Mark Payne - DTU Orbit (26/05/2018)

Payne, Mark

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National Institute of Aquatic Resources - Senior Researcher

Section for Oceans and Arctic

Publications:

A generic framework for individual-based modelling and physical-biological interaction
Publication: Research - peer-review › Journal article – Annual report year: 2018

Distribution and timing of spawning Faroe Plateau cod in relation to warming spring temperatures
Publication: Research - peer-review › Journal article – Annual report year: 2018

Lystfiskere kan få optimeret deres fiskeri og hjælpe klimaforskningen
Publication: Communication › Internet publication – Annual report year: 2018

Marine fisheries in the North East Atlantic: Case Study 4
Payne, M. 2018 Blue-Action: Climate Service Case Studies Booklet.
Publication: Communication › Book chapter – Annual report year: 2018

A trait-based approach to understanding marine communities composition, assembly and diversity
Publication: Research › Ph.D. thesis – Annual report year: 2017

A trait database for marine copepods
Brun, P. G., Payne, M. & Kierboe, T. 2017 In : Earth System Science Data. 9, 1, p. 99-113
Publication: Research - peer-review › Journal article – Annual report year: 2017

From traits to life-history strategies: Deconstructing fish community composition across European seas
Publication: Research - peer-review › Journal article – Annual report year: 2017

Lessons from the first generation of marine ecological forecast products
Publication: Research - peer-review › Journal article – Annual report year: 2017

Managing living marine resources in a dynamic environment: the role of seasonal to decadal climate forecasts
Publication: Research - peer-review › Review – Annual report year: 2017

Marine Ecosystem Climate Services - Forecasting biology at end-user relevant time-scales
Payne, M. 2017
Publication: Research › Conference abstract for conference – Annual report year: 2017
Spatial structuration of life history traits: congruence between multiple taxa and environmental drivers in the North Sea
Publication: Research › Poster – Annual report year: 2016

The predictive skill of species distribution models for plankton in a changing climate
Publication: Research - peer-review › Journal article – Annual report year: 2016

Trait biogeography of marine copepods - an analysis across scales
Publication: Research - peer-review › Journal article – Annual report year: 2016

Uncertainties in projecting climate-change impacts in marine ecosystems
Publication: Research - peer-review › Journal article – Annual report year: 2016

Can we understand and predict the distributional shifts of pelagic fish?
Payne, M. 2015
Publication: Research › Conference abstract for conference – Annual report year: 2015

Controlling factors in fish early life history and how they combine to influence trophic links across the North Atlantic Ocean.
Publication: Research › Conference abstract for conference – Annual report year: 2015

Ecological niches of open ocean phytoplankton taxa
In : Limnology and Oceanography. 60, 3, p. 1020-1038
Publication: Research - peer-review › Journal article – Annual report year: 2015

Environmental determinates of blue whiting (Micromesistius poutassou) spawning distribution
Publication: Research › Conference abstract for conference – Annual report year: 2016

Measuring evolutionary adaptation of phytoplankton with local field observations
Publication: Research - peer-review › Letter – Annual report year: 2015

Modelled niche centres and niche breadths of open ocean phytoplankton taxa
Publication: Research › Dataset – Annual report year: 2017

Quirky patterns in time-series of estimates of recruitment could be artefacts
Publication: Research - peer-review › Journal article – Annual report year: 2014
Spatial linkages in the early life history of north eastern Atlantic herring populations across the north of the British Isles
Publication: Research › Conference abstract for conference – Annual report year: 2015

Synopticscale analysis of mechanisms driving surface chlorophyll dynamics in the North Atlantic
Publication: Research - peer-review › Journal article – Annual report year: 2015

Understanding diversity shifts by characterising the community
Fredricson, J. & Payne, M. 2015
Publication: Research › Conference abstract for conference – Annual report year: 2015

Understanding observed copepod distributions with a trait database
Brun, P. G., Kiorboe, T. & Payne, M. 2015
Publication: Research › Poster – Annual report year: 2015

A cascade of warming impacts brings bluefin tuna to Greenland waters
Publication: Research › Conference abstract for conference – Annual report year: 2014

A cascade of warming impacts brings bluefin tuna to Greenland waters
Publication: Research - peer-review › Journal article – Annual report year: 2014

Accuracy and precision in the calculation of phenology metrics
Publication: Research - peer-review › Journal article – Annual report year: 2015

A resolution to the blue whiting (Micromesistius poutassou) population paradox?
Publication: Research - peer-review › Journal article – Annual report year: 2014

Biogeographic classification of the Caspian Sea
Publication: Research - peer-review › Journal article – Annual report year: 2014

Comparative ecology of widely distributed pelagic fish species in the North Atlantic: Implications for modelling climate and fisheries impacts
Publication: Research - peer-review › Journal article – Annual report year: 2014

Distributional shifts of species in the North Atlantic: the rule or the exception?
Payne, M. 2014
Publication: Research › Conference abstract for conference – Annual report year: 2014

From fish to phytoplankton
Publication: Research › Conference abstract for conference – Annual report year: 2014
Hazard Warning: model misuse ahead
Publication: Research - peer-review › Journal article – Annual report year: 2013

How can we distinguish between competing explanations of year class strength?
Publication: Research › Conference abstract for conference – Annual report year: 2014

Modelled spatial and seasonal distribution of Blue Whiting (Micromesistius poutassou) larvae in the North-East Atlantic (1951 to 2005)
Pointin, F. & Payne, M. 2014
Publication: Research › Dataset – Annual report year: 2014

Phytoplankton bloom and subpolar gyre induced dynamics in the North Atlantic
Publication: Research › Conference abstract for conference – Annual report year: 2014

Phytoplankton bloom and subpolar gyre induced dynamics in the North Atlantic
Publication: Research › Poster – Annual report year: 2014

Phytoplankton bloom and subpolar gyre induced dynamics in the North Atlantic
Publication: Research › Poster – Annual report year: 2014

A neural network-based estimate of the seasonal to inter-annual variability of the Atlantic Ocean carbon sink
Publication: Research - peer-review › Journal article – Annual report year: 2013

Characteristic sizes of life in the oceans - from bacteria to whales
Publication: Research › Conference abstract for conference – Annual report year: 2013

Estimating phytoplankton phenology metrics from noisy, gappy data
Publication: Research › Poster – Annual report year: 2013

Fisheries: Climate change at the dinner table
Publication: Research - peer-review › Journal article – Annual report year: 2013

Fisheries: Manage declines
Publication: Research › Comment/debate – Annual report year: 2013

From phytoplankton to fish
Publication: Research › Conference abstract for conference – Annual report year: 2014

Immigranter sydfra på tallerkenen
Payne, M. & Kiørboe, T. 2013 20, Weekendavisen
Publication: Communication › Newspaper article – Annual report year: 2013
Recruitment decline in North Sea herring is accompanied by reduced larval growth rates
Payne, M., Ross, S. D., Worsøe Clausen, L., Munk, P., Mosegaard, H. & Nash, R. D. M. 2013 In : Marine Ecology - Progress Series. 489, p. 197-211
Publication: Research - peer-review › Journal article – Annual report year: 2013

The dynamics of the marine nitrogen cycle across the last deglaciation
Publication: Research - peer-review › Journal article – Annual report year: 2013

The North Sea autumn spawning herring (Clupea harengus L.) Spawning Component Abundance Index (SCAI)
Payne, M. 2013
Publication: Research › Dataset – Annual report year: 2013

Coupling otolith microstructure analysis and hydrographic backtracking suggests a mechanism for the 2000s North Sea herring recruitment failure
Ross, S. D., Payne, M., Worsøe Clausen, L. & Nash, R. D. M. 2012
Publication: Research › Paper – Annual report year: 2012

How the Subpolar gyre strength influences phytoplankton blooms dynamics in the North Atlantic
Publication: Research › Paper – Annual report year: 2012

Long-term retrospective analysis of mackerel spawning in the North Sea: A new time series and modeling approach to CPR data
Publication: Research - peer-review › Journal article – Annual report year: 2012

Migration and fisheries of North East Atlantic mackerel (Scomber scombrus) in autumn and winter
Jansen, T., Campbell, A., Kelly, C., Hatun, H. & Payne, M. 2012 In : PLOS ONE. 7, 12, p. e51541
Publication: Research - peer-review › Journal article – Annual report year: 2012

Modelling the mixing of herring stocks between the Baltic and the North Sea from otolith data
Ulrich, C., Post, S. L., Worsøe Clausen, L., Berg, C. W., Deurs, M. V., Mosegaard, H. & Payne, M. 2012
Publication: Research › Paper – Annual report year: 2012

Subpolar gyre strength influences phytoplankton bloom dynamics
Publication: Research › Conference abstract for conference – Annual report year: 2012

The rise and fall of the NE Atlantic blue whiting (Micromesistius poutassou)
Publication: Research - peer-review › Journal article – Annual report year: 2012

Weak subpolar Gyre lead to early blooms
Publication: Research › Conference abstract for conference – Annual report year: 2012

Does larval mortality influence population dynamics? An analysis of North Sea herring (Clupea harengus) time series
Fässler, S. M. M., Payne, M., Brunel, T. & Dickey-Collas, M. 2011 In : Fisheries Oceanography. 20, 6, p. 530-543
Publication: Research - peer-review › Journal article – Annual report year: 2011

Does operational oceanography address the needs of fisheries and applied environmental scientists?
Publication: Research - peer-review › Journal article – Annual report year: 2011

Ecotypes as a concept for exploring responses to climate change in fish assemblages

Publication: Research - peer-review › Journal article – Annual report year: 2010

Phytoplankton spring bloom influence on larval and juvenile fish survival

Realized habitats of early-stage North Sea herring: looking for signals of environmental change

Publication: Research › Conference abstract for conference – Annual report year: 2011

Improving complex governance schemes around Western Baltic Herring, through the development of a Long-Term Management Plan in an iterative process between stakeholders and scientists

Lessons learned from stock collapse and recovery of North Sea herring: a review

Publication: Research › Poster – Annual report year: 2009

Comment on "Does the fall phytoplankton bloom control recruitment of Georges Bank, haddock, Melanogrammus aeglefinus, through parental condition?"

Finding the signal in the noise: objective data-selection criteria improve the assessment of western Baltic spring-spawning herring
Payne, M., Worsøe Clausen, L. & Mosegaard, H. 2009 In : I C E S Journal of Marine Science. 66, 8, p. 1673-1680
**Large bio-geographical shifts in the north-eastern Atlantic Ocean: From the subpolar gyre, via plankton, to blue whiting and pilot whales**
In : Progress in Oceanography. 80, 3/4, p. 149-162
Publication: Research - peer-review › Journal article – Annual report year: 2009

**Recruitment in a changing environment: the 2000s North Sea herring recruitment failure**
In : ICES Journal of Marine Science. 66, 2, p. 272-277
Publication: Research - peer-review › Journal article – Annual report year: 2009

**Recruitment in a changing environment: the role of oceanographic processes in blue whiting population dynamics**
Payne, M., Hátún, H., Christensen, A. & Jacobsen, J. A. 2009
Publication: Research › Conference abstract in proceedings – Annual report year: 2009

**The North Atlantic subpolar gyre regulates the spawning distribution of blue whiting (Micromesistius poutassou Risso)**
In : Canadian Journal of Fisheries and Aquatic Sciences. 66, 5, p. 759-770
Publication: Research - peer-review › Journal article – Annual report year: 2009

**Vertical movements of Atlantic cod (Gadus morhua) in the North Sea and the Baltic Sea**
Neuenfeldt, S., Payne, M., Righton, D. & Van der Kooij, J. 2009
Publication: Research › Poster – Annual report year: 2009

**What can we learn from the stock collapse and recovery of North Sea herring? A review**
Publication: Research › Conference abstract for conference – Annual report year: 2009

**IBTS Q1 Sprat (Sprattus sprattus) index calculation algorithm. Implementation in R and comparison with the index used in assessment**
Jansen, T. & Payne, M. 2008
In : ICES Council Meeting. ACOM:02, WD:8
Publication: Research › Conference article – Annual report year: 2008

**Et flerårigt grundlag for dansk industrifiskeri: Biologisk vurdering af ressourcegrundlaget og analyse af forvaltningsmodeller**
Publication: Research › Report – Annual report year: 2007

**A multi-component approach to salt and water diffusion in cheese**
Payne, M. & Monson, K. R. 1999
In : International Dairy Journal. 9, 12, p. 887-894
Publication: Research - peer-review › Journal article – Annual report year: 1999

**Projects:**

**Marine Ecosystem Climate Services**
Miesner, A. K., Payne, M. & MacKenzie, B.
01/09/2016 → 31/08/2020
Project: PhD

**Climate Change and European Aquatic Resources (CERES) (39344)**
Payne, M., Nielsen, J. R. & Saurel, C.
01/03/2016 → 29/02/2020
Project
Functional diversity in marine ecosystems - linking biodiversity to ecosystem integrity
Dencker, T. S., Lindegren, M., Grønkjær, P. & Payne, M.
01/09/2015 → 02/12/2018
Project: PhD

A trait-based approach towards understanding benthic-pelagic pathways in marine ecosystems
15/12/2013 → 06/06/2017
Project: PhD

A trait-based approach to Plankton Biogeography
Brun, P. G., Payne, M., Kjærboe, T., Wisz, M., Borregaard, M. K. & Record, N. R.
01/12/2013 → 08/02/2017
Project: PhD

North Atlantic climate (NACLIM) (38945)
Payne, M., MacKenzie, B. & Miesner, A. K.
01/11/2012 → 31/01/2017
Project

Center for Ocean Life (COOL) - a Villum-Kahn Rasmussen Centre of excellence for the study of life in a changing ocean (38960)
01/01/2012 → 31/12/2017
Project

Match and mismatch in the ocean (38897)
Payne, M.
01/01/2011 → 01/04/2012
Project

Developing fisheries management indicators and targets (DEFINEIT) (38763)
Rindorf, A., Gislason, H., Payne, M., Worsøe Clausen, L., Mosegaard, H., Bekkevold, D., Eg Nielsen, E., Vinther, M. & Lewy, P.
01/01/2009 → 30/06/2012
Project

Development of a method for long term spatially resolved management of the herring fishery in the North Sea and Illa taking the migration of the primary herring stocks, the fishery pattern and by-catch of mackerel into consideration (URSIN) (38731)
Worsøe Clausen, L., Ulrich, C., Payne, M., Mosegaard, H., Dijkman, T. J. & Nielsen, A.
01/01/2009 → 31/12/2011
Project

Judgement and knowledge in fisheries involving stakeholders (JAKFISH) (38132)
Ulrich, C., Worsøe Clausen, L., Payne, M., Nielsen, A. & Mosegaard, H.
01/01/2008 → 31/12/2011
Project

Resolving climatic impacts on fish stocks (RECLAIM) (38109)
Köster, F., Christensen, A., Neuenfeldt, S., MacKenzie, B., Andersen, K. H., Huwer, B., Payne, M., Brander, K., Gürkan, Z., Mosegaard, H., Geitner, K. & Jensen, H.
01/01/2007 → 31/12/2009
Project
Understanding the mechanisms of stock recovery (UNCOVER) (38104)
01/01/2006 → 31/12/2010
Project

Activities:

**ICES - Working Group on Widely Distributed Stocks - WGWIDE (External organisation)**
Payne, M. (Participant)
2015
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Benchmark Workshop on Pelagic Stocks - WKPELA (External organisation)**
Payne, M. (Participant)
2014
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Working Group on Widely Distributed Stocks - WGWIDE (External organisation)**
Payne, M. (Participant)
2014
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Benchmark Workshop on Pelagic Stocks - WKPELA (External organisation)**
Payne, M. (Participant)
2013 → …
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Herring Assessment Working Group for the Area South of 62ºN - HAWG (External organisation)**
Payne, M. (Participant)
2013 → …
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Working Group on Widely Distributed Stocks - WGWIDE (External organisation)**
Payne, M. (Participant)
2013 → …
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Workshop on Global Assessment of the Implications of Climate Change on the Spatial Distribution of Fish and Fisheries - WKSICCME-Spatial (External organisation)**
Payne, M. (Participant)
2013 → …
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

**ICES - Workshop on Northeast Atlantic mackerel monitoring and methodologies including science and industry involvement - WKNAMMM (External organisation)**
Payne, M. (Participant)
2013 → …
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar