PROFESORADO DE UNIVERSIDADES Y CENTROS DE INVESTIGACIÓN

DATOS DE IDENTIFICACIÓN Y CONTACTO

APELLIDOS: Yúfera Ginés

NOMBRE: Manuel

DIRECCIÓN POSTAL: Campus Universitario Río San Pedro s/n

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CATEGORÍA LABORAL: Profesor de Investigación de OPI

FORMACIÓN ACADÉMICA **Licenciado en Ciencias Biológicas (1977)**
Doctor en Biología (1982)

INSTITUCIÓN **Instituto de Ciencias Marinas de Andalucía (CSIC)**

EXPERIENCIA DOCENTE

FECHA DE ANTIGÜEDAD EN LA INSTITUCIÓN:
30 años

TITULACIONES EN LAS QUE HA IMPARTIDO DOCENCIA EN LA UCA:

Máster Oficial ACUIPESCA - “Acuicultura y Pesca: Recursos Marinos y Sostenibilidad”

Programa de Doctorado en Ciencias del Mar. Procesos Biológicos de Interés en Acuicultura

63º Cursos de Verano de la UCA. Curso: Retos futuros de la acuicultura española y andaluza.

64º Cursos de Verano de la UCA. Curso: B01– Seminario de Excellencia CEIMAR. Acuicultura Andaluza: Presente y Futuro.

Second International Summer School – UCA 2015. Aquaculture in Southern Europe: Basic and applied aspects. Universidad de Cádiz.

N° DE QUINQUENIOS: - seis (+ 1 de sustitución)

ACREDITACIÓN POR AGENCIAS DE CALIDAD:-

EXPERIENCIA INVESTIGADORA

LÍNEAS DE INVESTIGACIÓN: Fisiología de peces, Ontogenia, Alimentación,

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RESULTADOS RELEVANTES: (Proyectos de investigación, publicaciones, aportaciones en congresos, etc.)

Proyectos (Últimos 5 años)

Cost Action FA0801
Organismo financiador. EU RTD Framework Programme.
Título: LARVANET – Critical success factors for fish larvae production in European aquaculture: a multidisciplinary network.
M. Yúfera & M.S. Izquierdo representantes por España en el Comité de Gestión (MC) y miembro comité coordinador de las Short-Term Scientific Missions (STSMs)
Fechas: 13 Octubre 2008 – 12 Octubre 2013.

Proyecto (AGL2011-23722)
Organismo financiador: Plan Nacional I+D+I, MICINN + FEDER
Organismos de ejecución: Inst. Ciencias Marinas de Andalucía (CSIC), Universidade do Algarve, Universidad de Bergen y Dept. Biología Aplicada de la Universidad de Almería.
Título: Evaluación de los ritmos diarios de alimentación y digestion en larvas de peces marinos en cultivo. Mejora de los protocolos de alimentación. *Assessment of daily rhythm in the feeding activity and the digestive function in reared larvae of marine fish. Improving the feeding protocols.*
Investigador principal: **M. Yúfera**
Fechas: 1 Enero 2012 - 31 Diciembre 2014.

Proyecto Europeo EU-FP7-KBBE-2011-5 (contract 288925).
Título: Advance research iniciatives for nutrition and aquaculture - ARRAINA
Organismo financiador. EU - 7 Framework Programme.
Coordinador: Sachi Kaushik (INRA, France)
Participant from ICMAN-CSIC – **M. Yúfera** and G. Martinez-Rodríguez
Fechas: Enero 2012-Diciembre 2016

Proyecto Europeo FP7-PEOPLE-2012-IIF (GA number 326245)
Título: Breaking frontiers for the use of plant-derived feeds in fish farming through nutritional programming in fish farming - FishPROG
Entidades Participantes: ICMAN
Coordinador: **M. Yúfera**
Fechas: Julio 2013 – Julio 2015.

Contrato tecnológico
Proyecto EUROSTARS (E!7994)
Título: Developing a weaning diet and protocolo for bluefon tuna - WEANTUNA
Investigador Principal: Luis Conceiçao (SPAROS)
Entidades Participantes: FUTUNA BLUE ESPAÑA SA, SPAROS Lda, ICMAN
ICMAN como subcontratado de FUTUNA Responsable **M. Yúfera**.

Fechas: Abril 2013 - Diciembre 2015

Red de Excelencia AGL2014-53190-REDC
Título: Red de excelencia de Biotecnología en Acuicultura.
Coordinador: A. Figueras
IP grupo ICMAN-CSIC: **M. Yúfera**

Proyecto (AGL2014-52888-R)
Título: Utilización de modelos gastrointestinales como herramienta para aumentar la eficiencia de digestión de la proteína alimentaria en peces marinos cultivados - *Utilization of gastrointestinal models as a tool for increasing the digestion efficiency of feed protein in cultured marine fish.* - EFISHDIGEST
Investigador principal: **M. Yúfera**
Fechas: Enero 2015 – Diciembre 2018

Proyecto Europeo H2020-MSCA-RISE-2015 (DLV-691150)
Título: Improving sustainability and performance of aquafeeds –WISEFEED
Coordinador: I Rønnestad (Univ. Bergen)
Inv. Responsable – Work Package 4 y Grupo CSIC: **M. Yúfera**
Fechas: Enero 2016 – Diciembre 2018

Publicaciones (Últimos 5 años)

Y.S. Wunderink, S., Engels, S., Halm, **M. Yúfera,** G. Martínez-Rodríguez, G. Flik, P.H. Klaren & J. M. Mancera. 2011. Chronic and acute stress responses in Senegalese sole (*Solea senegalensis*): the involvement of cortisol, CRH and CRH-BP. General and Comparative Endocrinology 171: 203-210. http://dx.doi.org/10.1016/j.ygcen.2011.01.010

A. Montoya, D. Alves Martins, **M. Yúfera** & F.J. Sánchez-Vázquez. 2011. Self-selection of diets with different oil oxidation levels in gilthead seabream (*Sparus aurata*). Aquaculture 341: 282-284. http://dx.doi.org/10.1016/j.aquaculture.2011.01.041

D. Alves Martins, S. Engrola, S. Morais, N. Bandarra, **M. Yúfera** & L.E.C. Conceição. 2011. Cortisol response to air exposure in *Solea senegalensis* post-larvae is affected by dietary ARA/EPA ratios. Fish Physiology and Biochemistry 37: 733-743.
http://dx.doi.org/10.1007/s10695-011-9473-4

O.C.C. Menossi, R. Takata, M.I. Sánchez-Amaya, T.M. de Freitas, **M. Yúfera** & M.C. Portella. 2012. Growth and structure of the digestive system of pacu larvae fed microencapsulated diet produced experimentally. Crescimento e estruturas do sistema digestório de larvas de pacu alimentadas com dieta microencapsulada produzida experimentalmente. Revista Brasileira de Zootecnia 41(1): 1-10. http://dx.doi.org/10.1590/S1516-35982012000100001

M. Yúfera, F.J. Moyano, A. Astola, P. Pousão-Ferreira & G. Martínez-Rodríguez. 2012. Acidic Digestion in a teleost: Postprandial and circadian pattern of gastric pH, pepsin activity, and pepsinogen and proton pump mRNAs expression. PLoS ONE 7(3) e33687. http://dx.doi.org/10.1371/journal.pone.0033687

M. de Vareilles, N. Richard, P. J. Gavaia, T.S. Silva, O. Cordeiro, I. Guerreiro, **M. Yúfera**, I. Batista, C. Pires, P. Pousão-Ferreira, P.M. Rodrigues, I. Rønnestad, K.E. Fladmark & L.E.C. Conceição. 2012. Impact of dietary protein hydrolysates on skeleton quality and proteome in *Diplodus sargus* larvae. Journal of Applied Ichthyology 28(3): 477-487. http://dx.doi.org/10.1111/j.1439-0426.2012.01996.x

Y.S. Wunderink, G. Martínez-Rodríguez, **M. Yúfera**, I. Martin Morero, G. Flik, J.M. Mancera & P.H.M. Klaren. 2012. Food-deprivation induces chronic stress and affects thyroid hormone metabolism in Senegalese sole (*Solea senegalensis*) post-larvae. Comparative Biochemistry and Physiology Part A Molecular & Integrative Physiology 162: 317-322. http://dx.doi.org/10.1016/j.cbpa.2012.03.023

M. Yúfera, S. Halm, S. Beltran, B. Fusté, J.V. Planas & G. Martínez-Rodríguez. 2012. Transcriptomic characterization of the larval stage in gilthead seabream (*Sparus aurata*) by 454 pyrosequencing. Marine Biotechnology 14: 423-435. http://dx.doi.org/10.1007/s10126-011-9422-3

D. Alves Martins, F. Rocha, G. Martínez-Rodríguez, G. Bell, S. Morais, F. Castanheira, N. Bandarra, J. Coutinho, **M. Yúfera**, L.E.C. Conceição. 2012. Teleost fish larvae adapt to dietary arachidonic acid supply through modulation of the expression of lipid metabolism and stress response genes. British Journal of Nutrition 108: 864-874. http://dx.doi.org/10.1017/S0007114511006143

S. Romero-Romero, **M. Yúfera**. 2012. Contribution of gut content to the nutritional value of *Brachionus plicatilis* used as prey in larviculture. Aquaculture 364-365: 124-129. http://dx.doi.org/10.1016/j.aquaculture.2012.08.011

J. Bohórquez, S. Papaspyrou, **M. Yúfera**, S. van Bergeik, E. García-Robledo, J.L. Jimenez-Arias, M. Bright, A. Corzo. 2013. Effects of green macroalgal blooms on the meiofauna community structure in the Bay of Cádiz. Marine Pollution Bulletin 70: 10-17. http://dx.doi.org/10.1016/j.marpolbul.2013.02.002

K. Hamre, **M. Yúfera**, I. Rønnestad, C. Boglione, L.E.C. Conceição, M. Izquierdo. 2013. Fish larval nutrition and feed formulation - knowledge gaps and bottlenecks for advances in larval rearing. Reviews in Aquaculture 5 (Suppl. 1): S26–S58. http://dx.doi.org/10.1111/j.1753-5131.2012.01086.x

I. Rønnestad, **M. Yúfera**, B. Ueberschär, L. Ribeiro, Ø. Sæle, C. Boglione. 2013. Feeding behaviour and digestion physiology in larval fish - current knowledge, and gaps and bottlenecks in research. Reviews in Aquaculture 5 (Suppl. 1): S59–S98. http://dx.doi.org/10.1111/raq.12010

K**.** Pittman, **M. Yúfera**, M**.** Pavlidis, A**.J.** Geffen, W**.** Koven, L**.** Ribeiro, J**.**L**.** Zambonino-Infante, A**.** Tandler. 2013. Fantasticly plastic: fish larvae equipped for a new world. Reviews in Aquaculture 5 (Suppl. 1): S224–S267. http://dx.doi.org/10.1111/raq.12034

D. Alves Martins, F. Rocha, F. Castanheira, A. Mendes, P. Pousão-Ferreira, N. Bandarra, J. Coutinho, S. Morais, **M. Yúfera**, L.E.C. Conceição, G. Martınez-Rodrıguez. 2013. Effects of dietary arachidonic acid on cortisol production and gene expression in stress response in Senegalese sole (*Solea senegalensis*) post-larvae. Fish Physiology and Biochemistry 39: 1223-1238. http://dx.doi.org/10.1007/s10695-013-9778-6

L. Parma, A. Bonaldo, P. Massi, **M. Yúfera**, G. Martínez-Rodríguez, P.P. Gatta. 2013. Different early weaning protocols in common sole (*Solea solea* L.) larvae: implications on performances and molecular ontogeny of digestive enzyme precursors. Aquaculture 414-415: 26-35. http://dx.doi.org/10.1016/j.aquaculture.2013.07.043

M. Yúfera, J.B. Ortiz-Delgado, T. Hoffman, I Siguero, B. Urup, C. Sarasquete. 2014. Organogenesis of digestive system, visual system and other structures in Atlantic bluefin tuna (*Thunnus thynnus*) larvae reared with copepods in mesocosm system.

Aquaculture 426-427: 126-137.
http://dx.doi.org/10.1016/j.aquaculture.2014.01.031

M. Yúfera, M.J. Romero, I.M. Pujante, A. Astola, J.M. Mancera, F.J. Sánchez-Vázquez, F.J. Moyano, G. Martínez-Rodríguez. 2014. Effect of feeding frequency on the daily rhythms of acidic digestion in a teleost fish (gilthead seabream). Chronobiology International 31: 1024-1033. http://dx.doi.org/10.3109/07420528.2014.944265

C. Sarasquete, J.B. Ortiz-Delgado, J.A. Martos-Sitcha, V. de las Heras, **M. Yúfera** , G. Martínez-Rodríguez. 2014. Ontogeny and functional histochemistry during larval development and growth in the thick-lipped grey mullet, *Chelon labrosus.* Scientia Marina 78(4): 473-491. http://dx.doi.org/10.3989/scimar.04091.27B

C. Navarro-Guillén, F.J. Moyano, **M. Yúfera**. 2015. Diel food intake and digestive enzyme production patterns in *Solea senegalensis* larvae. Aquaculture 435: 33-42.
http://dx.doi.org/10.1016/j.aquaculture.2014.09.017

V. de las Heras, J.A. Martos-Sitcha, **M. Yúfera**, J.M. Mancera, G. Martínez-Rodríguez. 2015. Influence of stocking density on growth, metabolism and stress of thick-lipped grey mullet (*Chelon labrosus*) juveniles. Aquaculture 448: 29-37.
http://dx.doi.org/10.1016/j.aquaculture.2015.05.033

J.A. Mata-Sotres, G. Martínez-Rodríguez, J. Pérez-Sánchez, F.J. Sánchez-Vázquez, **M. Yúfera**. 2015. Daily rhythms of clock gene expression and feeding behaviour during the larval development in gilthead seabream, *Sparus aurata*. Chronobiology International 32, 1061-1074. http://dx.doi.org/10.3109/07420528.2015.1058271

M. Saavedra, A. Grade, A. Mendes, T.G. Pereira, B. Teixeira, **M. Yúfera**, L.E.C. Conceição, R. Mendes, P. Pousão-Ferreira. 2016. Different dietary protein affects meagre (*Argyrosomus regius*) larval survival and muscle cellularity. Aquaculture 450: 89-94. http://dx.doi.org/10.1016/j.aquaculture.2015.07.004

J.A. Mata-Sotres, J.A. Martos-Sitcha, A. Astola, **M. Yúfera**, G. Martínez-Rodríguez. 2016. Cloning and molecular ontogeny of digestive enzymes in fed and food-deprived developing gilthead seabream (*Sparus aurata*) larvae. Comparative Biochemistry and Physiology Part B. Biochemistry and Molecular Biology 191: 53-65.
http://dx.doi.org/10.1016/j.cbpb.2015.09.006

N. Gilannejad, J.A. Martos-Sitcha, N.M. Soofiani, S. Asadollah, F. Prat, **M. Yúfera**, G. Martínez-Rodríguez, F.P. Heyrati, S. Dorafshan. 2016. Vitellogenin expression in wild cyprinid *Petroleuciscus esfahani* as a biomarker of endocrine disruption along the Zayandeh Roud River, Iran. Chemosphere 144: 1342-1350.
http://dx.doi.org/10.1016/j.chemosphere.2015.09.106

E. Perera, **M. Yúfera**. 2016. Soybean meal and soy protein concentrate in early diet elicit different nutritional programming effects on juvenile zebrafish for Zebrafish. Zebrafish 13: 61-69. http://dx.doi.org/10.1089/zeb.2015.1131

J.A. Martos-Sitcha, J.M. Mancera, J.A. Calduch-Giner, **M. Yúfera**, G. Martínez-Rodríguez, J. Pérez-Sánchez. 2016. Unraveling the tissue-specific gene signatures of gilthead sea bream (Sparus aurata L.) after hyper- and hypo-osmotic challenges. PLoS ONE 11(2): e0148113.

http://dx.doi.org/10.1371/journal.pone.0148113

J.A. Mata-Sotres, F.J. Moyano, G. Martínez-Rodríguez, **M. Yúfera**. 2016. Daily rhythms of digestive enzyme activity and gene expression in gilthead seabream (*Sparus aurata*) during ontogeny. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology 197: 43-51.
http://dx.doi.org/10.1016/j.cbpa.2016.03.010

S. Morais, C. Aragao, E. Cabrita, L.E.C. Conceição, M. Constenla, B. Costas, J. Dias, N. Duncan, S. Engrola, A. Estévez, E. Gisbert, E. Mañanós, L.M.P. Valente, **M. Yúfera**, M.T. Dinis. New developments and biological insights into the farming of *Solea senegalensis* reinforcing its aquaculture potential. Reviews in Aquaculture (en prensa). http://dx.doi.org/10.1111/raq.12091

M. Yúfera, J.A. Mata-Sotres, C. Navarro-Guillén, F.J. Moyano, G. Martínez-Rodríguez. Potential effect of increasing the water content in the digestibility of microdiets for fish larvae. Aquaculture Nutrition (en prensa). http://dx.doi.org/10.1111/anu.12336

K. Mohammed-Geba, **M. Yúfera**, G. Martínez-Rodríguez, J.M. Mancera. Molecular endocrine changes of Gh/Igf1 axis in gilthead sea bream (*Sparus aurata* L.) exposed to different environmental salinities during larvae to post-larvae stages. Fish Physiology and Biochemistry (en prensa). http://dx.doi.org/10.1007/s10695-016-0207-5

Congresos (Últimos 5 años)

2011-Session Chair: Finfish larvae management and production. World Aquaculture Conference 2011, Natal (Brazil) 6-11 June 2011.

2011- Ponencia invitada: Early life of sparids in culture. Ontogeny, digestive physiology and growth – an overview. World Aquaculture 2011, Natal (Brazil) 6-11 June 2011.

2011- Session Chair: Hatchery production. Aquaculture Europe 2011, Rhodes (Greece) 18-21 October 2011.

2011- Ponencia invitada: Food, feeding protocols and feeding behaviour in larval fish. Aquaculture Europe 2011, Rhodes (Greece) 18-21 October 2011.

2012- Ponencia invitada: Body size, feeding and growth in *Brachionus*. Gaps of knowledge in the scenario of the multi-species complexes. 13th International Rotifer Symposium (Rotifera XIII) – Shillong (India) 18-24 November 2012.

2013- Session Chair: Developmental Biology and Deformities. 6th fish & shellfish larviculture symposium Larvi 2013, Ghent (Belgium) 2-5 September 2013.

2015- Ponencia invitada: Digestive rhythms in fish larvae and juveniles. From molecular gene expression to enzymatic activity. World Aquaculture 2015, Jeju island (South Korea) 26-30 May 2015.

N° DE SEXENIOS: Seis

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INFORMACIÓN ADICIONAL