annual survey of benthic communities in Lough Ine.

**Research Collaborations**

**2018**  Population genetics of *Laminaria* spp. along the coast of Ireland, Dr Stacy Krueger-Hadfield, UAB

**2018** Protein and fatty acids in *Laminaria hyperborea* across multiple gradients, Dr Julie Schram, Oregon Institute of Marine Biology

**2018** Carbohydrate production in *Laminaria hyperborea* across multiple gradients, Dr Jessica Adams, IBERS Gogerddan, Aberystwyth University

**Since 2016** Subtidal surveys of shallow marine communities along the coast of Ireland, Tony and Rory O'Callaghan, SeaSearch Ireland.

**Since 2015** Marine terrestrial interactions in sub-Arctic region of Greenland, Dr. Danni Pearce, University of Hertfordshire (formerly at University of Aberdeen).

**Since 2015** Microbial communities on polar coralline algae, Dr Kenan Matterson, Smithsonian

 Institute

**Since 2015** Ecophysiology and adaptations of polar coralline algae, Dr Laurie Hofmann, Alfred

 Wegner Institute (formerly Microsensor Group, Max Planck Institute for Marine Microbiology)

**Since 2009** Species identification of polar coralline algae (Antarctic and Artic regions), Dr Paul

 Gabrielson University of North Carolina, Chapel Hill

**Press Releases**

**2018** Podcast interview on Irish kelp forests "Cool Science and Curious minds"

[Silicon Republic: https://www.siliconrepublic.com/innovation/scientist-unsung-heroes](https://www.siliconrepublic.com/innovation/scientist-unsung-heroes)

Silicon republic: https://www.siliconrepublic.com/innovation/kathryn-schoenrock-nui-galway

Soapbox Science:<http://soapboxscience.org/need-talk-kelp-meet-kate-schoenrock/>

**2017** CALVE documentary: <https://www.alexingle.com/portfolio/>

**2012** Antarctic Sun: <https://antarcticsun.usap.gov/science/contenthandler.cfm?id=2636>

**2011** Antarctic Sun: https://antarcticsun.usap.gov/features/contenthandler.cfm?id=2455

**2010** Antarctic Sun: <https://antarcticsun.usap.gov/science/contentHandler.cfm?id=2124>

**Awards and Funding**

2014 Outstanding Ph.D. Student in the Department of Biology, UAB

2011 Outstanding Masters Student in the Department of Biology, UAB

*Research funding Total: £386,536.68*

\*\*\* **Environmental Protection Agency** **2018** WATER Call, Project Based Awards Theme 2, KelpRes: the Diversity and Resilience of kelp ecosystems in Ireland. €249,156.97

**Irish Research Council 2016 Postdoctoral fellowship** “Closing the knowledge gap on Irish

 kelp forest ecology” €91,790.00

 **FONDECYT 2017 Postdoctorado competition** “Epibacterial function in the distribution and

 physiology of *Macrocystis pyrifera* across a latitudinal gradient”, rejected by K. Schoenrock in favour of IRC government postdoc.

 **Marine Institute, Ireland** ‘Marine Medicines from the Irish Deep’ National Research Vessels Ship-time **2016** Program - €80,000

**2018** **Marine Research Programme Networking & Travel Grants** "A study in ochre: genetic diversity of *Laminaria hyperborea* forests along the Irish coastline" ~ €1200

 **British Phycological Society (BPS)** studentship Aisha O'Connor "A study in ochre: genetic

 diversity of *Laminaria hyperborea* forests along the Irish coastline" ~ £2500

 **Divers Alert Network (DAN) Oxygen Grant**- DAN America Oxygen kit for Dive Safety ~ $500

**2016** **Marine Alliance for Science and Technology for Scotland (MASTS)** Small Grants

 Scheme- “A pan-Arctic assessment of biodiversity and ecosystems services provided by

 coralline algae reefs”- £557.50

 **Scottish Alliance for Geoscience, Environment and Society (SAGES)** “PECRE exchanges

 with Europe, North America, China, India” - £2000

 **Federation of European Microbiological Societies (FEMS)** Research grant "Epibacterial community function in the physiology of polar coralline algae" - €1800

**2015** **University of Glasgow** Research Enabling Fund - £585.65

**2014** **BPS** Small Grants Award - £298

 *\*\*The Phycologist* (2015). The identification of cryptic marine algal species from the

 western Antarctic Peninsulas. no.88: 40

**2013** **Phycological Society of America (PSA)** Grant in Aid of Research, Molecular Identification of Cryptic Antarctic Macroalgae - $1373

 **Sigma Xi** Grant in Aid of Research, XRD analysis of CCA cell walls - $640

**2011** **PSA** Outstanding Ph - $1500

*Travel funding Total: £11,105.33*

**2018** **MSCA proposal writing workshop**, Cardiff, Wales - €800

 **Marine Research Programme Networking & Travel Grants** - PSA €1200

**2017** **Phycomorph-COST** workshop and training school - €600

 **Marine Research Programme Networking & Travel Grants** - IPC €750

 **Marine Research Programme Networking & Travel Grants** - EGU €750

**2016** **Gordon Research Seminar** ‘Unifying Ecology Across Scales’, travel award - $400

 **FEMS** meeting attendance grant - €500

**2015** **University of Glasgow Conference Support** - £400

**2014** **BPS** student travel bursary - £626.49

**2013** **UAB** Evelyn M. and Harold C. Martin Endowed Fund for Travel in Biology - $1,995.03

 **PSA** Hoshaw Travel Award - $1000

 **UAB** Department of Biology Travel Grant - $400

**2012** **UAB** Graduate Student Association Travel Grant - $400

 **UAB** Graduate Student Association Travel Grant - $400

 **American Academy of Underwater Scientists (AAUS)** Kevin Flannigan Award - $1300

**2011** **PSA** Hoshaw Travel Award - $1100

**2010** **UAB** Dan Jones Scholarship - $800

*Applications in review*

**2018** **American Academy of University Women**, small publication grants, "A year-long mesocosm investigation into succession patterns in polar coralline algae microbiomes in response to high glacial melt conditions." K. Schoenrock and K. Matterson

 **INTERACCESS**, Terrestrial vs. pelagic RESOurces for benthic marine communities in Rhodolith Beds of southwestern Greenland (RESORB). K.M. Schoenrock and D. Pearce

*Failed applications*

**2018** **Marie Sklodowska-Curie Actions** Individual Fellowship, CCColoniL: Chemical Cues for Colonisation of Laminariales. K.M. Schoenrock and P. Moore - INELIGIBLE

**Science Foundation Ireland** (SFI) SIRG Programme Expression of interest. Kelp forest EcoLogy and Population diversitIE (KELPIE). K. Schoenrock and M. Johnson.

 **Systematics Association** Systematics Research Fund. An ongoing investigation of the maerl microbiome in conditions reflecting Arctic climate change. K. Schoenrock and K. Matterson.

**2017** **PSA** Norma Lang Early Career Fellowship. Shifts happen: Environmental variation influences microbial composition and functional diversity of algal-associated biofilms. K. Schoenrock.

**2016** **Rafe Sagarin Fund for Innovative Ecology**, Microbiome function in the ecology and physiology of polar coralline algae. K. Schoenrock

 **MASTS** Biogeochemistry forum research grant, Investigating potential paleoclimate archives in the Irish deep. K. Schoenrock.

 **Application for Ion Microprobe Analysis** Reconstructing runoff from the Greenland Ice Sheet: past and future drivers of change. N. Kamenos and K. Schoenrock.

**2015 Application for Ion Microprobe Analysis** Reconstructing the impact of tidewater glaciers on coastal structure and communities using ᵹO18 in benthic foraminifera. K. Schoenrock and N. Kamenos.

**MASTS** small grants Coralline algae inform past shifts in a tidewater glacier and effects on the coastal topography and systems. K. Schoenrock.

**Phycomorph** STSM funding, Epibacterial community function in the physiology of polar coralline algae. K. Schoenrock and L. Hofmann.

**2014 FONDECYT 2015 Postdoctorado Competition** Ecological niche diversity of dominant macroalgae in the sub-Antarctic region: the role of epiphytic bacterial communities on algal physiological diversity. K. Schoenrock and S. Faugeron.

**2013 The Alabama Wildflower Society** Blanche E. Dean Scholarship, Molecular identification of cryptic Antarctic macroalgae. K. Schoenrock.

**Teaching**

*Courses taught*

**2018** International Summer Field School, Intertidal Ecology, NUI Galway

**2017-2018** Botany lectures on ‘Primary Productivity and Global Change’, NUI Galway

**2016** Lecturer in ‘the Modern World’ Earth Science 2Q: Paleobiology, University of Glasgow

**2016** Lecturer in the ‘Marine Environment’ Earth Science 1Y: Evolution of the Earth, University of Glasgow.

**2011- 14** Teaching Assistant, Human Physiology (UAB). This course is an introduction to human physiology for non-majors and nursing students covering a range of topics from diffusion to the pulmonary system.

**2009-11** Teaching Assistant, Introductory Biology (UAB). This course introduces Biology covering organic molecules (including gel electrophoresis and PCR), metabolic processes, evolution, ecology, and physiology and taxonomy of all phyla.

**2006** Teaching Assistant, Marine Botany (BIOE 120/L, UCSC).

*Mentorship*

**2017-2018** Aisha O’Connor, 4th year student in Marine Science, NUI Galway and BPS studentship (*Joint supervisor*)

 Aaron McMahon, 4th year student in Marine Science, NUI Galway (*Joint supervisor*)

 Katie Huston, 4th year student in Marine Science, NUI Galway (*Joint supervisor*)

**2017** Thomas Boudou, MS, University of Bordeaux. "Comparative diversity of kelp holdfasts across sites in western Ireland." (*Supervisor*)

**2016** Johanne Vad, PhD student at Herriot Watt University. Field Assistant in Greenland for 2016 field season. (*Joint supervisor*)

 Catherine Lawrence, Castlemilk High School work experience program (*Supervisor*)

 Eiryn Milligan, High School work experience program (*Supervisor*)

 Melissa O’Connor, Postgraduate student research assistant identifying marine foraminifera. (*Supervisor*)

 Marion Bacquet, Erasmus exchange student from University Quimper on a research project investigating the microbiome, physiology, and environmental tolerance of the polar maerl species *Lithothamnion glaciale*. (*Supervisor*)

**2015-2016** Lukasz Stachnik (Research Assistant) investigated the presence of a sulphur isotope signal in *Clathromorphum compactum* that could determine the age of melt water influencing the fjord habitats in southwest Greenland. (*Joint supervisor*)

**2013** Undergraduate Mentor at UAB, Biology

**Research presentations**

*Invited talks*

**2018** Byrnes Lab, University of Massachusetts "Kelp forest ecology in the Northeast Atlantic"

**2018** NUI Galway Summer School "Kelp forest ecology in Ireland"

**2018** Field work meeting group, NUI Galway "Field methodologies in kelp forest ecology"

**2016** Botany Department speaker, NUI Galway “Bi-polar seaweeds”

**2015** Guest Lecturer in Ecology, UAB

**2013** Guest Speaker in Phycology, UNCW

*Published in Meeting Proceedings*

Schoenrock, K. **♠,** Ł. Stachnik, J. Vad, N.A. Kamenos, D. Pearce, B. Rea, J.E. Schofield, J. Lea, D. Mair (2018).Distribution of Benthic Communities in a Fjord-Marine System in southwestern Greenland, with a focus on algal dominated habitats. **International Youth Scientific and Practical Conference. Arctic Research: From Extensive to Integrated Development.**

Schoenrock, K**♠**, C.D. Amsler, B.J. Baker, and J.B. McClintock (2012). Experimental Marine Ecology along the open coastline of the western Antarctic Peninsula. **Proceedings of the 2012 Annual Meeting of the American Academy of Underwater Sciences.** Pg. 186-192

*Oral presentations*

**Atlantic from Space Workshop, European Space Agency (ESA), 2019** “Monitoring Atlantic Sub-Tidal Kelp Forests Remotely From Orbit” Aaron Golden**♠**, Kathryn Schoenrock, Anne Marie Power, and Stacy Krueger-Hadfield.

**British Phycological Society (BPS) 2019** “Wee scunner or marine stunner? Making kelp great again” K.M. Schoenrock **♠**, Rory O’Callaghan, Tony O’Callaghan, and D.B. Stengel

**Irish Algal Researchers Conference, 2018** “Multiple measures of kelp forest productivity in western Ireland”K.M. Schoenrock **♠**, and D.B. Stengel.

**PSA-ISOP 2018,** "With a little kelp from my friends: Beasts that utilise Irish kelp forests and the multifaceted ways that kelps structure these emerald seas." K.M. Schoenrock**♠**, and D.B. Stengel

**PSA-ISOP 2018**, lightning talks "Sweet as… Irish kelp." K.M. Schoenrock**♠**, and J.A. Adams

**VI International Rhodolith Workshop, 2018**. "A comparison of bacterial diversity and function in the maerl *Lithothamnion glaciale* Kjellman (Corallinales, Rhodophyta) from southwestern Greenland." K. Schoenrock**♠**, K. Matterson, L. Hofmann, D. de Beer, N. Kamenos, D. Pearce, B. Rea, J.E. Schonfield, J. Lea and D. Mair

**Ryan Institute Research Days, NUI Galway 2018.** "Closing the knowledge gap on Irish kelp forest ecology" K.M. Schoenrock**♠** and D.B. Stengel

**BPS 2018** "A study in ochre: kelp forest productivity in Ireland"K.M. Schoenrock**♠**, and D.B. Stengel

**American Geosciences Union (AGU), 2017.** "Rapid advance and retreat over centennial/millennial timescales at Kangiata Nunaata Sermia, SW Greenland- implications for modelling and behaviour of tidewater glaciers." James Lea**♠**, Douglas WF Mair, Brice R Rea, James Schofield, Nicholas Kamenos, Danni Pearce, and Kathryn M. Schoenrock

**Crossing the kingdoms: seaweed substances and interaction with the bacteria that promote seaweed growth, Phycomorph COST workshop 2017** “Epibacterial diversity and function in the physiology of a polar coralline algae” K.M. Schoenrock**♠**, K.O. Matterson, L.C. Hofmann

**International Phycological Congress (IPC) 2017**“Rhodoliths maintain elevated surface pH and carbonate ion concentrations” L.C. Hofmann**♠**, K.M. Schoenrock, D. De Beer, C. Olive, and J. Silva

**IPC 2017** “Function and diversity of the epiphytic bacterial community on the Arctic maerl, *Lithothamnion glaciale*” K.M. Schoenrock**♠** and K.O. Matterson

**PSA 2017** "A biodiversity assessment of kelp forest and coralline algae habitats in southwestern Greenland." Kathryn M. Schoenrock**♠** and Arley Muth

**European Geosciences Union (EGU) 2017 - “**A millennial-scale record of tidewater glacier advance and retreat, SW Greenland.” Danni Pearce**♠**, Douglas Mair, Brice Rea, James Schofield, James Lea, Nicholas Kamenos, Kathryn Schoenrock, and Lukasz Stachnik

**BPS 2017** "Epibacterial Community Function in the Physiology of Polar Coralline Algae" Kathryn Schoenrock⸙**,** Kenan Matterson, and Laurie Hofmann

**Gordon Research Seminar (GRS) ‘Unifying Ecology Across Scales’ 2016** "Epibacterial Community Function in the Physiology of Polar Coralline Algae" Kathryn Schoenrock**♠,** Kenan Matterson, and Laurie Hofmann

**Society for Integrative & Comparative Biology (SICB) 2016** “Seawater acidification rather than warming is a significant challenge for two common Antarctic macroalgal-associated amphipods” J. B. Schram**♠**, K.M. Schoenrock, J.B. McClintock, C.D. Amsler, and R.A. Angus.

**Scientific Committee on Antarctic Research (SCAR) 2014** Oral presentation “Antarctic Algae in the Anthropocene” Kathryn M. Schoenrock**♠**, Julie B. Schram, Charles D. Amsler, James B. McClintock, and Robert A. Angus

**Joint Aquatic Sciences Meeting (JASM) 2014** “Antarctic Algae in the Anthropocene” Kathryn M. Schoenrock**♠**, Julie B. Schram, Charles D. Amsler, James B. McClintock, and Robert A. Angus

**Benthic Ecology Meeting (BEM) 2014** “A matter of taste: Impacts of elevated seawater temperature and decreased pH on feeding choices of an Antarctic amphipod for chemically deterrent macroalgae.” Schram, Julie B**♠**; Amsler, Margaret O.; Amsler, Charles D.; McClintock, James B.; Angus, Robert A.; Schoenrock, Kathryn M.

**Graduate Student Research Days, UAB 2014** “Title: Impacts of elevated pCO2 and seawater temperature on feeding choices of an Antarctic amphipod.” Schram, Julie B**♠**; Amsler, Margaret O.; Amsler, Charles D.; McClintock, James B.; Angus, Robert A.; Schoenrock, Kathryn M.

**South Eastern Phycological Colloquy (SEPC) 2013** “Climate change impacts on Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Julie B. Schram, Charles D. Amsler, James B. McClintock, and Robert A. Angus

**IPC 2013** “Change you can believe in: Climate change impacts on Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Julie B. Schram, Charles D. Amsler, James B. McClintock, and Robert A. Angus

**Western Society of Naturalists (WSN) 2012** “An investigation of endophyte effects on macrophyte host physiology along the western Antarctic Peninsula” Kathryn M. Schoenrock**♠**, Charles D. Amsler, James B. McClintock, and Bill J. Baker

**SEPC 2012** “An investigation of endophyte effects on macrophyte host physiology along the western Antarctic Peninsula” Kathryn M. Schoenrock**♠**, Charles D. Amsler, James B. McClintock, and Bill J. Baker

**Phycological Society of America (PSA) 2012** “An investigation of endophyte effects on macrophyte host physiology along the western Antarctic Peninsula” Kathryn M. Schoenrock⸙, Charles D. Amsler, James B. McClintock, and Bill J. Baker

**PSA 2011** “The impact of endophyte presence on growth and survival of Antarctic macroalgae (Rhodophyta)” Kathryn M. Schoenrock**♠**, Charles D. Amsler, James B. McClintock, and Bill J. Baker

**WSN 2010** “The effect of endophyte infection on growth and survival in Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Charles D. Amsler, James B. McClintock, and Bill J. Baker

**SEPC 2010** “The effect of endophyte infection on growth and survival in Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Charles D. Amsler, James B. McClintock, and Bill J. Baker

*Poster presentations*

**BPS 2019** “ A study in ochre: genetic diversity of Laminaria hyperborea forests along the Irish coastline” A.M. O’Connor**♠**, K.M. Schoenrock, and S.A. Krueger-Hadfield.

**Biogeochemistry Workshop, Marine Institute, 2018.** "Kelp forests in Irelands coastal systems." K. Schoenrock**♠** and D.B. Stengel

**Ryan Institute Research Days, NUI Galway 2018.** "Kelp! I need somebody! *Laminaria hyperborea* forests host diverse faunal assemblages at multiple scales" K.M. Schoenrock**♠** and D.B. Stengel

**BPS 2018** "Kelp! I need somebody! *Laminaria hyperborea* forests host diverse faunal assemblages at multiple scales" K.M. Schoenrock**♠** and D. Stengel

**MASTS Annual Science Meeting 2017** “Effects of biogeochemical change on Arctic primary productivity”. Bonnie Lewis**♠**, Douglas Mair, Brice Rea, Danni Pearce, Kate Schoenrock, & Nicholas Kamenos.

**IPC 2017** “Progress in Irish kelp forest ecology: Insights into productivity and biodiversity of Laminaria hyperborean forests” K.M. Schoenrock**♠** and D. Stengel

**PSA 2017** "Irish kelp forests: preliminary measurements of kelp populations and biodiversity." Kathryn Schoenrock**♠** and Dagmar Stengel

**EGU 2017** "Rapid advance, and rapid retreat at Kangiata Nunaata Sermia: potential for long term numerical model validation of Greenland outlet glacier dynamics" Danni Pearce**♠**, Douglas Mair, Brice Rea, James Schofield, James Lea, Nicholas Kamenos, Kathryn Schoenrock, and Lukasz Stachnik

**EGU 2017** “Phenology of Lithothamnion glaciale in mixed fjord conditions: mesocosm experiments provide insight to maerl physiology and distribution in southwestern Greenland.” Kathryn Schoenrock**♠,** Marion Bacquet, and Nicholas Kamenos

**EGU 2017-** “Marine algae inform past calving rates of a tide water glacier in western Greenland.” Kathryn Schoenrock**♠**, Danni Pearce, Douglas Mair, Brice Rea, James Schofield, James Lea, Nicholas Kamenos

**BPS 2017-** “A pan-Arctic assessment of biodiversity and ecosystems services provided by coralline algae reefs” Kathryn Schoenrock**♠** and Arley Muth

**EGU 2016-** “Reconstructing the behavior of a major SW Greenland tidewater glacier over the last millennium.” Danni Pearce**♠**, Douglas Mair, Brice Rea, James Schofield, James Lea, Nicholas Kamenos, Kathryn Schoenrock, and Lukasz Stachnik

**Ocean Sciences Conference 2016-** “Marine algae inform past calving rates of a tide water glacier in western Greenland.” Kathryn Schoenrock**♠**,Nicholas Kamenos,Danni Pearce Douglas Mair, Brice Rea, James Schofield, James Lea, and Lukasz Stachnik.

**Scottish Universities Research in Glacial Environments (SURGE) 2015-** “Reconstructing the behaviour of a major SW Greenland tidewater glacier over the last millennium” Danni Pearce**♠**, Douglas Mair, Brice Rea, James Schofield, James Lea, Nicholas Kamenos, Kathryn Schoenrock, and Lukasz Stachnik

**IGS Nordic Branch 2015-** “Reconstructing the behaviour of a major SW Greenland tidewater glacier over the last millennium” Danni Pearce**♠**, Douglas Mair, Brice Rea, James Schofield, James Lea, Nicholas Kamenos, Kathryn Schoenrock, and Lukasz Stachnik

**SCAR 2014** “Settlement preferences of marine invertebrate larvae from the western Antarctic

 Peninsula: influences of depth, site and coralline algae” Kathryn M. Schoenrock**♠**, Charles D.

 Amsler, James B. McClintock, and Bill J. Baker

**SCAR 2014** “Multi-frequency observations of carbonate chemistry on the central coast of the

 western Antarctic Peninsula.” Julie B. Schram**♠**, Kathryn M. Schoenrock, James B.

 McClintock, Charles D. Amsler, and Robert A. Angus

**SCAR 2014** “Title: Impacts of elevated pCO2 on macroalgal-invertebrate assemblages of the

 western Antarctic Peninsula” Julie B. Schram**♠**, Kathryn M. Schoenrock, James B.

 McClintock, Charles D. Amsler, and Robert A. Angus

**JASM 2014** “CHEMICAL MEDIATION OF MUTUALISTIC INTERACTIONS BETWEEN MACROALGAE AND MESOGRAZERS STRUCTURE UNIQUE COASTAL COMMUNITIES ALONG THE WESTERN ANTARCTIC PENINSULA.” Charles D. Amsler**♠**, Kathryn M. Schoenrock, Craig F. Aumack, Jill P. Zamzow, Y.M. Huang, James B. McClintock, and Bill J. Baker

**Gordon Research Conference: Ocean Global Change Biology 2014** “Impacts of ocean acidification on an Antarctic marine macroalgal-mesograzer community: insights from a laboratory mesocosm experiment” Schram JB**♠**, Amsler CD, Amsler MO, Schoenrock KM, McClintock JB, Angus RA

**SICB 2014** “Testing the waters: Seasonal seawater carbonate chemistry baseline to inform biological ocean acidification experiments on the western Antarctic Peninsula” Schram, Julie B.**♠**; Schoenrock, Kathryn M.; McClintock, James B.; Amsler, Charles D.; Amsler, Margaret O.; Angus, Robert A.

**IPC 2013** “Phycological Educational Endeavors: Assessing Algal Knowledge in Museums, Zoos, Aquariums, and Herbariums” J. L. Collier**♠**, R. Fitch, J. Jorve, R. Kodner, J. F. Muhlin, and K. Schoenrock

**SICB 2013** “Sub-lethal impacts of ocean acidification and elevated temperature on two molluscs from the western Antarctic Peninsula” Schram, Julie B.**♠**; Schoenrock, Kathryn M.; McClintock, James B.; Amsler, Charles D.; Amsler, Margaret O.; Angus, Robert A.

**WSN 2012** “Climate change impacts on the physiology of calcifying and non-calcifying encrusting Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Julie B. Schram, Charles D. Amsler, James B. McClintock, and Robert A. Angus

**SEPC 2012** “SYSTEMATICS OF EPIZOOIC AND EPIPHYTIC NONGENICULATE CORALLINE ALGAE FROM ANTARCTICA.” Ashley Thigpen**♠**, Kate Schoenrock, Chuck Amsler, J. Craig Bailey

**SCAR 2012** “An investigation of the sub-lethal impacts of elevated CO2-induced seawater acidity and temperature on two Antarctic molluskan mesograzers from the western Antarctic Peninsula” Schram JB**♠**, Schoenrock KM, McClintock JB, Amsler CD, Angus RA, Amsler MO

**SCAR 2012** “Climate change impacts on the physiology of calcifying and non-calcifying encrusting Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Julie B. Schram, Charles D. Amsler, James B. McClintock, and Robert A. Angus

**PSA 2010** “The effect of endophyte infection on growth and survival in Antarctic macroalgae” Kathryn M. Schoenrock**♠**, Charles D. Amsler, James B. McClintock, and Bill J. Baker

**Knowledge exchange and Outreach**

**2018** SeaSearch Ireland observer

Letters to a PreScientist: http://www.prescientist.org/

CareersZone participant: www.imascientist.uk.org

Soapbox Science, Galway IE

Kelp Forest Mural, Galway Atlantaquaria: https://www.nationalaquarium.ie/news--events.html

 SeaSearch algae ID course: https://www.facebook.com/seasearchireland/

**2017** I'm a Scientist, Get Me out of Here! Ireland, SFI.

“Diving in Antarctica: Frozen beasts and where to find them” NUI Galway sub-aqua club, CFT

**2016** “The hidden communities of maerl beds and kelp forests” Galway Science & Technology Festival

Pint of Science “Bipolar Seaweeds”, Glasgow Scotland

Glasgow Science Festival, LevelUpHuman Science Comedy podcast: http://leveluphuman.com/

 Greenland Institute of Natural Resources- Preserved maerl and biodiversity samples provided with a poster for public outreach events.

**2015** “Meet the Expert” at the Glasgow Science Museums Biology week

**2014** The Algae and Antarctica- Our Lady of the Valley Daisy Troop (Pelham, Alabama)

**2013** Phycology and Antarctic Marine Science- St. James Catholic School (San Francisco, CA)

UAB in Antarctica blog: http://www.uab.edu/antarctica

Educational video conference from Antarctica- Watsonville High (Watsonville, CA)

Educational video conference from Antarctica- Sherman Elementary (San Francisco, CA)

Educational video conference from Antarctica- State College Area High School (State College, PN)

**2012** Educational video conference from Antarctica- Sherman Elementary (San Francisco, CA)

Educational video conference from Antarctica- Ravenswood Girls School (Sydney, AUS)

**2010** UAB in Antarctica blog: http://www.uab.edu/antarctica

**Scientific Committee and Journal Service**

*Guest Editor*

Frontiers in Marine Science special edition, "Coralline Algae: Globally Distributed Ecosystem Engineers"

*Reviewer*

**Since 2018** Frontiers in Marine Science

Cryptogamie Algologie

**Since 2017** Journal of Sea Research

Photosynthetica

Acta Botanica Brasilica

Marine Biology

**Since 2016** ALGAE

Marine Ecology Progress Series

 NERC

 INACH

 Phycologia

**Since 2015** Polar Biology

**Since 2011** Journal of Phycology

*Society Membership*

**Singe 2019** American Genetics Association

**Since 2018** Systematics Association

**Since 2017** European Geosciences Union

**Since 2015** Federation of European Microbiological Societies

**Since 2015** Marine Alliance for Science and Technology for Scotland

**Since 2015** Scottish Alliance for Geoscience, Environment and Society

**Since 2015** American Society of Limnology and Oceanography

**Since 2013** International Phycological Congress

**Since 2012** British Phycological Society

**Since 2012** Scientific Committee on Antarctic Research

**Since 2011** Western Society of Naturalists

**Since 2010** Phycological Society of America

*Committee membership*

**2011-present** PSA Education Committee

**2016- 2018** Co-organizer "Field work group meetings" NUI Galway

**2015-2016** University of Glasgow, School of Geographical and Earth Sciences Athena Swan SAT member and head of the SOC

**2014-2016** PSA Award of Excellence Committee

**2014-2016** PSA Provasoli Award Committee

**2014-2016** Student Representative on PSA Executive Committee

**2013-2014** Seminar Committee, UAB

**2010-2011** Student advisor to the Chair of the Biology Department, UAB

**2009-2011** PSA Archive Committee

**Profession certifications**

**2018 CFT** SCUBA club instructor

**2018 Sea Suas** mental health certificate

**2017 ISC** Advanced powerboat certificate

**2016 CFT** club diver

**2014 NASE** and **NAUI** course instructor

**2012 NAUI** Dive Master

 **DAN** course instructor (DFAPro and CPR provider)

**2007 DOI** open water module boating certificate and **FWS** ranger training module

**2005 AAUS** scientific diver

**Diving Proficiency**

 + 30 open water and advanced diver students mentored

 + 40 DAN first aid for diving medicine students trained

 ~ 1500 scientific dives including 200 deep dives (+30m), 400 polar dives, and 600+ dry suit dives

**Referees**

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