

## CURRICULUM VITAE

IN CONFIDENCE

### Professor Lloyd Samuel Peck

#### Overview

- Outstanding Antarctic scientist with leading international status. NERC Theme Leader and IMP, and over 250 refereed science papers, major reviews and book chapters. ISI H factor of 46, Google Scholar H factor of 53.
- Dynamic and inspirational leader of a large and diverse science programmes (BEA, LATEST and BIOFLAME) of around 30 science and support staff researching subjects from hard rock geology through biodiversity, ecology, physiology and biochemistry to molecular (genomic) biology.
- Twenty one years experience of strategic development of major science programmes, and subsequent management and direction of their science in the UK, Antarctica, the Arctic, temperate and tropical sites, on stations, ships, and field sites.
- Exceptional communicator. Royal Institution Christmas lecturer 2004. 15 televised lectures given in Japan, Korea and Brazil since 2005. Over 100 TV, radio and news interviews given in 10 years. Most recently major contributor to “A Licence to Krill” documentary (DOX productions). Over 35 keynote lectures, departmental seminars and other major presentations given since 2000.
- High quality University teaching record. Positions include Visiting Professor in Ecology, Sunderland University, and Visiting Lecturer, Cambridge University. Visiting Professor in Marine Biology, Portsmouth University, Deputy Chair Cambridge NERC DTP.
- Strong grant success record. In last 10 years: PI of BAS programmes valued over £2 million. PI or Co-I on 28 grants (total value of over £8 million). Over 50% success rate in grant applications.
- Integrated member of NERC science review processes for over 10 years. Member of NERC peer review college, and 6 years experience of Chairing grant panels. Member of NERC Facilities Review Group and Steering group for NERC National Facility for Scientific Diving

#### Personal details

Address: British Antarctic Survey, High Cross, Madingley Rd, Cambridge, CB3 0ET.

Date of Birth: 16.4.1957      Nationality: British      Marital Status: Married (2 children)

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#### Education and Qualifications

1970-1975      Queen Mary's Grammar School, Walsall  
1975-1978      Jesus College. Cambridge University, MA in Natural Sciences  
1979- 1983      Portsmouth University. PhD

#### Career to date

Summary of recent positions: Currently Science Leader Biodiversity, Evolution and Adaptations Team (BEAT, 25 research staff); NERC Theme Leader for Biodiversity (2007-2009); NERC Individual Merit Scientist (2002-present). Head of BAS BIOFLAME programme (2006-2008). Member of BAS science board (2000-2008). Research scientist with >250 papers in peer reviewed international journals (plus 1 Treatise chapter, 13 major reviews, 10 book chapters & 1 book). Invited keynote contributions to 24 congresses. 41 PhDs supervised, 13 PhDs examined. Extensive experience in project and team management. 2004 RI Christmas lecturer, 2007 televised lecture series in Brazil, 2006 RGS Christmas lecturer.

1999-2005: Head of the BAS Life at the Edge programme (LATEST) of 17 science and support staff, with projects investigating survival adaptations in extreme cold environments from molecular through organism to community levels. Projects focused on themes of responses to stress and quantification of organism limits and physiological capacities. Prime duties were: propose, develop, organise, manage and deliver a major research programme within the BAS portfolio. LATEST was the most productive BAS Q3 programme, producing over 5 ISI listed papers per scientist per year. Royal Institution Christmas lecturer, 2004 (Channel 4 TV), 2005 televised lecture tours of Japan and Korea,

1992-2002: Head BAS Nearshore Marine Group investigating ecology and physiology of Antarctic marine species. Specialisations included physiological limits, metabolism, growth and development. Duties included: direction of research and management of 7-11 BAS staff, 2-5 PhD and 1-3 undergraduate students per year (including implementing COSHH regulations); member of Marine Life Science Division (ca. 50 staff) management group; control of marine research at Rothera Station, and transfer of field activities from Signy Island to Rothera including design of new facilities (1994-97); Scientific control of UK polar aquarium and supply of specimens to 13 Universities and Institutes; Line management of SEM; Budgetary control of project (20-50k per annum). Own research.

1984-92: Post-doctoral scientist in Nearshore Marine Biology group. Initially as a Higher Scientific Officer (1984-1988); promoted to SSO in 1988 and to Grade 7 in 1993; Individual Merit promotion 2002. Main area of study: physiology and ecology of cold water ectotherms.

1979-84 PhD student/RA, Portsmouth University including teaching (6 h contact per week), practical demonstrations, supervising projects and summer field courses. Survey leader Jersey States Ag & Fish Department, C.I., commissioned survey of Jersey *H. tuberculata* populations.

1990-present. 10 Antarctic, 2 Arctic field seasons. Chief Scientist, Rothera Research Station, responsible for day-to-day management of cross disciplinary science staff (geology, physics and biology).

**Awards:** Polar Medal (May 2009)  
PLYMSEF Silver Medal 2015  
Erskine Fellowship (University of Canterbury, New Zealand) (2016-2017)  
Visiting Professor in Ecology, Sunderland University (1994-present)  
Honorary Lecturer in Zoology, Cambridge University (1995-present)  
Visiting Professor in Marine Biology, Portsmouth University (2015-present)

**International positions and advisory duties:** Evaluator, Insitute for Protein Biochemistry, Naples, 2012-present). Steering Groups: SCAR AntETR programme and Horizon Scan. Advisor and fact checker for EU climate change website (2006-2010). Advisor for Antarctic sciences portfolio, Dutch Government, 2002, 2008. National grant evaluator and panel assessor Belgian government (2005-present). Major grant reviewer: NSF (USA), New Zealand, Dutch, S. African & Belgian grant awarding bodies.

**Major public lectures:** Nine televised major public lectures have been given in 4 countries, including the 2004 Royal Institution Christmas lecture series, "To the End of the Earth: Surviving Antarctic Extremes", broadcast on Channel 4 television, and the Royal Geographical Society 2006 Children's Christmas lecture. Details of recent public lectures are given in appendix 1.

**Conference keynote lectures etc:** Over 25 keynote and invited conference presentations have been given, including the opening science address entitled: "climate change, the factual basis", at the EU Greenweek meeting (Brussels, May 2005). Details of recent presentations are given in appendix 1.

**University Departmental seminars:** Forty-nine invited university Departmental seminars have been given in 7 countries since 1990.

**Funding obtained:** I was PI of the LATEST programme in the BAS third quinquennial science round, and PI of the BIOFLAME programme in the fourth quinquennial round. These programmes won a total spend of around £2 million under the NERC directed peer review system for institute funding.

I have also been Principal Investigator or Co-Investigator on over 30 grants totalling over £8 million in value in the last 10 years. Details are given in appendix 2.

**Teaching experience:** 25 years teaching at Sunderland Univ. lecturing final year students on adaptations of polar species. 24 years teaching at Cambridge Univ. Zoology Dept, (incl. 3rd year bioenergetics and Applied Biology courses & 1<sup>st</sup> year Organism Biology, running practical classes on Antarctic adaptations, supervising undergrad & MSc projects in Zoology & Earth Sciences Depts & Scott-Polar Research Institute). Three years teaching at Portsmouth University on Antarctic Marine Biology. Supervision of Brunel and Plymouth University 6-month placement students. Two years Course Director Cambridge Univ. Department of Continuing Education – Antarctic biology. Taught on University of Christchurch Antarctic Sciences post-graduate course 2016/17, including fieldwork supervision in Antarctica. Supervision of 41 and examined 13 PhD students.

**Training received:** Extensive training in management and supervision processes, Health and Safety, Home Office licensee and a range of specialist courses has been received. Details are given in appendix 3.

**Other activities and positions held:**

Course Director Cambridge University Continuing Education Dept (2016-2019)  
Erskine Fellowship, Christchurch University, NZ (2016/17)  
Deputy Chair Cambridge Doctoral Training Partnership (2012-2017)  
Evaluator and international panel member, Belgian Antarctic programme (2005-present)  
Evaluator, Institute for Protein Biochemistry, Naples, 2012-present)  
Evaluator Chilean Antarctic Research programme (2014-2018)  
Member SCAR Horizon Scanning Steering Group (2013-2015)  
Member SCAR AntETR programme steering group (2012-present)  
Member of NERC Peer Review College (Chair of assessment panels 2000 – 2006 and 2013-present)  
Member BAS Science Leader Team (2015-present)  
Member BAS Management Team (2015-2017)  
Member NERC Arctic Biogeochemistry and Ecosystems Scoping group (May 2015)  
NERC Theme Leader for Biodiversity (2007-2009)  
Member of UK Global Biodiversity Sub-Group (2008-2009)  
Member of CAREX EU network (2008-2011)  
Member of UK Biodiversity Research Advisory Group (2007-2009)  
Member of NERC Polar Sciences Working Group (2007)  
Member of NERC Strategic Facilities Review (2004-2006)  
Member of Steering Committee for the National Facility for Scientific Diving. (2004-2008)  
Member of Grierson Trust awards committee (2005)  
Advisor Dutch Antarctic Programme (2002-3, 2008-2010)  
BAS Programme implementation task force (2000-2002)  
Member of Marine Life Sciences senior management group (1996-2000)  
Member of NERC thematic grant panel (DEMA, 1998-2002)  
Member of BAS grade 7 assessment panel (1996-1998)  
Member SCAR Coastal Zones EASIZ programme (2000-2006)  
Scientific Fellow Zoological Society of London (1997-present)  
Honorary life member of Royal Institution (2005 – present)  
Governor Meridian School Comberton (Chair Estates Committee). (1999-2003)  
Captain Cambs County II squash team 1990-1994  
University: Blues in Athletics and Cross Country running (1976-1978).  
NERC Scientific Diver (HSE IV), chamber operator. >800 logged dives (~700 in Antarctica).

**Society membership:** I am currently, or have been a member of 7 learned societies or other bodies. Details are given in appendix 4.

**Public education in science:** In recent years over 80 newspaper and radio interviews have been given,

articles in NERC News, a contributed column to the Times Higher Education Supplement and material provided for 18 TV outlets in UK, Japan, Korea, Brazil and Canada, including being a guest presenter on CBBC exchange. Around 3 talks per year are given to schools Natural history societies, and other bodies.

**Interests and hobbies:** Cinema, reading, Squash rackets and real tennis. SCUBA diving. Walking and cycling. Supporter of Wolverhampton Wanderers football club.

## Appendix 1: lectures and presentations given

### Major public lectures and Keynote presentations since 2005:

Royal Institution Christmas lectures 2004.  
Televised Ri/British Council lecture tour of Japan and Korea 2005, and Brazil in 2007.  
Antarctic Season opening festival keynote presentation Christchurch, New Zealand Oct 2019  
Keynote Italian Society for Experimental Biology, Padua Sept 2019  
Inaugural Lecture Scott Series (Devon & Cornwall Polar Society (June 2018)  
Scar Biology meeting Invited lecture, Davos June 2018  
SEB Annual meeting Invited Keynote lecture, Florence, July 2018  
British Ecological Society annual meeting invited Keynote lecture Gent Dec 2017  
Bielefeld University Immelman Lecture Nov 2017  
Cambridge University Scientific Society, Cambridge, November 2017  
British Ecological Society Aquatic Sciences keynote lecture London Sept 2017  
Antarctic Ecosystems and Ice Shelf Collapse and Iceberg Calving, Florida Nov 2017  
Keynote Physiomar, Cambridge, May 2017  
Keynote Env East and Cambridge DTP March 2016  
PLYMSEF Silver Medal lecture, Plymouth, Dec 2015  
Portsmouth University School of Life Sciences Festival of Science keynote address, Nov 2015  
Archway With Words Festival Oct 2015  
AWI Portner Ecophysiology Symp April 2015  
SEB Invitees focus meeting, Murren, March 2013  
Oxford University Scientific Union, November 2012  
SCAR Portland Open Keynote, July 2012  
CAREX, Dublin Oct 2011  
Cardiff Scott Millenium Series Oct 2010  
BES/SEB Keynote London Jun 2010  
Cryo 2010 Bristol Sept 2010  
Valencia Science festival, Keynote, May 2008  
Festival Dela Ciencias, Genoa, Nov 2008  
Winner Earthwatch balloon debate Nov 2007  
Royal College of Arts External Lecture March 2007  
Bath Millennium Lecture Series Jan 2007  
Royal Geographical Society Christmas lecture 2006.  
Antarctic Treaty Conference Meeting public science presentation, Edinburgh 2006  
Birmingham Thinktank Sept 2006  
Rutherford Appleton Laboratory Oct 2006.  
EU Greenweek opening science presentation, Brussels 2005  
Edinburgh Science Festival 2005,  
Aberdeen Techfest 2005,  
Newcastle Life Centre Christmas lecture 2005.

In 2007 I presented the NERC highlights at their event on 31 January in the House of Commons, presented on Polar ecosystems to the POST IPY briefing meeting on 18 April also in the House of Commons, and won the Earthwatch balloon debate in November. In 2008, as well as giving 2 major international public lectures I was also a NERC Theme Leader and gave 16 public and university presentations on the NERC strategy and themes.

Details of 51 seminars given in University Departments and bodies such as the Institute of Physics in the UK and abroad from Australia to Canada since 2000 have not been listed.

In excess of 150 talks to schools, conservation groups, the WI and other bodies including the Round Table, Archway with Words (2015), Fenland Businessmen (2016), and the Institute of Physics (2016) have not been listed.

Contributions to radio and TV programmes, including “Frozen Planet”, “Blue Planet”, The Life Scientific (Radio 4, 2012), and The Infinite Monkey Cage (Radio 4, 2012), have not been listed. Most recent of these are “Licence to Krill” (DOX productions, 2015), 2016 contributions to the Radio 4 series “Voices of the Earth” and BBC television programmes on “Snow Survivors” and “Oceans” and 2017 contribution to Radio 4 series Inside Science.

## Appendix 2: Outside funding obtained

Until 1999 normal grant routes were not available to BAS staff.

Refereed Funding for BAS projects and programmes:

- Successfully obtained funding for BAS Q3 project (Marine Adaptations), peer reviewed by NERC, 1999. Project involved 7 staff for 5 years, > £170,000 capital and £200,000 recurrent.
- PI of BAS Q3 core programme LATEST (2000-2005) of 16 staff and totalling >£250,000 capital and >£600,000 recurrent spend
- PI of BAS Q4 core programme BIOFLAME (2005-2010) involving over 25 staff. Total value (non-salary) >£1.1 million over 5 years.
- Science Leader Biodiversity, Evolution and Adaptation Team (BEAT, 2015-2020), 12 core staff, 18 PDRA and PhD students Total core and grant funding ~ £750k per annum.

Funding outside BAS programmes:

- 7 small grants were won between 1990 and 1997 to support non-Antarctic work from bodies including BES, the Company of biologists and the Trans-Antarctic association.
- 1990-2005 co-supervisor on 8 CASE or foreign funded PhDs (5 with Southampton Uni).
- Co-PI on NERC grant with Prof IA Johnston, St Andrews Univ. muscle development in fish (GR3/12550, 204,811 1999-2003).
- PI on NERC AFI grant investigating latitudinal variation in physiological limits in Antarctic marine ectotherms (GR3/AFI2/34, £228,487) January 2004- January 2007.
- Co-PI on NERC AFI grant with Dr Stuart Egginton, Birmingham University, on cardiovascular control in Antarctic fish (GR3/AFI2/34, £218,825, 2002-2007)
- Co-PI on NERC studentship with Dr K. Fraser, BAS investigating protein metabolism in Antarctic and non-Antarctic fish. (NER/S/A/2002/10504, £36,508, 2003-2006)
- Co-PI, Dr C. Ellington, Cambridge Univ., cuttlefish ecophysiology (NER812, £154k, 2003-06)
- Co-PI capital grant (acoustic navigation system) PI: D. Blake (NE/C513518/1, £254k, 2006).
- Co-PI Consortium Grant: Southern Ocean deep-sea biology (NE/1249, £2.2 million, 2008-11).
- PI, NERC grant: temperature tolerances of Arctic marine species (NE/G018, £300k, 2008-11)
- Co-Pi on NERC studentship investigating effects of varying pH on Antarctic marine species with Dr M. Clark (NER/S/A/2008, £51,235, 2008-2012)
- PI on NERC studentship investigating ocean acidification effects on articulated brachiopods (NE/T/A/2011 £79,668, 2011-2015)
- PI on NERC standard grant: Effects of warming on recruitment and marine benthic community development in Antarctica. (NE/J007501/1, £532,000, 2013-2017)
- PI or Co-PI on 5 CASE, 5 Collaborative Gearing and 7 other small awards totalling over £150,000 2000-2010
- Collaborator on BBSRC grant with Leeds Univ (PI Dr Lorna Dougan) on biophysics of low temperature proteins (£93,000, 2012-2015)
- Co-I and Workpackage leader on Marie Curie network investigating shell production in economically important bivalve molluscs (euro 3.7 million, 2014-2018)
- PI on one and Co-I on 3 Cambridge University Innovation grants (total £124k, 2014-2016)
- PI Cambridge NERC DTP PhD Studentship on protein folding (£74k, 2014-2018)
- Co-I on Southampton NERC DTP studentship on marine invertebrate metabolism (£64k 2014-2018)
- Co-I on NERC IAA Knowledge Exchange Award (£19961, 2014-2015)
- Co-I on NERC pathfinder grant (£10000, 2015-2016)
- Co-I on DREAM CDT studentship to interrogate Antarctic fish transcriptomes (£84k 2015-2019)
- Co-I on Leverhulme grant to investigate polar snow algal dynamics (£249k, 2017-2021)
- PI NERC Spitfire DTP studentship (Southampton) investigating impacts of soft bodied

- predators in the sea (£84k 2017-2021)
- Co-I NERC Spitfire DTP studentship (Southampton) investigating reproduction in Antarctic marine invertebrates: limitations of the cold (£84k 2017-2021)
- PI on Claire Barnes PhD studentship investigating Antarctic marine alien invasions (£111k 2017-2020)
- Co-I NERC Cambridge DTP studentship investigating algal growth dynamics in polar phytoplankton (£84k 2017-2021)
- Co-I Carlsberg Visiting Fellowship (J Thyrring) (£106k 2018-2020)
- Co-I NERC Cambridge DTP studentship evaluating costs of shell production in marine calcifying species (£84k 2018-2022)
- Several small travel grants totalling over £20k in the last 10 years have not been listed.

Current applications in review:

- Co-I on EU Marie Curie application to investigate impacts of pollutants in marine species (3.75 M euros)
- Co-I on NERC application to study metabolic diversity in snow algae (NE/P001882/1, £769k)
- Co-I on NERC IOF application to study the impacts of ice loss on polar macroalgae (£310k)
- PI on ERC Advanced application to investigate the impacts of *in situ* warming on marine communities from the tropics to the poles (2.45 M euro)

EU networks:

- Core member of EU funded CAREX network (for researchers studying extremophiles) (2010-2013)
- Member of BIOMIMS consortium bid for funds to support EU network on biomimicry (2011-2013)
- Co-I and Workpackage Leader, CACHE Marie Curie ITN (2014-2018)



### **Appendix 3: training received in last 10 years**

#### **NERC or BAS courses:**

Recruitment and selection interviewing  
Appraisal and promotion assessment and interviewing  
Management at Distance  
PhD supervision  
Microsoft project and management information systems (BAS)  
ERMS (objective)  
Leadership skills  
Bullying Awareness  
Cyber and IT security  
Ethnic minority issues awareness

#### **Specialist courses:**

Laboratory Health and Safety  
Risk assessment  
Home Office animals (Scientific procedures) licensee  
Managing multidisciplinary teams in a matrix structure (Erica Jones & Associates)  
Home Office licence courses 1, 2 and 5.  
Polar Bear awareness and rifle shooting (Kings Bay Company, Svalbard)  
HSE part IV SCUBA chamber operator (NERC, Oban)  
MINITAB (CEH)  
First Aid at Work (HSE) (CAMFAC, 2000-2015, Red Cross, 2015, BAS advanced 2016-2020)  
Firewarden (2001, 2009, 2018)

### **Appendix 4: Teaching**

#### **Lecture courses given**

Sunderland University: Antarctic ecology and physiology, three day course (1996-2013)  
Cambridge University: Animal energetics (5 lectures, 1995-2007), Applied Ecology (3 lectures, 2009-present)  
Portsmouth University: Antarctic Marine Biology (3 lectures, 2016-present); presenting to the public with impact – 2 hour module, 2016-present)  
Cambridge NERC DTP and University Chemistry Department (presenting to the public with impact, 2015-present)  
Cambridge University Department of Continuing Education Summer School (Antarctic biology, Course Director, 1 week course 2016-present)  
University of Canterbury, Christchurch, New Zealand (Antarctic marine biology, 5 lectures; presenting to the public with impact, 2 hour module, 2016-2017)  
Bielefeld University, Bielefeld, Presenting with Impact. Half day masterclass (Nov 2017)

### **Appendix 5: current society membership**

Royal Institution of Great Britain  
Zoological Society of London

Marine Biological Association  
Society for Experimental Biology  
Malacological Society of London

## Professor Lloyd S. Peck publications

Journals with impact factors above 4 are shown in bold.

- Convey, P., Peck, L.S. (2019). Antarctic environmental change and biological responses. **Science Advances** in press
- Kennicutt II, M.C., Bromwich, D., Liggett, D., Njåstad, B., Peck, L.S., Rintoul, S.R., Ritz, C., Siegert, M.J., Aitken, A., Brooks, C.M., Cassano, J., Chaturvedi, S., Chen, D., Dodds, K., Golledge, N.R., Le Bohec, C., Leppe, M., Murray, A., Nath, P.C., Raphael, m.N., Rogan-Finnemore, M., Schroeder, D.M., Talley, L., Travouillon, T., Vaughan, D.G., Weatherwax, A.T. & Steven L Chown, S.L. (2019). Sustained Antarctic Research - a 21<sup>st</sup> Century Imperative. **One Earth** on line
- Webb, A.L., Hughes, K.A., Grand, M.M., Lohan, M.C., Peck, L.S. (2019). Sources of elevated heavy metal concentrations in sediments and benthic marine invertebrates of the western Antarctic Peninsula. **Sci. Tot. Env.** On line
- Telesca, L, Peck, LS, Sanders, T, Thyrring, J, Sejr, MK, Harper, EM.(2019). Biomineralization plasticity and environmental heterogeneity predict geographical resilience patterns of foundation species to future change. **Glob Change Biol.** on line 00: 1– 15.
- Chadwick, M, Harper, EM, Lemasson, A, Spicer, JI, Peck, LS (2019) Quantifying susceptibility of marine invertebrate biocomposites to dissolution in reduced pH. **Roy Soc Open Sci** 6, 190252
- Clark, M.S., Villota Nieva, L., Hoffman, J.I., Davies, A.J., Trivedi, U.H., Turner, F., Ashton, G. & Peck, L.S., (2019). Lack of long-term acclimation in Antarctic encrusting species suggests vulnerability to warming. **Nature Communications** 10, 3383.
- Davey MP et al. incl Peck, LS (2019). Snow algal communities in Antarctica: metabolic and taxonomic composition. **New Phytologist** 222, 1242-1255.
- Vause, B.J., Morley, S.A., Fonseca, V.G., Jazdzewska, A., Ashton, G.A., Barnes, D.K.A., Giebner, H., Clark, M.S. & Peck, L.S. (2019). Spatial and temporal dynamics of Antarctic shallow soft-bottom benthic communities: ecological drivers under climate change. **BMC Ecology** 19, 27.
- McCarthy, A, Peck, LS, Hughes, K & Aldridge DA (2019). Antarctica: the final frontier for marine biological invasions. **Global Change Biol** 2019, 1-21
- Cross E, Harper EM & Peck LS (2019). Thicker shells compensate extensive dissolution in brachiopods under future ocean acidification. **Env Sci & Technol.** 53, 5016-5026.
- Henley et al. incl Peck LS (2019). Variability and change in the West Antarctic Peninsula marine system: research priorities and opportunities. **Progress in Oceanogr.** 173, 208-237.
- Sutherland WJ, Fleishman E, Clout M, Gibbons DW, Lickorish F, Peck LS, Pretty J, Spalding M & Ockendon N (2019). Ten years on: a review of the first global conservation horizon scan. **Trends in Ecology and Evolution.** 34, 139-153.
- Clark MS, Suckling CS, Cavallo A, MacKenzie CL, Thorne MAS, Davies AJ, Peck LS. (2019). Molecular mechanisms underpinning transgenerational plasticity in the green sea urchin *Psammechinus miliaris*. **Scientific Reports** 9, 952.
- Sutherland WJ et al. incl Peck LS (2019). A horizon scan of emerging issues for global conservation in 2019. **Trends in Ecology and Evolution** 34, 83-94.
- Berthelot C, Clarke J, Desvignes T, Detrich III HW, Flicek P, Peck LS, Peters M, Postlethwait JH, Clark MS (2019). Adaptation of proteins to the cold in Antarctic fish: A role for Methionine? **Genome Biology and Evolution** 11, 220-231.
- Krasnobaev, A, ten Dam, G, van Leeuwen, SP, Peck, LS, van den Brink, N (2018). Persistent Organic Pollutants in two species of Antarctic migratory flying predatory birds from the Rothera Point. **Marine Pollution Bulletin.** 137, 113-118.
- Peck LS (2018). Antarctic marine biodiversity: adaptations, environments and responses to change. **Oceanogr. Mar. Biol. Annu. Rev.** 56, 105-236
- Peck LS, Clark MS, Dunn NI (2018). Morphological variation in taxonomic characters of the Antarctic starfish *Odontaster validus*. **Polar Biol** 41, 2159-2165
- Sleight, VA, Peck, LS, Dyrinda EA, Smith VJ, Clark, MS (2018). Cellular stress responses to chronic heat shock and shell damage in temperate *Mya truncata*. **Cell Stress & Chaperones.** 23, 1003-1017.
- Lau, CYS, Grange, LJ, Peck, LS, Reed, AJ (2018). The reproductive ecology of the Antarctic bivalve *Aequiyoldia eightsi* follows neither Antarctic nor taxonomic patterns. **Polar Biol,** 41, 1693-1706
- Clark, MS, Thorne, MAS, King, M, Hipperson, H, Hoffman, JI, Peck, LS (2018). Life in the intertidal: cellular responses, methylation and epigenetics. **Funct. Ecol.** 32, 1982-1994.
- Cross E, Harper EM, Peck LS (2018). A 120-year record of resilience to environmental change in Brachiopods. **Global Change Biology** 24, 2262-2271.

- Telesca L, Michalek K, Sanders T, Peck LS, Thyrring J, Harper EM (2018). Blue mussel shell shape plasticity and natural environments: a quantitative approach. **Scientific Reports** 8, 2865
- Souster, TA, Morley, SA, Peck, LS (2018). Seasonality of oxygen consumption in five common Antarctic benthic marine invertebrates. *Polar Biol* 41, 897-908. doi.org/10.1007/s00300-018-2251-3
- Sutherland, W et al. incl Peck, LS (2018). A 2018 Horizon Scan of Emerging Issues for Global Conservation and Biological Diversity. **Trends in Ecology and Evolution** 33, 47-58.
- Watson, S-A, Morley, SA, Peck, LS (2017). Latitudinal trends in shell production cost from the tropics to the poles. **Science Advances**, 3, e1701362.
- Ashton, G, Barnes, D, Morley, S, Peck, LS (2017). Response to van der Meer. **Current Biol.** 27, R1303-1304.
- Fonseca V, Sinniger F, Gaspar J, Creer S, Power D, Peck LS, Clark MS (2017). Revealing higher than expected meiofaunal diversity in Antarctic sediments: a metabarcoding approach. **Scientific Reports.** 7, 6094.
- Ashton, G, Morley, SA, Barnes, DKA, Clark, MS, Peck, LS (2017) Warming by 1°C drives species and assemblage level responses in Antarctica's marine shallows. **Current Biology** 27, 2698–2705
- Clark MS, Sommer U, Sihra JK, Thorne MAS, Morley SA, King M, Viant MR, Peck LS (2017) Biodiversity in marine invertebrate responses to acute warming revealed by a comparative multi-omics approach. **Global Change Biol** 23, 318-330.
- Morley SA, Nguyen KD, Peck LS, Lai CH, Tan KS (2017) Can acclimation of thermal tolerance, in adults and across generations, act as a buffer against climate change in tropical marine ectotherms? *Journal of Thermal Biology* 68, 195-199.
- Román-González, A, Scourse JD, Richardson CA, Peck, LS, Bentley, MJ, Paul Butler PG (2017) A sclerochronological archive for Antarctic coastal waters based on the marine bivalve *Yoldia eightsi* (Jay, 1839) from the South Orkney Islands. *Holocene* 27, 271-281.
- Román-González, A, Scourse JD, Butler PG, Reynolds DJ, Richardson CJ, Peck LS, Brey T, Hall, IA (2017) Analysis of ontogenetic growth trends in two marine Antarctic bivalves *Yoldia eightsi* and *Laternula elliptica*: Implications for sclerochronology Palaeogeography, Palaeoclimatology, Palaeoecology 465, 300-306
- Sutherland, WJ, Barnard, P, Broad, S, Clout, M, Connor, B, Côté, IM, Dicks, LV, Doran, H, Entwistle, AC, Fleishman, E, Fox, M, Gaston, KJ, Gibbons, DW, Jiang, Z, Keim, B, Lickorish, FA, Markillie, P, Monk, KA, Pearce-Higgins, JW, Peck, LS, Pretty, J, Spalding, MD, Tonneijck, FH, Wintle, BC, Ockendon, N (2017) A 2017 Horizon Scan of Emerging Issues for Global Conservation and Biological Diversity. **Trends in Ecology and Evolution**, 32, 31-40
- Peck, LS, Heiser, S, Clark, MS (2016) Very slow embryonic and larval development in the Antarctic limpet *Nacella Polaris*. *Polar Biol* 39 (12). 2273-2280.
- Yarra, T, Gharbi, K, Blaxter M, Peck LS, Clark MS (2016) Characterization of the mantle transcriptome in bivalves: *Pecten maximus*, *Mytilus edulis* and *Crassostrea gigas*. *Mar Gen* 27, 9-15.
- Sleight VA, Thorne MAS, Peck LS, Arivalagan J, Berland S, Marie A, Clark MS (2016). Characterisation of the mantle transcriptome and biomineralisation genes in the blunt-gaper clam, *Mya truncata*. *Mar Gen* 27, 47-55.
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## Papers in review

## Books, book chapters, reviews, commentaries etc.

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### **Conference contributions, reports and non-refereed publications.**

In excess of 120 conference abstracts, Internal and commissioned reports and non-refereed publications have not been cited.