## Appendix 1 Detailed methods for data search

Google Scholar: with the exact phrase "keyword", in the title of the article, search articles in any language, patents excluded, citations excluded. The following keywords have been independently and extensively sought: Ostrea edulis, European flat oyster, and European oyster. The following keywords were crossed in pairs: Ostrea edulis, European flat oyster, European oyster with Oyster ponds, Oyster polls, Spat collection, Collectors, Hatchery, Mesocosms, Remote setting, Breeding: “Ostrea edulis” AND “Oyster ponds” OR “Ostrea edulis” AND “Oyster polls” OR “Ostrea edulis” AND “Spat collection” OR “Ostrea edulis” AND “Collectors” OR “Ostrea edulis” AND “Hatchery” OR “Ostrea edulis” AND “Mesocosms” OR “Ostrea edulis” AND “Remote setting” OR “Ostrea edulis” AND “Breeding” OR “European flat oyster” AND “Oyster ponds” OR “European flat oyster” AND “Oyster polls” OR “European flat oyster” AND “Spat collection” OR “European flat oyster” AND “Collectors” OR “European flat oyster” AND “Hatchery” OR “European flat oyster” AND “Mesocosms” OR “European flat oyster” AND “Remote setting” OR “European flat oyster” AND “Breeding” OR “European oyster” AND “Oyster ponds” OR “European oyster” AND “Oyster polls” OR “European oyster” AND “Spat collection” OR “European oyster” AND “Collectors” OR “European oyster” AND “Hatchery” OR “European oyster” AND “Mesocosms” OR “European oyster” AND “Remote setting” OR “European oyster” AND “Breeding”.

ISI Web of Science: basic search of “keyword”, all years, all databases (Web of Science Core Collection; KCI-Korean Journal Database, Russian Science Citation Index; SciELO Citation Index), search field 1 topic (title). The search process and keywords were the same as for Scholar Google.

Scopus Document Search: advanced search, limit to English language, all sources type (journals, books, book series, conference proceedings), search in the title, abstracts, or keywords (TITLE-ABS-KEY (“keyword”). The search process and keywords were the same as for Scholar Google.

Google Scholar: all languages, all document types, anywhere in the article exact phrase "keyword"; ISI Web of Science: all languages, all document types, anywhere in the article; Scopus Document Search: all fields, exact phrase "keyword".

## Appendix 2 List of the 602 publications selected and analysed (Update 12.2019)

Aaraas R, Hernar IJ, Vorre A, Bergslien H, Lunestad BT, Skeie S, Slinde E, Mortensen S (2004) Sensory, histological, and bacteriological changes in flat oysters, *Ostrea edulis* L., during different storage conditions. *Journal of Food Science* **69**: 205-210.

Aase H, Misund OA, Pedersen T (1986) Predation of oyster larvae by *Aurelia aurita* in a Norwegian oyster pond. *ICES CM Document F:21,* pp. 1-16. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Abollo E, Ramilo A, Casas SM, Comesaña P, Cao A, Carballal MJ, Villalba A (2008) First detection of the protozoan parasite *Bonamia exitiosa* (Haplosporidia) infecting flat oyster *Ostrea edulis* grown in European waters. *Aquaculture* **274**: 201-207.

Acarli S (2011) Comparison of *Isochrysis galbana* and *Chlorella sp.* microalgae on growth and survival rate of European flat oyster (*Ostrea edulis*, Linnaeus 1758) larvae. *Indian Journal of Geo-Marine Sciences* **40**: 55-58.

Acarli S, Lok A (2009) Larvae development stages of the European flat oyster (*Ostrea edulis*). *Israeli Journal of Aquaculture-Bamidgeh* **61**: 114-120.

Agius C, Jaccarini V, Ritz DA (1978) Growth trials of *Crassostrea gigas* and *Ostrea edulis* in inshore waters of Malta (Central Mediterranean). *Aquaculture* **15**: 195-218.

Aguado-Giménez F, Hernández MD, Cerezo-Valverde J, Piedecausa MA, García-García B (2014) Does flat oyster (*Ostrea edulis*) rearing improve under open-sea integrated multi-trophic conditions? *Aquaculture International* **22**: 447-467.

Alagarswami K (1982) Review on controlled breeding of bivalves of aquaculture importance. In: Subramoniam T, Varadarajan S (ed.) *Progress in Invertebrate Reproduction and Aquaculture: Proceedings of the 1st All-India Symposium on Invertebrate Reproduction,* pp. 194-202. Indian Society of Invertebrate Reproduction, Madras, India.

Alban F, Boncoeur J (2008) Sea-ranching in the Bay of Brest (France): technical change and institutional adaptation of a scallop fishery. In: Townsend R (ed.) *Case Studies in Fisheries Self Governance,* pp. 41-51. Food and Agriculture Organization of the United Nations, Rome, Italy.

Alderman DJ, Jones EBG (1967) Shell disease of *Ostrea edulis* L. *Nature* **216**: 797-798.

Allison EH, Badjeck MC, Meinhold K (2011) The implications of global climate change for molluscan aquaculture. In: Shumway SE (ed.) *Shellfish Aquaculture and the Environment,* pp. 461-490. John Wiley & Sons, Inc., Oxford, UK.

Alpbaz A, Temelli B (1997) A review of the molluscan fisheries of Turkey. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 227-232. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Alvarez G, Zapata C, Amaro R, Guerra A (1989) Multilocus heterozygosity at protein loci and fitness in the European oyster, *Ostrea edulis* L. *Heredity* **63**: 359.

Alzieu C, Thibaud Y, Heral M, Boutier B (1980) Evaluation des risques dus à l'emploi des peintures anti-salissures dans les zones conchylicoles [Estimation of the dangers caused by the use of antifouling paints in the growing oyster areas]. *Revue des Travaux de l'Institut des Pêches Maritimes* **44**: 305-348.

Amara I, Miled W, Slama RB, Ladhari N (2018) Antifouling processes and toxicity effects of antifouling paints on marine environment. A review. *Environmental Toxicology and Pharmacology* **57**: 115-130.

Andersen S, Burnell G, Bergh Ø (2000) Flow-through systems for culturing great scallop larvae. *Aquaculture International* **8**: 249-257.

Andersen S, Naas KE (1993) Shell growth and survival of scallop (*Pecten maximus* L.) in a fertilized, shallow seawater pond. *Aquaculture* **110**: 71-86.

Andrews AC (1948) Oysters as a food in Greece and Rome. *The Classical Journal* **43**: 299-303.

Anonymous (1989) Relance de l'huître plate : Rapport d'avancement des travaux 1988 [Revival program for the flat oyster *Ostrea edulis*: Review 1988]. (ed.) *IFREMER Report DRV-89.005-RA,* pp. 1-112. French Research Institute for Exploitation of the Sea, La Trinité sur Mer/La Tremblade, France.

Anonymous (2014) Programme d'expérimentation et de recherche sur l'huître plate *Ostrea edulis*. Rapport final de l'ensemble du projet 2011-2014 [Program of experimentation and research on the flat oyster *Ostrea edulis*. Final Report 2011-2014]. (ed.) *PERLE,* pp. 1-207. Comité Régional Conchyliculture Bretagne Nord, Morlaix, France.

Appukuttan KK, Muthiah P (1996) Technology of edible oyster culture. In: Rengarajan K (ed.) *Artificial Reefs and Seafarming Technologies,* pp. 64-69. Central Marine Fisheries Research Institute, Cochin, India.

Arakawa KY (1980) On alien immigration of marine sessile invertebrates into Japanese waters. *Marine Fouling* **2**: 29-37.

Aranguren R, Figueras A (2016) Moving from histopathology to molecular tools in the diagnosis of molluscs diseases of concern under EU legislation. *Frontiers in Physiology* **7**, 1-10.

Arzul I, Gagnaire B, Bond C, Chollet B, Morga B, Ferrand S, Robert M, Renault T (2009) Effects of temperature and salinity on the survival of *Bonamia ostreae*, a parasite infecting flat oysters *Ostrea edulis*. *Diseases of Aquatic Organisms* **85**: 67-75.

Arzul I, Langlade A, Chollet B, Robert M, Ferrand S, Omnes E, Lerond S, Couraleau Y, Joly JP, François C, Garcia C (2011) Can the protozoan parasite *Bonamia ostreae* infect larvae of flat oysters *Ostrea edulis*? *Veterinary Parasitology* **179**: 69-76.

Asmani K, Petton B, Le Grand J, Mounier J, Robert R, Nicolas JL (2016) Establishment of microbiota in larval culture of Pacific oyster, *Crassostrea gigas*. *Aquaculture* **464**: 434-444.

Asmani K, Petton B, Le Grand J, Mounier J, Robert R, Nicolas JL (2017) Determination of stocking density limits for *Crassostrea gigas* larvae reared in flow-through and recirculating aquaculture systems and interaction between larval density and biofilm formation. *Aquatic Living Resources* **30**: 1-13.

Auby I, Maurer D (2004) Etude de la reproduction de l'huître creuse dans le Bassin d'Arcachon [Study of the reproduction of oysters in the Arcachon Basin]. (ed.) *IFREMER Report R.INT.DEL/AR 04-05,* pp. 1-203. French Research Institute for Exploitation of the Sea, Arcachon, France.

Azevedo C, Montes J, Corral L (1999) A revised description of *Haplosporidium armoricanum*, parasite of *Ostrea edulis* L. from Galicia, northwestern Spain, with special reference to the spore-wall filaments. *Parasitology Research* **85**: 977-983.

Bamford DR, Gingles R (1974) Absorption of sugars in the gill of the Japanese oyster, *Crassostrea gigas*. *Comparative Biochemistry and Physiology* **49A**: 637-646.

Bará S, Pérez-Parallé ML, Sánchez JL, Lima RC, Cegarra X, Bouzas JAF (2018) Light pollution in shallow coastal waters: aquaculture farming in the Galician Atlantic shoreline. *arXiv preprint arXiv:1805.07227*.

Barre M, Naciri Y, Boudry P, Goyard E, Launey S, Cochennec N, Heurtebise S, Ledu C, Phelipot P, Gerard A (1997) Historique, expériences en cours et perspectives du programme de sélection de l'huître plate *Ostrea edulis* pour la résistance à la bonamiose [History, experiences underway and prospects of the breeding program of the flat oyster *Ostrea edulis* for the resistance to the bonamiosis]. (ed.) *IFREMER Journées Conchylicoles 1997,* pp. 1-1. French Research Institute for Exploitation of the Sea, Nantes, France.

Barthélemy-Saint Hilaire J (1887) *Traité de la Génération des Animaux, Volume 1, Oeuvres d'Aristote,* Hachette et Cie, Paris, France.

Bataller E, Burke K, Ouellette M, Maillet MJ (2006) Evaluation of spawning period and spat collection of the northernmost population of European oysters (*Ostrea edulis* L.) on the Canadian Atlantic coast. (ed.) *Canadian Technical Report of Fisheries and Aquatic Sciences 2630,* pp. 1-34. Department of Fisheries and Oceans, Canada.

Baud JP, Gérard A, Naciri-Graven Y (1997) Comparative growth and mortality of *Bonamia ostreae* -resistant and wild flat oysters, *Ostrea edulis*, in an intensive system. I. First year of experiment. *Marine Biology* **130**: 71-79.

Baud JP, Jolly C, Bodoy A (1991) Improvement of remote setting of the Pacific oyster (*Crassostrea gigas*) on French plastic pipes. *ICES CM Document K:29,* pp. 1-12. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Bayne BL (1969) The gregarious behaviour of the larvae of *Ostrea edulis* L. at settlement. *Journal of the Marine Biological Association of the United Kingdom* **49**: 327-356.

Bayne BL (2017) *Biology of Oysters. Developments in Aquaculture and Fisheries Science Volume 41,* Elsevier Science, Academic Press, London, UK.

Beaulieu M (1890) Letter on oyster culture. *Journal of the Marine Biological Association of the United Kingdom* **1**: 282-285.

Beaumont A, Garcia MT, Hönig S, Low P (2006) Genetics of Scottish populations of the native oyster, *Ostrea edulis*: gene flow, human intervention and conservation. *Aquatic Living Resources* **19**: 389-402.

Beck MW, Brumbaugh RD, Airoldi L, Carranza A, Coen LD, Crawford C, Defeo O, Edgar GJ, Hancock B, Kay MC, Lenihan HS, Luckenbach MW, Toropova CL, Zhang G, Guo X (2011) Oyster reefs at risk and recommendations for conservation, restoration, and management. *Bioscience* **61**: 107-116.

Beiras R, Camacho AP (1994) Influence of food concentration on the physiological energetics and growth of *Ostrea edulis* larvae. *Marine Biology* **120**: 427-435.

Beiras R, Camacho AP, Albentosa M (1994) Comparison of the scope for growth with the growth performance of *Ostrea edulis* seed reared at different food concentrations in an open-flow system. *Marine Biology* **119**: 227-233.

Bell JD, Clua E, Hair CA, Galzin R, Doherty PJ (2009) The capture and culture of post-larval fish and invertebrates for the marine ornamental trade. *Reviews in Fisheries Science* **17**: 223-240.

Benovic A (1997) The history, present condition, and future of the molluscan fisheries of Croatia. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 217-226. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Berghahn R, Ruth M (2005) The disappearance of oysters from the Wadden Sea: a cautionary tale for no-take zones. *Aquatic Conservation: Marine and Freshwater Ecosystems* **15**: 91-104.

Berntsson KM, Jonsson PR, Wängberg SA, Carlsson AS (1997) Effects of broodstock diets on fatty acid composition, survival and growth rates in larvae of the European flat oyster, *Ostrea edulis*. *Aquaculture* **154**: 139-153.

Berthe FCJ, Le Roux F, Adlard RD, Figueras A (2004) Marteiliosis in molluscs: a review. *Aquatic Living Resources* **17**: 433-448.

Berthome JP, Prou J, Razet D, Garnier J (1984) Première approche d'une méthode d'estimation prévisionelle de la production potentielle d'huitres creuses *C. gigas* d'élevage [First approach of previsional estimation of the potential production of *Crassostrea gigas*]. *Haliotis* **14**: 39-48.

Berthome JP, Razet D, Garnier J (1981) Description, évolution et importance des différentes techniques de captage en rivière Seudre (bassin de Marennes-Oléron) : incidence sur la production d'huîtres creuses *C. gigas* [Description, evolution, and importance of different collection techniques in the Seudre river (Marennes-Oléron basin) impact on the production of hollow oysters *C. gigas*]. *ICES CM Document K:30,* pp. 1-19. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Bierne N, Launey S, Naciri-Graven Y, Bonhomme F (1998) Early effect of inbreeding as revealed by microsatellite analyses on *Ostrea edulis* larvae. *Genetics* **148**: 1893-1906.

Blanc F, Pichot P, Attard J (1986) Genetic variability in the European oyster, *Ostrea edulis*: geographic variation between local French stocks. *Aquaculture* **57**: 362-363.

Blogoslawski WJ, Stewart ME, Rhodes EW (1978) Bacterial disinfection in shellfish hatchery disease control. *Proceedings of the Annual Meeting - World Mariculture Society* **9**: 587-602.

Bodoy A, Bougrier S, Geairon P, Garnier J, Boulo V, Heurtebise S (1991) Does the prevalence of Bonamia and Marteilia diseases be reduced on flat oysters (*Ostrea edulis*) of Atlantic and Mediterranean origin, when they are reared together with the Japanese oyster (*Crassostrea gigas*) in tidal ponds? *ICES CM Document K:28,* pp. 1-10. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Boeuf G (2000) Present status of the French aquaculture. *Aquaculture Science* **48**: 243-248.

Bøhle B (1984) Østers og østerskultur i Norge. Utnytting av østerspoller på Skagerrakkysten [Oysters and oyster culture in Norway. Exploitation of oyster polls on the Skagerrak Coast]. (ed.) *Flødevigen Meldinger 6,* pp. 1-23. Institute of Marine Research, Arendal, Norway.

Bøhle B (1986) Østerspoller på Skagerrakkysten. Egnethetsundersøkelser sommeren 1985 [Oyster polls on the Skagerrak Coast. Suitability surveys in the summer of 1985]. (ed.) *Flødevigen Meldinger 4,* pp. 1-69. Institute of Marine Research, Arendal, Norway.

Bøhle B (1987) Hydrography of four sea water basins at the Skagerrak Coast 1986-1987. (ed.) *Flødevigen Meldinger 4,* pp. 1-45. Institute of Marine Research, Arendal, Norway.

Bohn RE, Webster DW, Meritt DW (1995) Producing oyster seed by remote setting. (ed.) *NRAC Bulletin 220,* pp. 1-11. Northeastern Regional Aquaculture Center, University of Massachusetts Dartmouth, Dartmouth, USA.

Bolinches J, Toranzo AE, Silva A, Barja JL (1986) Vibriosis as the main causative factor of heavy mortalities in the oyster culture industry in northwestern Spain. *Bulletin of the European Association of Fish Pathologists* **6**: 1-4.

Boudry P, Launey S, Diaz-Almela E, Naciri-Graven Y, Ledu C, Mira S, Taris N, Bonhomme F, Lapegue S (2002) Population genetics of the European flat oyster (*Ostrea edulis*): from larvae to populations. *ICES CM Document U:09,* pp. 1-15. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Bougrier S, Tige G, Bachere E, Grizel H (1986) *Ostrea angasi* acclimatization to French coasts. *Aquaculture* **58**: 151-154.

Boulais M, Chenevert KJ, Demey AT, Darrow ES, Robison MR, Roberts JP, Volety A (2017) Oyster reproduction is compromised by acidification experienced seasonally in coastal regions. *Scientific Reports* **7**, 1-9.

Bower SM, Hervio D, Meyer GR (1997) Infectivity of *Mikrocytos mackini*, the causative agent of Denman Island disease in Pacific oysters *Crassostrea gigas*, to various species of oysters. *Diseases of Aquatic Organisms* **29**: 111-116.

Bracke E, Polk P (1969) Contribution à la connaissance de la faune marine de la côte belge [Contribution to the knowledge of the marine fauna of the Belgian coast]. *Hydrobiologia* **34**: 100-125.

Bratoš A, Bolotin J, Peharda M, Njire J (2002) Seasonal distribution of the oyster *Ostrea edulis* (Linnaeus, 1758) larvae in the bay of Mali Ston, Adriatic Sea. *Journal of Shellfish Research* **21**: 763-767.

Brenner M, Fraser D, Van Nieuwenhove K, O'Beirn F, Buck BH, Mazurie J, Thorarinsdottir G, Dolmer P, Sanchez-Mata A, Strand O, Flimlin G, Miossec L, Kamermans P (2014) Bivalve aquaculture transfers in Atlantic Europe. Part B: Environmental impacts of transfer activities. *Ocean & Coastal Management* **89**: 139-146.

Bromley C, McGonigle C, Ashton EC, Roberts D (2016a) Bad moves: Pros and cons of moving oysters - a case study of global translocations of *Ostrea edulis* Linnaeus, 1758 (Mollusca: Bivalvia). *Ocean & Coastal Management* **122**: 103-115.

Bromley C, McGonigle C, Ashton EC, Roberts D (2016b) Restoring degraded European native oyster, *Ostrea edulis*, habitat: is there a case for harrowing? *Hydrobiologia* **768**: 151-165.

Brooks WK (1879) Abstract of observations upon the artificial fertilization of oyster eggs, and on the embryology of the American oyster. *American Journal of Science* **18**: 425-427.

Brown C (1981) Bacterial diseases in bivalve larval cultures and their control. *ICES CM Document K:32,* pp. 1-22. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Brown MR, Barrett SM, Volkman JK, Nearhos SP, Nell JA, Allan GL (1996) Biochemical composition of new yeasts and bacteria evaluated as food for bivalve aquaculture. *Aquaculture* **143**: 341-360.

Brown MR, Blackburn SI (2013) Live microalgae as feeds in aquaculture hatcheries. In: Allan G, Burnell G (ed.) *Advances in Aquaculture Hatchery Technology,* pp. 117-158. Woodhead Publishing Limited, Cambridge, UK.

Brown MR, Jeffrey SW, Volkman JK, Dunstan GA (1997) Nutritional properties of microalgae for mariculture. *Aquaculture* **151**: 315-331.

Bruce JR, Knight M, Parke MW (1940) The rearing of oyster larvae on an algal diet. *Journal of the Marine Biological Association of the United Kingdom* **24**: 337-374.

Buestel D, Ropert M, Prou J, Goulletquer P (2009) History, status, and future of oyster culture in France. *Journal of Shellfish Research* **28**: 813-820.

Buitrago E, Alvarado D (2005) A highly efficient oyster spat collector made with recycled materials. *Aquacultural Engineering* **33**: 63-72.

Burke K, Bataller É, Miron G (2008a) Spat collection of a non-native bivalve species (European oyster, *Ostrea edulis*) off the eastern Canadian coast. *Journal of Shellfish Research* **27**: 345-353.

Burke K, Bataller É, Miron G, Ouellette M, Tremblay R (2008b) Larval quality of a nonnative bivalve species (European oyster, *Ostrea edulis*) off the east Canadian coast. *Journal of Shellfish Research* **27**: 701-710.

Buroker NE (1985) Evolutionary patterns in the family Ostreidae: Larviparity vs. oviparity. *Journal of Experimental Marine Biology and Ecology* **90**: 233-247.

Bushek D, Richardson D, Bobo MY, Coen LD (2004) Quarantine of oyster shell cultch reduces the abundance of *Perkinsus marinus*. *Journal of Shellfish Research* **23**: 369-374.

Caceres-Martinez J, Figueras A (1997) The mussel, oyster, clam, and pectinid fisheries of Spain. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 165-190. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Cáceres-Martínez J, Robledo JAF, Figueras A (1995) Presence of Bonamia and its relation to age, growth rates and gonadal development of the flat oyster, *Ostrea edulis*, in the Ria de Vigo, Galicia (NW Spain). *Aquaculture* **130**: 15-23.

Calabrese A, Davis HC (1970) Tolerances and requirements of embryos and larvae of bivalve molluscs. *Helgoländer Wissenschaftliche Meeresuntersuchungen* **20**: 553-564.

Calabrese A, MacInnes JR, Nelson DA, Miller JE (1977) Survival and growth of bivalve larvae under heavy-metal stress. *Marine Biology* **41**: 179-184.

Cano J, Rosique MJ, Rocamora J (1997) Influence of environmental parameters on reproduction of the European flat oyster (*Ostrea edulis* L.) in a coastal lagoon (Mar Menor, southeastern Spain). *Journal of Molluscan Studies* **63**: 187-196.

Capuzzo E, Stephens D, Silva T, Barry J, Forster RM (2015) Decrease in water clarity of the southern and central North Sea during the 20th century. *Global Change Biology* **21**: 2206-2214.

Carbonnier N, Martin AG, Mazurie J, Barthelemy G, Le Mouroux G, Martin AG, Langlade A, Barthelemy G, Camus P, Lassalle E, Cochard JC, Miners P (1990) Télécaptage de l'huître plate : travaux réalisés en 1990 [Remote setting of the flat oyster: work carried out in 1990]. (ed.) *Section Régionale de Bretagne Sud : Plan de Relance de l'Huître Plate 1990,* pp. 1-97. CIC-IFREMER, Auray, France.

Carella F, Carrasco N, Andree KB, Lacuesta B, Furones D, De Vico G (2013) Nocardiosis in Mediterranean bivalves: first detection of *Nocardia crassostreae* in a new host *Mytilus galloprovincialis* and in *Ostrea edulis* from the Gulf of Naples (Italy). *Journal of Invertebrate Pathology* **114**: 324-328.

Carlucci R, Sassanelli G, Matarrese A, Giove A, D'Onghia G (2010) Experimental data on growth, mortality and reproduction of *Ostrea edulis* (L., 1758) in a semi-enclosed basin of the Mediterranean Sea. *Aquaculture* **306**: 167-176.

Carnegie RB, Arzul I, Bushek D (2016) Managing marine mollusc diseases in the context of regional and international commerce: policy issues and emerging concerns. *Philosophical Transactions of the Royal Society B-Biological Sciences* **371**: 1-11.

Carnegie RB, Cochennec-Laureau N (2004) Microcell parasites of oysters: recent insights and future trends. *Aquatic Living Resources* **17**: 519-528.

Carpenter GH (1910) Advances in Irish marine zoology. *Irish Naturalists' Journal* **19**: 74-78.

Carrasco N, Green T, Itoh N (2015) *Marteilia* spp. parasites in bivalves: a revision of recent studies. *Journal of Invertebrate Pathology* **131**: 43-57.

Casas SM, Reece KS, Li Y, Moss JA, Villalba A, La Peyre JF (2008) Continuous culture of *Perkinsus mediterraneus*, a parasite of the European flat oyster *Ostrea edulis*, and characterization of its morphology, propagation, and extracellular proteins in vitro. *Journal of Eukaryotic Microbiology* **55**: 34-43.

Castagna M (1983) Review of recent bivalve culture methods. *Journal of the World Mariculture Society* **14**: 567-575.

Castanos C, Pascual MS, Agulleiro I, Zampatti E, Elvira M (2005) Brooding pattern and larval production in wild stocks of the puelche oyster, *Ostrea puelchana* d'Orbigny. *Journal of Shellfish Research* **24**: 191-196.

Castell JD, Trider DJ (1974) Preliminary feeding trials using artificial diets to study the nutritional requirements of oysters (*Crassostrea virginica*). *Journal of the Fisheries Board of Canada* **31**: 95-99.

Chanley MH, Chanley P (1991) Cultivation of the Chilean oyster, *Tiostrea chilensis* (Phillipi, 1845). In: Menzel W (ed.) *Estuarine and Marine Bivalve Mollusk Culture,* pp. 145-151. CRC Press Inc., Boca Raton, USA.

Chaparro OR, Mardones-Toledo DA, Gray MW, Cubillos VM, Navarro JM, Salas-Yanquin LP (2018) Female–embryo relationships in *Ostrea chilensis*: brooding, embryo recognition, and larval hatching. *Marine Biology* **166**: 10.

Child AR, Laing I (1998) Comparative low temperature tolerance of small juvenile European, *Ostrea edulis* L., and Pacific oysters, *Crassostrea gigas* Thunberg. *Aquaculture Research* **29**: 103-113.

Chu FLE, Webb KL, Hepworth DA, Casey BB (1987) Metamorphosis of larvae of *Crassostrea virginica* fed microencapsulated diets. *Aquaculture* **64**: 185-197.

Clark JE, Langmo RD (1979) Oyster seed hatcheries on the US West Coast: an overview. *Marine Fisheries Review* **80**: 10-16.

Claus C (1981) Trends in nursery rearing of bivalve molluscs. In: Claus C, De Pauw N, Jaspers E (ed.) *Nursery Culturing of Bivalve Molluscs: Proceedings of the International Workshop on Culturing of Bivalve Molluscs,* pp. 1-33. European Mariculture Society, Bredene, Belgium.

Claus C, Maeckelberghe H, Pauw N (1983) Onshore nursery rearing of bivalve molluscs in Belgium. *Aquacultural Engineering* **2**: 13-26.

Clewell AF, Aronson J (2013) *Ecological Restoration: Principles, Values, and Structure of an Emerging Profession,* Island Press, Washington, USA.

Coatanea D, Oheix J, Mazzara L, Hamon PY (1992) Essais de télécaptage de l'huître plate *Ostrea edulis* en Méditerranée : Bilan 1991 [Remote setting trials of the flat oyster *Ostrea edulis* in the Mediterranean: Review 1991]. (ed.) *IFREMER Report RIDRV-92.021 RA,* pp. 1-63. French Research Institute for Exploitation of the Sea, Palavas-les-Flots, France.

Coatanea D, Oheix J, Mazzara L, Vercelli C (1994) Élevage de l'huître plate en Languedoc-Roussillon : Bilan des travaux 1990-1992 [Breeding of the flat oyster in Languedoc-Roussillon: Review 1990-1992]. (ed.) *IFREMER Report RIDRV-94.01 RA,* pp. 1-73. French Research Institute for Exploitation of the Sea, Palavas-les-Flots, France.

Coen LD, Luckenbach MW (2000) Developing success criteria and goals for evaluating oyster reef restoration: ecological function or resource exploitation? *Ecological Engineering* **15**: 323-343.

Cohen AN, Zabin CJ (2009) Oyster shells as vectors for exotic organisms. *Journal of Shellfish Research* **28**: 163-167.

Cole HA (1939) Further experiments in the breeding of oysters in tanks. (ed.) *Fishery Investigations Series II*, pp. 1-50. Her Majesty's Stationery Office, London, UK.

Cole HA (1941) The fecundity of *Ostrea edulis*. *Journal of the Marine Biological Association of the United Kingdom* **25**: 243-260.

Cole HA (1942) Primary sex-phases in *Ostrea edulis*. *Journal of Cell Science* **83**: 317-356.

Cole HA, Knight Jones EW (1949) The setting behaviour of larvae of the European flat oyster *Ostrea edulis* L., and its influence on methods of cultivation and spat collection. (ed.) *Fishery Investigations Series II,* pp. 1-39. Her Majesty's Stationery Office, London, UK.

Collyer DM (1957) Viability and glycogen reserves in the newly liberated larvae of *Ostrea edulis* L. *Journal of the Marine Biological Association of the United Kingdom* **36**: 335-337.

Comps M, Cochennec N (1993) A herpes-like virus from the European oyster *Ostrea edulis* L. *Journal of Invertebrate Pathology* **62**: 201-203.

Connellan I (1995) Shellfish hatchery design with notes on spatting ponds for aquaculture students, Publisher, Galway-Mayo Institute of Technology, Ireland.

Connor PM (1972) Acute toxicity of heavy metals to some marine larvae. *Marine Pollution Bulletin* **3**: 190-192.

Coon SL, Bonar DB, Weiner RM (1986) Chemical production of cultchless oyster spat using epinephrine and norepinephrine. *Aquaculture* **58**: 255-262.

Corlay JP (2001) Voyage d'exploration sur le littoral de la France et de l'Italie (Victor Coste, 1861), ou Prométhée au pays d'*Ostrea* [A voyage of exploration on the coasts of France and Italy (Victor Coste, 1861), or Prometheus in the Land of *Ostrea*]. *Les Cahiers Nantais* **55**: 289-307.

Coste JMCV (1861) *Voyage d'Exploration sur le Littoral de la France et de l'Italie,* Imprimerie Impériale, Paris, France.

Coutteau P, Caers M, Curé K, Gajardo G (1996) Supplementation of lipid emulsions to algal diets in the hatchery rearing of bivalves. In: Gajardo G, Coutteau P (ed.) *Improvement of the Commercial Production of Marine Aquaculture Species: Proceedings of a Workshop on Fish and Mollusk Larviculture,* pp. 145-154. Impresora Creces, Santiago, Chile.

Coutteau P, Sorgeloos P (1992) The use of algal substitutes and the requirement for live algae in the hatchery and nursery rearing of bivalve molluscs: an international survey. *Journal of Shellfish Research* **11**: 467-476.

Coutteau P, Sorgeloos P (1993) The use of artificial diets in the hatchery rearing of bivalve mollusks. *Mededelingen - Faculteit Landbouwwetenschappen, Rijksuniversiteit Gent* **57**: 2111-2119.

Cragg SM, Gruffydd LLD (1975) The swimming behaviour and the pressure responses of the veliconcha larvae of *Ostrea edulis* (L.). In: Barnes HB (ed.) *Proceedings of the 9th European Marine Biology Symposium,* pp. 43-57. Aberdeen University Press, Aberdeen, UK.

Cranfield HJ (1973a) Observations on the behaviour of the pediveliger of *Ostrea edulis* during attachment and cementing. *Marine Biology* **22**: 203-209.

Cranfield HJ (1973b) Observations on the function of the glands of the foot of the pediveliger of *Ostrea edulis* during settlement. *Marine Biology* **22**: 211-223.

Crawford C (2016) National review of *Ostrea angasi* aquaculture: historical culture, current methods and future priorities. (ed.) *Contract Report of the University of Tasmania,* pp. 1-44. Institute for Marine and Antarctic Studies, University of Tasmania, Hobart, Australia.

Crawford DW, Hawkins LE, Hutchinson S, Antai EE, Purdie DA, Lockwood APM (1993) Red tides of Mesodinium rubrum: evidence for remotely imposed stress on the oyster *Ostrea edulis*. In: Smayda TJ, Shimizu Y (ed.) *Toxic Phytoplankton Blooms in the Sea: Proceedings of the 5th International Conference on Toxic Marine Phytoplankton,* pp. 389-394. Elsevier Science Publishers BV, Amsterdam, The Netherlands.

Creswell LR (2010) Phytoplankton culture for aquaculture feed. (ed.) *SRAC Publication 5004,* pp. 1-16. Southern Regional Aquaculture Center, Stoneville, USA.

Cross ML, Newkirk GF, Johnson G (1987) Strategies for the cultivation of European oysters (*Ostrea edulis*) in the Maritime provinces of Canada: preliminary analyses. *Canadian Journal of Fisheries and Aquatic Sciences* **44**: 674-679.

Culloty SC, Cronin MA, Mulcahy MF (2001) An investigation into the relative resistance of Irish flat oysters *Ostrea edulis* L. to the parasite *Bonamia ostreae* (Pichot et al., 1980). *Aquaculture* **199**: 229-244.

Culloty SC, Cronin MA, Mulcahy MF (2004) Potential resistance of a number of populations of the oyster *Ostrea edulis* to the parasite *Bonamia ostreae*. *Aquaculture* **237**: 41-58.

Culloty SC, Mulcahy MF (1992) An evaluation of anaesthetics for *Ostrea edulis* (L.). *Aquaculture* **107**: 249-252.

Culloty SC, Mulcahy MF (1996) Season-, age-, and sex-related variation in the prevalence of bonamiasis in flat oysters (*Ostrea edulis* L.) on the south coast of Ireland. *Aquaculture* **144**: 53-63.

Culloty SC, Mulcahy MF (2001) Living with bonamiasis: Irish research since 1987. *Hydrobiologia* **465**: 181-186.

Culloty SC, Mulcahy MF (2007) *Bonamia ostreae* in the native oyster *Ostrea edulis*. A review. (ed.) *Marine Environment and Health Series No. 29,* pp. 1-40. Marine Institute, Ireland.

da Silva P, Renault T, Fuentes J, Villalba A (2008) Herpesvirus infection in European flat oysters *Ostrea edulis* obtained from brood stocks of various geographic origins and grown in Galicia (NW Spain). *Diseases of Aquatic Organisms* **78**: 181-188.

Dannevig A (1947) The Fløadevig sea fish hatchery, at Arendal, Norway. *ICES Journal of Marine Science* **15**: 7-12.

Dantan JL, Perrier E (1912) Le fonctionnement de la glande génitale chez l'*Ostrea edulis* (L.) et le *Gryphaea angulata* (Lam.). La protection des bancs naturels [Genital gland function in *Ostrea edulis* (L.) and *Gryphaea angulata* (Lam.). The protection of natural beds]. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences* **155**: 324-327.

Dantan JL, Perrier E (1913) La fécondité de l'*Ostrea edulis* (L.). [The fecundity of the *Ostrea edulis* (L.).]. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences* **157**: 871-873.

Dao JC, Fleury PG, Barret J (1999) Scallop sea bed culture in Europe. In: Howell BR, Moksness E, Svåsand T (ed.) *Stock Enhancement and Sea Ranching,* pp. 423-436. Fishing News Books, Blackwell Publishing, Oxford, UK.

Davaine C (1853) *Recherches sur la Génération des Huîtres,* E. Thunot et Cie, Paris, France.

Davenel A, González R, Suquet M, Quellec S, Robert R (2010) Individual monitoring of gonad development in the European flat oyster *Ostrea edulis* by in vivo magnetic resonance imaging. *Aquaculture* **307**: 165-169.

Davis HC (1953) On food and feeding of larvae of the American oyster, *C. virginica*. *The Biological Bulletin* **104**: 334-350.

Davis HC, Ansell AD (1962) Survival and growth of larvae of the European oyster, *O. edulis*, at lowered salinities. *The Biological Bulletin* **122**: 33-39.

Davis HC, Calabrese A (1969) Survival and growth of larvae of the European oyster (*Ostrea edulis* L.) at different temperatures. *The Biological Bulletin* **136**: 193-199.

De Rijcke M, Van Acker E, Nevejan N, De Schamphelaere KAC, Janssen CR (2016) Toxic dinoflagellates and Vibrio spp. act independently in bivalve larvae. *Fish & Shellfish Immunology* **57**: 236-242.

Dean B (1890) The present methods of oyster-culture in France. *Bulletin of the United States Fish Commission* **10**: 363-398.

Dean B (1891) Report on the European methods of oyster-culture. *Bulletin of the United States Fish Commission* **11**: 357-406.

Dean B (1902) Japanese oyster-culture. *Bulletin of the United States Fish Commission* **22**: 17-38.

Devauchelle N, Thielley M, Salaün G (1997) Estimation des stades de maturité de bivalves [Estimation of the maturity stages of bivalves]. In: Devauchelle N, Barret J, Salaun G (ed.) *The Natural and Controlled Reproduction of Cultivated Bivalves in France: Symposium Report,* pp. 81-90. IFREMER, Nantes, France.

Diaz-Almela E, Boudry P, Launey S, Bonhomme F, Lapègue S (2004) Reduced female gene flow in the European flat oyster *Ostrea edulis*. *Journal of Heredity* **95**: 510-516.

Dijkema R (1997) Molluscan fisheries and culture in the Netherlands. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 115-135. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Dodgson RW (1922) Noctiluca as an enemy of the oyster. *Nature* **110**: 343-344.

Downing SL, Allen SK (1987) Induced triploidy in the Pacific oyster, *Crassostrea gigas*: optimal treatments with cytochalasin B depend on temperature. *Aquaculture* **61**: 1-15.

Dridi S, Romdhane MS, Heurtebise S, Cafsi EM, Boudry P, Lapègue S (2008) Genetic characterisation of oyster populations along the north-eastern coast of Tunisia. *African Journal of Marine Science* **30**: 489-495.

Drinkwaard AC (1998) Introductions and developments of oysters in the North Sea area: a review. *Helgoländer Meeresuntersuchungen* **52**: 301-308.

Dubert J, Barja JL, Romalde JL (2017) New insights into pathogenic vibrios affecting bivalves in hatcheries: present and future prospects. *Frontiers in Microbiology* **8**: 1-16.

Dubert J, Romalde JL, Prado S, Barja JL (2016) Vibrio bivalvicida sp. nov., a novel larval pathogen for bivalve molluscs reared in a hatchery. *Systematic and Applied Microbiology* **39**: 8-13.

Dunphy BJ, Wells RMG, Jeffs AG (2005) Polydorid infestation in the flat oyster, *Tiostrea chilensis*: hyposaline treatment for an aquaculture candidate. *Aquaculture International* **13**: 351-358.

Dupuy JL, Rivkin S (1970) Cultch‐free spat present and future. (ed.) *Proceedings of the Annual Workshop,* pp. 157-158. World Mariculture Society, Baton Rouge, USA.

Dupuy JL, Rivkin S, Ott FD (1973) A new type of oyster hatchery. *Proceedings of the Annual Workshop* ‐ *World Mariculture Society* **4**: 353-368.

Dupuy JL, Windsor NT, Sutton CE (1977) Manual for design and operation of an oyster seed hatchery for the American oyster *Crassostrea Virginica*. (ed.) *Special Report No. 142 in Applied Marine Science and Ocean Engineering,* pp. Virginia Institute of Marine Science, Gloucester Point, Virginia, USA.

Eagling LE, Ashton EC, Jensen AC, Sigwart JD, Murray D, Roberts D (2018) Spatial and temporal differences in gonad development, sex ratios and reproductive output, influence the sustainability of exploited populations of the European oyster, *Ostrea edulis*. *Aquatic Conservation: Marine and Freshwater Ecosystems* **28**: 1-12.

Edwards E (1997) Molluscan fisheries in Britain. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 85-99. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

El‐Gayar OF (1997) The use of information technology in aquaculture management. *Aquaculture Economics & Management* **1**: 109-128.

Elston R, Elliot EL, Colwell RR (1982) Conchiolin infection and surface coating *Vibrio*: shell fragility, growth depression and mortalities in cultured oysters and clams, *Crassostrea virginica*, *Ostrea edulis* and *Mercenaria mercenaria*. *Journal of Fish Diseases* **5**: 265-284.

Elston R, Leibovitz L, Relyea D, Zatila J (1981) Diagnosis of vibriosis in a commercial oyster hatchery epizootic: diagnostic tools and management features. *Aquaculture* **24**: 53-62.

Elston RA, Kent ML, Wilkinson MT (1987) Resistance of *Ostrea edulis* to *Bonamia ostreae* infection. *Aquaculture* **64**: 237-242.

Engelsma MY, Culloty SC, Lynch SA, Arzul I, Carnegie RB (2014) Bonamia parasites: a rapidly changing perspective on a genus of important mollusc pathogens. *Diseases of Aquatic Organisms* **110**: 5-23.

Engelsma MY, Roozenburg I, Joly JP (2008) First isolation of *Nocardia crassostreae* from Pacific oyster *Crassostrea gigas* in Europe. *Diseases of Aquatic Organisms* **80**: 229-234.

Enright CT, Craigie JS, Newkirk GF (1985) The effect of pH and the improvement of water quality by *Chondrus crispus* in an *Ostrea edulis* nursery. *Journal of the World Mariculture Society* **16**: 386-386.

Enright CT, Newkirk GF, Craigie JS, Castell JD (1986a) Evaluation of phytoplankton as diets for juvenile *Ostrea edulis* L. *Journal of Experimental Marine Biology and Ecology* **96**: 1-13.

Enright CT, Newkirk GF, Craigie JS, Castell JD (1986b) Growth of juvenile *Ostrea edulis* L. fed *Chaetoceros gracilis* Schütt of varied chemical composition. *Journal of Experimental Marine Biology and Ecology* **96**: 15-26.

Epifanio CE (1979) Comparison of yeast and algal diets for bivalve molluscs. *Aquaculture* **16**: 187-192.

Erdmann W (1935) Untersuchungen über die Lebensgeschichte der Auster. Nr. 5. Über die Entwicklung und die Anatomie der ansatzreifen Larve von *Ostrea edulis* mit Bemerkungen über die Lebensgeschichte der Auster [Studies on the life history of the oyster. On the development and Anatomy of the approach-mature larva of *Ostrea edulis* with comments about the life history of the oyster]. *Wissenschaftliche Meersuntersuchungen. Abt. Helgoland* **XIX**: 1-33.

Fabioux C, Huvet A, Lelong C, Robert R, Pouvreau S, Daniel JY, Minguant C, Le Pennec M (2004) Oyster *vasa*-like gene as a marker of the germline cell development in *Crassostrea gigas*. *Biochemical and Biophysical Research Communications* **320**: 592-598.

Fábregas J, Otero A, Romaris M, Cancelo M, Muñoz A (1989) Computer prediction of the evolution of mollusc cultures: application to *Ostrea edulis* culture. *Aquacultural Engineering* **8**: 165-176.

Falaise C, François C, Travers M, Morga B, Haure J, Tremblay R, Turcotte F, Pasetto P, Gastineau R, Hardivillier Y, Leignel V, Mouget JL (2016) Antimicrobial compounds from eukaryotic microalgae against human pathogens and diseases in aquaculture. *Marine Drugs* **14**: 1-27.

Fankboner PV, De Burgh ME (1978) Comparative rates of dissolved organic carbon accumulation by juveniles and pediveligers of the Japanese oyster *Crassostrea gigas* Thunberg. *Aquaculture* **13**: 205-212.

Fariñas-Franco JM, Pearce B, Mair JM, Harries DB, MacPherson RC, Porter JS, Reimer PJ, Sanderson WG (2018) Missing native oyster (*Ostrea edulis* L.) beds in a European marine protected area: should there be widespread restorative management? *Biological Conservation* **221**: 293-311.

Farley CA (1978) Viruses and viruslike lesions in marine mollusks. *Marine Fisheries Review* **40**: 18-20.

Fernández Robledo JA, Vasta GR, Record NR (2014) Protozoan parasites of bivalve molluscs: literature follows culture. *PLOS One* **9**: 1-9.

Fernando W, MacBride EW (1931) The origin and development of the pericardium and kidneys in *Ostrea*. *Proceedings of the Royal Society of London. Series B, Containing Papers of a Biological Character* **107**: 391-397.

Ferreiro MJ, Pérez-Camacho A, Labarta U, Beiras R, Planas M, Fernández-Reiriz MJ (1990) Changes in the biochemical composition of *Ostrea edulis* larvae fed on different food regimes. *Marine Biology* **106**: 395-401.

Fitt WK, Coon SL, Walch M, Weiner RM, Colwell RR, Bonar DB (1990) Settlement behavior and metamorphosis of oyster larvae (*Crassostrea gigas*) in response to bacterial supernatants. *Marine Biology* **106**: 389-394.

Flannery G, Lynch SA, Carlsson J, Cross TF, Culloty SC (2014) Assessment of the impact of a pathogen, *Bonamia ostreae*, on *Ostrea edulis* oyster stocks with different histories of exposure to the parasite in Ireland. *Aquaculture* **432**: 243-251.

Flannery G, Lynch SA, Culloty SC (2016) Investigating the significance of the role of *Ostrea edulis* larvae in the transmission and transfer of *Bonamia ostreae*. *Journal of Invertebrate Pathology* **136**: 7-9.

Flassch JP, L'Herroux M, Laubier L (1975) Continuous spat production of flat oyster: *Ostrea edulis* in running water. *Proceedings of the Annual Meeting* ‐ *World Mariculture Society* **6**: 193-201.

Friedman CS, Perkins FO (1994) Range extension of *Bonamia ostreae* to Maine, U.S.A. *Journal of Invertebrate Pathology* **64**: 179-181.

Friele H (1899) The oyster ponds on the west coast of Norway. In: Brunchorst J (ed.) *Proceedings of the International Congress of Fisheries Bergen,* pp. 188-200. John Griegs Boktrykkeri AS, Bergen, Norway.

Frolov AV, Pankov SL (1992) The reproduction stategy of oyster *Ostrea-edulis* L from the biochemical point-of-view. *Comparative Biochemistry and Physiology* **103B**: 161-182.

Funes VG, Jiménez RA (1989) Histological identification of the gonadal phases of the European oyster (*Ostrea edulis*), introduced experimentally into the Northwestern Coast of Baja California, Mexico. *Ciencias Marinas* **15**: 41-54.

Gaarder T, Bjerkan P (1934) *Østers og Østerskultur i Norge,* A.s John Griegs Boktrykkeri, Bergen, Norway.

Gaarder T, Spärck R (1931) Biochemical and biological investigations of the variations in the productivity of the West Norwegian oyster pools. *ICES Marine Science Symposia. Volume 75,* pp. 47-58. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Gaffney PM (2006) The role of genetics in shellfish restoration. *Aquatic Living Resources* **19**: 277-282.

Gagné N, Cochennec N, Stephenson M, McGladdery S, Meyer GR, Bower SM (2008) First report of a Mikrocytos-like parasite in European oysters *Ostrea edulis* from Canada after transport and quarantine in France. *Diseases of Aquatic Organisms* **80**: 27-35.

García-Lavandeira M, Silva A, Abad M, Pazos AJ, Sánchez JL, Pérez-Parallé ML (2005) Effects of GABA and epinephrine on the settlement and metamorphosis of the larvae of four species of bivalve molluscs. *Journal of Experimental Marine Biology and Ecology* **316**: 149-156.

Garcia-Meunier P, Martel C, Pigeot J, Chevalier G, Blanchard G, Goulletquer P, Robert S, Sauriau PG (2002) Recent invasion of the Japanese oyster drill along the French Atlantic coast: identification of specific molecular markers that differentiate Japanese, *Ocinebrellus inornatus*, and European, *Ocenebra erinacea*, oyster drills. *Aquatic Living Resources* **15**: 67-71.

Gavrilović A, Jug-Dujaković J, Ljubičić A, Conides A (2015) The evaluation of the efficiency of different systems for European flat oyster, *Ostrea edulis* (Linnaeus, 1758) spat rearing. In: Pospišil M (ed.) *Proceedings of the 50th Croatian and the 10th International Symposium on Agriculture,* pp. 379-383. University of Zagreb, Faculty of Agriculture, Zagreb, Croatia.

Genard B, Larouche O, Nicolas JL, Miner P, Beaudin ML, Tremblay R (2014) Effect of the probiotic strain *Phaeobacter gallaeciensis* after bacterial challenge on the complete larval development of *Pecten maximus*. *Aquatic Living Resources* **27**: 27-34.

Gendreau S (1988) Fécondation in vitro et induction de la polyploidie chez l'huitre plate larvipare, *Ostrea edulis* L. [In vitro fertilization and induction of polyploidy in larviparous flat oyster *Ostrea edulis* L.], Publisher, PhD/DEA Thesis. University of Western Brittany, France.

Gendreau S, Grizel H (1990) Induced triploidy and tetraploidy in the European flat oyster, *Ostrea edulis* L. *Aquaculture* **90**: 229-238.

Gérard A, Naciri-Graven Y, Boudry P, Launay S, Heurtebise S, Ledu C, Phelipot P (1997) Contrôle de la gamétogenèse des huîtres creuses et plates: relations "reproduction" et "génétique" [Gametogenesis control of hollow and flat oysters: reproductive and genetic relationships]. In: Devauchelle N, Barret J, Salaun G (ed.) *The Natural and Controlled Reproduction of Cultivated Bivalves in France: Symposium Report,* pp. 99-111. IFREMER, Nantes, France.

Gerbe Z (1876) Aptitude qu'ont les huîtres à se reproduire dès la première année [The ability of oysters to reproduce in their first year]. *Revue et Magasin de Zoologie Pure et Appliquée* **3**: 274-278.

Gercken J, Schmidt A (2014) Current status of the European oyster (*Ostrea edulis*) and possibilities for restoration in the German North Sea. (ed.) *BfN Skripten 379,* pp. 1-96. Federal Agency for Nature Conservation, Germany.

Gervais O, Renault T, Arzul I (2015) Induction of apoptosis by UV in the flat oyster, *Ostrea edulis*. *Fish & Shellfish Immunology* **46**: 232-242.

Ghribi F, Boussoufa D, Aouini F, Bejaoui S, Chetoui I, Rabeh I, El Cafsi M (2018) Seasonal variation of biochemical composition of Noah's ark shells (*Arca noae* L. 1758) in a Tunisian coastal lagoon in relation to its reproductive cycle and environmental conditions. *Aquatic Living Resources* **31**: 1-15.

Gillies C, Crawford C, Hancock B (2017) Restoring Angasi oyster reefs: what is the endpoint ecosystem we are aiming for and how do we get there? *Ecological Management & Restoration* **18**: 214-222.

González-Araya R (2012) Incidence de la nutrition sur la reproduction et le développement larvaire d'*Ostrea edulis* [Impact of nutrition on reproduction and larval development of *Ostrea edulis*], Publisher, PhD/Dr Thesis. Univeristy of Brest, France.

González-Araya R, Lebrun L, Quéré C, Robert R (2012a) The selection of an ideal diet for *Ostrea edulis* (L.) broodstock conditioning (Part B). *Aquaculture* **362**: 55-66.

González-Araya R, Mingant C, Petton B, Robert R (2012b) Influence of diet assemblage on *Ostrea edulis* broodstock conditioning and subsequent larval development. *Aquaculture* **364**: 272-280.

González-Araya R, Quéau I, Quéré C, Moal J, Robert R (2011) A physiological and biochemical approach to selecting the ideal diet for *Ostrea edulis* (L.) broodstock conditioning (Part A). *Aquaculture Research* **42**: 710-726.

González-Araya R, Quillien V, Robert R (2013) The effects of eight single microalgal diets on sex-ratio and gonad development throughout European flat oyster (*Ostrea edulis* L.) conditioning. *Aquaculture* **400**: 1-5.

González-Araya R, Robert R (2018) Larval development and fatty acid composition of *Ostrea edulis* (L.) fed four different single diets from conditioning to pre-settlement. *Aquaculture Research* **49**: 1-14.

González-Wangüemert M, Pérez-Ruzafa A, Rosique MJ, Ortiz A (2004) Genetic differentiation in two cryptic species of *Ostreidae*, *Ostrea edulis* (Linnaeus, 1758) and *Ostreola stentina* (Payraudeau, 1826) in Mar Menor Lagoon, southwestern Mediterranean Sea. *The Nautilus* **118**: 103-111.

Goreau TJ (2012) Marine electrolysis for building materials and environmental restoration. In: Linkov V, Kleperis J (ed.) *Electrolysis,* pp. 273-290. InTech, Rijeka, Croatia.

Gosling E (2003) *Bivalve Molluscs: Biology, Ecology and Culture,* Fishing News Books, Blackwell Publishing, Oxford, UK.

Goulden EF, Høj L, Hall MR (2013) Microbial management for bacterial pathogen control in invertebrate aquaculture hatcheries. In: Allan G, Burnell G (ed.) *Advances in Aquaculture Hatchery Technology,* pp. 246-285. Woodhead Publishing Limited, Cambridge, UK.

Goulletquer P, Héral M (1997) Marine molluscan production trends in France: from fisheries to aquaculture. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 137-164. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Green DS (2016) Effects of microplastics on European flat oysters, *Ostrea edulis* and their associated benthic communities. *Environmental Pollution* **216**: 95-103.

Grizel H (1985) Etude des récentes épizooties de l'huitre plate *Ostrea edulis* Linne et de leur impact sur l'ostréiculture bretonne [Study of recent epizootics of the flat oyster *Ostrea edulis* Linne and their impact on oyster farming in Brittany], Publisher, PhD/Dr Thesis. University of Montpellier, France.

Grizel H, Bachere E, Mialhe E, Tige G (1987) Solving parasite-related problems in cultured molluscs. *International Journal for Parasitology* **17**: 301-308.

Grizel H, Comps M, Raguenes D, Le Borgne Y, Tigé G, Martin AG (1983) Bilan des essais d'acclimatation d'*Ostrea chilensis* sur les côtes de Bretagne [Results of the acclimatization experiments of *Ostrea chilensis* on the Brittany Coasts]. *Revue des Travaux de l'Institut des Pêches Maritimes* **46**: 209-225.

Grizel H, Héral M (1991) Introduction into France of the Japanese oyster (*Crassostrea gigas*). *ICES Journal of Marine Science* **47**: 399-403.

Guesdon K, Le Bec C, Mazurie J, Lassale E (1989) Essais de télécaptage : huitre plate [Remote setting trials: flat oyster]. (ed.) *Section Régionale de Bretagne Sud : Plan de Relance de l'Huître Plate 1989,* pp. 1-87. CIC-IFREMER, Auray, France.

Günther RT (1897) The oyster culture of the ancient Romans. *Journal of the Marine Biological Association of the United Kingdom* **4**: 360-365.

Guo L, Xu F, Feng Z, Zhang G (2016) A bibliometric analysis of oyster research from 1991 to 2014. *Aquaculture International* **24**: 327-344.

Guo X (2009) Use and exchange of genetic resources in molluscan aquaculture. *Reviews in Aquaculture* **1**: 251-259.

Guo X, DeBrosse GA, Allen SK (1996) All-triploid Pacific oysters (*Crassostrea gigas* Thunberg) produced by mating tetraploids and diploids. *Aquaculture* **142**: 149-161.

Guy C, Blight A, Smyth D, Roberts D (2018a) The world is their oyster: differences in epibiota on sympatric populations of native *Ostrea edulis* and non-native *Crassostrea gigas* (*Magallana gigas*) oysters. *Journal of Sea Research* **140**: 52-58.

Guy C, Smyth D, Roberts D (2018b) The importance of population density and inter-individual distance in conserving the European oyster *Ostrea edulis*. *Journal of the Marine Biological Association of the United Kingdom* **99**: 1-7.

Hadfield MG, Carpizo-Ituarte EJ, del Carmen K, Nedved BT (2001) Metamorphic competence, a major adaptive convergence in marine invertebrate larvae. *American Zoologist* **41**: 1123-1131.

Haelters J, Kerckhof F (2009) Background document for *Ostrea edulis* and *Ostrea edulis* beds. (ed.) *OSPAR Commission - Biodiversity Series,* pp. 1-22, London, UK.

Hagmeier A (1916) Ueber die Fortpflanzung der Auster und die fiskalischen Austernbänke [About the reproduction of oysters and the fiscal oyster beds]. *Wissenschaftliche Meersuntersuchungen. Abt. Helgoland* **XI**: 221-249.

Hancock DA (1954) The destruction of oyster spat by *Urosalpinx cinerea* (Say) on Essex oyster beds. *ICES Journal of Marine Science* **20**: 186-196.

Hargreaves JA (2011) Molluscan shellfish aquaculture and best management practices. In: Shumway SE (ed.) *Shellfish Aquaculture and the Environment,* pp. 51-80. John Wiley & Sons, Inc., Oxford, UK.

Hassan MM, Qin JG, Li XX (2015) Sperm cryopreservation in oysters: a review of its current status and potentials for future application in aquaculture. *Aquaculture* **438**: 24-32.

Hassan MM, Qin JG, Li XX (2017) Gametogenesis, sex ratio and energy metabolism in *Ostrea angasi*: implications for the reproductive strategy of spermcasting marine bivalves. *Journal of Molluscan Studies* **84**: 1-8.

Hawkins AJS, Day AJ, Gerard A, Naciri Y, Ledu C, Bayne BL, Héral M (1994) A genetic and metabolic basis for faster growth among triploids induced by blocking meiosis I but not meiosis II in the larviparous European flat oyster, *Ostrea edulis* L. *Journal of Experimental Marine Biology and Ecology* **184**: 21-40.

Hedgecock D (2011) Genetics of shellfish on a human-dominated planet. In: Shumway SE (ed.) *Shellfish Aquaculture and the Environment,* pp. 339-357. John Wiley & Sons, Inc., Oxford, UK.

Hedgecock D, Launey S, Pudovkin AI, Naciri Y, Lapegue S, Bonhomme F (2007) Small effective number of parents (Nb) inferred for a naturally spawned cohort of juvenile European flat oysters *Ostrea edulis*. *Marine Biology* **150**: 1173-1182.

Helland‐Hansen B (1908) Die Austernbassins in Norwegen [The oyster basins in Norway]. *International Review of Hydrobiology* **1**: 553-573.

Helm MM (1971) The effect of seawater quality on the laboratory culture of *Ostrea edulis* L. larvae. *ICES CM Document K:28,* pp. 1-12. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Helm MM (1977) Mixed algal feeding of *Ostrea edulis* larvae with *Isochrysis galbana* and *Tetraselmis suecica*. *Journal of the Marine Biological Association of the United Kingdom* **57**: 1019-1029.

Helm MM, Bourne N, Lovatelli A (2004) Hatchery culture of bivalves: a practical manual. (ed.) *FAO Fisheries Technical Paper 471,* pp. 1-203. Food and Agriculture Organization of the United Nations, Rome, Italy.

Helm MM, Holland DL, Stephenson RR (1973) The effect of supplementary algal feeding of a hatchery breeding stock of *Ostrea edulis* L. on larval vigour. *Journal of the Marine Biological Association of the United Kingdom* **53**: 673-684.

Helm MM, Spencer BE (1972) The importance of the rate of aeration in hatchery cultures of the larvae of *Ostrea edulis* L. *ICES Journal of Marine Science* **34**: 244-255.

Hepper BT (1956) The European flat oyster, *Ostrea edulis* L., as a host for *Mytilicola intestinalis* Steuer. *Journal of Animal Ecology* **25**: 144-147.

Héral M (1990) Traditional oyster culture in France. In: Barnabé G, de IB Solbe JF (ed.) *Aquaculture,* pp. 342-387. Ellis Horwood, Chichester, UK.

Héral M, Alzieu C, Deslous-Paoli JM (1989) Effect of organotin compounds (TBT) used in antifouling paints on cultured marine molluscs - a literature study. In: De Pauw N, Jaspers E, Ackefors H, Wilkins N (ed.) *Aquaculture: a Biotechnology in Progress: Proceedings of the International Conference Aquaculture Europe,* pp. 1081-1089. European Aquaculture Society, Bredene, Belgium.

Héral M, Deslous-Paoli JM (1991) Oyster culture in European countries. In: Menzel W (ed.) *Estuarine and Marine Bivalve Mollusk Culture,* pp. 153-190. CRC Press Inc., Boca Raton, USA.

Heras H, Kean-Howie J, Ackman RG (1994) The potential use of lipid microspheres as nutritional supplements for adult *Ostrea edulis*. *Aquaculture* **123**: 309-322.

Hidu H, Chapman S, Soule PW (1975) Cultchless setting of European oysters, *Ostrea edulis*, using polished marble. *Proceedings of the National Shellfisheries Association* **65**: 13-14.

Hidu H, Lavoie RE (1991) The European oyster, *Ostrea edulis* L., in Maine and Eastern Canada. In: Menzel W (ed.) *Estuarine and Marine Bivalve Mollusk Culture,* pp. 35-46. CRC Press Inc., Boca Raton, USA.

Hidu H, Tubiash HS (1963) A bacterial basis for the growth of antibiotic-treated bivalve larvae. *Proceedings of the National Shellfisheries Association* **54**: 25-39.

Hine PM, Engelsma MY, Wakefield SJ (2007) Ultrastructure of sporulation in *Haplosporidium armoricanum*. *Diseases of Aquatic Organisms* **77**, 225-233.

Hintz M, Gratz K, Becker B, Vadopalas B, Roberts S (2017) A nonlethal anesthesia protocol for accessing the mantle cavity of olympia oysters in the laboratory or field. *Journal of Shellfish Research* **36**: 353-357.

His E, Beiras R, Seaman MNL (1999) The assessment of marine pollution - bioassays with bivalve embryos and larvae. In: Southward AJ, Tyler PA, Young CM (ed.) *Advances in Marine Biology,* pp. 1-178. Academic Press, London, UK.

Hoeksema BW (1983) Excavation patterns and spiculae dimensions of the boring sponge *Cliona celata* from the SW Netherlands. *Senckenbergiana Maritima* **15**: 55-85.

Holden G, Rosenberg G, Barker K (2005) Tracing thought through time and space. *Social Work in Health Care* **41**: 1-34.

Holland DL, Spencer BE (1973) Biochemical changes in fed and starved oysters, *Ostrea edulis* L. during larval development, metamorphosis and early spat growth. *Journal of the Marine Biological Association of the United Kingdom* **53**: 287-298.

Holmes JMC, Minchin D (1991) A new species of Herrmannella (Copepoda, Poecilostomatoida, Sabelliphilidae) associated with the oyster *Ostrea edulis* L. *Crustaceana* **60**: 258-269.

Hopkins AE (1937) Experimental observations on spawning, larval development, and setting in the Olympia oyster, *Ostrea lurida*. *Bulletin of the Bureau of Fisheries* **48**: 439-503.

Horst R (1884) The development of the oyster (*Ostrea edulis* L.). *Report of the Commissioner for 1884* **12**: 891-911.

Horváth Á, Bubalo A, Čučević A, Bartulović V, Kotrik L, Urbányi B, Glamuzina B (2012) Cryopreservation of sperm and larvae of the European flat oyster (*Ostrea edulis*). *Journal of Applied Ichthyology* **28**: 948-951.

Huggins WL, Helm MM, Williams DR (1987) Automatic control of food supply in the culture of filter-feeding organisms. *Aquacultural Engineering* **6**: 259-275.

Hugh Jones D (1999) Breeding ponds as a basis for flat oyster (*Ostrea edulis*) culture and their use to develop resistance to the disease *Bonamia ostreae*. *Journal of Shellfish Research* **18**: 718-718.

Hughes AR, Inouye BD, Johnson MTJ, Underwood N, Vellend M (2008) Ecological consequences of genetic diversity. *Ecology Letters* **11**: 609-623.

Hughes E (1940) The breeding of oysters in tanks. *Journal of the Marine Biological Association of the United Kingdom* **24**: 543-547.

Hurwood DA, Heasman MP, Mather PB (2005) Gene flow, colonisation and demographic history of the flat oyster *Ostrea angasi*. *Marine and Freshwater Research* **56**: 1099-1106.

Igic L (1981) The biomass of fouling communities on edible shellfish: oyster (*Ostrea edulis*) and mussel (*Mytilus galloprovincialis*) in the Northern Adriatic. *Thalassia Jugoslavica* **17**: 17-19.

Imai T, Sakai SI, Okada H (1952) Transplantation of European flat oyster, *O. edulis*, into Japanese water and its breeding in tanks. *Tohoku Journal of Agricultural Research* **3**: 311-320.

Ivanov AI (1964) Размножение, рост и распределение черноморских устриц [Breeding, growth and distribution of Black Sea oysters]. (ed.) *Sbornik Nauchno-Tekhnicheskoy Informatsii VNIRO 3,* pp. 3-13. Russian Research Institute of Fisheries and Oceanography, Moscow, Russia.

Ivanov AI (1965) Влияние воды различной солености на выживание личинок черноморских устриц (*Ostrea taurica* Kryn.) [The effect of different degrees of water salinity on the survival of Black Sea oyster larvae (*Ostrea taurica* Kryn.)]. *Доклады Академии наук СССР* **163**: 1256-1258.

Ivanov AI (1966a) Present stocks and distribution of oysters (*Ostrea taurica* Kryn.) in the Black Sea. *Oceanology of the Russian Academy of Sciences* **6**: 568-572.

Ivanov AI (1966b) Study of oyster (*Ostrea taurica* Kryn) growth in the Black Sea. *Oceanology of the Russian Academy of Sciences* **6**: 708-714.

Jarayabhand P (1988) The effects of age, size, and stocking density on survival and growth of *Ostrea edulis*. *Journal of Shellfish Research* **7**, 164-165.

Jeffries VE (1982) Three vibrio strains pathogenic to larvae of *Crassostrea gigas* and *Ostrea edulis*. *Aquaculture* **29**: 201-226.

Jeffs AG (1999) The potential for developing controlled breeding in the Chilean oyster. *Aquaculture International* **7**: 189-199.

Johannesson K, Rödström EM, Aase H (1989) Low genetic variability in Scandinavian populations of *Ostrea edulis* L. - possible causes and implications. *Journal of Experimental Marine Biology and Ecology* **128**: 177-190.

Jones G, Jones B (1982) Methods for setting hatchery produced oyster larvae. (ed.) *Information Report No. 4,* pp. 1-66. Marine Resources Branch, Ministry of Environment, British Columbia, Canada.

Jones GG, Jones BL (1988) Advances in the remote setting of oyster larvae. (ed.) *Report of the Ministry of Agriculture and Fisheries, British Columbia,* pp. 1-88. B.C. M.A.S., Nanaimo, Canada.

Jones JB (2006) Why won’t they grow? – Inhibitory substances and mollusc hatcheries. *Aquaculture International* **14**: 395-403.

Joyce A, Holthuis TD, Charrier G, Lindegarth S (2013) Experimental effects of temperature and photoperiod on synchrony of gametogenesis and sex ratio in the European oyster *Ostrea edulis* (Linnaeus). *Journal of Shellfish Research* **32**: 447-458.

Jozefowicz CJ, Ó Foighil D (1998) Phylogenetic analysis of southern hemisphere flat oysters based on partial mitochondrial 16S rDNA gene sequences. *Molecular Phylogenetics and Evolution* **10**: 426-435.

Kamermans P, Blanco A, Joaquim S, Matias D, Magnesen T, Nicolas JL, Petton B, Robert R (2016) Recirculation nursery systems for bivalves. *Aquaculture International* **24**: 827-842.

Kamermans P, Walles B, Kraan M, van Duren L, Kleissen F, van der Have T, Smaal A, Poelman M (2018) Offshore wind farms as potential locations for flat oyster (*Ostrea edulis*) restoration in the Dutch North Sea. *Sustainability* **10**: **3942**, 1-24.

Kamphausen L, Jensen A, Hawkins L (2011) Unusually high proportion of males in a collapsing population of commercially fished oysters (*Ostrea edulis*) in the Solent, United Kingdom. *Journal of Shellfish Research* **30**: 217-222.

Kändler R (1928) Untersuchungen über die Biologie der Auster. Nr. 3. Verbreitung und Wachstum der Austernbrut im Wattenmeer [Studies on the biology of the oyster. Distribution and growth of the oyster breeding in the Wadden Sea]. *Wissenschaftliche Meersuntersuchungen. Abt. Helgoland* **XVII**: 1-35.

Kang DH, Kim SJ, Choi KS (2004) Microscopic observations of larval *Ostrea circumpicta* (Bivalve: Ostreidae) in brood chambers. *Journal of Shellfish Research* **23**: 411-415.

Kat M (1984) “Red” oysters (*Ostrea edulis* L.) caused by *Mesodinium rubrum* in Lake Grevelingen. *Aquaculture* **38**: 375-377.

Kennedy RJ, Roberts D (1999) A survey of the current status of the flat oyster *Ostrea edulis* in Strangford Lough, Northern Ireland, with a view to the restoration of its oyster beds. *Biology and Environment: Proceedings of the Royal Irish Academy* **99B**: 79-88.

Kennedy RJ, Roberts D (2006) Commercial oyster stocks as a potential source of larvae in the regeneration of *Ostrea edulis* in Strangford Lough, Northern Ireland. *Journal of the Marine Biological Association of the United Kingdom* **86**: 153-159.

Kerckhof F, Coolen JWP, Rumes B, Degraer S (2018) Recent findings of wild European flat oysters *Ostrea edulis* (Linnaeus, 1758) in Belgian and Dutch offshore waters: new perspectives for offshore oyster reef restoration in the southern North Sea. *Belgian Journal of Zoology* **148**: 13-24.

Kerr R, Ward GM, Stentiford GD, Alfjorden A, Mortensen S, Bignell JP, Feist SW, Villalba A, Carballal MJ, Cao A (2018) *Marteilia refringens* and *Marteilia pararefringens sp. nov.* are distinct parasites of bivalves and have different European distributions. *Parasitology* **145**: 1483-1492.

Kesarcodi-Watson A, Miner P, Nicolas JL, Asmani K, Robert R (2016) Pathogenic threats and probiotic use in larviculture of the scallop, *Pecten maximus*. *Aquaculture Research* **47**: 1-10.

Kesarcodi-Watson A, Miner P, Nicolas JL, Robert R (2012) Protective effect of four potential probiotics against pathogen-challenge of the larvae of three bivalves: Pacific oyster (*Crassostrea gigas*), flat oyster (*Ostrea edulis*) and scallop (*Pecten maximus*). *Aquaculture* **344-349**: 29-34.

Khouw BT (1965) Some studies on the biology of a species of *Hexamita* derived from the oyster, *Crassostrea virginica* (Gmelin), Publisher, MSc Thesis. University of Windsor, Canada.

Kinne O (1976) Cultivation of marine organisms: water quality management and technology. In: Kinne O (ed.) *Marine Ecology: A Comprehensive, Integrated Treatise on Life in Oceans and Coastal Waters,* pp. 19-300. Wiley-Interscience, London, UK.

Kirk RG (1982) The origins of the French oyster industry. *Aquacultural Engineering* **1**: 55-62.

Kirkland DW, Bradbury JP, Dean WE (1980) The heliothermic lake: a direct method of collecting and storing solar energy. (ed.) *Open-File Report 80-807,* pp. 1-133. US Geological Survey, USA.

Klaveness D (1990) Size structure and potential food value of the plankton community to *Ostrea edulis* L. in a traditional Norwegian “Østerspoll”. *Aquaculture* **86**: 231-247.

Klaveness D (1992) Augmentation of the food supply for oyster larvae via bacterivorous flagellates: possible implications for larval breeding and oyster pond management. *Aquaculture Research* **23**: 591-597.

Klaveness D, Johansen SW (1990) The oyster ponds at the Norwegian coast: remarkable biotopes for marine algae. *Blyttia* **48**: 27-31.

Knauer J, Southgate PC (1999) A Review of the nutritional requirements of bivalves and the development of alternative and artificial diets for bivalve aquaculture. *Reviews in Fisheries Science* **7**, 241-280.

Knight-Jones EW (1952) Reproduction of oysters in the rivers Crouch and Roach, Essex, during 1947, 1948 and 1949. (ed.) *Fishery Investigations Series II,* pp. 1-48. Her Majesty's Stationery Office, London, UK.

Korringa P (1940) Experiments and observations on swarming, pelagic life and setting in the European flat oyster, *Ostrea Edulis* L., Publisher, PhD/Dr Thesis. University of Amsterdam, The Netherlands.

Korringa P (1946a) The decline of natural oyster beds. *Basteria* **10**: 36-41.

Korringa P (1946b) A revival of natural oyster beds? *Nature* **158**: 586-587.

Korringa P (1947) Relations between the moon and periodicity in the breeding of marine animals. *Ecological Monographs* **17**: 347-381.

Korringa P (1950) A review of the papers on molluscs presented at the special scientific meeting on shellfish of the International Council for the Exploration of the Sea, Edinburgh, 10th October 1949. *ICES Journal of Marine Science* **17**: 44-59.

Korringa P (1951) Difficulties encountered in tank-breeding of oysters (*Ostrea edulis*). *ICES Marine Science Symposia. Volume 128-2,* pp. 35-38. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Korringa P (1952) Recent advances in oyster biology. *The Quarterly Review of Biology* **27**: 266-308.

Korringa P (1954) The shell of *Ostrea edulis* as a habitat. *Archives Néerlandaises de Zoologie* **10**: 32-146.

Korringa P (1957) Water temperature and breeding throughout the geographical range of *Ostrea edulis*. *L'Année Biologique* **33**: 1-17.

Korringa P (1976) *Farming the Flat Oysters of the Genus Ostrea. Developments in Aquaculture and Fisheries Science,* Elsevier Scientific Publishing Company, Amsterdam, The Netherlands.

Kristensen PS (1997) Oyster and mussel fisheries in Denmark. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 25-38. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Kumar G, Engle C, Tucker C (2018) Factors driving aquaculture technology adoption. *Journal of the World Aquaculture Society* **49**: 447-476.

Labarta U, Fernández-Reiriz MJ, Pérez-Camacho A (1999) Larvae of *Ostrea edulis* (L.) during starvation: growth, energy and biochemical substrates. *Hydrobiologia* **405**: 125-131.

Laing I (1995) Effect of food supply on oyster spatfall. *Aquaculture* **131**: 315-324.

Laing I, Millican PF (1986) Relative growth and growth efficiency of *Ostrea edulis* L. spat fed various algal diets. *Aquaculture* **54**: 245-262.

Laing I, Walker P, Areal F (2006) Return of the native - is European oyster (*Ostrea edulis*) stock restoration in the UK feasible? *Aquatic Living Resources* **19**: 283-287.

Lallias D, Arzul I, Heurtebise S, Ferrand S, Chollet B, Robert M, Beaumont AR, Boudry P, Morga B, Lapègue S (2008) *Bonamia ostreae*-induced mortalities in one-year old European flat oysters *Ostrea edulis*: experimental infection by cohabitation challenge. *Aquatic Living Resources* **21**: 423-439.

Lallias D, Beaumont AR, Haley CS, Boudry P, Heurtebise S, Lapegue S (2007) A first‐generation genetic linkage map of the European flat oyster *Ostrea edulis* (L.) based on AFLP and microsatellite markers. *Animal Genetics* **38**: 560-568.

Lallias D, Boudry P, Lapègue S, King JW, Beaumont AR (2010a) Strategies for the retention of high genetic variability in European flat oyster (*Ostrea edulis*) restoration programmes. *Conservation Genetics* **11**: 1899-1910.

Lallias D, Gomez-Raya L, Haley CS, Arzul I, Heurtebise S, Beaumont AR, Boudry P, Lapègue S (2009a) Combining two-stage testing and interval mapping strategies to detect QTL for resistance to Bonamiosis in the European flat oyster Ostrea edulis. *Marine Biotechnology* **11**: 570.

Lallias D, Stockdale R, Boudry P, Beaumont AR, Lapègue S (2009b) Characterization of 27 microsatellite loci in the European flat oyster *Ostrea edulis*. *Molecular Ecology Resources* **9**: 960-963.

Lallias D, Taris N, Boudry P, Bonhomme F, Lapegue S (2010b) Variance in the reproductive success of flat oyster *Ostrea edulis* L. assessed by parentage analyses in natural and experimental conditions. *Genetics Research* **92**: 175-187.

Lama A, Montes J (1993) Influence of depth of culture in the infection of the European flat oyster (*Ostrea edulis* L.) by *Bonamia ostreae*. *Bulletin of the European Association of Fish Pathologists* **13**: 17-20.

Lane A (1989) The effect of a microencapsulated fatty acid diet on larval production in the European flat oyster Ostrea edulis L. In: De Pauw N, Jaspers E, Ackefors H, Wilkins N (ed.) *Aquaculture: a Biotechnology in Progress: Proceedings of the International Conference Aquaculture Europe,* pp. 657-664. European Aquaculture Society, Bredene, Belgium.

Langdon CJ, Siegfried CA (1984) Progress in the development of artificial diets for bivalve filter feeders. *Aquaculture* **39**: 135-153.

Langton RW, Gabbott PA (1974) The tidal rhythm of extracellular digestion and the response to feeding in *Ostrea edulis*. *Marine Biology* **24**: 181-187.

Lapègue S, Beaumont A, Boudry P, Goulletquer P (2007) Genetic effects of domestication, culture and breeding of fish and shellfish, and their impacts on wild populations. European flat oyster - *Ostrea edulis*. In: Svåsand T, Crosetti D, García-Vázquez E, Verspoor E (ed.) *Genetic impact of aquaculture activities on native populations. Genimpact final scientific report (EU contract n. RICA-CT2005-022802),* pp. 70-75, EU.

Lassudrie M, Soudant P, Nicolas JL, Miner P, Le Grand J, Lambert C, Le Goïc N, Hégaret H, Fabioux C (2016) Exposure to the toxic dinoflagellate *Alexandrium catenella* modulates juvenile oyster *Crassostrea gigas* hemocyte variables subjected to different biotic conditions. *Fish & Shellfish Immunology* **51**: 104-115.

Launey S, Barre M, Gerard A, Naciri-Graven Y (2001) Population bottleneck and effective size in *Bonamia ostreae*-resistant populations of *Ostrea edulis* as inferred by microsatellite markers. *Genetics Research* **78**: 259-270.

Launey S, Ledu C, Boudry P, Bonhomme F, Naciri-Graven Y (2002) Geographic structure in the European Flat Oyster (*Ostrea edulis* L.) as revealed by microsatellite polymorphism. *Journal of Heredity* **93**: 331-351.

Le Borgne Y (1982) Techniques de reproduction contrôlée des mollusques bivalves pour les élevages extensifs ou le repeuplement : rôle des écloseries-nurseries [Techniques for the controlled reproduction of bivalve molluscs for extensive rearing or restocking: role of hatcheries and nurseries]. In: Buestel D, Nicolas R, Morize E, Rohan R, Latrouite D, Le Borgne Y, Cochard JC, Flassch JP, Uno Y, Audouin J, Legall JY, Jezequel M, Lorec J, Y. H, Reveche C, Girin M, Laurec A, Herry P (ed.) *Aquaculture Extensive et Repeuplement,* pp. 51-54. National Centre for the Exploitation of the Oceans CNEXO, Tours, France.

Le Borgne Y (1985) Dix ans de production en écloserie de mollusques bivalves [Ten years of hatchery production of bivalve molluscs]. (ed.) *Bases Biologiques de l'Aquaculture : Montpellier 1983,* pp. 151-154. French Research Institute for Exploitation of the Sea, Brest, France.

Le Borgne Y (1996) Echanges internationaux des mollusques bivalves et situation actuelle en France et en Europe [International movements of bivalve molluscs and the current situation in France and Europe]. *Revue Scientifique et Technique - Office International des Épizooties* **15**: 491-498.

Le Pennec M (1980) The larval and post-larval hinge of some families of bivalve molluscs. *Journal of the Marine Biological Association of the United Kingdom* **60**: 601-617.

Lee PG (1995) A review of automated control systems for aquaculture and design criteria for their implementation. *Aquacultural Engineering* **14**: 205-227.

Lee PG (2000) Process control and artificial intelligence software for aquaculture. *Aquacultural Engineering* **23**: 13-36.

Lees H (1930) Paper and glass collectors for oyster spat. *ICES Journal of Marine Science* **5**: 383-384.

Lekang OI (2013) Aquaculture hatchery water supply and treatment systems. In: Allan G, Burnell G (ed.) *Advances in Aquaculture Hatchery Technology,* pp. 3-22. Woodhead Publishing Limited, Cambridge, UK.

Liu Y, Li X, Robinson N, Qin J (2015) Sperm cryopreservation in marine mollusk: a review. *Aquaculture International* **23**: 1505-1524.

Locard A (1900) *Manuel Pratique d'Ostréiculture,* JB Baillière & Fils, Paris, France.

Lodeiros C, Bolinches J, Dopazo CP, Toranzo AE (1987) Bacillary necrosis in hatcheries of *Ostrea edulis* in Spain. *Aquaculture* **65**: 15-29.

Loosanoff VL (1962) Gametogenesis and spawning of the European oyster, *O. edulis*, in waters of Maine. *The Biological Bulletin* **122**: 86-94.

Loosanoff VL, Davis HC (1963) Rearing of bivalve mollusks. In: Russell FS (ed.) *Advances in Marine Biology,* pp. 1-136. Academic Press, Inc., London, UK.

Loosanoff VL, Engle JB (1939) Spawning and setting of oysters in Long Island Sound in 1937, and discussion of the method for predicting the intensity and time of oyster setting. *Bulletin of the Bureau of Fisheries* **49**: 217-255.

López-Sanmartín M, Batista FM, del Carmen Marín M, Garrido I, Quintero D, Grade A, Ruano F, de la Herrán R, Navas JI (2015) Detection of *Marteilia refringens* infecting the European flat oyster *Ostrea edulis* and the dwarf oyster *Ostrea stentina* in southern Portugal and Spain. *Journal of Invertebrate Pathology* **130**: 52-55.

Lubet P (1991) Reproduction des mollusques [Reproduction of molluscs]. In: Barnabé G (ed.) *Bases Biologiques et Écologiques de l'Aquaculture,* pp. 168-204. Tec & Doc, Lavoisier, Paris, France.

Lucas A (1970) Conchyliculture expérimentale [Experimental shellfish culture]. (ed.) *CNEXO Série Biologique 70-01,* pp. 1-76. Centre National pour l'Exploration des Oceans, Brest, France.

Luckenbach MW, Coen LD, Ross PGJR, Stephen JA (2005) Oyster reef habitat restoration: relationships between oyster abundance and community development based on two studies in Virginia and South Carolina. *Journal of Coastal Research* **Special Issue**: 64-78.

Lynch SA, Armitage DV, Wylde S, Mulcahy MF, Culloty SC (2005) The susceptibility of young prespawning oysters, *Ostrea edulis*, to *Bonamia ostreae*. *Journal of Shellfish Research* **24**: 1019-1025.

Lynch SA, Flannery G, Hugh-Jones T, Hugh-Jones D, Culloty SC (2014) Thirty-year history of Irish (Rossmore) *Ostrea edulis* selectively bred for disease resistance to *Bonamia ostreae*. *Diseases of Aquatic Organisms* **110**: 113-121.

Mace GM (2014) Whose conservation? *Science* **345**: 1558-1560.

MacKenzie CL (1977) Use of quicklime to increase oyster seed production. *Aquaculture* **10**: 45-51.

Mackin JG, Korringa P, Hopkins SH (1951) Hexamitiasis of *Ostrea edulis* L. and *Crassostrea virginica* (Gmelin). *Bulletin of Marine Science* **1**: 266-277.

MacMillan RJ, Cawthorn RJ, Whyte SK, Lyon PR (1994) Design and maintenance of a closed artificial seawater system for long-term holding of bivalve shellfish. *Aquacultural Engineering* **13**: 241-250.

Maestrini SY, Robert JM, Leftley JW, Collos Y (1986) Ammonium thresholds for simultaneous uptake of ammonium and nitrate by oyster-pond algae. *Journal of Experimental Marine Biology and Ecology* **102**: 75-98.

Magnesen T, Jacobsen A (2012) Effect of water recirculation on seawater quality and production of scallop (*Pecten maximus*) larvae. *Aquacultural Engineering* **47**: 1-6.

Manahan DT, Crisp DJ (1982) The role of dissolved organic material in the nutrition of pelagic larvae: amino acid uptake by bivalve veligers. *American Zoologist* **22**: 635-646.

Maneiro V, Pérez-Parallé ML, Pazos AJ, Silva A, Sánchez JL (2016) Combined effects of temperature and photoperiod on the conditioning of the flat oyster (*Ostrea edulis* [Linnaeus, 1758]) in winter. *Journal of Shellfish Research* **35**: 137-141.

Maneiro V, Pérez-Parallé ML, Silva A, Sánchez JL, Pazos AJ (2017a) Conditioning of the European flat oyster (*Ostrea edulis*, Linnaeus 1758): effect of food ration. *Aquaculture Research* **48**: 1-8.

Maneiro V, Silva A, Pazos AJ, Sánchez JL, Pérez-Parallé ML (2017b) Effects of temperature and photoperiod on the conditioning of the flat oyster (*Ostrea edulis* L.) in autumn. *Aquaculture Research* **48**: 1-9.

Mann R (1979) Some biochemical and physiological aspects of growth and gametogenesis in *Crassostrea gigas* and *Ostrea edulis* grown at sustained elevated temperatures. *Journal of the Marine Biological Association of the United Kingdom* **59**: 95-110.

Mann R (1984) Bivalve mollusc hatcheries: a critical appraisal of their development and a review of their potential value in enhancing the fisheries of developing nations. In: Winter JE, Clasing E, Gutierrez A (ed.) *Memorias de la Asociation Latinoamerica de Acuicultura,* pp. 97-105. Universidad Austral de Chile, Valdivia, Chile.

Mann R, Powell EN (2007) Why oyster restoration goals in the Chesapeake Bay are not and probably cannot be achieved. *Journal of Shellfish Research* **26**: 905-917.

Mann R, Ryther JH (1977) Growth of six species of bivalve molluscs in a waste recycling - aquaculture system. *Aquaculture* **11**: 231-245.

Mardones-Toledo DA, Montory JA, Joyce A, Thompson RJ, Diederich CM, Pechenik JA, Mardones ML, Chaparro OR (2015) Brooding in the Chilean oyster Ostrea chilensis: unexpected complexity in the movements of brooded offspring within the mantle cavity. *PLOS One* **10**: 1-18.

Marshall R, McKinley S, Pearce CM (2010) Effects of nutrition on larval growth and survival in bivalves. *Reviews in Aquaculture* **2**: 33-55.

Marteil L (1959) Les bancs naturels et la reproduction de l'huître plate en Morbihan [Natural banks and reproduction of flat oyster in Morbihan]. *Revue des Travaux de l'Institut des Pêches Maritimes* **23**: 287-295.

Marteil L (1976) La conchyliculture francaise. Partie 2 : biologie de l'huitre et de la moule [Shellfish culture in France. Part 2: oyster and mussel biology]. *Revue des Travaux de l'Institut des Pêches Maritimes* **40**: 149-346.

Martin AG, Anonymous (1994) Relance de l'huître plate, *Ostrea edulis* : Bilan des travaux réalisés en 1993 [Revival program for the flat oyster *Ostrea edulis*: Review 1993]. (ed.) *IFREMER Report RIDRV-94.22 RA,* pp. 1-46. French Research Institute for Exploitation of the Sea, La Trinité sur Mer/La Tremblade, France.

Martin AG, Gerard A, Cochennec N, Langlade A (1993) Selecting flat oysters, *Ostrea edulis*, for survival against the parasite *Bonamia ostreae*: assessment of the resistance of a first selected generation. In: Barnabé G, Kestemont P (ed.) *Production, Environment and Quality: Proceedings of the International Conference Bordeaux Aquaculture,* pp. 545-554. European Aquaculture Society, Special Publication, Gent, Belgium.

Martin AG, Littaye-Mariette A, Langlade A, Allenou JP (1997) Cycle de reproduction naturelle de l'huître plate *Ostrea edulis* [Natural reproductive cycle of the flat oyster *Ostrea edulis*]. In: Devauchelle N, Barret J, Salaun G (ed.) *The Natural and Controlled Reproduction of Cultivated Bivalves in France: Symposium Report,* pp. 21-33. IFREMER, Nantes, France.

Martin YP, Mengus BM (1977) Use of selected bacterial strains for feeding larvae of *Mytilus galloprovincialis* Lmk in experimental rearing. *Aquaculture* **10**: 253-262.

Mascaró M, Seed R (2001a) Choice of prey size and species in *Carcinus maenas* (L.) feeding on four bivalves of contrasting shell morphology. *Hydrobiologia* **449**: 159-170.

Mascaró M, Seed R (2001b) Foraging behavior of juvenile *Carcinus maenas* (L.) and *Cancer pagurus* L. *Marine Biology* **139**: 1135-1145.

Mattei N, Pellizzato M (1997) Mollusk fisheries and aquaculture in Italy. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 201-216. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Matthews JBL, Heimdal BR (1980) Pelagic productivity and food chains in fjord systems. In: Freeland HJ, Farmer DM, Levings CD (ed.) *Fjord Oceanography,* pp. 377-398. Plenum Press, New-York, USA.

Medcof JC (1959) Trial introduction of European oysters (*Ostrea edulis* L.) to Canadian east coast. *Proceedings of the National Shellfisheries Association* **50**: 113-124.

Menzel W (1972) Selection and hybridization in the mariculture of oysters and clams. (ed.) *Proceedings of the Annual Workshop,* pp. 309-317. World Mariculture Society, Baton Rouge, USA.

Meritt D, Webster D (2013) Developing educational programs in partnership with aquaculture hatchery facilities. In: Allan G, Burnell G (ed.) *Advances in Aquaculture Hatchery Technology,* pp. 596-625. Woodhead Publishing Limited, Cambridge, UK.

Mesías-Gansbiller C, Silva A, Maneiro V, Pazos A, Sánchez JL, Pérez-Parallé ML (2013) Effects of chemical cues on larval settlement of the flat oyster (*Ostrea edulis* L.): a hatchery approach. *Aquaculture* **376**: 85-89.

Milbury CA, Meritt DW, Newell RIE, Gaffney PM (2004) Mitochondrial DNA markers allow monitoring of oyster stock enhancement in the Chesapeake Bay. *Marine Biology* **145**: 351-359.

Millar RH, Scott JM (1967a) Bacteria-free culture of oyster larvae. *Nature* **216**: 1139-1140.

Millar RH, Scott JM (1967b) The larva of the oyster *Ostrea edulis* during starvation. *Journal of the Marine Biological Association of the United Kingdom* **47**: 475-484.

Millar RH, Scott JM (1968) An effect of water quality on the growth of cultured larvae of the oyster *Ostrea edulis* L. *ICES Journal of Marine Science* **32**: 123-130.

Millican PF, Helm MM (1994) Effects of nutrition on larvae production in the European flat oyster, *Ostrea edulis*. *Aquaculture* **123**: 83-94.

Minchin D, Duggan CB (1988) The distribution of the exotic ascidian, *Styela clava* Herdman, in Cork Harbour. *Irish Naturalists' Journal* **22**: 388-393.

Mizuta DD, Wikfors GH (2018) Seeking the perfect oyster shell: a brief review of current knowledge. *Reviews in Aquaculture* **11**: 1-17.

Moebius K (1877) *Die Auster und die Austernwirthschaft,* Verlag von Wiegandt, Hempel & Parey, Berlin, Germany.

Montes J, Ferro-Soto B, Conchas RF, Guerra A (2003) Determining culture strategies in populations of the European flat oyster, *Ostrea edulis*, affected by bonamiosis. *Aquaculture* **220**: 175-182.

Morga B, Renault T, Faury N, Arzul I (2012) New insights in flat oyster *Ostrea edulis* resistance against the parasite *Bonamia ostreae*. *Fish & Shellfish Immunology* **32**: 958-968.

Morga B, Renault T, Faury N, Lerond S, Garcia C, Chollet B, Joly JP, Lapègue S, Harrang E, Arzul I (2017) Contribution of in vivo experimental challenges to understanding flat oyster *Ostrea edulis* resistance to *Bonamia ostreae*. *Frontiers in Cellular and Infection Microbiology* **7**: 1-13.

Mortensen S, Berthe F, Joly JP, Miossec L (2002) Future strategies for a Norwegian production of seed, *Ostrea edulis* for export. (ed.) *IMR Project Part-Report NUMARIO K32-3025/00,* pp. 1-6. Institute of Marine Research, Bergen, Norway.

Mortensen S, Sælemyr L, Skår CK, Jelmert A (2018) The surveillance and control programme for bonamiosis and marteiliosis in European flat oysters, *Ostrea edulis*, and blue mussels, *Mytilus sp*. in Norway in 2017. (ed.) *IMR Project Report Nr. 17-2018,* pp. 1-12. Institute of Marine Research, Bergen, Norway.

Mortensen SH (1992) The health status of commercially exploited native flat oysters (*Ostrea edulis*) in Norway. *ICES CM Document K:44,* pp. 1-10. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Mortensen SH (1993) Health survey of selected stocks of commercially exploited Norwegian bivalve molluscs. *Diseases of Aquatic Organisms* **16**: 149-156.

Morton B (1971) The diurnal rhythm and tidal rhythm of feeding and digestion in *Ostrea edulis*. *Biological Journal of the Linnean Society* **3**: 329-342.

Morton B, Lam K, Slack-Smith S (2003) First report of the European flat oyster *Ostrea edulis*, identified genetically, from Oyster Harbour, Albany, south-western Western Australia. *Molluscan Research* **23**: 199-208.

Morvezen R, Boudry P, Laroche J, Charrier G (2016) Stock enhancement or sea ranching? Insights from monitoring the genetic diversity, relatedness and effective population size in a seeded great scallop population (*Pecten maximus*). *Heredity* **117**: 142-148.

Muehlbauer F, Fraser D, Brenner M, Van Nieuwenhove K, Buck BH, Strand O, Mazurié J, Thorarinsdottir G, Dolmer P, O`Beirn F, Sanchez-Mata A, Flimlin G, Kamermans P (2014) Bivalve aquaculture transfers in Atlantic Europe. Part A: Transfer activities and legal framework. *Ocean & Coastal Management* **89**: 127-138.

Muller-Feuga A, Robert R, Cahu C, Robin J, Divanach P (2003) Uses of microalgae in aquaculture. In: Støttrup JG, McEvoy LA (ed.) *Live Feeds in Marine Aquaculture,* pp. 253-299. Blackwell Science Ltd, Oxford, UK.

Mustafa S (2003) Stock enhancement and sea ranching: objectives and potential. *Reviews in Fish Biology and Fisheries* **13**: 141-149.

Naas KE (1991) A semi-intensive method for spat production of the European flat oyster (*Ostrea edulis* L.). *Aquacultural Engineering* **9**: 447-451.

Naas KE, Berg L, Øiestad V (1986) Effect of turbulence and different types of fertilizers on phytoplankton and oyster larvae (*Ostrea edulis*) in mesocosms. *ICES CM Document K:41,* pp. 1-12. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Naciri-Graven Y, Martin AG, Baud JP, Renault T, Gerard A (1998) Selecting the flat oyster *Ostrea edulis* (L.) for survival when infected with the parasite *Bonamia ostreae*. *Journal of Experimental Marine Biology and Ecology* **224**: 91-107.

Narasimham KA (1996) Technology of mollusc culture. In: Krishnamoorthi B (ed.) *A Multibillion Dollar Industry: Proceedings of the Seminar on Fisheries,* pp. 105-110. Aquaculture Foundation of India & The Fisheries Technocrats Forum, Madras, India.

Nell JA (1993) The development of oyster diets. *Australian Journal of Agricultural Research* **44**: 557-566.

Nell JA (2002) Farming triploid oysters. *Aquaculture* **210**: 69-88.

Nelson TC (1946) Circulation of embryos in the branchial chamber of *Ostrea cristata*. (ed.) *The Anatomical Record: 42nd Annual Meeting,* pp. 355-355. Wiley Company, Saint Louis, USA.

Nelson TC, Allison JB (1940) On the nature and action of diantlin; a new hormone-like substance carried by the spermatozoa of the oyster. *Journal of Experimental Zoology* **85**: 299-338.

Newkirk GF (1980) Review of the genetics and the potential for selective breeding of commercially important bivalves. *Aquaculture* **19**: 209-228.

Newkirk GF (1986) Controlled mating of the European oyster, *Ostrea edulis*. *Aquaculture* **57**: 111-116.

Newkirk GF, Haley LE (1982) Progress in selection for growth rate in the European oyster *Ostrea edulis*. *Marine Ecology Progress Series* **10**: 77-79.

Newkirk RE, Muise BC, Enright CE (1995) Culture of the Belon oyster, *Ostrea edulis*, in Nova Scotia. In: Boghen AD (ed.) *Cold-Water Aquaculture in Atlantic Canada,* pp. 227-253. The Canadian Institute for Research on Regional Development, Sackville, Canada.

Nielsen M, Hansen BW, Vismann B (2016) Feeding traits of the European flat oyster, *Ostrea edulis*, and the invasive Pacific oyster, *Crassostrea gigas*. *Marine Biology* **164**: 6.

Norkko J, Shumway SE (2011) Bivalves as bioturbators and bioirrigators. In: Shumway SE (ed.) *Shellfish Aquaculture and the Environment,* pp. 297-317. John Wiley & Sons, Inc., Oxford, UK.

Ó Foighil D (1989) Role of spermatozeugmata in the spawning ecology of the brooding oyster *Ostrea edulis*. *Molecular Reproduction and Development* **24**: 219-228.

Ogle JT (1982) Operation of an oyster hatchery utilizing a brown water culture technique. *Journal of Shellfish Research* **2**: 153-156.

Olson RR, Olson MH (1989) Food limitation of planktotrophic marine invertebrate larvae: does it control recruitment success? *Annual Review of Ecology and Systematics* **20**: 225-247.

Orton JH (1920) Sea-temperature, breeding and distribution in marine animals. *Journal of the Marine Biological Association of the United Kingdom* **12**: 339-366.

Orton JH (1921) An oyster spat (1921) with mature male sexual products. *Nature* **108**: 500.

Orton JH (1924) Sex change and breeding in the native oyster, *Ostrea edulis*. *Nature* **114**: 191-192.

Orton JH (1926) On lunar periodicity in spawning of normally grown Falmouth Oysters (*O. edulis*) in 1925, with a comparison of the spawning capacity of normally grown and dumpy Oysters. *Journal of the Marine Biological Association of the United Kingdom* **14**: 199-225.

Orton JH (1927) Observation and experiments on sex-change in the European Oyster (*O. edulis.*): Part I. The Change from female to male. *Journal of the Marine Biological Association of the United Kingdom* **14**: 967-1045.

Orton JH (1933) Observations and experiments on sex-change in the European oyster (*O. edulis*). Part III. On the fate of unspawned ova. Part IV. On the change from male to female. *Journal of the Marine Biological Association of the United Kingdom* **19**: 1-53.

Orton JH (1936) Observation and experiments on sex-change in the European Oyster (*O. edulis.*): Part V. A simultaneous study of spawning in 1927 in two distinct geographical localities. (ed.) *Mémoires du Musée Royal d'Histoire Naturelle de Belgique,* pp. 997-1056, Bruxelles, Belgium.

Orton JH (1937) *Oyster Biology and Oyster Culture: being the Buckland Lectures for 1935*, Edward Arnold & Company, London, UK.

Orton JH, Amirthalingam C (1931) Observations and experiments on sex-change in the European oyster (*O. edulis*). Part II. On the gonad of egg-spawning individuals. *Journal of the Marine Biological Association of the United Kingdom* **17**: 315-324.

Oshino A, Seki T (1992) Temperature requirements of the French oyster, *Ostrea edulis* for gonad development and larval swarming in the Japanese water. *Aquaculture Science* **40**: 347-353.

Paillard C, Le Roux F, Borrego JJ (2004) Bacterial disease in marine bivalves, a review of recent studies: trends and evolution. *Aquatic Living Resources* **17**: 477-498.

Parisi G, Centoducati G, Gasco L, Gatta PP, Moretti VM, Piccolo G, Roncarati A, Terova G, Pais A (2012) Molluscs and echinoderms aquaculture: biological aspects, current status, technical progress and future perspectives for the most promising species in Italy. *Italian Journal of Animal Science* **11**: 397-413.

Partensky F, Vaulot D (1989) Cell size differentiation in the bloom-forming dinoflagellate Gymnodinium CF. Nagasakiense. *Journal of Phycology* **25**: 741-750.

Pascual M, Martin AG, Zampatti E, Coatanea D, Defossez J, Robert R (1991) Testing of the Argentina oyster, *Ostrea puelchana*, in several French oyster farming sites. *ICES CM Document K:30,* pp. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Pekala A, Pazdzior E (2012) Marteiliosis of oysters - an invasive disease of molluscs. *Medycyna Weterynaryjna* **68**: 728-731.

Perusko GH (1969) The effects of several environmental factors on the spawning cycle of *Ostrea edulis* in the North Adriatic. *Thalassia Jugoslavica* **6**: 91-99.

Perusko GH (1970) Laboratory experiments on the effects of water temperature, water salinity and light intensity on the spawning and sexual development of mature oysters *Ostrea edulis* in Limski Kanal. *Thalassia Jugoslavica* **6**: 91-99.

Piazza BP, Piehler MK, Gossman BP, La Peyre MK, La Peyre JF (2009) Oyster recruitment and growth on an electrified artificial reef structure in Grand Isle, Louisiana. *Bulletin of Marine Science* **84**: 59-66.

Plunket L, Hidu H (1978) The role of *Uronema marinum* (Protozoa) in oyster hatchery production. *Aquaculture* **15**: 219-225.

Porsby CH, Gram L (2016) *Phaeobacter inhibens* as biocontrol agent against *Vibrio vulnificus* in oyster models. *Food Microbiology* **57**: 63-70.

Pouvreau B (1977) L'huître plate *Ostrea edulis* L : maturité sexuelle controlée, élevage larvaire, croissance et mortalité, variabilité génétique [The flat oyster *Ostrea edulis* L: controlled sexual maturity, larval rearing, growth and mortality, genetic variability], Publisher, PhD/Dr Thesis. CNEXO/University of Caen, France.

Powers SP, Peterson CH, Grabowski JH, Lenihan HS (2009) Success of constructed oyster reefs in no-harvest sanctuaries: implications for restoration. *Marine Ecology Progress Series* **389**: 159-170.

Prado-Alvarez M, Lynch SA, Kane A, Darmody G, Pardo BG, Martínez P, Cotterill J, Wontner-Smith T, Culloty SC (2015) Oral immunostimulation of the oyster *Ostrea edulis*: impacts on the parasite *Bonamia ostreae*. *Fish & Shellfish Immunology* **45**: 43-51.

Prado P, Roque A, Pérez J, Ibáñez C, Alcaraz C, Casals F, Caiola N (2016) Warming and acidification-mediated resilience to bacterial infection determine mortality of early *Ostrea edulis* life stages. *Marine Ecology Progress Series* **545**: 189-202.

Prado S, Montes J, Romalde JL, Barja JL (2009) Inhibitory activity of *Phaeobacter* strains against aquaculture pathogenic bacteria. *International Microbiology* **12**: 107-114.

Prado S, Romalde JL, Barja JL (2010) Review of probiotics for use in bivalve hatcheries. *Veterinary Microbiology* **145**: 187-197.

Prado S, Romalde JL, Montes J, Barja JL (2005) Pathogenic bacteria isolated from disease outbreaks in shellfish hatcheries. First description of *Vibrio neptunius* as an oyster pathogen. *Diseases of Aquatic Organisms* **67**: 209-215.

Prieur D (1981) Les relations entre mollusques bivalves et bacteries heterotrophes en milieu marin [The relationship between bivalve molluscs and heterotrophic bacteria in the marine environment], Publisher, PhD/Dr Thesis. University of Brest, France.

Prytherch HF (1924) Experiments in the artificial propagation of oysters. In: O'Malley H (ed.) *Report of the United States Commissioner of Fisheries for the Fiscal Year 1923,* pp. 1-14, Washington, USA.

Qiu T, Qi J, Zheng J, Liu Y (2017) Design and performance of a recirculating aquaculture system for oyster larval culture. *Aquaculture Research* **48**: 1-8.

Rajagopal S, van der Velde G (2012) Invasive species: implications for industrial cooling water systems. In: Rajagopal S, Jenner HA, Venugopalan VP (ed.) *Operational and Environmental Consequences of Large Industrial Cooling Water Systems,* pp. 127-162. Springer US, Boston, MA.

Redant F (1997) The Belgian mollusk fisheries. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 101-114. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Renault T, Arzul I (2001) Herpes-like virus infections in hatchery-reared bivalve larvae in Europe: specific viral DNA detection by PCR. *Journal of Fish Diseases* **24**: 161-167.

Renault T, Le Deuff RM, Chollet B, Cochennec N, Gérard A (2000) Concomitant herpes-like virus infections in hatchery-reared larvae and nursery-cultured spat *Crassostrea gigas* and *Ostrea edulis*. *Diseases of Aquatic Organisms* **42**: 173-183.

Renzoni A (1973) The influence of some detergents on the larval life of marine bivalve larvae. In: Genovese S (ed.) *Proceedings of the 5th International Colloquium of Medical Oceanography,* pp. 101-104. University of Messina, Messina, Italy.

Rice MA, Wallis K, Stephens GC (1980) Influx and net flux of amino acids into larval and juvenile European flat oysters, *Ostrea edulis* (L.). *Journal of Experimental Marine Biology and Ecology* **48**: 51-59.

Richardson CA, Collis SA, Ekaratne K, Dare P, Key D (1993) The age determination and growth rate of the European flat oyster, *Ostrea edulis*, in British waters determined from acetate peels of umbo growth lines. *ICES Journal of Marine Science* **50**: 493-500.

Rico-Villa B, Woerther P, Mingant C, Lepiver D, Pouvreau S, Hamon M, Robert R (2008) A flow-through rearing system for ecophysiological studies of Pacific oyster *Crassostrea gigas* larvae. *Aquaculture* **282**: 54-60.

Ridler N, Roderick W (1991) Financial feasibility and farm systems in cultivating *ostrea edulis*. *Journal of Shellfish Research* **10**: 395-398.

Robert R, Borel M, Pichot Y, Trut G (1991) Growth and mortality of the European oyster *Ostrea edulis* in the Bay of Arcachon (France). *Aquatic Living Resources* **4**: 265-274.

Robert R, Chretiennot-Dinet MJ, Kaas R, Martin-Jezequel V, Moal J, Le Coz JR, Nicolas JL, Bernard E, Connan JP, Le Dean L, Le Gourrierec G, Leroy B, Quere C (2004) Amélioration des productions phytoplanctoniques en écloserie de mollusques : caractérisation des microalgues fourrage [Improvement of phytoplankton culture in mollusc hatcheries: characterisation of microalgae used as aquaculture feeds]. (ed.) *IFREMER Report DRV/RA/RST/LPI/2004-05,* pp. 1-145. French Research Institute for Exploitation of the Sea, Argenton, France.

Robert R, Gérard A (1999) Bivalve hatchery technology: the current situation for the Pacific oyster *Crassostrea gigas* and the scallop *Pecten maximus* in France. *Aquatic Living Resources* **12**: 121-130.

Robert R, His E (1985) Croissance et spectre de tailles de six algues utilisees pour la nutrition de larves de bivalves en ecloserie, en culture non renouvelee [Growth and size frequency distribution of six marine unicellular algae in batch cultures used as food for larvae of bivalve molluscs]. *Revue des Travaux de l'Institut des Pêches Maritimes* **49**: 165-173.

Robert R, His E, Dinet A (1988) Combined effects of temperature and salinity on fed and starved larvae of the European flat oyster *Ostrea edulis*. *Marine Biology* **97**: 95-100.

Robert R, Trintignac P (1997a) Microalgues et nutrition larvaire en écloserie de mollusques [Microalgae and larval feeding in mollusc hatchery]. *Haliotis* **26**: 1-13.

Robert R, Trintignac P (1997b) Substitutes for live microalgae in mariculture: a review. *Aquatic Living Resources* **10**: 315-327.

Robert R, Vignier J, Petton B (2017) Influence of feeding regime and temperature on development and settlement of oyster *Ostrea edulis* (Linnaeus, 1758) larvae. *Aquaculture Research* **48**: 1-18.

Roché G (1898) *La Culture des Mers en Europe : Piscifacture - Pisciculture - Ostréiculture,* Félix Alcan, Editeur, Paris, France.

Rodhouse PG, O'kelly M (1981) Flow requirements of the oysters *Ostrea edulis* L. and *Crassostrea gigas* Thunb. in an upwelling column system of culture. *Aquaculture* **22**: 1-10.

Rodhouse PG, Roden C, Somerville-Jacklin ME (1983) Nutritional value of micro-algal mass cultures to the oyster *Ostrea edulis* L. *Aquaculture* **32**: 11-18.

Rödström EM (1989) Do oysters get cold feet in Sweden? A preliminary report on winter tolerance of *Ostrea edulis*, Linné, from the Swedish west coast. In: De Pauw N, Jaspers E, Ackefors H, Wilkins N (ed.) *Aquaculture: a Biotechnology in Progress: Proceedings of the International Conference Aquaculture Europe,* pp. 361-361. European Aquaculture Society, Bredene, Belgium.

Rödström EM, Jonsson PR (2000) Survival and feeding activity of oyster spat (*Ostrea edulis* L) as a function of temperature and salinity with implications for culture policies on the Swedish west coast. *Journal of Shellfish Research* **19**: 799-808.

Rogan E, Cross TF (1996) Nutrient dynamics and plankton cycles in artificial ponds used in the production of oyster *Ostrea edulis* L. spat. *Aquaculture Research* **27**: 9-23.

Ronquillo JD, Fraser J, McConkey AJ (2012) Effect of mixed microalgal diets on growth and polyunsaturated fatty acid profile of European oyster (*Ostrea edulis*) juveniles. *Aquaculture* **360**: 64-68.

Ronza P, Cao A, Robledo D, Gomez-Tato A, Alvarez-Dios JA, Hasanuzzaman AFM, Quiroga MI, Villalba A, Pardo BG, Martinez P (2018) Long-term affected flat oyster (*Ostrea edulis*) haemocytes show differential gene expression profiles from naive oysters in response to *Bonamia ostreae*. *Genomics* **110**: 390-398.

Rosell D, Uriz MJ, Martin D (1999) Infestation by excavating sponges on the oyster (*Ostrea edulis*) populations of the Blanes littoral zone (north-western Mediterranean Sea). *Journal of the Marine Biological Association of the United Kingdom* **79**: 409-413.

Rosique MJ, Cano J (1999) Culture of European flat oyster (*Ostrea edulis*) spat in a pond with gilthead seabream (*Sparus aurata*). *Iberus* **17**: 91-105.

Rowley AF, Cross ME, Culloty SC, Lynch SA, Mackenzie CL, Morgan E, O'Riordan RM, Robins PE, Smith AL, Thrupp TJ, Vogan CL, Wootton EC, Malham SK (2014) The potential impact of climate change on the infectious diseases of commercially important shellfish populations in the Irish Sea - a review. *ICES Journal of Marine Science* **71**: 741-759.

Ruano FDL (1997) Fisheries and farming of important marine bivalves in Portugal. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 191-200. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Ruesink JL, Lenihan HS, Trimble AC, Heiman KW, Micheli F, Byers JE, Kay MC (2005) Introduction of non-native oysters: ecosystem effects and restoration implications. *Annual Review of Ecology and Systematics* **36**: 643-689.

Ruiz C, Martinez D, Mosquera G, Abad M, Sánchez JL (1992) Seasonal variations in condition, reproductive activity and biochemical composition of the flat oyster, *Ostrea edulis*, from San Cibran (Galicia, Spain). *Marine Biology* **112**: 67-74.

Saavedra C (1997) Low effective sizes in hatchery populations of the European oyster (*Ostrea edulis*): implications for the management of genetic resources. *Journal of Shellfish Research* **16**: 441-446.

Saavedra C, Zapata C, Alvarez G (1995) Geographical patterns of variability at allozyme loci in the European oyster *Ostrea edulis*. *Marine Biology* **122**: 95-104.

Sale JW, Skinner WW (1917) The vertical distribution of dissolved oxygen and the precipitation by salt water in certain tidal areas. *Journal of The Franklin Institute* **184**: 837-848.

Samain JF, Saout C, Soudant P, Le Coz JR, Seguineau C, Queré C, Connan JP, Mazuret M, Miner P, Muzellec ML, Marty Y, Moal J, Paulet YM, Robert R (1997) Nutrition et reproduction des bivalves [Nutrition and reproduction of bivalves]. In: Devauchelle N, Barret J, Salaun G (ed.) *The Natural and Controlled Reproduction of Cultivated Bivalves in France: Symposium Report,* pp. 137-148. IFREMER, Nantes, France.

Sarkis S, Lovatelli A (2007) Algal cultures: facilities and techniques. In: Sarkis S, Lovatelli A (ed.) *Installation and Operation of a Modular Bivalve Hatchery,* pp. 37-58. Food and Agriculture Organization of the United Nations, Rome, Italy.

Sawusdee A (2015) Restoration of the European flat oyster *Ostrea edulis* using elevated broodstock reefs, Publisher, PhD Thesis. University of Southampton, UK.

Sawusdee A, Jensen AC, Collins KJ, Hauton C (2015) Improvements in the physiological performance of European flat oysters *Ostrea edulis* (Linnaeus, 1758) cultured on elevated reef structures: implications for oyster restoration. *Aquaculture* **444**: 41-48.

Seaman MNL, Ruth M (1997) The molluscan fisheries of Germany. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 57-84. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Sheldon RW (1968) The effect of high population density on the growth and mortality of oysters (*Ostrea edulis*). *ICES Journal of Marine Science* **31**: 352-363.

Sheridan AK (1997) Genetic improvement of oyster production - a critique. *Aquaculture* **153**: 165-179.

Shpigel M (1989) Gametogenesis of the European flat oyster (*Ostrea edulis*) and Pacific oyster (*Crassostrea gigas*) in warm water in Israel. *Aquaculture* **80**: 343-349.

Shpigel M, Coon SL, Kleinot P (1989) Growth and survival of cultchless spat of *Ostrea edulis* Linnaeus, 1750 produced using epinephrine and shell chips. *Journal of Shellfish Research* **8**: 355-357.

Shumway SE (1990) A review of the effects of algal blooms on shellfish and aquaculture. *Journal of the World Aquaculture Society* **21**: 65-104.

Shumway SE, Cucci TL, Newell RC, Yentsch CM (1985) Particle selection, ingestion, and absorption in filter-feeding bivalves. *Journal of Experimental Marine Biology and Ecology* **91**: 77-92.

Skaramuca B, Teskeredžić E, Teskeredžić Z (1997) Mariculture in Croatia, history and perspectives. *Ribarstvo* **55**: 19-26.

Smith IP, Low PJ, Moore PG (2006) Legal aspects of conserving native oysters in Scotland. *Marine Pollution Bulletin* **52**: 479-483.

Smolowitz R, Shumway SE (1997) Possible cytotoxic effects of the dinoflagellate, *Gyrodinium aureolum*, on juvenile bivalve molluscs. *Aquaculture International* **5**: 291-300.

Smyth D, Kregting L, Elsäßer B, Kennedy R, Roberts D (2016) Using particle dispersal models to assist in the conservation and recovery of the overexploited native oyster (*Ostrea edulis*) in an enclosed sea lough. *Journal of Sea Research* **108**: 50-59.

Smyth D, Mahon AM, Roberts D, Kregting L (2018) Settlement of *Ostrea edulis* is determined by the availability of hard substrata rather than by its nature: Implications for stock recovery and restoration of the European oyster. *Aquatic Conservation: Marine and Freshwater Ecosystems* **28**: 1-10.

Smyth D, Roberts D (2010) The European oyster (*Ostrea edulis*) and its epibiotic succession. *Hydrobiologia* **655**: 25-36.

Smyth D, Roberts D, Browne L (2009) Impacts of unregulated harvesting on a recovering stock of native oysters (*Ostrea edulis*). *Marine Pollution Bulletin* **58**: 916-922.

Sobolewska H, Beaumont AR (2005) Genetic variation at microsatellite loci in northern populations of the European flat oyster (*Ostrea edulis*). *Journal of the Marine Biological Association of the United Kingdom* **85**: 955-960.

Soletchnik P, Le Moine O, Goulletquer P, Geairon P, Razet D, Faury N, Fouché D, Robert S (2001) Optimisation of the traditional Pacific cupped oyster (*Crassostrea gigas* Thunberg) culture on the French Atlantic coastline: autumnal fattening in semi-closed ponds. *Aquaculture* **199**: 73-91.

Song SL, Li Q, Kong LF (2011) Larval growth and survival of hybrid between different geographic populations of Pacific oyster *Crassostrea gigas*. *Periodical of Ocean University of China* **12**:

Spärck R (1922) The conditions of sex-change in the oyster (*Ostrea edulis*). *Nature* **110**: 480-480.

Spärck R (1925) Studies on the biology of oyster (*Ostrea edulis*) in the Limfjord, with special reference to the influence of temperature on the sex change. In: Petersen CGJ (ed.) *Report of the Danish Biological Station to the Board of Agriculture,* pp. 1-84, Copenhagen, Denmark.

Spencer BE (1988) Growth and filtration of juvenile oysters in experimental outdoor pumped upwelling systems. *Aquaculture* **75**: 139-158.

Spencer BE (2008) *Molluscan Shellfish Farming,* Fishing News Books, Blackwell Publishing, Oxford, UK.

Spencer BE, Akester M, Mayer I (1986) Growth and survival of seed oysters in outdoor pumped upwelling systems supplied with fertilized sea water. *Aquaculture* **55**: 173-189.

Spencer BE, Gough CJ (1978) The growth and survival of experimental batches of hatchery-reared spat of *Ostrea edulis* L. and *Crassostrea gigas* Thunberg, using different methods of tray cultivation. *Aquaculture* **13**: 293-312.

Stanley JG, Allen SK, Hidu H (1981) Polyploidy induced in the American oyster, *Crassostrea virginica*, with cytochalasin B. *Aquaculture* **23**: 1-10.

Staykov Y (1997) Mollusk fisheries in Bulgaria. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 233-240. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Strand Ø (1996) Enhancement of bivalve production capacity in a landlocked heliothermic marine basin. *Aquaculture Research* **27**: 355-373.

Strand Ø, Solberg PT, Magnesen T (1996) Nitrogen conversion in a bivalve culture system. *Journal of the Marine Biological Association of the United Kingdom* **76**: 57-72.

Strand Ø, Vølstad JH (1997) The molluscan fisheries and culture of Norway. In: MacKenzie CL, Burrell VG, Rosenfield A, Hobart WL (ed.) *The History, Present Condition, and Future of the Molluscan Fisheries of North and Central America and Europe,* pp. 7-24. Scientific Publications Office, NMFS, NOAA, Seattle, USA.

Sühnel S, Picanço T, Medeiros SC, Rachelmagentamagalhães A, Demelo CR (2017) Effects of seeding date and seed size on *Crassostrea gigas* (Thunberg, 1793) culture in a subtropical climate. *Journal of Shellfish Research* **36**: 303-313.

Supan J (2014) High-density rearing of oyster larvae in flow-through systems. (ed.) *SRAC Publication 4311,* pp. 1-6. Southern Regional Aquaculture Center, Stoneville, USA.

Suquet M, González-Araya R, Lebrun L, Queau I, Mingant C, Robert R (2010) Anaesthesia and gonad sampling in the European flat oyster (*Ostrea edulis*). *Aquaculture* **308**: 196-198.

Suquet M, Pouvreau S, Queau I, Boulais M, Le Grand J, Ratiskol D, Cosson J (2018) Biological characteristics of sperm in European flat oyster (*Ostrea edulis*). *Aquatic Living Resources* **31**: 1-7.

Suquet M, Queau I, Le Grand J, Ratiskol D, Pouvreau S (2017) Caractéristiques biologiques des gamètes et larves d’huître plate européenne (*Ostrea edulis*) : données préliminaires [Biological characteristics of gametes and larvae in European flat oyster (*Ostrea edulis*): preliminary data]. (ed.) *IFREMER Report R.INT/RBE/PFOM/LPI,* pp. 1-21. French Research Institute for Exploitation of the Sea, Station d'Argenton, France.

Takeda K (1974) The food effects of three unicellular algae for larval oyster *Ostrea edulis* L. in the Laboratory. *La Mer* **12**: 59-65.

Takeuchi T (2017) Molluscan genomics: implications for biology and aquaculture. *Current Molecular Biology Reports* **3**: 297-305.

Tanaka S, Sato A, Kawamura K, Naoe H (1976) ヨーロッパヒラガキの人工採苗 -採苗器の改良について- [On the improvement of collectors in the artificial propagation of European flat oyster, *Ostrea edulis* L]. *Aquaculture Science* **23**: 135-138.

Taris N, Boudry P, Bonhomme F, Camara MD, Lapègue S (2009) Mitochondrial and Nuclear DNA analysis of genetic heterogeneity among recruitment cohorts of the European flat oyster Ostrea edulis. *The Biological Bulletin* **217**: 233-241.

Thain JE, Waldock MJ (1986) The impact of tributyl tin (TBT) antifouling paints on molluscan fisheries. *Water Science and Technology* **18**: 193-202.

Theede H, Ponat A, Hiroki K, Schlieper C (1969) Studies on the resistance of marine bottom invertebrates to oxygen-deficiency and hydrogen sulphide. *Marine Biology* **2**: 325-337.

Thenepalli T, Ramakrishna C, Ahn JW (2017) Environmental effect of the coffee waste and anti-microbial property of oyster shell waste treatment. *Journal of Energy Engineering* **26**: 39-49.

Thompson JR, Pacocha S, Pharino C, Klepac-Ceraj V, Hunt DE, Benoit J, Sarma-Rupavtarm R, Distel DL, Polz MF (2005) Genotypic diversity within a natural coastal bacterioplankton population. *Science* **307**: 1311-1313.

Thorson G (1950) Reproductive and larval ecology of marine bottom invertebrates. *Biological Reviews* **25**: 1-45.

Thurstan RH, Hawkins JP, Raby L, Roberts CM (2013) Oyster (*Ostrea edulis*) extirpation and ecosystem transformation in the Firth of Forth, Scotland. *Journal for Nature Conservation* **21**: 253-261.

Tibabuzo Perdomo AM, Alberts EM, Taylor SD, Sherman DM, Huang CP, Wilker JJ (2018) Changes in cementation of reef building oysters transitioning from larvae to adults. *ACS Applied Materials & Interfaces* **10**: 14248-14253.

Todorova V, Micu D, Klisurov L (2009) Unique oyster reefs discovered in the Bulgarian Black Sea. *Proceedings of the Bulgarian Academy of Sciences* **62**: 871-874.

Toro JE, Newkirk GF (1990) Divergent selection for growth rate in the European oyster *Ostrea edulis*: response to selection and estimation of genetic parameters. *Marine Ecology Progress Series* **62**: 219-227.

Travers MA, Boettcher Miller K, Roque A, Friedman CS (2015) Bacterial diseases in marine bivalves. *Journal of Invertebrate Pathology* **131**: 11-31.

Tritar S, Prieur D, Weiner R (1992) Effects of bacterial films on the settlement of oysters, *Crassostrea gigas* (Thunberg, 1793) and *Ostrea edulis* Linnaeus, 1750, and the scallop, *Pecten maximus* (Linnaeus, 1758). *Journal of Shellfish Research* **11**: 325-330.

Trochon P (1956) Etude sur la reproduction de l’huître plate *Ostrea edulis* dans les claires de la région Marennes-Oléron [Study on the reproduction of the flat oyster *Ostrea edulis* in the ponds of the Marennes-Oléron region]. *ICES Marine Science Symposia. Volume 140-3*, pp. 14-16. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Tubiash HS, Chanley PE, Leifson E (1965) Bacillary necrosis, a disease of larval and juvenile bivalve mollusks. I. Etiology and epizootiology. *Journal of Bacteriology* **90**: 1036-1044.

Tully O, Clarke S (2012) The status and management of oyster (*Ostrea edulis*) in Ireland. (ed.) *Irish Fisheries Investigations 24,* pp. 1-40. Marine Institute, Galway, Ireland.

Turcotte F, Mouget JL, Genard B, Lemarchand K, Deschênes JS, Tremblay R (2016) Prophylactic effect of *Haslea ostrearia* culture supernatant containing the pigment marennine to stabilize bivalve hatchery production. *Aquatic Living Resources* **29**: 1-9.

Ulvestad KB, Strand Ø (1997) Modelling hydrography and algal production in a poll in western Norway. *Ecological Modelling* **101**: 285-301.

Utting SD (1988) The growth and survival of hatchery-reared *Ostrea edulis* L. spat in relation to environmental conditions at the on-growing site. *Aquaculture* **69**: 27-38.

Utting SD, Helm M (1985) Improvement of sea water quality by physical and chemical pre-treatment in a bivalve hatchery. *Aquaculture* **44**: 133-144.

Utting SD, Helm MM, Millican PF (1991) Recent studies on the fecundity of European flat oyster (*Ostrea edulis*) spawning stock in the solent. *Journal of the Marine Biological Association of the United Kingdom* **71**: 909-911.

Utting SD, Millican PF (1997) Techniques for the hatchery conditioning of bivalve broodstocks and the subsequent effect on egg quality and larval viability. *Aquaculture* **155**: 45-54.

Utting SD, Millican PF (1998) The role of diet in hatchery conditioning of *Pecten maximus* L.: a review. *Aquaculture* **165**: 167-178.

Uyan O, Aral O (2000) A study on the possibilities of obtaining larva from native flat oysters (*Ostrea edulis* L.) living in the Black Sea and larval metamorphosis stage. *Turkish Journal of Zoology* **24**: 343-350.

Vallauri DR, Aronson J, Barbero M (2002) An analysis of forest restoration 120 years after reforestation on Badlands in the Southwestern Alps. *Restoration Ecology* **10**: 16-26.

van Banning P (1977) *Minchinia armoricana sp. nov.* (Haplosporida), a parasite of the European flat oyster, *Ostrea edulis*. *Journal of Invertebrate Pathology* **30**: 199-206.

van Banning P (1979) Haplosporidian diseases of imported oysters, *Ostrea edulis*, in Dutch estuaries. *Marine Fisheries Review* **41**: 8-18.

van den Brink A (2012) The efficiency of different types of oyster spat collectors for *Ostrea edulis*. (ed.) *Oysterecover EU FP7 Report,* pp. 1-33. Institute for Marine Resources & Ecosystem Studies, Wageningen UR, The Netherlands.

Ver LMB, Wang JK (1995) Design criteria of a fluidized bed oyster nursery. *Aquacultural Engineering* **14**: 229-249.

Vera M, Carlsson J, Carlsson JEL, Cross T, Lynch S, Kamermans P, Villalba A, Culloty S, Martinez P (2016) Current genetic status, temporal stability and structure of the remnant wild European flat oyster populations: conservation and restoring implications. *Marine Biology* **163**: 1-17.

Vercaemer B, Spence K, Roach S, MacDonald B, Kenchington E, Mallet A (2004) Towards a better understanding of European oyster *Ostrea edulis* breeding: results of the 2003-2004 ACRDP project. (ed.) *Canadian Technical Report of Fisheries and Aquatic Sciences 2563,* pp. 1-42. Department of Fisheries and Oceans, Canada.

Vercaemer B, Spence KR, Herbinger CM, Lapègue S, Kenchington EL (2006) Genetic diversity of the European oyster (*Ostrea edulis* L.) in Nova Scotia: comparison with other parts of Canada, Maine and Europe and implications for broodstock management. *Journal of Shellfish Research* **25**: 543-551.

Vercelli C, Coatanéa D, Chabirand JM, Oheix J (1997) Contrôle de la gamétogenèse d'un stock d'huîtres plates méditerranéennes *Ostrea edulis* [Control of the gametogenesis of a Mediterranean flat oyster stock *Ostrea edulis*]. In: Devauchelle N, Barret J, Salaun G (ed.) *The Natural and Controlled Reproduction of Cultivated Bivalves in France: Symposium Report,* pp. 91-98. IFREMER, Nantes, France.

Vercelli C, Oheix J, Chabirand JM, Pichot Y, Buestel D (2000) Programme de diversification des productions conchylicoles en Languedoc Roussillon - Projet Huître plate *Ostrea edulis* : Rapport final [Program to diversify shellfish production in Languedoc Roussillon - Project Flat Oyster *Ostrea edulis*: final report]. (ed.) *IFREMER Report UE/PESCA,* pp. 1-65. French Research Institute for Exploitation of the Sea, Palavas-les-Flots, France.

Virvilis C, Angelidis P (2006) Presence of the parasite *Marteilia sp*. in the flat oyster (*Ostrea edulis* L) in Greece. *Aquaculture* **259**: 1-5.

Vitiello V, Carlino PA, Del Prete F, Langellotti AL, Sansone G (2011) Effects of cooling and freezing on the motility of *Ostrea edulis* (L., 1758) spermatozoa after thawing. *Cryobiology* **63**: 118-124.

Voultsiadou E, Koutsoubas D, Achparaki M (2010) Bivalve mollusc exploitation in Mediterranean coastal communities: an historical approach. *Journal of Biological Research-Thessaloniki* **13**: 35-45.

Wallace RK, Waters P, Rikard FS (2008) Oyster hatchery techniques. (ed.) *SRAC Publication 4302,* pp. 1-6. Southern Regional Aquaculture Center, Stoneville, USA.

Waller TR (1981) Functional morphology and development of veliger larvae of the European oyster, *Ostrea edulis* Linné. In: Waller TR (ed.) *Smithsonian Contribution to Zoology 328,* pp. 1-80. Smithsonian Institution Press, Washington, USA.

Walne PR (1956a) Destruction of competitive organisms on artificial oyster-spat collectors. *ICES Journal of Marine Science* **22**: 75-76.

Walne PR (1956b) Experimental rearing of the larvae of *Ostrea edulis* L. in the laboratory. (ed.) *Fishery Investigations Series II,* pp. 1-28. Her Majesty's Stationery Office, London, UK.

Walne PR (1956c) Observations on the oyster (*Ostrea edulis*) breeding experiments at Conway, 1939-1953. *ICES Marine Science Symposia. Volume 140-3*, pp. 10-13. International Council for the Exploration of the Sea, Copenhagen, Denmark.

Walne PR (1958) The importance of bacteria in laboratory experiments on rearing the larvae of *Ostrea edulis* (L.). *Journal of the Marine Biological Association of the United Kingdom* **37**: 415-425.

Walne PR (1963) Observations on the food value of seven species of algae to the larvae of *Ostrea edulis* L. feeding experiments. *Journal of the Marine Biological Association of the United Kingdom* **43**: 767-784.

Walne PR (1964) Observations on the fertility of the oyster (*Ostrea edulis*). *Journal of the Marine Biological Association of the United Kingdom* **44**: 293-310.

Walne PR (1965) Observations on the influence of food supply and temperature on the feeding and growth of the larvae of *Ostrea edulis* L. (ed.) *Fishery Investigations Series II,* pp. 1-47. Her Majesty's Stationery Office, London, UK.

Walne PR (1970a) Present problems in the culture of the larvae of *Ostrea edulis*. *Helgoländer Wissenschaftliche Meeresuntersuchungen* **20**: 514-525.

Walne PR (1970b) Studies on the food value of nineteen genera of algae to juvenile bivalves of the genera Ostrea, Crassostrea, Mercenaria and Mytilus. (ed.) *Fishery Investigations Series II,* pp. 1-66. Her Majesty's Stationery Office, London, UK.

Walne PR (1974) *Culture of Bivalve Molluscs: 50 Years Experience at Conwy,* Fishing News Books Limited, Surrey, UK.

Walne PR, Spencer BE (1974) Experiments on the growth and food conversion efficiency of the spat of *Ostrea edulis* L in a recirculation system. *ICES Journal of Marine Science* **35**: 303-318.

Waugh GD (1964) Observations on the effects of chlorine on the larvae of oysters (*Ostrea edulis* (L.)) and barnacles (*Elminius modestus* (Darwin)). *Annals of Applied Biology* **54**: 423-440.

Waugh GD, Ansell A (1956) The effect, on oyster spatfall, of controlling barnacle settlement with DDT. *Annals of Applied Biology* **44**: 619-625.

Webster D (2011) Education. In: Shumway SE (ed.) *Shellfish Aquaculture and the Environment,* pp. 447-459. John Wiley & Sons, Inc., Oxford, UK.

Weiner RM, Coyne VE, Brayton P, West P, Raiken SF (1988) *Alteromonas colwelliana sp. nov.*, an isolate from oyster habitats. *International Journal of Systematic and Evolutionary Microbiology* **38**: 240-244.

Wendling CC, Batista FM, Wegner KM (2014) Persistence, seasonal dynamics and pathogenic potential of *Vibrio* communities from Pacific oyster hemolymph. *PLOS One* **9**: e94256.

Wendling CC, Fabritzek AG, Wegner KM (2017) Population-specific genotype x genotype x environment interactions in bacterial disease of early life stages of Pacific oyster larvae. *Evolutionary Applications* **10**: 338-347.

Wendling CC, Wegner KM (2015) Adaptation to enemy shifts: rapid resistance evolution to local *Vibrio spp*. in invasive Pacific oysters. *Proceedings of the Royal Society B: Biological Sciences* **282**: 20142244.

Westley RE (1975) Past, present, and future trends in cultural techniques and oyster production in the state of Washington. *Proceedings of the Annual Meeting* ‐ *World Mariculture Society* **6**: 213-219.

Whilde A (1985) The food of starfish *Asterias rubens* L. on cultivated and derelict oyster fisheries. *Irish Naturalists' Journal* **21**: 528-532.

Widdows J (1991) Physiological ecology of mussel larvae. *Aquaculture* **94**: 147-163.

Wilson JH (1978) The food value of *Phaeodactylum tricornutum* Bohlin to the larvae of *Ostrea edulis* L. and *Crassostrea gigas* Thunberg. *Aquaculture* **13**: 313-323.

Wilson JH (1979) Observations on the grazing rates and growth of *Ostrea edulis* L. larvae when fed algal cultures of different ages. *Journal of Experimental Marine Biology and Ecology* **38**: 187-199.

Wilson JH (1980) Particle retention and selection by larvae and spat of *Ostrea edulis* in algal suspensions. *Marine Biology* **57**: 135-145.

Wilson JH (1983) Retention efficiency and pumping rate of *Ostrea edulis* in suspensions of *Isochrysis galbana*. *Marine Ecology Progress Series* **12**: 51-58.

Wilson JH, Simons J (1985) Gametogenesis and breeding of *Ostrea edulis* on the west coast of Ireland. *Aquaculture* **46**: 307-321.

Xiao S, Yu ZN (2008) Review of selective breeding research and practice in oyster cultivation. *Journal of Fisheries of China* **32**: 287-295.

Yang H, Simon N, Sturmer L (2018) Production and performance of triploid oysters for aquaculture. (ed.) *UF/IFAS Extension FA208,* pp. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida.

Yonge CM (1960) *Oysters. The New Naturalist,* Collins, London, UK.

Zhang Y, Wang Z, Yan X, Yu R, Kong J, Liu J, Li X, Li Y, Guo X (2012a) Laboratory hybridization between two oysters: *Crassostrea gigas* and *Crassostrea hongkongensis*. *Journal of Shellfish Research* **31**: 619-625.

Zhang YH, Wang ZP, Yan XW, Yao T, Yu ZF, Huo ZM, Yu RH, Li XY, Li YL, Guo XM (2012b) Interspecific hybridization between two oysters *Crassostrea gigas* and *C. ariakensis*. *Journal of Fisheries of China* **36**: 1215-1224.

Zolotarev PN, Terentyev AS (2012) Changes in the macrobenthic communities of the Gudauta oyster bank. *Oceanology* **52**: 231-237.

Zwerschke N, Hollyman PR, Wild R, Strigner R, Turner JR, King JW (2018) Limited impact of an invasive oyster on intertidal assemblage structure and biodiversity: the importance of environmental context and functional equivalency with native species. *Marine Biology* **165**: 1-13.

## Appendix 3 Table of the breeding programme and production records from 1987 at Rossmore Breeding Ponds. Production is shown in weight of marketable *O. edulis* (>75 g per oyster) actually sold. Data provided from Tristan Hugh-Jones.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Origin of the *O. edulis* spat production** | **Generation F1** | **Generation F2** | **Generation F3** | **Generation F4** | **Generation F5** | **Generation F6** |
| 1987 | Survivors | F1 spat | - | - | - | - | - |
| 1988 | Survivors | F1 spat | - | - | - | - | - |
| 1989 | Survivors | F1 spat | - | - | - | - | - |
| 1990 | Survivors | F1 spat | - | - | - | - | - |
| 1991 | F1 survivors | - | F2 spat | - | - | - | - |
| 1992 | F1 survivors | - | F2 spat | - | - | - | - |
| 1993 | F1 survivors | 31,793 kg | F2 spat | - | - | - | - |
| 1994 | F1 survivors | 34,207 kg | F2 spat | - | - | - | - |
| 1995 | F2 survivors | - | 133,788 kg | F3 spat | - | - | - |
| 1996 | F2 survivors | - | 119,765 kg | F3 spat | - | - | - |
| 1997 | F2 survivors | - | 68,405 kg | F3 spat | - | - | - |
| 1998 | F2 survivors | - | 64,617 kg | F3 spat | - | - | - |
| 1999 | F3 survivors | - | - | 48,887 kg | F4 spat | - | - |
| 2000 | F3 survivors | - | - | 72,420 kg | F4 spat | - | - |
| 2001 | F3 survivors | for 6 years | - | 84,647 kg | F4 spat | - | - |
| 2002 | F3 survivors | Fishery closed | - | 84,647 kg | F4 spat | - | - |
| 2003 | F4 survivors | Fishery closed | - | Stock survey | 127,500 kg | F5 spat | - |
| 2004 | F4 survivors | Fishery closed | - | - | 2nd F4 sale | F5 spat | - |
| 2005 | F4 survivors | Fishery closed | - | - | 3rd F4 sale | F5 spat | - |
| 2006 | F4 survivors | Fishery closed | - | - | 4th F4 sale | F5 spat | - |
| 2007 | F4 survivors | Fishery closed | - | - | 5th F4 sale | F5 spat | - |
| 2008 | F5 survivors | Fishery closed | - | - | - | 1st F5 sale | - |
| 2009 | F5 survivors | Fishery closed | - | - | - | 2ndF5 sale | - |
| 2010 | F5 survivors | Fishery closed | - | - | - | 3rdF5 sale | - |
| 2011 | F5 survivors | Fishery closed | - | - | - | 4thF5 sale | F6 spat |

**Appendix 4** Synthesis of chronological cryopreservation operations of *O. edulis* sperm (spermatozeugmata) from Vitiello *et al.* (2011) and Horváth *et al.* (2012).

|  |
| --- |
| 1) Collection of biological material (e.g. gametes, embryos and larvae):  Vitiello *et al.* (2011) and Horváth *et al.* (2012) both used the striping method to obtain male gametes, they observe 60% and 63%, respectively, of sperm motility after activation for control. |
| 2) Concentration of the biological material and addition of extender and cryoprotective agent:  The extender solution and the cryoprotective agent are different in these studies: Vitiello *et al.* (2011) used seawater filtered with 15% ethylene glycol, while Horváth *et al.* (2012) used a Hank's balanced salt solution with 10% dimethyl sulfoxide. |
| 3) Freezing:  Freezing at: Vitiello *et al.* (2011) induced by a temperature drop of about -3°C per minute to a temperature down to -70°C and finally immersing the samples into liquid nitrogen. Horváth *et al.* (2012) freezed in two steps: first vaporizing the samples in liquid nitrogen for three minutes and then immersing them in liquid nitrogen. |
| 4) Thawing:  In both studies, thawing was conducted in a water bath: at 55°C up to a temperature increase of 18°C of the packages (Vitiello *et al.* 2011), at 40°C for 13 seconds (Horváth *et al.* 2012); 5) Cryopreservation resulted in 50% motility (Vitiello *et al.* 2011) and 8% motility for (Horváth *et al.* 2012). |

## Appendix 5 Summary of remote setting operations for *O. edulis* according (and translated in English) to Guesdon *et al.* (1989), Carbonnier *et al.* (1990) and Coatanea *et al.* (1992).

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| 1) Preparation of basins. Tanks must be clean and disinfected (e.g. chlorination). Paraffinization (liquefied wax) for a smooth rendering of the walls and bottom is recommended; |
| 2) Installation of collectors: arrangement must allow a complete water circulation to avoid stagnation areas; |
| 3) Water supply: after placing the collectors into the tanks, water at ambient temperatures and filtered to a minimum of 50 µm is added one day before receiving the larvae; |
| 4) Larval transport: in the hatchery, larvae are concentrated on a moistened paper filter and then surrounded by a cotton cloth, placed in a plastic bag to avoid drying out and dispatched in isothermal packages equipped with ice packs (arrival temperature must not exceed 15°C); |
| 5) Larvae quality control at reception: carried out under a binocular magnifier, larvae motility as well as the presence of the eyespot needs to be checked; |
| 6) Choice of larval density and number of collectors per basin: a minimum density of 0.5 larvae ml-1 is recommended but these choices are determined by the production objectives; |
| 7) Larval immersion: Larvae must be acclimatized in a small volume of seawater with a slightly increasing temperature up to the temperature of the setting tanks. When larvae are diluted, a good but gentle vortex must be applied in order to dissociate the larvae that are clumping together; |
| 8) Regulation of aeration in the basins: except for the settlement period when the bubbling is reduced to a minimum, the mixing must be sufficient enough for a good homogeneity of the water mass; |
| 9) Water renewal: a water renewal of about 50% of the total tank volume per day is recommended; |
| 10) Food supply: identical to any other culture of *O. edulis* larvae; |
| 11) Larvae observation and harvesting: observation of the settlement rate by sampling and visual analysis, the harvest is generally carried out six to eight days after the larvae are immersed; |
| 12) The transport of the young spat must be carried out in water or very quickly because it does not tolerate drying out. |

## Appendix 6 Glossary of some terms used in this review.

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| **Terms** | **Definition** |
| Oyster juveniles | Oyster spat larger than that. 2mm wide |
| Oyster seed | General term including all products resulting from reproduction, i.e. oyster larvae, oyster microspat, oyster spat, oyster juveniles. |
| Oyster spat | Settled larvae, also known as microspat (up to a size of ca. 2mm wide) |

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