

Curriculum Vitae

Mr John Henry Nichols Fisheries Biologist: MAFF (DEFRA) –CEFAS (Retired)

Age: 69 with 42 years experience of plankton ecosystem research specialising in the taxonomy of North Atlantic & NW European plankton including phytoplankton, micro and meso-plankton, ichthyoplankton and young fish. Involvement with plankton surveys for stock assessment from 1977 and direct involvement with the assessment of pelagic and western demersal fish stocks from 1994 to 2000.

In 1992 I set up the original CEFAS programme for monitoring phytoplankton in shellfish harvesting areas. I was responsible for it's compliance with the EU Directive. In that context I had to train staff in the identification of both diatoms and dinoflagellates.

Since retiring from CEFAS I have been involved as an expert in the assessment of eight separate fisheries for Marine Stewardship accreditation and subsequent surveillance visits to accredited fisheries.

At the personal level I have taken a great interest in the village of Blundeston where I have lived since 1968. For many years I was on the board of Governors of the village school and chaired that board for six years. I have a long history of involvement with the Parish Council and the Charity Trustees and currently chair both bodies. I was for many years a member of the Parochial Church Council and was Churchwarden from 1992 to 1999. I also chair the board of trustees which set up and established a 3.5 acre Millennium Green in the village.

I was appointed a Justice of the Peace in 1989 and am currently a bench chairman, was deputy chairman of the North East Suffolk bench and a County appraiser.

PROFESSIONAL EXPERIENCE

Fisheries management

Fish stock assessment and management of North Sea pelagic species including the North Sea herring and sprat stocks and the Thames Estuary herring stock. I was involved throughout with management advice in relation to the MSC accreditation process for the Thames herring stock.

Assessment and management of western mackerel and horse mackerel and western demersal stocks.

Scientist in charge of numerous research vessel surveys for fish stock assessment including inshore nursery ground surveys and plankton research surveys.

Plankton and young fish sampling expertise.

Participation in sole egg surveys of the southern North Sea and eastern English Channel for stock assessment purposes.

Participation in '0' group surveys of flatfish nursery areas of the eastern English Channel for preparation of recruitment indices.

Provision of advice to senior staff, MAFF HQ staff and other national and international bodies on pelagic fisheries, shelf edge resources, distant water fisheries, deep sea resources.

Established and ran the toxic algae monitoring programme for England and Wales under the requirements of an EU Directive.

Marine Stewardship Council assessor for the evaluation of eight fisheries for accreditation: The Pelagic Freezer Associations North Sea herring fishery; the Hastings

trammel net sole and pelagic fisheries; the Hastings Trawl and Gill net sole fishery; the Thames Estuary drift net herring fishery; the SW mackerel handline fishery; the North-east coast bass fixed net fishery; the Norwegian Pelagic Industry, all mackerel and herring fisheries; Portuguese purse seine fishery for sardines. All those assessments are currently either ongoing as assessments or annual audits.

I have also peer reviewed two MSC reports on pelagic fisheries for Food Certification International.

- **Areas of Research Interest**

Taxonomy of North –West European zooplankton including ichthyoplankton and young fish. Published ICES identification sheets for eggs and larvae of Pleuronectidae and Soleidae

Design, calibration and operation of plankton sampling systems.

Lobster and crab larvae surveys and lobster larvae field research.

Management of pelagic species including North Sea herring and western mackerel stocks.

North Sea and western area groundfish surveys.

Nursery area surveys of '0' group flatfish.

Identification of potentially toxic algal species.

Phytoplankton species succession

- + * **Project and staff management**

Scientist in charge of numerous research vessel cruises from 1976 to 1999

Managed the DFR pelagic and western demersal team of 6 permanent staff from 1994 to 2000.

Managed the DFR plankton team until 1994 including establishment of the monitoring scheme for toxic algae on the coasts of England and Wales to comply with an EU Directive.

Staff Coordinator for the Fisheries Science and Management Group from 1996 to 2000 and Chairman of the CEFAS Staff Issues Working Group from 1998 to 2000. Member of CEFAS Management Board from 1996 to 2000.

Project leader from 1998 to 2000 for the successful bid by CEFAS for the award of Investors In People (IIP) status.

Qualified as an area assessor for 1999 for the EFQM excellence award and, as part of a team, carried out an external assessment. Carried out an internal EFQM assessment of CEFAS in 1999/2000.

Project leader for CEFAS Modernising Government Initiative from 2000 to 2001.

Participated in and chaired numerous staff selection and promotion boards.

- * **International Collaboration and/or Representation**

Ex. member of ICES Working Groups on:

Herring and Sprat assessment

Mackerel, horse mackerel, sardine and anchovy assessment.

Mackerel and horse mackerel egg surveys (Chairman)

Ex. member of ICES Study Groups on;

Plankton sampling
Herring larvae surveys
North Sea and English Channel sole egg surveys,
Initiated and ran an EU Plankton Sampler Study, Concerted Action: 1994-1996.
Presented a paper on '*The Importance of a Fisheries Interaction with the Ecosystem in the MSC Certification Process*' and the '*Role of Moody Marine in the MSC certification process*' at an international Safeseas conference in Portugal (January 2010).

*** Report and scientific paper writing**

Author or joint author of 25 papers in refereed journals on various aspects of plankton ecosystem research and fish stock management and 19 ICES papers on plankton and stock assessment.

Author of 2 ichthyoplankton identification sheets.

Contributions to numerous ICES Working Group and Study Group Reports, 2 MAFF Technical Reports and articles in Fishing News.

Author of an EU funded Plankton Sampler Study: Report on the Concerted Action.

Co-author of 17 MSC fisheries accreditation reports.

SUMMARY OF QUALIFICATIONS

MI Biol, C Biol November 1977

Honorary Lecturer at University of East Anglia. 1993 - 1996

PERSONAL

Justice of the Peace (county of Suffolk) Appointed 1989. Deputy Chairman of North East Suffolk Bench from 2001 to 2006. County Appraiser from 1999 to present.

Chairman of Blundeston and Flixton Parish Council (1994 to present)

Founder Trustee and Chairman of the Trustees of Blundeston Millennium Green
Chairman of Blundeston Charity Trustees.

EFQM Qualified regional assessor for the 2000 awards

Marine Stewardship Council assessor as Principal 1 expert. Taken part in total of 17 Assessments from Moody Marine and have peer reviewed a further 10 assessment reports for other certification bodies

PUBLICATIONS LIST

- 1969 Comparative tests with high speed plankton samplers. ICES C.M. 1969/L:19,19 pp.(mimeo). (HARDING, NICHOLS and TUNGATE).
- 1971 Fiches d'identification des Oeufs et Larves du Poissons: Pleuronectidae. Fich. Ident. Zooplankton 4/6, 18 pp. (NICHOLS) .
- 1974 Preliminary estimates of egg production and mortality in the 1968 North Sea cod spawning. ICES C.M. 1974/F:21, 8 pp. (mimeo). (HARDING, NICHOLS and RILEY).

- 1975 Effect of temperature on the embryonic development of the plaice (*Pleuronectes platessa* L.) (Teleosti). J. Exp. Mar. Biol. Ecol., **18**, 121-137. (RYLAND, NICHOLS - appendix by SYKES).
- 1976 Bulk staining of small marine zooplankton using borax carmine. SCOR\UNESCO. Monograph on Fixation and Preservation of Marine Zooplankton, Appendix 1. UNESCO Press, 1976. (NICHOLS).
- Soleidae of the eastern North Atlantic. Fich. Ident. Zooplankton, 150/151, 10 pp. (NICHOLS).
- Sorting and identification techniques for clupeoid larvae. ICES C.M. 1976/H:14. (WOOD and NICHOLS).
- Spawning of the plaice in the southern North Sea and English Channel. ICES Symposium North Sea Fish Stocks, No.42. (mimeo). (HARDING, NICHOLS and TUNGATE).
- 1977 The development rates of mackerel (*Scomber scombrus*) over a range of temperatures. ICES C.M. 1977/J:13. (mimeo). (LOCKWOOD, NICHOLS and COOMBS).
- Preliminary observations on the distribution, abundance, survival and drift of egg and larval stages of cod and plaice in the west-central North Sea in 1976. ICES C.M. 1977/F:21. (mimeo). (HARDING and NICHOLS).
- 1978 The occurrence of the larval stages of the lobster (*Homarus gammarus*) off the north east coast of England in 1976. J.Cons. int. Explor. Mer, **38**(2), 234-243. (NICHOLS and LAWTON).
- Studies on planktonic fish eggs and larvae in relation to environmental conditions in the west central North Sea. Ann. biol. Copenh., **33**, 62-69. (HARDING, RAMSTER, NICHOLS and FOLKARD).
- Hatching areas and drift of the planktonic stages of the edible crab (*Cancer pagurus* L.) off the north-east coast of England in 1976. ICES C.M.1978/K:33, 9 pp. (mimeo). (NICHOLS and CRYER). (See also 1982).
- Spawning of the plaice (*Pleuronectes platessa* L.) in the North Sea and English Channel. Rapp. P.-v. Reun. Cons. int. Explor. Mer, **172**, 102-113. (HARDING, NICHOLS and TUNGATE).
- Sorting and identification techniques for clupeoid larvae. J. Cons.int. Explor. Mer, **38**(1). (NICHOLS and WOOD).
- 1979 Ling incubation experiment, 1979. ICES C.M. 1979/F:10, 9 pp. (mimeo). (HARROP and NICHOLS).

- 1980 A study of some problems relating to quantitative sampling of lobster larvae (*Homarus gammarus* L.). ICES C.M. 1980/L:14, 8 pp. (mimeo). (NICHOLS, BENNETT and LAWRENCE).
- 1981 The estimation of mackerel (*Scomber scombrus* L.) spawning stock size by plankton survey. J. Plank. Res., 3(2). (LOCKWOOD, NICHOLS and DAWSON).
- The mackerel (*Scomber scombrus* L.) spawning in the Bay of Biscay, Celtic Sea and west of Ireland. Rapp. P-v. Reun. Cons. int. Explor. Mer, **178**,171-173. (LOCKWOOD, NICHOLS and DAWSON).
- The vertical distribution and buoyancy of the eggs of the plaice (*Pleuronectes platessa* L.) in the southern North Sea. ICES C.M. 1981/G:84. (mimeo). (COOMBS, HARDING, NICHOLS and FOSCH).
- The development rates of sprat (*Sprattus sprattus* L.) eggs over a range of temperatures. ICES C.M. 1981/H:51, 6 pp., figs. (mimeo). (THOMPSON, MILLIGAN and NICHOLS).
- 1982 Seasonal changes in net phytoplankton of the west-central North Sea. J. mar. biol. Ass. U.K., **62**,15-23. (HORWOOD, NICHOLS and HARROP).
- Production, drift and mortality of the planktonic larvae of the edible crab (*Cancer pagurus*) off the north-east coast of England. Neth. Sea Res., **16**, 173-184. (NICHOLS, THOMPSON and CRYER).
- On the variability in the catches of herring larvae by different survey vessels. ICES C.M.1982/H:10, 16 pp. (mimeo). (WOOD, appendix NICHOLS).
- 1983 Further comparative data on herring larvae caught by English and Dutch high speed plankton samplers, together with the results of a flume calibration of the Dutch sampler. ICES C.M. 1983/H:9, 10 pp. (mimeo). (WOOD and NICHOLS).
- Estimation of the stock size of adult *Nephrops* from larvae surveys in the western Irish Sea in 1982. ICES C.M. 1983/K:6, 11 pp. (mimeo). (NICHOLS, BENNETT, SYMONDS and GRAINGER). (See also 1985).
- 1984 The occurrence of lobster larvae (*Homarus gammarus* L.) in Galway Bay. Irish Nat. J., **21**(6),275-278. (NICHOLS and O'CEIDIGH).
- The western mackerel spawning stock size estimate in 1983. ICES ELH Symp., Vancouver, 1984. (Poster display). (NICHOLS and THOMPSON).
- 1985 Sampling a patch of herring larvae using an 'Argos' satellite tracked buoy as a marker. ICES C.M. 1985/H:28,2pp. (mimeo). (NICHOLS, READ, JONES and JOHNSON).
- 1986 Herring larvae studies in the west central North Sea in 1985. ICES C.M. 1986/H:23. (NICHOLS, THOMPSON and RILEY).

- Estimation of the stock size of adult *Nephrops* in the Irish Sea in 1985. ICES C.M. 1986/K:J. (mimeo). (THOMPSON, NICHOLS and HILLIS).
- 1987 The estimation of the stock size of adult *Nephrops* from larvae surveys in the Irish Sea in 1982. J. Nat. Hist., **21**. (NICHOLS, BENNETT, SYMONDS and GRAINGER).
- Lobster larvae (*Homarus gammarus* L.) investigations in Bridlington Bay. Can quantitative sampling be confined to the neuston layer? J.Nat. Hist., **21**, 825-841. (NICHOLS and LOVEWELL).
- Plankton surveys off the north-east coast of England in 1976 - an introductory report and summary of results. MAFF Tech. Rep., (86). (HARDING and NICHOLS).
- Some standard biological surveys of the marine environment conducted by MAFF Directorate of Fisheries Research from Lowestoft. (Symposium presentation). Porcupine Newsletter, **3(10)**, Aug. 1987. (NICHOLS).
- The study of avoidance of gear by herring larvae. ICES C.M. 1987/L: 18. (BRANDER, NICHOLS and THOMPSON).
- Nephrops* larvae surveys off the north-east coast of England in 1987. ICES C.M. 1988/K:5, Shellfish Cttee. (MILLIGAN and NICHOLS).
- 1988 Quantitative sampling of crustacean larvae and its use in stock size estimation of commercially exploited species. Symposia. Zool. Soc. Lond., (**59**), 157-175. (NICHOLS and THOMPSON).
- 1989 The diel rhythm in plaice spawning in the southern North Sea. J.Cons. int. Explor. Mer, **45**, 277-283. (NICHOLS).
- Herring larval studies in the west-central North Sea. Rapp. P.-v. Re'un. Cons. int. Explor. Mer, **191**. (NICHOLS and BRANDER).
- 1990 Plaice eggs (*Pleuronectes platessa* L.) in the southern North Sea: abundance, spawning area, vertical distribution and buoyancy. J. Cons.int. Explor. Mer, **47**, 133-139. (COOMBS, NICHOLS and FOSH).
- 1991 Mesh selection of copepodite and nauplius stages of four calanoid copepod species. J. Plank. Res., **13**(3), 661-671. (NICHOLS and THOMPSON).
- 1992 Food availability for sprat larvae in the Irish Sea. J. mar. biol. Ass. U.K., **72**, 821-834. (COOMBS, NICHOLS, CONWAY, MILLIGAN and HALLIDAY).
- 1993 Field observation of the daily pattern of spawning in the western stock of mackerel (*Scomber scombrus* L.). ICES J. mar. Sci., **50**, 219-225. (NICHOLS and WARNES).
- Flume tank experiments to estimate the volume filtered by high-speed plankton samplers and to assess the effect of net clogging. J. Plank. Res., **15**(4), 385-401. (BRANDER, MILLIGAN and NICHOLS).

Spring plankton surveys of the Irish Sea in 1982, 1985, 1987, 1988 and 1989; hydrography and the distribution of fish eggs and larvae 1993. Fish. Res. Tech. Rep., MAFF Direct. Fish. Res., Lowestoft, (95): 1 11 pp. (NICHOLS, HAYNES, FOX, MILLIGAN, BRANDER and CHAPMAN)

Predation on *Benthosema glaciale* (Myctophidae) by spawning mackerel (*Scomber scombrus*). Journal of Fish Biology (1993) **42**, 618-620. GREER-WALKER and NICHOLS.

- 1994 Assessment of the western mackerel stocks by egg survey. Article in Fishing News, May 17, 1994. NICHOLS and WALSH.
- 1994 Pilchard (*Sardina pilchardus*, Walbaum) egg distribution in the English Channel from plankton surveys in 1978, 1981 and 1991. Journal of Plankton Research Vol.16 no.7 pp. 771-782, 1994. Haynes, G.M. and Nichols, J.H.
- 1997 Coordination of the Development of an Approved Method of Measuring Volume Filtered by High Speed Plankton Samplers. EU Concerted Action Report; AIR3 CT94 191. 1.
- 1997 Closed Areas for Conservation of Fisheries. Advances in Marine Biology. Horwood, J.W, Nichols, J.H. and Milligan, S.P.
- 2002 Management of North Sea Herring and Prospects for the New Millennium: Proceedings of the Symposium Herring 2000. Herring: Expectations for a new millennium. pp 645 – 665. Alaska Sea Grant College Program.