

PROFESORADO DE UNIVERSIDADES Y CENTROS DE INVESTIGACIÓN

DATOS DE IDENTIFICACIÓN Y CONTACTO

APELLIDOS: Torres Leal

NOMBRE: María Ángeles

DIRECCIÓN POSTAL: Instituto Español de Oceanografía (IEO). C.O. de Cádiz. Puerto Pesquero, Muelle de Levante S/N 11106 Cádiz

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CATEGORÍA LABORAL: Titulado Superior de Actividades Técnicas y Profesionales

FORMACIÓN

ACADÉMICA: Licenciado en CC. Biológicas (Universidad de Sevilla).
Doctora en Ciencias del Mar (Universidad de Cádiz)

INSTITUCIÓN: IEO

EXPERIENCIA DOCENTE

FECHA DE ANTIGÜEDAD EN LA INSTITUCIÓN:
01/02/2007 (5 años, 7 meses y 11 días)

TITULACIONES EN LAS QUE HA IMPARTIDO

DOCENCIA EN LA UCA: Curso de doctorado CU-PRC-001-A1-A2: Estudio de los parámetros biológicos necesario para la evaluación de los recursos pesqueros. Alimentación. Universidad de Cádiz. 2016.

Nº DE QUINQUENIOS: -

ACREDITACIÓN POR AGENCIAS DE CALIDAD: -

EXPERIENCIA INVESTIGADORA

PRINCIPALES LÍNEAS DE INVESTIGACIÓN:

- Biología, evaluación y gestión de recursos demersales y pelágicos
- Uso de modelos de redes tróficas e indicadores ecológicos para evaluar el impacto de la pesca en la estructura y el funcionamiento de los ecosistemas marinos
- Evaluación integral de ecosistemas marinos
- Desarrollo de indicadores para evaluar el estado ambiental de redes tróficas marinas
- Evaluación ecosistémica a través del uso de artes de pesca más selectivas

RESULTADOS MÁS RELEVANTES:

Proyectos de investigación más recientes

- Science, Technology, and Society Initiative to minimize Unwanted Catches in European Fisheries. H2020-SFS-2014-2. 2016-2018
- Integrated Ecosystem Analyses (HaV-inom Best 2015-17). Swedish Environmental Protection Agency. 2016
- Ecosystem-based approach for developing and testing pelagic food web indicators. Swedish Environmental Protection Agency. 2014-2016
- EU Project: Transboundary Planning in the European Atlantic (TPEA) (MARE/2012/08). EU DG MARE. 2013-2014
- PESCADIZ, Estudio de las pesquerías demersales del Golfo de Cádiz: Evaluación de los recursos y aproximación a la gestión del ecosistema. UE-SGPM (PNDB). 2008-2012
- AMDES, Estimación y Reducción de los Descartes. Plan Nacional de Datos Básicos, Atlántico y Mediterráneo. UE-SGPM (PNDB). 2008-2010
- DEEPER, Desarrollo de Estudios de Ecosistemas de Profundidad bajo un Enfoque Interdisciplinar. Consejería de Agricultura y Pesca (Junta de Andalucía). 2008-2010
- PELCOSAT-2, Biología y Eco-Etología Pesquera de las especies de pelágicos costeros del Golfo de Cádiz (Región Sur-Atlántica Española, Subdivisión IXa Sur Del ICES). IEO. 2008-2010

Publicaciones más recientes

- Otto SA, Kadin M, Casini M, **Torres MA**, Bleckner T. 2018. A quantitative framework for selecting and validating food web indicators. *Ecological Indicators* 84, 619-631
- **Torres MA**, Casini M, Huss M, Otto S, Kadin M, Gårdmark A. 2017. Food-web indicators accounting for species interactions respond to multiple pressures. *Ecological Indicators* 77, 67-79
- **Torres MA**, Vila Y, Silva L, Acosta JJ, Ramos F, Palomares MLD, Sobrino I. 2017. Life history traits of crustaceans and cephalopods relevant in the Gulf of Cadiz. *Aquatic Living Resources* 30, 12. DOI: 10.1051/alr/2017010
- Bundy A, Chuenpagdee R, Boldt J, Borges MF, Camara ML, Coll M, Diallo I, Fox C, Fulton EA, Gazihan A, Jarre A, Jouffre D, Kleisner KM, Knight B, Link J, Matiku PP, Masski H, Moutopoulos DK, Piroddi C, Raid T, Sobrino I, Tam J, Thiao D, **Torres MA**, Tsagarakis K, Van der Meeren GI, Shin Y-J. 2017. Better fisheries management and governance, better ecosystem status. *Fish and Fisheries* 18, 412-439
- Coll M, Shannon LJ, Kleisner KM, Juan Jordà MJ, Bundy A, Shin Y-J, Akoglu AG, Banaru D, Boldt JL, Borges MF, Cook A, Diallo I, Fu C, Fox C, Gascuel D, Gurney L, Hattab T, Heymans JJ, Jouffre D, Knight BR, Kucukawsar S, Large SI, Lynam C, Machias A, Marshall KN, Masski H, Ojaveer H, Piroddi C, Tam J, Thiao D, Thiaw M, **Torres MA**, Travers-Trolet M, Tsagarakis K, Tuck I, Van der Meeren GI, Yemane DG, Zador SG. 2016. Ecological indicators to capture the effects of fishing on biodiversity and conservation status of exploited marine ecosystems. *Ecological Indicators* 60, 947-962

- Kleisner K, Coll M, Lynam CP, Bundy A, Shannon L, Shin Y-J, Boldt J, Borges MF, Diallo I, Clive F, Gascuel D, Heymans JJ, Juan Jorda MJ, Jouffre D, Large S, Marshall KN, Ojaveer H, Piroddi C, Tam J, **Torres MA**, Travers-Trolet M, Tsagarakis K, Van der Meeren GI, Zador S. 2015. Evaluating changes in fisheries as a provisioning ecosystem service through comparative assessment of community degradation. *Ecosystem Services* 16, 413-429
- Fu C, Large S, Knight B, Richardson A, Bundy A, Reygondeau G, Boldt J, Van der Meeren GI, **Torres MA**, Sobrino I, Auber A, Travers-Trolet M, Piroddi C, Diallo I, Jouffre D, Mendes H, Borges MF, Lynam CP, Coll M, Shannon LJ, Shin Y-J. 2015. Relationships among fisheries exploitation environmental conditions and ecological indicators across a series of marine ecosystems. *Journal of Marine Systems* 148, 101-111
- Coll M, Carreras M, Cornax MJ, Massutí E, Morote E, Pastor X, Quetglas A, Sáez R, Silva L, Sobrino I, **Torres MA**, Tudela S, Harper S, Zeller D, Pauly D. 2014. Closer to reality: reconstructing total removals in mixed fisheries from Southern Europe. *Fisheries Research* 154, 179-194
- Coll M, Carreras M, Cornax MJ, Massutí E, Morote, E, Pastor, X, Quetglas T, Sáez R, Silva L, Sobrino I, **Torres MA**, Turdela S, Harper S, Zeller D, Pauly D. (2016). Spain (Mediterranean and Gulf of Cadiz). *Global Atlas of Marine Fisheries: A critical appraisal of catches and ecosystem impacts* Island Press, Washington DC. Edited by Daniel Pauly, Dirk Zeller, 10/2016. pp. 396
- **Torres MA**, Coll M, Heymans JJ, Christensen V, Sobrino I. 2013. Food-web structure of and fishing impacts on the Gulf of Cadiz ecosystem (South-western Spain). *Ecological Modeling* 265, 26-44
- **Torres MA**, Ramos F, Sobrino I. 2012. Length-weight relationships of 76 fish species from the Gulf of Cadiz (SW Spain). *Fisheries Research* 127-128, 171-175

Aportaciones a congresos más recientes

- **Torres MA**, Castro M, Pontes J, Fonseca P. 2018. New occurrence of the prehistoric frilled shark *Chlamydoselachus anguineus* (Garman, 1884) in deep waters off Algarve (South of Portugal). POSTER. VII Congress of the Iberian Society for Ichthyology (SIBIC 2018). Faro (Portugal)
- Rangel M, Campos A, Marçalo A, Afonso CML, Pereira F, Oliveira F, Guimarães H, Gonçalves JMS, Marques L, Bentes L, Castro M, **Torres MA**, Anjos M, Gaspar MB, Eichert M, Fonseca P, Guerreiro PM, Monteiro P, Borges TC, Erzini K. 2018. Ciência, tecnologia e ligação à sociedade para minimizar as capturas indesejadas nas pescarias europeias – Projeto MINOUW (UE H2020 RIA). POSTER. 1º Congresso de Biologia Marinha dos Países de Língua Portuguesa. Faro (Portugal)
- **Torres MA**, Erzini K, Borges T, Campos A, Castro M, Santos J, Costa ME, Marçalo A, Oliveira N, Vingada J, Fonseca P. 2018. Ecological impacts of adopting the discard ban policy in the deep-water crustacean trawl fishery off Southern Portugal. ORAL. International conference on advances in marine technologies applied to discard mitigation and management (MARTEC 2018). Vigo (Spain)
- Gamaza MA, **Torres MA**, Acosta JJ, Erzini K, Sobrino K. 2018. The future of the Gulf of Cadiz multispecies trawl fishery under the ‘zero’ discards policy. POSTER. International conference on advances in marine technologies applied to discard mitigation and management (MARTEC 2018). Vigo (Spain)
- Pennino MG, Bevilacqua AH, **Torres MA**, Bellido JM, Sole J, Coll M. 2018. Discard ban: a simulation-based approach combining hierarchical Bayesian and food web spatial models. POSTER. International conference on advances in marine technologies applied to discard mitigation and management (MARTEC 2018). Vigo (Spain)
- **Torres MA**, Erzini K, Borges T, Campos A, Castro M, Santos J, Costa E, Marçalo A, Oliveira N, Vingada J, Fonseca P. 2017. An ecosystem modeling approach for evaluating the EU Landing Obligation impact on the Portuguese bottom trawl crustacean fishery. POSTER. ICES Annual Science Conference (ICES ASC 2017). Fort Lauderdale, Florida, (USA)
- Canseco JA, **Torres MA**, Ramos, F. Spatial patterns and inter-annual variability of mid-size pelagic fish

species off the Gulf of Cadiz. POSTER. ICES Annual Science Conference (ICES ASC 2017). Fort Lauderdale, Florida, (USA)

- Kadin M, Casini M, **Torres MA**, Blenckner T, Gårdmark A, Otto S. Coupled food-web indicator models and scenario simulations identify robust indicators guiding management actions. ORAL. ICES Annual Science Conference (ICES ASC 2017). Fort Lauderdale, Florida, (USA)
- Otto SA, Kadin M, Casini M, **Torres MA**, Gårdmark A, Huss M, Fetzer I, Blenckner T. (2016). On the lookout for suitable indicators for the Baltic pelagic food web - a potential evaluation framework. ORAL. ICES Annual Science Conference 2016. Riga (Latvia)
- **Torres MA**, Otto, S.A., Suikkanen, S., Haas, B., Ikauniece, A., Möllmann, C., Peltonen, H., Putnis, I., Wesslander, K., Bergström, L. (2016). Productivity changes across the Baltic Sea – linking abiotic changes to lower trophic level dynamics. POSTER. ICES Annual Science Conference 2016. Riga (Latvia)
- **Torres MA**, Casini M, Huss M, Kadin, M, Otto, S, Gårdmark A. 2016. Pelagic food-web indicators accounting for species interactions respond to multiple pressures. Poster presentation on: Nordic OIKOS Conference 2016. Turku (Finland)
- **Torres MA**, Delgado M, Baldó F, Sobrino I. 2014. A mass balance model for the Gulf of Cadiz: implications for the Marine Strategy Framework Directive Descriptor 4 (Food webs). Poster presentation on: XVIII Simposio Ibérico de Estudios de Biología Marina (SIEBM). Gijón (Spain)
- Tello O, Gómez M, De Armas D, Prado I, **Torres MA**, TPEA Working Group. 2014. Marine knowledge as a basis for Maritime Spatial Planning: TPEA Project. Poster presentation on: XVIII Simposio Ibérico de Estudios de Biología Marina (SIEBM). Gijón (Spain)
- Llope M, Baldó F, Bellanco MJ, de Carvalho-Souza GF, González C, **Torres MA**. 2014. The Gulf of Cadiz ecosystem, first steps towards its Integrated Ecosystem Assessment. Poster presentation on: ICES Annual Science Conference 2014. La Coruña (Spain)
- Hidalgo M, Coll M, Hinz H, Catalán I, Claudet J, Demestre M, Giannoulaki M, Heymans JJ, Le Loch F, Lindegren M, Möllmann C, Muntadas A, Navarro J, Olivar P, Otero J, Palomera I, Piroddi C, Steenbeek J, Tsagarakis K, & WGCOMEDA participants (**Torres MA**). 2014. Updates from the Working Group on Comparative Analyses between European Atlantic and Mediterranean marine ecosystems to move towards an Ecosystem-based Approach to Fisheries (WGCOMEDA). Poster presentation on: ICES Annual Science Conference 2014. La Coruña (Spain)
- Fdez-Palacios JM, **Torres MA**, Llope M. 2014. Moving towards an Ecosystem Based Management in the Gulf of Cadiz. Poster presentation on: IV International Symposium in Marine Sciences (ISMS'14). Las Palmas (Spain)
- Ballesteros M, Tello O, De Armas D, Prado I, **Torres MA**, TPEA Working Group. 2014. TPEA Project: Maritime Spatial Planning in the Gulf of Cadiz. Oral presentation on: IV International Symposium in Marine Sciences (ISMS'14). Las Palmas (Spain)
- **Torres MA**, Gil J, Sobrino I. 2012. Feeding habits of rabbit fish *Chimaera monstrosa* (Linnaeus, 1758) in deep waters of the Gulf of Cadiz (SW Spain). Poster presentation on: Ecosystem based management and monitoring in the deep Mediterranean and North Atlantic. Galway (Ireland)
- **Torres MA**, Coll M, Heymans JJ, Christensen V, Sobrino I. 2012. Food web structure and fishing impacts in the Gulf of Cadiz ecosystem (SW Spain). Oral presentation on: 50th ECSA Conference: Today's science for tomorrow's Management. Venice (Italy)
- **Torres MA**, Vila Y, Silva L, Acosta JJ, Sobrino I. 2012. Length-Weight Relationships and Maximum Lengths for Ecologically Important Cephalopods and Crustaceans in the Gulf of Cadiz. Poster presentation on: III International Symposium in Marine Sciences (ISMS'12). Cadiz (Spain).
- **Torres MA**, Sobrino I. 2012. Feeding habits of European hake *Merluccius merluccius* (L. 1758) in the Gulf of Cadiz. Oral presentation on: III International Symposium in Marine Sciences (ISMS'12). Cadiz (Spain)

Presentaciones en grupos de trabajos de ICES

- **Torres MA**, Erzini K, Borges T, Campos A, Castro M, Santos J, Costa ME, Marçalo A, Oliveira N, Vingada J, Fonseca P. 2018. Using food-web modelling to evaluate ecosystem effects of the crustacean trawl fishing in Portugal. Working Group on Ecosystem Assessment of Western European Shelf Seas (WGEAWESS). Nantes (France)
- **Torres MA**. 2017. Impact assessment of minimizing unwanted catches and discarding (MINOUW project): a case study in Southern Portugal. Working Group on Ecosystem Assessment of Western European Shelf Seas (WGEAWESS). Lisbon (Portugal)
- **Torres MA**, Casini M, Huss M, Otto, S, Kadin, M, Gårdmark A. 2016. Food-web indicators accounting for species interactions respond to multiple pressures. ICES Working Group on Integrated Assessment of the Baltic Sea (WGIAB). Helsinki (Finland)
- **Torres MA**, Bergström L. Abiotic datasets: key variables, temporal and spatial range. 2016. ICES Working Group on Integrated Assessment of the Baltic Sea (WGIAB). Helsinki (Finland)
- **Torres MA**, Casini M, Huss M, Gårdmark A. 2015. Linkages between pelagic food-web indicators in the Baltic Sea. ICES Working Group on Integrated Assessment of the Baltic Sea (WGIAB). Cadiz (Spain)
- **Torres MA**. 2015. Food web structure and functioning of the Gulf of Cadiz: knowledge and gaps. ICES Working Group on Ecosystem Assessment of Western European Shelf Seas (WGEAWESS). Cadiz (Spain)

Nº DE SEXENIOS:

ORCID: 0000-0003-4922-1894

INFORMACIÓN ADICIONAL

Participación en proyectos de investigación

- 22 scientific projects on Fisheries/Marine Biology/Marine Ecology. The most relevant:
 - Science, Technology, and Society Initiative to minimize Unwanted Catches in European Fisheries (MINOUW). European Commission H2020. CCMAR-Centro de Ciências do Mar (Universidade do Algarve). 2016-2018
 - Ecosystem-based approach for developing and testing pelagic food web indicators. Swedish Environmental Protection Agency (EPA). Institute of Coastal Research. 2014-2016
 - Transboundary Planning in the European Atlantic (TPEA): Project on Maritime Spatial Planning in the Atlantic, including Celtic Sea and Bay of Biscay MARE/2012/08. Instituto Español de Oceanografía. 2013-2014
 - Trawling fisheries of the Gulf of Cadiz: ecosystem approach to marine resources assessment and management (PESCADIZ). UE-SGPM Plan Nacional de Datos Básicos. Instituto Español de Oceanografía. 2008-2012

Afiliaciones y/o grupos de trabajos

- ICES/HELCOM Working Group on Integrated Assessments of the Baltic Sea (WGIAB) (since 2015)
- ICES Working Group on Comparative Analyses between European Atlantic and Mediterranean marine ecosystems (WGCOMEDA) (since 2012)
- International collaboration: Indicators for the Seas (INDISEAS) (since 2010)
- RNM213: Biología Marina y Pesquera (Plan Andaluz de Investigación, Desarrollo e Innovación) (since 2008)
- Fisheries, Biodiversity and Conservation CCMAR Group (since 2016)

Participación en campañas de investigación

- Participation in 18 fishing/oceanographic surveys on board commercial or oceanographic vessels

(358 days at sea).

Experiencia en gestión de actividades científicas

- Good communication and decision-making skills acquired through:
 - More than 10 years of experience in international meetings, working groups, committees and conferences.
 - Experience in teaching, training and cooperation activities, developed in different subjects, especially related to fisheries/marine ecology.
- Reviewer and hosting meetings:
 - Reviewer: Journal Scientific Research and Essays, ICES of Journal of Marine Science, Continental Shelf Research, Acta Adriatica, Marine Ecology Progress Series
 - Review Editor: Editorial Board of Marine Fisheries, Aquaculture and Living Resources, part of the journal Frontiers in Marine Science
 - Host member: Back-2-Back Meeting of ICES/HELCOM WGIAB, WGCOMEDA and WGEAWESS. Instituto Português do Mar e da Atmosfera (IPMA, Lisboa), 24-28 Abril 2017

Docencia y dirección de tesis

- Graduate course: Estudio de los parámetros biológicos necesario para la evaluación de los recursos pesqueros: Alimentación. University of Cadiz. 2016.
- Co-supervision:
 - PhD student: Encarnación García Rodríguez (2016-2019)
 - University of Alicante (UA) -Spanish Institute of Oceanography (IEO)
 - Title: First steps to achieve an ecosystem-approach to fisheries management in the Gulf of Alicante (SE Spain)

 - MSc student: Jose Antonio Rodríguez Canseco (2015-2016)
 - University of Cadiz (UCA) -Spanish Institute of Oceanography (IEO)
 - Title: Life-history traits and spatial patterns of five mid-size pelagic fish of the Gulf of Cadiz

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