Mark Payne - DTU Orbit (11/02/2018)
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

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. & Kiørboe, 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 › Journal article – 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

Plankton biogeography: An exploration of patterns, drivers, functions, and predictability
Publication: Research › Ph.D. thesis – Annual report year: 2017
Predicting ecosystems for managing a dynamic ocean
Publication: Communication › Internet publication – Annual report year: 2017

Temporal and spatial differences between taxonomic and trait biodiversity in a large marine ecosystem: Causes and consequences
Publication: Research - peer-review › Journal article – Annual report year: 2017

The Sub-Polar Gyre Index - a community data set for application in fisheries and environment research
Berx, B. & Payne, M. 2017 In : Earth System Science Data. 9, 1, p. 259-266
Publication: Research - peer-review › Journal article – Annual report year: 2017

Translating advances in Arctic climate science to climate services across the Northern Hemisphere
Miller, R., Payne, M., Keil, K., Kolstad, E. W., Ballester, J., Lesser, P. & Vangsbo, P. 2017
Publication: Research › Poster – Annual report year: 2017

Variation that can be expected when using particle tracking models in connectivity studies
Publication: Research - peer-review › Journal article – Annual report year: 2017

A trait database for marine copepods
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

From traits to life history strategies: deconstructing fish community composition across European Seas
Publication: Research › Conference abstract for conference – Annual report year: 2016

Marine Climate Services - Forecasting the state of the ocean at end-user relevant time-scale
Payne, M. 2016
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Reproductive traits (Fecundity, egg diameter, parental care) of marine European fish
Publication: Research › Dataset – 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: 2015

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
Publication: Research › 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

Making and using predictions of species distributions to improve survey design
Payne, M. 2015
Publication: Research › Conference abstract for conference – Annual report year: 2015

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
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 syd fra på tallerenken
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., Worsæe 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
Phytoplankton spring bloom influence on larval and juvenile fish survival

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

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

Mind the gaps: a state-space model for analysing the dynamics of North Sea herring spawning components

The role of spatial processes in North Sea herring larval survival and recruitment
Payne, M., Christensen, A., Munk, P., Nash, R. D. M. & Dickey-Collas, M. 2010

Trends in mortality of young herring larvae - evidence of a link to recruiting year-class strength

Climate-driven changes in suitable habitats for North Sea fish: Physiological constraints on the survival of early life stages

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. & Mosengaard, H. 2009 In : ICES 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
Recruitment in a changing environment: the 2000s North Sea herring recruitment failure
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
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)
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
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
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., Kiørboe, 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