



Curriculum vitae

Fran Saborido-Rey

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1. PERSONAL AND PROFESSIONAL DETAILS

Surname: Saborido-Rey
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ORCID ID: 0000-0002-2760-8169
Researcher ID: A-8440-2008
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Present Appointment:
Senior researcher
Fisheries Ecology research unit
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2. RESEARCH LINES

FISHERIES ECOLOGY. Demography. Population dynamics. Fish stock assessment and management. Environment and Fisheries interactions. Ecosystem approach.
REPRODUCTIVE ECOLOGY. Fish reproductive biology applied to fisheries. Conservation of reproductive potential. Maturation and fecundity. Bioenergetics.

3. EDUCATION

Ph Doctor in Biology. Doctoral Thesis: "Genus *Sebastes* Cuvier, 1829 (Pisces, Scorpaenidae) in the North Atlantic: Identification of species and populations using morphometric methods; Growth and reproduction of the Flemish Cap populations". Cum laude (Highest qualification). Developed at Institute of Marine Research (CSIC). Defended at the Dept. of Zoology, Madrid Autonomous University. 16-December-1994

Special Prize to the best of the year Thesis awarded by the University in 1995.

Graduated in Biological Sciences (1984-1988), specialization in Zoology and Environmental Sciences. Science Faculty of Madrid Autonomous University. June 1988

4. PROFESSIONAL RESEARCH EXPERIENCE

- Researcher (Permanent). Institute of Marine Research (CSIC), Vigo. Since July 2006
- Researcher (Interim). Institute of Marine Research (CSIC), Vigo. May 2000- June 2006
- Postdoctoral Researcher. Institute of Marine Research (CSIC), Vigo. *Financing*: European Union (DG XIV 96/030) *Period*: August 1997 – April 2000
- Postdoctoral Researcher. Institute of Marine Research, Bergen, Norway. *Financing*: European Union (project ERBFMBICT 960772). August 1996 - August 1997. Scholarship from the European Training and Mobility of Researchers Programme (Marie Curie)
- Postdoctoral Researcher. Institute of Marine Research (CSIC), Vigo. *Financing*: European Union (project AIR1 CT92-0558). 1995 - 1996.
- Graduate Researcher. Institute of Marine Research (CSIC), Vigo. *Financing*: European Union (project MA-1-246). 1989 - 1994.
- Scholarship from the European Large Scale Facilities Programme in 1998. 3 months.

5. RESEARCH RESPONSIBILITIES

RESEARCH LEADERSHIP AND COORDINATION

- HEAD OF THE DEPARTMENT OF ECOLOGY AND MARINE RESOURCES. 2011-2013. One of the four Departments at the Institute of Marine Research (IIM-CSIC). Staff: 43 persons.
- FOUNDING MEMBER of the Latin-American Network on fisheries research for the sustainable use of fishing resources. Operating since 2009 in 12 countries.
- LEADER OF THE FISHERIES ECOLOGY RESEARCH GROUP. January 2000-April 2012. One of the 11 research groups at the Institute of Marine Research (IIM-CSIC). Staff: 22 persons.
- COORDINATOR OF THE CSIC MAIN STRATEGIC RESEARCH LINE *Ecosystem approach applied to marine living resources management*. 2007-2013.
- COORDINATOR OF COST ACTION. European Cooperation in Science and Technology. FA0601 "Fish Reproduction and Fisheries". A research network involving 19 countries and more than 140 researchers. June 2007-May 2011
- FISHERIES TECHNOLOGY PLATFORM OF GALICIA. Member of the Steering and management committee. 2007-2012.
- MARIE CURIE PROGRAMME: Ecosystem approach to sustainable management of the marine environment and its living resources. UE Marie Curie Actions. Host fellowships for Early Stage Research Training (EST). Coordinator at the Institute of Marine Research. January 2006-December 2009

PHD THESIS SUPERVISION

- THE GENUS *SEBASTES* CUVIER, 1829 (PISCES, SCORPAENIDAE) IN THE NORTH ATLANTIC: SPECIES AND STOCK DISCRIMINATION USING TRADITIONAL AND GEOMETRIC MORPHOMETRICS. Dolores Garabana Barro. University of Vigo, Marine Science Faculty. June 2005
- STUDY OF REPRODUCTIVE POTENTIAL OF *MERLUCCIVUS MERLUCCIVUS* IN THE GALICIAN SHELF. Rosario Domínguez Petit. University of Vigo, Marine Science Faculty. March 2007
- BIOENERGETICS APPROACH TO FISH REPRODUCTIVE POTENTIAL: CASE OF *TRISOPTERUS LUSCUS* (TELEOSTEI) ON THE GALICIAN SHELF (NW IBERIAN PENINSULA). Alexandre Alonso Fernandez. University of Vigo, Marine Science Faculty. April 2011
- AN INTEGRATIVE STUDY TO THE FUNCTIONING OF THE FLEMISH CAP DEMERSAL COMMUNITY. Alfonso Pérez Rodríguez. University of Vigo, Marine Science Faculty. September 2012
- POPULATION STRUCTURE OF THE BLUEMOUTH, *HELICOLENUS DACTYLOPTERUS* (TELEOSTEI: SEBASTIDAE), IN THE NORTHEAST ATLANTIC AND MEDITERRANEAN USING GEOMETRIC MORPHOMETRIC TECHNIQUES. Rebeca P. Rodríguez Mendoza. University of Vigo, Marine Science Faculty. June 2013.
- FISHERY ECOLOGY OF THE FRESHWATER FISHES IN THE LAKE NICARAGUA. REPRODUCTION AND MANAGEMENT OF *BRYCON GUATEMALENSIS*. Aldo Hernández Portocarrero. University of Vigo, Marine Science Faculty. June 2013.
- LIFE-HISTORY AND BEHAVIOUR OF *LABRUS BERGYLTA* IN GALICIA. David Villegas Ríos. University of Vigo, Marine Science Faculty. June 2013.
- DINÂMICA POPULACIONAL DE LUTJANIDAE E DESENVOLVIMENTO DE PROTOCOLO PARA EXPLORAÇÃO SUSTENTÁVEL DA PESCA ARTESANAL NO LITORAL NORTE DA BAHIA. Iramaia de Santana. University of Vigo, Marine Science Faculty. January 2016

6. PUBLICATIONS

SCIENTIFIC PEER REVIEW JOURNAL

90. Nogueira, A., A. Pérez-Rodríguez, D. González-Troncoso, F. Saborido-Rey. 2018. Could population and community indicators contribute to identify the driver factors and describe the dynamic in the Flemish Cap demersal assemblages? *Fisheries Research* 204: 33-40
89. Morales, A., E. González-Gómez de Agüero, C. Fernández-Rodríguez, F. Saborido Rey, L. Llorente-Rodríguez, B. López-Arias, E. Roselló-Izquierdo. 2017. Hindcasting to forecast. an archaeobiological approach to the European hake (*Merluccius merluccius*, Linnaeus 1758) fishery: Iberia and beyond. *Regional Studies in Marine Science* (In press)
88. Perez-Rodriguez, A., Howell, D., Casas, M., Saborido-Rey, F., Avila-de Melo, A. 2017. Dynamic of the Flemish Cap commercial stocks: use of a gadget multispecies model to determine the relevance and synergies between predation, recruitment and fishing. *Canadian Journal of Fisheries and Aquatic Sciences* 74: 582–597
87. Almada, F., S. M Francisco, C. S Lima, R. FitzGerald, L. Mirimin, D. Villegas-Ríos, F. Saborido-Rey, P. Afonso, T. Morato, S. Bexiga and J. I Robalo. 2017. Historical gene flow constraints in a northeastern Atlantic fish: phylogeography of the ballan wrasse *Labrus bergyllta* across its distribution range. *Royal Society Open Science* 4: 160773
86. Casas, L., F. Saborido-Rey, T. Ryu, C. Michell, T. Ravasi, X. Irigoien. 2016. Sex Change in Clownfish: Molecular Insights from Transcriptome Analysis. *Scientific Reports* 6, 35461
85. García-Seoane, E, G. Álvarez-Colombo, J. Miquel, J. M. Rodríguez, C. Guevara-Fletcher, P. Álvarez, and F. Saborido-Rey. 2016. Acoustic detection of larval fish aggregations in Galician waters (NW Spain). *Marine Ecology Progress Series* 551: 31–44
84. Saborido-Rey, F., A. Grau, E. Pastor, M. Palmer, E. Massutí-Pascual, A. Quetglas, I. Riera, B. Morales-Nin. 2016. Reproductive strategy of common dentex *Dentex dentex*: management implications. *Mediterranean Marine Science* 17 (2): 552-566
83. Almada F., Casas L., Francisco S.M., Villegas-Ríos D., Saborido-Rey F., Irigoien X., Robalo J.L.. 2016. On the absence of genetic differentiation between morphotypes of the ballan wrasse *Labrus bergyllta* (Labridae). *Marine Biology* 163: 86
82. Saborido-Rey, F. 2016. Fish Reproduction. Reference Module in Earth Systems and Environmental Sciences (Encyclopedia of Ocean Sciences). Elsevier.
81. Rodriguez, J.M, A. Cabrero, J. Gago, A. Garcia, R. Laiz-Carrion, C. Piñeiro and F. Saborido-Rey. 2015. Community composition and structure of fish larvae in the NW Iberian upwelling system during the winter mixing period. *Marine Ecology Progress Series* 533: 245–260
80. Rodriguez, J.M, A. Cabrero, J. Gago, P. Alvarez, C. Fletcher, M. Herreros, A. Hernandez de Rojas, A. Garcia, R. Laiz-Carrion, A. Vergara-Castaño, C. Piñeiro and F. Saborido-Rey. 2015. Vertical distribution and migration of fish larvae in the NW Iberian upwelling system during the winter mixing period: implications for cross-shelf distribution. *Fisheries Oceanography* 24:3, 274–290
79. Saborido-Rey, F., R. Domínguez-Petit, D. Garabana, Þ. Sigurðsson. 2015. Fecundity of *Sebastes mentella* and *Sebastes norvegicus* in the Irminger Sea and Icelandic waters. *Ciencias Marinas* 41(2): 107–124
78. Hernández-Portocarrero, A., F. Saborido-Rey. 2015. Reproductive tactics of the freshwater fish *Brycon guatemalensis* (Teleostei: Characidae) in the Lake Nicaragua. *Environmental Biology of Fishes* 98(2): 535-546
77. Villegas-Ríos, D., Alós, J., Palmer, M., Lowerre-Barbieri, S.K., Bañón, R., Alonso-Fernández, A., Saborido-Rey, F. 2014. Life-history and activity shape catchability in a sedentary fish. *Marine Ecology Progress Series* 515:239-250
76. Macchi, G.J., Saborido-Rey, F., Murua, H., Claramunt, G., de Tarso Chaves, P. 2014. Advances in fisheries research in Ibero-America. *Fisheries Research* 160: 1-7
75. Hidalgo, M., E. M. Olsen, J. Ohlberger, F. Saborido-Rey, H. Murua, C. Piñeiro, N. C., Stenseth. 2014.

- Contrasting evolutionary demography induced by fishing: the role of adaptive phenotypic plasticity. *Ecological Applications* 24(5), 1101–1114
74. Villegas-Ríos, D., A. Alonso-Fernández, Domínguez-Petit, F. Saborido-Rey. 2014. Energy allocation and reproductive investment in a temperate protogynous hermaphrodite, the ballan wrasse *Labrus bergylta*. *Journal of Sea Research* 86: 76–85
73. García-Seoane, E., A. Bernal, F. Saborido-Rey. 2014. Reproductive ecology of the glacier lanternfish *Benthoosema glaciale*. *Hydrobiologia* 727: 137-149
72. Villegas-Ríos, D., A. Alonso-Fernández, M. Fabeiro, R. Bañón, F. Saborido-Rey. 2013. Demographic Variation between Colour Patterns in a Temperate Protogynous Hermaphrodite, the Ballan Wrasse *Labrus bergylta*. *PLoS ONE* 8(8): e71591.
71. Vergara, A. R., Sigurðsson, T and F. Saborido-Rey. 2013. Comparative morphology of pre-extrusion larvae, *Sebastes mentella* and *Sebastes norvegicus* (Pisces: Sebastidae) in Icelandic waters. *Journal of Fish Biology* 83: 52-63
70. Villegas-Ríos, D., J. Alós, D. March, M. Palmer, G. Mucientes, F. Saborido-Rey. 2013. Home range and diel behaviour of the ballan wrasse, *Labrus bergylta*, determined by acoustic telemetry. *Journal of Sea Research* 80:61-71
69. Alonso-Fernández, A., D. Villegas-Ríos, M. Valdés-López, B. Oliveira, F. Saborido-Rey 2013. Reproductive biology of pollack (*Pollachius pollachius*) from the Galician shelf (North-West Spain). *Journal of the Marine Biological Association of the United Kingdom* 93(7), 1951–1963
68. Villegas-Ríos, D., A. Alonso-Fernández, R. Domínguez-Petit, F. Saborido-Rey. 2013. Intraspecific variability in reproductive patterns in the temperate hermaphrodite *Labrus bergylta*. *Marine and Freshwater Research* 64(12) 1156-1168
67. Morgan, M. J., D. Garabana, R. M. Rideout, E. Román, A. Pérez-Rodríguez, F. Saborido-Rey. 2013. Changes in distribution of Greenland halibut in a varying environment. *ICES Journal of Marine Science* 70 (2): 352-361.
66. Saborido-Rey, F and E. Trippel. Fish reproduction and fisheries, 2013. *Fisheries Research* 138: 1-4
65. Pérez-Rodríguez, A, J. Morgan, M. Koen-Alonso and F. Saborido-Rey. 2013. Disentangling genetic change from phenotypic response in reproductive parameters of Flemish Cap cod *Gadus morhua*. *Fisheries Research* 138: 62– 70
64. Haslob, H., S. Rabade and F. Saborido-Rey. 2013. Seasonal variability of Baltic sprat fecundity traits. *Fisheries Research* 138: 99– 109
63. Cerviño, S, R. Domínguez, E. Jardim, S. Mehault, C. Piñeiro and F. Saborido-Rey. 2013. Impact of egg production and stock structure on MSY reference points. Implications for Southern hake management. *Fisheries Research* 138: 168– 178
62. Pérez-Rodríguez, A. M. Koen-Alonso and F. Saborido-Rey. 2012. Changes and trends in the demersal fish community of the Flemish Cap, Northwest Atlantic, in the period 1988-2008. *ICES Journal of Marine Science* 69(5): 902-912
61. Alonso-Fernández, A. and F. Saborido-Rey. 2012. Relationship between energy allocation and reproductive strategy in *Trisopterus luscus*. *Journal of Experimental Marine Biology and Ecology* 416-417 , pp. 8-16
60. Haslob, H., G. Kraus and F. Saborido-Rey. 2012. The dynamics of postovulatory follicle degeneration and oocyte growth in Baltic sprat. *Journal of Sea Research* 67(1): 27-33
59. Hidalgo, M., T. Rouyer, V. Bartolino, S. Cerviño, L. Ciannelli, E. Massutí, A. Jadaud, F. Saborido-Rey, J. M. Durant, M. Santurtún, C. Piñeiro and N. C. Stenseth. 2012. Context-dependent interplays between truncated demographies and climate variation shape the population growth rate of a harvested species. *Ecography* 35: 637–649
58. Traina, A., G. Basilone, F. Saborido-Rey, R. Ferreri, E. Quinci, T. Masullo, S. Aronica and S. Mazzola. 2012. Assessing population structure of European Anchovy (*Engraulis encrasicolus*) in the Central Mediterranean by means of traditional morphometry. *Advances in Oceanography and Limnology* 2 (2): 141-153
57. Pérez-Rodríguez, A., M. J. Morgan, R. M. Rideout, R. Domínguez-Petit and F. Saborido-Rey. 2011. Study of

- the relationship between total egg production, female spawning stock biomass and recruitment in Flemish Cap cod (*Gadus morhua*). *Ciencias Marinas* 37(4B): 675–687
56. Alonso-Fernández, A. and F. Saborido-Rey. 2011. Maternal influence on the variation of the reproductive cycle of *Trisopterus luscus* (Gadidae). *Ciencias Marinas* 37(4B): 619–632
 55. Saborido-Rey, F., H. Murua, G. Macchi. 2011. Iberoamerican Symposium on Reproductive Ecology, Recruitment and Fisheries. *Ciencias Marinas*. vol. 37(4B): i-xii
 54. Morgan, J., A. Pérez-Rodríguez and F. Saborido-Rey. 2011. Does increased information about reproductive potential result in better prediction of recruitment? *Canadian Journal of Aquatic Fisheries Sciences* 68: 1361–1368
 53. Rodríguez-Mendoza, R. M. Muñoz and F. Saborido-Rey. 2011. Ontogenetic allometry of the bluemouth, *Helicolenus dactylopterus* (Teleostei: Scorpaenidae), in the Northeast Atlantic and Mediterranean using Geometric Morphometrics. *Hydrobiologia* 670 (1): 5-22
 52. Sequeira, V., R. Rodríguez-Mendoza, A. Neves, R. Paiva, F. Saborido-Rey and L. Serrano Gordo. 2011. Using body geometric morphometrics to identify bluemouth, *Helicolenus dactylopterus* (Delaroche, 1809) populations in the Northeastern Atlantic. *Hydrobiologia* 669 (1): 133-141
 51. Lowerre-Barbieri, S., N. Brown Peterson, H. Murua, J. Tomkiewicz, D. Wyanski, F. Saborido-Rey. 2011. Emerging issues and methodological advances in fisheries reproductive biology: the importance of histological tools. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 3:32–51
 50. Brown-Peterson, N., D. Wyanski, F. Saborido-Rey, B. Macewicz, S. Lowerre-Barbieri. 2011. A standardized terminology for describing reproductive development in fishes. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 3:52–70
 49. Lowerre-Barbieri, S., K. Ganas, F. Saborido-Rey, H. Murua, J. Hunter. 2011. Reproductive timing in marine fishes: variability, temporal scales, and methods. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 3:71–91
 48. Alonso-Fernández, A, J. Alós, A. Grau, R. Domínguez-Petit, F. Saborido-Rey. 2011. The Use of Histological Techniques to Study the Reproductive Biology of the Hermaphroditic Mediterranean Fishes *Coris julis*, *Serranus scriba*, and *Diplodus annularis*. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 3:145–159
 47. Alonso-Fernández, A, A. R. Vergara and F. Saborido-Rey. 2011. Embryonic development and spawning pattern of *Trisopterus luscus* (Teleostei: Gadidae) under controlled conditions. *Journal of the Marine Biological Association of the United Kingdom* 91 Special Issue 06, pp 1281 - 1287
 46. Domínguez-Petit, R. A. Alonso-Fernández and F. Saborido-Rey. 2011. Incidence and significance of cystic structures in the ovaries of gadoid fish. *Scientia Marina* 75(2):359-368
 45. Muñoz, M., C. Dimitriadis, M. Casadevall, S. Vila, E. Delgado, J.Lloret and F. Saborido-Rey. 2010. Female reproductive biology of the bluemouth *Helicolenus dactylopterus dactylopterus* in the north-western Mediterranean: spawning and fecundity. *J. Fish Biol.* 77 (10): 2423–2442
 44. Cadrin, S.X., M. Bernreuther, A. K. Daniélsdóttir, E. Hjörleifsson, T. Johansen, L. Kerr, K. Kristinsson, S. Mariani, K. Nedreaas, C. Pampoulie, B. Planque, J. Reinert, F. Saborido-Rey, T. Sigurdsson and C. Stransky. 2010. Population Structure of beaked redfish, *Sebastes mentella*: evidence of divergence associated with different habitats. *ICES Journal of Marine Science* 67(8): 1617-1630
 43. Kjesbu, O. S., H. Murua, F. Saborido-Rey and P. Witthames. 2010. Method development and evaluation of stock reproductive potential of marine fish. *Fisheries Research* 104 (1-3): 1-7
 42. Mehault, S., R. Dominguez-Petit, S. Cerviño, F. Saborido-Rey. 2010. Variability in Total Egg Production and implications for management of the Southern stock of European hake. *Fisheries Research* 104 (1-3): 111-122
 41. Reñones, O., A. Grau, X. Mas, F. Riera and F. Saborido-Rey. 2010. Reproductive pattern of an exploited dusky grouper *Epinephelus marginatus* (Lowe 1834) (Pisces, Serranidae) population in the western Mediterranean. *Scientia marina* 74(3):523-537
 40. Dominguez-Petit, R. and Saborido-Rey, F. 2010. New bioenergetic perspective of European hake (*Merluccius merluccius*, L. 1758) reproductive ecology. *Fisheries Research* 104 (1-3): 83-88

39. Korta, M., R. Domínguez-Petit, H. Murua and F. Saborido-Rey. 2010. Regional variability in reproductive traits of European hake *Merluccius merluccius* L. populations. *Fisheries Research* 104 (1-3): 64-72
38. Domínguez-Petit, R., F. Saborido-Rey, I. Medina. 2010. Changes of proximate composition, energy storage and condition of European hake (*Merluccius merluccius*, L. 1758) through the spawning season. *Fisheries Research* 104 (1-3): 73-82
37. Ferreri R., G. Basilone, A. Traina, F. Saborido-Rey and S. Mazzola. 2009. Validation of macroscopic maturity stages according to the microscopic histological examination for European Anchovy. *Marine Ecology* 30: 181-187
36. Pérez, A, J. Morgan and F. Saborido-Rey. 2009. Comparison of Demographic and Direct Methods to calculate Probabilistic Maturation Reaction Norms for Flemish Cap cod (*Gadus morhua*). *Evolutionary Applications* 2(3): 291-298
35. Alonso-Fernández, A, A. C. Vallejo, F. Saborido-Rey, H. Murua and E. A. Trippel. 2009. Fecundity Estimation of Atlantic Cod (*Gadus morhua*) and Haddock (*Melanogrammus aeglefinus*) of Georges Bank: Application of the Autodiametric Method. *Fisheries Research* 99:47-54.
34. Witthames, P.R., A.Thorsen, L.N. Greenwood, F. Saborido-Rey, Rosario Dominguez, H. Murua, M. Korta, O.S.Kjesbu. 2009. Advances in methods for determining fecundity: application of the new methods to some marine fishes. *Fishery Bulletin* 107(2):148-164
33. Mucientes-Sandoval, G.R., F. Saborido-Rey. 2008. Acercamiento a la composición de la dieta de *Isurus oxyrinchus* Rafinesque, 1810 (Elasmobranchii: Lamnidae) en aguas internacionales del Pacífico Sur Central. *Revista de Investigaciones Marinas* 29(2):145-150
32. Cernadas, E., P. Carrión, A. Formella, R. Domínguez and F. Saborido-Rey. 2008. Recognize and classify fish oocytes in histological images. *Proceedings of the VIII IASTED International Conference on Visualization, Imaging, and Image Processing*. Acta Press. 180-186
31. Alonso-Fernández, A., R. Domínguez-Petit, M. Bao, C. Rivas and F. Saborido-Rey. 2008. Spawning pattern and reproductive strategy of female pouting *Trisopterus luscus* (Gadidae), on the Galician shelf of north-western Spain. *Aquatic Living Resources* 21 (4): 383-393
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29. Domínguez, R., M. Korta, F. Saborido-Rey, H. Murua, M. Sainza and C. Piñeiro. 2008. Changes in size at maturity of European hake Atlantic populations in relation with stock structure and environmental regimes. *Journal of Marine Systems* 71:260-278
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27. Alonso-Fernández, A., R. Domínguez-Petit and F. Saborido-Rey. 2008. Reproductive strategy of pouting, *Trisopterus luscus* (Linnaeus, 1758). *Cybio*, 32(2) suppl:314 .
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25. Anta, P., P. Carrión, A. Formella, E. Cernadas, R. Domínguez, and F. Saborido-Rey. 2007. Combining Region and Edge Information to Extract Fish Oocytes in Histological Images. *Proceedings of the VII IASTED International Conference on Visualization, Imaging, and Image Processing*. Acta Press. 583-120
24. Saborido-Rey, F , R Dominguez, J.Tomás, B.Morales-Nin and A. Alonso. 2007. Growth of juvenile turbot in response to food pellets contaminated by fuel oil from the tanker 'Prestige'. *Marine Ecology Progress Series* 345: 271–279
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22. Cerviño, S. and F. Saborido-Rey. 2006. Using the bootstrap to investigate the effects of varying tow lengths and catch sampling schemes in fish survey. *Fisheries Research* 79: 294-302

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20. Saborido-Rey, F., Garabana, D., Stransky, C., Melnikov, S. and Shibanov, V. 2004. Review of population structure and ecology of *S. mentella* in the Irminger Sea and adjacent waters. Reviews in Fish Biology and Fisheries 14:455-479
19. Saborido-Rey, F., D. Garabana and S. Cerviño. 2004. Age and growth of redfish (*Sebastes marinus*, *S. mentella* and *S. fasciatus*) on the Flemish Cap (Northwest Atlantic). ICES Journal of Marine Science 61: 231-242
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- 5 de Santana, I., de Oliveira Santos, G. G., de Souza Nogueira, E.M., Saborido-Rey, F. 2017. Riqueza e diversidade de peixes explorados pela pesca artesanal na APA Litoral Norte, Bahia, Brasil. En: *Litoral norte da Bahia: caracterização ambiental, biodiversidade e conservação*. José Marcos de Castro Nunes, Mara Rojane Barros de Matos, Organizadores - Salvador: EDUFBA, 2017. 455 p.: il. <http://repositorio.ufba.br/ri/handle/ri/24288>
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- Editor-in-Chief of *Ciencias Marinas*. Since 2018.
- Associated Editor of *Ciencias Marinas*. 2010-2017.
- *Fish reproduction and Fisheries*, Fisheries Research, Volume 138, 2013.
- *Emerging Issues and Methodological Advances in Fisheries Reproductive Biology*. Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science, Volume 3, 2011.
- *Reproductive Ecology, Recruitment and Fisheries*, *Ciencias Marinas*, Volume 37(4B), 2011.
- *Method development and evaluation of stock reproductive potential of marine fish*, Fisheries Research, Volume 104, 2010.

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- mackerel". 2011.
25. Report of the Workshop on Redfish Stock Structure. 2009
 24. Working plan for the development of small scale fisheries in Cape Verde. 2009.
 23. Assessment of small scale fisheries in Cape Verde. 2009
 22. Workshop on Age Determination of Redfish Report. 2008.
 21. Assessment and recommendations to promote institutional capacity building in relation with fishing and aquaculture activities in Liberia. 2009.
 20. Master plan of the Multiple Use Marine Area in South Pacific Costa Rica. 2007
 19. Master plan of the Multiple Use Marine Area in Nicoya Gulf, Costa Rica. 2007
 18. ICES Workshop on Age Determination of Redfish Report. 2006.
 17. Flemish Cap-05 Research survey report. 2005
 16. Flemish Cap-02 Research survey report. 2002
 15. II NAFO Working Group on Reproductive Potential Report. 2001.
 14. Report on Population structure, reproductive strategies and demography of redfish (Genus *Sebastes*) in the Irminger Sea and adjacent waters. 2000.
 13. I NAFO Working Group on Reproductive Potential Report. 2000
 12. Report of the ICES North-western Working Group. 2000.
 11. Flemish Cap-00 Research survey report. 2000.
 10. Report of the ICES North-western Working Group. 1999.
 9. Report of the Study Group on Stock Identity and Management Units of Redfishes. 1998
 8. Report of the ICES North-western Working Group. 1998.
 7. Flemish Cap-97 Research survey report. 1997.
 6. Report on Age determination of Oceanic *S. mentella* in the Irminger Sea. 1997.
 5. Report of the ICES Northwestern Working Group. 1997.
 4. ICES Workshop on Age Determination of Redfish Report. 1995.
 3. Report of the Study Group of Redfish stocks. 1992.
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7. R+D FUNDED PROJECTS

Title; Funding body; Period; Budget; Project coordinator; Institute PI; Number of involved researchers

AS PRINCIPAL INVESTIGATOR

Recruitment dynamics of the European hake

PE I+D+I (CTM2015-66676-C2-1-R)

2016- 2019

Total: 320.000€ -- IIM: 220.000€

Dr. Fran Saborido Rey

14

Research surveys on the Flemish Cap fishing ground.

IEO Cap (Nº Registro: 03020075) – EU Data Collection Framework

March 2003- December 2017

Total: -- CSIC: 389.182 €

Mikel Casas (IEO) - Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

8

Life History Service, infrastructure modernization

PE I+D+I (CSIC15-DE-2936)

Enero 2016-Junio 2018

Total: 154,839.17€ -- IIM: 154,839.17€

Dr. Fran Saborido Rey

5

Life history temporal dynamic of *Sebastes* species in Flemish Cap

CSIC (201230E095)

August 2012- July 2015

Total: 71.353€ -- IIM: 71.353€

Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

3

Hake recruitment ecology: implications on fisheries management.

PN I+D+I (CTM2010-21856-C03-00)

Jan 2011- Jun 2014

Total: 350.000 € -- IIM: 140.000 €

Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

26

Biology, ecology and habitat use of the species target of artisanal fleet: mechanism of ecosystem management

Xunta de Galicia (09MMA022402PR)

1 December 2009-30 November 2012

99.981,79 €

Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

12

Integrated action for improving the fisheries management in Cape Verde.

AECID-C/031413/10

January-December 2011

9.300 €

Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

9

Ocean renewable energy
CDTI-CENIT
November 2009-October 2012
50.000 €
Iberdrola
Dr. Fran Saborido Rey

8

Ecology of reproduction and early life stages of European hake in Galicia
PN I+D+I (CTM2009-13263-C03-00)
January 2009-December 2010
Total: 30.780 € -- IIM: 10.890 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey

21

Analysis of Stock Reproductive Potential to promote sustainability of Greenland Halibut fishery
Acción Complementaria Internacional (MICINN)- ACI2008-0754. Acción con Canadá
1 August 2009- 31 July 2012
Total: 240.000 € -- IIM: 120.000 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey

11

Development of an integrated management system (fisheries management–traceability– surveillance– control) of small scale fishing using Information and communications technologies
Xunta Galicia (IN841C-2008/134)
1 October 2008- 30 september 2011
Total: 65.100 € -- IIM: 12.000 €
Alberto Garazo Fabregat (Quadralia, SME)
Dr. Fran Saborido Rey

4

Exploratory Fishing For Common Octopus (*Octopus vulgaris*) in Namibia
Beluga Fishing (Pty) Ltd.
September 2008-February 2009
Total e IIM: 18.000 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey

2

Population dynamics of Lutjanidae (Teleostei) and sustainable Management of artisanal fisheries in the North of Brazil
AECI (PCI-Iberoamérica, A/8268/07))
1 January 2008- 31 December 2008
Total: 23.000 € -- IIM: 23.000 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey

4

Fish reproduction and Fisheries
Acción Complementaria Internacional (MEC)- PCI-2006-A9-0610
1 June 2007- 30 May 2010
Total: 89.000 € -- IIM: 89.000 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey

1

Reproductive biology and fisheries of mackerel on Morocco coast
AECI (PCI-Marruecos, A/7297/06)
1 April 2007- 30 March 2008
Total: 9.270 € -- IIM: 7.770 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey
4

Fisheries-induced Evolution
European Union (6 FP)- SSP-2006-044276
1 July 2007- 30 June 2010
Total: 2.356.300 € -- IIM: 89.400 €
Dr. Mikko Heino (IMR, Norway)
Dr. Fran Saborido Rey
73

Management Plan for technological development in the fisheries sector.
MEC (Proyectos de Transferencia tecnológica- OTR050002C07)
January 2007-December 2009
Total: € -- IIM: €
Rosa Fernandez (CETMAR)
Dr. Fran Saborido Rey
11

Integrated coastal Management in Pacific Costa Rica
Banco Interamericano para el Desarrollo
December 2006-September 2007
Total: € -- IIM: 10.000 €
Dr. Manuel Varela Lafuente (CETMAR)
Dr. Fran Saborido Rey
14

Study of reproductive potential of hake and megrim. Implications on stock assessment..
Xunta de Galicia PGIDIT06RMA40201PR
1 December 2006- 30 November 2009
Total: 114.796,00 € -- IIM: 67.000 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey
7

Population structure and reproductive ecology of bluemouth *Helicolenus dactylopterus*
MEC (Plan Nacional I+D+I) CTM2006-13964-C03-00/MAR
1 October 2006- 30 September 2009
Total: 127.000 € -- IIM: 30.000 €
Dr. Marta Muñoz (University of Girona, Spain)
Dr. Fran Saborido Rey
13

Ecophysiology of reproduction and interaction with fisheries
CSIC (200630I218)
11 september 2006-31 December 2007
30.000 €
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey
1

Emergent indirect effects in predator/prey systems: case study of population dynamic of coastal fishes exploited by sport fishery
MEC (Plan Nacional I+D+I) CTM2005-00283/MAR

1 January 2006- 31 December 2008

Total: 247.150 € -- IIM: 66.388 €

Dr. Miquel Palmer (CSIC, Spain)

Dr. Fran Saborido Rey

11

Ecosystem approach to Sustainable Management of the Marine Environment and its Living Resources

European Union (Marie Curie Actions) (020501-2)

1 January 2006-30 December 2009

Total: 1.682.355 € -- CSIC: 211.177 €

Dr. Graham Pierce (University of Aberdeen, UK)

Dr. Fran Saborido-Rey

114

Estimation of reproductive parameters aided with image analysis automation

Xunta Galicia (PGIDIT04RMA402002PR)

1 November 2004-30 October 2007

Total: 71.000 € -- CSIC: 33.015 €

Dr. Eva Cernadas García (Vigo University)

Dr. Fran Saborido-Rey

8

Definition and development in network of a technological strategy applied to the results and capacities fishing and aquaculture sectors

MEC (Fomento de la Innovación y Transferencia Tecnológica)

1 January 2005-31 December 2005

6.000

CETMAR Foundation (Spain)

Dr. Fran Saborido Rey

8

Critical Interactions BEtween Species and their Implications for a PreCAUTIONary FiSheries Management in a variable Environment - a Modelling Approach (BECAUSE)

European Union (6 FP) SSP8-CT-2003-502482

March 2004 - August 2007.

Total: 4.846.691 € -- CSIC: 258.337 €

Dr. Axel Temming (Hamburg University, Germany)

Dr. Fran Saborido Rey

69

Assessment of the impact of "Prestige" oil spill in the shelf ecosystem and the fisheries resources.

MCyT. (VEM2003-20081-C02-02)

December 2003- March 2007

Total: 216.200 € -- CSIC: 73.816 €

Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

10

Assessment of reproduction and recovery of hake and cod

MCyT (Acción especial)

June 2003-September 2005

Total: 29.284 € -- CSIC: 29.284 €

Dr. Fran Saborido Rey

Dr. Fran Saborido Rey

3

Assessment of the impact of "Prestige" oil spill in the shelf ecosystem and the fisheries resources. Spring survey

MCyT (Special Action)

March 2003- September 2003.
Total: 6.097.000 € -- CSIC: 4.500 €
Dr. Ignacio Olaso (IEO, Spain)
Dr. Fran Saborido Rey
1

Reproductive and stock evaluation for recovery (QLRT-2001-01825)
European Union
November 2002- January 2006.
Total: 2.000.000 € -- CSIC: 425.000 €
Dr. Peter Witthames (CEFAS, UK)
Dr. Fran Saborido Rey
14

The influence of UVR and climate conditions on fish stocks: A case study of the Northeast Arctic cod (EVK3-1999-00050)
European Union
January 2000- December 2002.
Total: 904.000 € -- CSIC: 184.781 €
Dr. Georg Hansen (Tromso University, Norway)
Dr. Fran Saborido Rey
18

Population structure, reproductive strategies and demography of redfish (Genus *Sebastes*) in the Irminger Sea and adjacent waters (ICES V, XII and XIV; NAFO 1).
European Union.
January 2000- June 2004.
Total: 2.868.890 € -- CSIC: 762.083 €
Dr. Hans-Joachim Rätz (ISF, Germany)
Dr. Fran Saborido Rey
21

Analysis of the neutral buoyancy on Arcto-norwegian cod larvae (European Union Contract no. ERBFMGECT950013).
European Union
February 1998-May 1998.
Dr. Fran Saborido Rey
Dr. Fran Saborido Rey
6

Reproductive strategy of Arcto-Norwegian cod
Institute of Marine Research (Bergen, Norway).
January 1997-May 1997.
Dr. Olav S. Kjesbu (IMR, Norway)
Dr. Francisco Saborido Rey
5

Analysis of the redfish populations in the Northeast Atlantic stock discrimination, reproduction and growth. (European Union Contract no. ERBFMBICT960772)
European Union
August 1996-August 1997.
Dr. Kjell Nedreaas (IMR, Norway)
Dr. Francisco Saborido Rey
2

AS PARTICIPANT

Associations between fish and three-dimensional seabed habitats within Icelandic waters and preparation of a habitat mapping framework for Ria of Vigo

NILS Science and Sustainability Programme (027-ABEL-IM-2014A)

Enero 2014-Diciembre 2015

Total: 14,300€ -- IIM: 14,300€

Dr. Stefán Ragnarsson (MRI, Islandia)

3

Ecology of reproduction and early life stages of European hake

Xunta de Galicia (MMA) 10MMA602021PR

December 2010- December 2013

Total: 101.560 € -- IIM: 47.380 €

Dra. Isabel Riveiro Alarcón (IEO, Spain)

Dra. Alba Ruth Vergara Castaño

12

Networking of Fishing Sector Actors to Organize a Responsible, Optimal and Sustainable Exploitation of Marine Resources (FAROS).

EU LIFE08 ENV/E/000119

January 2010 - January 2013

1.063.357 €

A. Álvarez-Alonso (IIM-CSIC, Spain)

A. Álvarez-Alonso (IIM-CSIC)

18

Development and implementation of new technologies and protocols for the studies of fisheries reproductive ecology

Xunta Galicia (08MMA010402PR)

1 October 2008- 30 september 2011

Total: 237.451 € -- IIM: 74.198 €

Dra. Rosario Domínguez-Petit (IIM-CSIC, Spain)

Dra. Rosario Domínguez-Petit

8

Estimation of cod age aided with image analysis automation

Xunta Galicia (Código PGIDIT04RMA402003PR)

1 November 2004-30 October 2007

Total: 79.000 € -- CSIC: 38.315 €

Dr. Antonio Vázquez (IIM-CSIC, Spain)

Dr. Antonio Vázquez

8

Operational evaluation tools for fisheries management options (EFIMAS)

European Union (6 Programa Marco) SSP8-CT-2003-502516

April 2004 - March 2008.

Total: 4.500.000 € -- CSIC: 33.750 €

Dr. Rasmus Nielsen (DTU, Germany)

Dr. Antonio Vázquez

96

Study of the exploited populations in Flemish Cap III. (DG XIV 00-028).

European Union, CSIC, IEO, IPIMAR

April 2001- September 2001.

Total: 331.958 €

Dr. Antonio Vázquez (IIM-CSIC, Spain)

Dr. Antonio Vázquez

14

Study of the exploited populations in Flemish Cap II. (DG XIV 98-048).

European Union, CSIC, IEO, IPIMAR

April 1999- March 2001.

Total: 1.026.000 €

Dr. Antonio Vázquez (IIM-CSIC, Spain)

Dr. Antonio Vázquez

15

Reproductive strategy of hake (*Meluccius merluccius*) in Galician shelf (PR404A 98/3-0)

Xunta Galicia

October 1998-October 2001.

Total: 64.670 € -- CSIC: 64.670 €

Dr. Germán Pérez-Gándaras (IIM-CSIC, Spain)

Dr. Germán Pérez-Gándaras

4

Study of the exploited populations in Flemish Cap. (DG XIV 96-030)

European Union

March 1997- March 1999.

Total: 593.626 €

Dr. Antonio Vázquez (IIM-CSIC, Spain)

Dr. Antonio Vázquez.

13

Studies of the deep fisheries in NAFO regulatory area (DG XIV 94/043)

European Union

June 1995-December 1996.

Dr. Enrique de Cárdenas (Instituto Español de Oceanografía, Spain)

Dr. Antonio Vázquez

7

Tagging of cod in NAFO division 3M.

European Union

January 1991-December 1992.

Dr. Enrique de Cárdenas (Instituto Español de Oceanografía, Spain)

Dr. Antonio Vázquez

7

Analysis of the exploited populations in Flemish Cap. (AIR1 CT92-0558).

European Union

June 1992- December 1996.

Dr. Antonio Vázquez (IIM-CSIC, Spain)

Dr. Antonio Vázquez.

12

Bottom trawl surveys in Flemish Cap, NAFO, 1989-92. (MA-1-246)

European Union

January 1989- December 1992.

Dr. Antonio Vázquez (IIM-CSIC, Spain)

Dr. Antonio Vázquez.

12

Non-competitive funding, direct support from Galician R+D department

Project	Budget
The Influence of UVR and Climate Conditions on Fish Stocks: A Case Study of the Northeast Arctic Cod	48.088 €

Projects

Reproductive and Stock evaluation for recovery	48.000 €
Critical interactions between species and their implications for a Precautionary fisheries management in a variable environment - a modelling approach	48.000 €
Operational evaluation tools for fisheries management options	23.500€
Assessment of the impact of “Prestige” oil spill in the shelf ecosystem and the fisheries resources	36.100€

8. CONFERENCE ACTIVITY

INVITED CONFERENCES

- "Futuras abordagens na pesquisa em ecologia reprodutiva aplicada a pesca". Recife, Brasil, Noviembre 2015
- "Administración en pesquerías de peces litorales: experiencias a nivel mundial". Taller Manejo sustentable de pesquerías costeras de peces litorales. Iquique, Chile, 11 December 2014.
- "La pesca como explotación de un recurso natural ¿futuro incierto? Paliativo: Pesca sostenible". Conferencia internacional sobre el futuro de la pesca, Vigo, Spain. 27 November 2014.
- "Fish spawning dynamics". Johan Hjort Symposium on Recruitment Dynamics and Stock Variability. Bergen, Norway. 7-9 October 2014.
- "Crisis del sector pesquero: ¿futuro incierto?. Mecanismos de apoyo ante la crisis". XVI Jornadas técnicas de difusión del sector pesquero. Celeiro, Spain. 11 y 12 November 2011.
- "The red- and rockfishes around the world: a history of divergence". ICES ASC. Gdansk, Poland. 19-23 September, 2011.
- "Estimation of fish sexual maturity. The ICES approach". Iquique, Chile. 9 June 2011.
- "Research challenges in the most fishery-dependent region of Europe". Florida Fish and Wildlife Research Institute. St. Petersburg, USA. 18 January 2011.
- "Assessing reproductive potential: lessons learned during the four-year European COST action, Fish Reproduction and Fisheries". January 2011. Southern Division of the American Fisheries Society meeting. Tampa Bay, USA.
- "Female reproductive strategies: an energetic balance between maturation, growth and egg production". 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
- "The importance of conservation of Reproductive Potential in Fisheries Management". Máster of Ecological Marine Management. Universidad Vrije de Bruselas y Universidad de Amberes. May 2009.
- "Applicability of paraffin histology to stereology". Training School on Methodological advancements in applied fish reproductive biology. Fish Reproduction and Fisheries, Cost Action FA0601. Institute of Marine Research and University of Bergen, Noruega. 3-5 March, 2008.
- "Image analysis aided stereology. The use of fluorescence". Training School on Methodological advancements in applied fish reproductive biology. Fish Reproduction and Fisheries, Cost Action FA0601. Institute of Marine Research and University of Bergen, Noruega. 3-5 March, 2008.
- "Identification of image markers for segmentation". Training School on Methodological advancements in applied fish reproductive biology. Fish Reproduction and Fisheries, Cost Action FA0601. Institute of Marine Research and University of Bergen, Noruega. 3-5 March, 2008.
- "Analyses of variance of ecological data using Statistica". Universidad Nacional de Singapur, Singapur, January 2005.
- "Reproductive potential in exploited marine fish populations: understanding the mechanism of stock-recruitment relationships". Universidad Nacional de Singapur, Singapur, January 2005.
- "Age and growth of redfish (*Sebastes marinus*, *S. mentella* and *S. fasciatus*) in Flemish Cap (Northwest Atlantic)". NAFO Symposium, Cuba, September 2001.
- "Growth and maturation dynamics of Flemish Cap cod (*Gadus morhua*)". Workshop on Fisheries-induced Adaptive Change. Laxemburg, March 2001
- "*S. mentella* in the Northeast Atlantic: Stock identification using morphometric analysis". Institute of Marine Research, Bergen, Noruega. 18 September 1997
- "Species identification of *Sebastes* in the Barents Sea". Institute of Marine Research, Bergen, Noruega. 27 de January de 1997

CONFERENCE AND CONGRESS CONTRIBUTIONS

○ ORAL CONTRIBUTION

52. Saborido-Rey, F. 2015. Futuras abordagens na pesquisa em ecologia reprodutiva aplicada a pesca”.
51. De Santana, I. De Sousa Nogueira, E.M., Garcia-Seoane, E., Saborido-Rey, F. 2015. Ecologia reprodutiva de *Lutjanus vivanus* (Lutjanidae) no litoral norte da Bahia, Brasil. III Simposio Iberoamericano de Ecología Reprodutiva, Reclutamiento y Pesquerías. Recife, Brasil, Noviembre 2015
50. Dominguez-Petit, R., Saborido-Rey, F., Saínza, M., Cerviño, S., Villegas D. 2015. Impacto de la variabilidad temporal del potencial reproductivo en el reclutamiento de la merluza europea en Galicia.
49. Saborido-Rey, F., Morgan, J. 2014. Fish spawning dynamics. Johan Hjort Symposium on Recruitment Dynamics and Stock Variability 7-9 October 2014, Bergen, Norway
48. Rodriguez, J.M., Cabrero, A., Alvarez, P., Fletcher, C., Hernandez De Rojas, A., Gago, J., Garcia, A., Herreros, M., Laiz-Carrión, R., Vergara AR., Piñeiro, C. Saborido-Rey, F. 2013. Spatial distribution of the larval fish community off the NW Iberian peninsula, in the late winter 2012. 37th Annual Larval Fish Conference. Miami, Fl. U.S.A.
47. Villegas-Ríos, D., Alonso-Fernández, A., Fabeiro, M., Domínguez-Petit, R., Saborido-Rey, F. Estrategia vital de *Labrus bergylta* en agua de Galicia (NO España): diferencias entre patrones de coloración. II Simposio Iberoamericano de Ecología Reprodutiva, Reclutamiento y Pesquerías. Mar del Plata, Argentina, 19-23 Noviembre 2012
46. Saborido-Rey, F. The red- and rockfishes around the world: a history of divergence. ICES ASC, 19-23 September, Gdansk, Polonia
45. Lowerre-Barbieri, S., L. Barbieri, W. Cooper, F. Saborido-Rey. 2011. Reproductive variability and resilience: underlying causes and management implications. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
44. Villegas-Ríos, David, Mariña Fabeiro, Rosario Domínguez-Petit, Fran Saborido-Rey. 2011. Reproductive traits and growth of *Labrus bergylta* in Galician waters. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
43. Buttay, Lucie, Josep Alós, Miquel Palmer, Alexandre Alonso-Fernández and Fran Saborido-Rey. 2011. Reproduction investment in indeterminate spawners may be estimated from growth. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
42. Pérez-Rodríguez, Alfonso, Joanne Morgan, Fran Saborido-Rey. 2011. Disentangling genetic frequency shifts from phenotypic response in changes on reproductive parameters of Flemish Cap cod. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
41. Alonso-Fernández, Alexandre, Fran Saborido-Rey. 2011. Total egg production in *Trisopterus luscus*: effect of stock structure. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
40. De Santana, Iramáia, Irecê Lucena Rosa, Fran Saborido-Rey. 2011. An evaluation of the artisanal fisheries based on reproduction information of lane snapper in the Northern Coast of Bahia, Brazil. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
39. Cerviño, Santiago, Rosario Domínguez, Carmen Fernández, Ernesto Jardim, Sonia Mehault, Carmen Piñeiro and Fran Saborido-Rey. 2011. Impact of Southern hake egg production into MSY reference points. Implications for management. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
38. Hernández Portocarrero, Aldo, Fran Saborido-Rey. 2011. Integrating reproductive potential studies in the fisheries managements. Study case of females of *Brycon guatemalensis* (Regan, 1908). Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
37. Saborido-Rey, F. Assessing reproductive potential: lessons learned during the four-year European COST action, Fish Reproduction and Fisheries. Ponencia invitada
36. Domínguez-Petit, R. and Saborido-Rey, F. Estimation of consumption in European hake (*Merluccius merluccius*) using generalized simple bioenergetic model. International Symposium on the biology, harvesting management and conservation of hakes. 11-12 de May de 2010. Portland, Maine (USA)

35. Domínguez-Petit, R., Cerviño, S., Jardim, E., Saínza, M. and Saborido-Rey, F. Temporal variability of European hake reproductive potential: Implications for management. International Symposium on the biology, harvesting management and conservation of hakes. 11-12 de May de 2010. Portland, Maine (USA)
34. Cerviño S., Fernández C., Jardim E., Mehault S. y Saborido-Rey F. Incertidumbre en la relación stock-reclutamiento y sus efectos sobre la estimación de puntos de referencia biológicos para la gestión. Stock sur de la merluza europea. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
33. Mucientes, Gonzalo y Fran Saborido. La pesca de los tiburones pelágicos y su gestión: el caso del marrajo azul (*Isurus oxyrinchus*). I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
32. Alós, J., Miquel Palmer, Fran Saborido-Rey y Alexandre Alonso-Fernández. Efectos ecológicos y evolutivos en la biología reproductiva de poblaciones explotados por la pesca: Un tema controvertido para las pesquerías marinas recreativas. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
31. Vergara, Alba Ruth y Saborido-Rey, Fran. Estrategias parentales en la gallineta, *Sebastes mentella* Travin 1951. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
30. Alonso-Fernández, A.; Saborido-Rey, F. Causas de variación en el ciclo reproductivo de *Trisopterus luscus*: efectos maternos. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
29. Pérez-Rodríguez, Alfonso; Morgan, Joanne; Saborido-Rey, Fran; Domínguez-Petit, Rosario, Rideout, Rick. Estudio de la producción total de huevos del bacalao de Flemish Cap durante el período 1988-2006. Importancia de la actividad pesquera como agente causal de su variación. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
28. Fran Saborido-Rey, Hilario Murua, Jonna Tomkiewicz and Susan Lowerre-Barbieri. Female reproductive strategies: a energetic balance between maturation, growth and egg production. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
27. Rosario Domínguez-Petit, Alexandre Alonso-Fernández, Dolores Dominguez-Vázquez and Fran Saborido-Rey. Comparative analysis of reproductive strategy in three demersal fish species from Galician Shelf. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
26. Alexandre Alonso-Fernández, Josep Alós, Rosario Domínguez-Petit, Amalia Grau, and Fran Saborido-Rey Three different hermaphroditic strategies on the Balearic Islands shelf (north-western Mediterranean sea).. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
25. Fran Saborido-Rey, D. Garabana, A. Alonso-Fernandez, R. Domínguez-Petit and T. Sigurdsson. Impact of mass atresia in reproductive ecology, maturity ogive, spawning migration and population dynamics on *S. mentella* and *S. marinus* in Icelandic waters. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
24. Susan Lowerre-Barbieri, Konstantinos Ganiyas, Hilario Murua, Fran Saborido-Rey and John Hunter. Understanding temporal reproductive patterns in marine fish: a review of histological approaches and emerging methodology. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
23. Nancy J. Brown-Peterson, David M. Wyanski, Susan K. Lowerre-Barbieri, Francisco Saborido-Rey, Jonna Tomkiewicz and Beverly J. Macewicz. A standardized terminology for describing reproductive development in fishes. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
22. Jonna Tomkiewicz, Rikke Hagstrøm Bucholtz and Fran Saborido-Rey. Standardisation of methods and terminology applied in maturity determination of gadoids and other marine fish species in the

- Northeast Atlantic. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
21. Mucientes-Sandoval, G.R., Saborido-Rey, F. and Santos Blanco, J.J. Acercamiento a la composición de la dieta de *Isurus oxyrinchus* Rafinesque, 1810 (Elasmobranchii: Lamnidae) en aguas del Pacífico Sur Central. Póster. XV Simpósio Ibérico de Estudos DE Biologia Marinha. Funchal, Madeira (Portugal). 8-13 de september de 2008.
 20. Pérez-Rodríguez, A., Joanne, M., Saborido-Rey, F. Changes in Maturation Reaction Norms in Flemish Cap Cod. Comunicación oral. AFS Annual Meeting (American Fisheries Society). Symposium on Evolving Fish, Changing Fisheries. Ottawa, Ontario, Canadá. 17-21 de August de 2008.
 19. Saborido-Rey, F., R. Domínguez-Petit, A. Alonso-Fernández and A. Pérez-Rodríguez. Age and size at maturity of Flemish Cap cod: where is the limit? NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 18. L. O'Brien, N. Yaragina, Y. Lambert, G. Kraus, T. Marshall, G. Marteinsdottir, H. Murua, F. Saborido-Rey, J. Tomkiewicz, and P. Wright. Using Life-History Models to Explore Environmental Effects on Stock Reproductive Potential of Several Cod Stocks. NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 17. F. Saborido-Rey, H. Murua, J. Tomkiewicz, P. King and R. Rideout. Female reproductive strategies of marine fish species of the North Atlantic. 3rd Workshop on gonadal Histology of fishes. July 2006. Nueva Orleans.
 16. M. Korta, R. Dominguez, H. Murua and F. Saborido-Rey. Atretic process in European Hake ovary in relation to reproductive strategies. 3rd Workshop on gonadal Histology of fishes. July 2006. Nueva Orleans.
 15. Martin-Skilton R, F. Saborido-Rey, C. Porte. Endocrine alteration and other biochemical responses in juvenile turbot exposed to the prestige fuel oil. Thirteenth International Symposium on Pollutant Responses in Marine Organisms (PRIMO 13): Alessandria, Italy 19–23 June, 2005. Publicado como Abstract en 2006. Marine Environmental Research 62: S265-S265 Suppl.
 14. F. Saborido-Rey, H. Murua, D. Garabana and T. Sigurdsson. Impact of mass atresia in reproductive ecology, maturity ogive, spawning migration and population dynamics on *S. mentella* and *S. marinus* in Icelandic waters. ICES CM 2005/Session Q. Advances in Reproductive Biology: Methodology and Applications for Fisheries Science. Invited speaker
 13. Rosario Domínguez, F. Saborido-Rey, I. Medina and H. Murua. Effects of proximate composition on fecundity and reproductive potential of *Merluccius merluccius* (L., 1758) in Galician Coast. ICES CM 2005/Session Q. Advances in Reproductive Biology: Methodology and Applications for Fisheries Science.
 12. Rebeca Martin-Skilton, Fran Saborido-Rey and Cinta Porte. Endocrine alteration and other biochemical responses in juvenile turbot exposed to the *Prestige* fuel oil. Simposio sobre vertidos accidentales de petroleo en el medio marino. July 2005. Vigo.
 11. B. Morales-Nin, J. Tomas, F. Cardona, F. Saborido-Rey. Otoliths as tools to decipher environmental impacts. Applications to the *Prestige*. Simposio sobre vertidos accidentales de petroleo en el medio marino. July 2005. Vigo.
 10. Fran Saborido-Rey, Rosario Dominguez, Javier Tomás and Beatriz Morales-Nin. Effects of *Prestige* fuel oil ingestion on growth of juvenile turbot (*Scophthalmus maximus*). Simposio sobre vertidos accidentales de petroleo en el medio marino. July 2005. Vigo.
 9. Rosario Dominguez and Fran Saborido-Rey. Reproductive ecology of European hake (*Merluccius merluccius*) and its relation with the *Prestige* oil spill. Simposio sobre vertidos accidentales de petroleo en el medio marino. July 2005. Vigo.
 8. Rebeca Martin-Skilton, Fran Saborido-Rey and Cinta Porte. Endocrine alteration and other biochemical responses in juvenile turbot exposed to the *Prestige* fuel oil. 3th International Symposium on Pollutant Responses in Marine Organisms, Alessandria, Italy, June, 19-22 2005
 7. Garabana, D. and F. Saborido-Rey. Relationships between Flemish Cap and adjacent redfish

- populations: Is Flemish Cap an isolated population? A morphometric approach, 2004. Symposium on the ecosystem of the Flemish Cap. Dartmouth, Nova Scotia, Canada, 8-10 September 2004.
6. Saborido-Rey, F., Garabana, D and Domínguez, R. A review on redfish life history, biology and ecology in Flemish Cap. Symposium on the ecosystem of the Flemish Cap. Dartmouth, Nova Scotia, Canada, 8-10 September 2004.
 5. Saborido-Rey, F., Garabana, C. Stransky. A review of the population structure and ecology of redfish in the Irminger Sea and adjacent Waters. Deep-sea Fisheries Symposium, 12-14 September 2001, Havana, Cuba
 4. Saborido-Rey, F. Age and growth of redfish (*Sebastes marinus*, *S. mentella* and *S. fasciatus*) in Flemish Cap (Northwest Atlantic). Deep-sea Fisheries Symposium, 12-14 September 2001, Havana, Cuba
 3. Skreslet, S., C. Alonso, A. Borja, H.C. Eilertsen, G. Hansen, R. Meerkoetter, F. Saborido-Rey, J. Verdebout, T. Wyatt. The Influence of UVR and Climate Conditions on Fish Stocks: A Case Study of the Northeast Arctic Cod. 2000 ICES/GLOBEC CCC Workshop on the Dynamics of Growth in Cod. ICES Cooperative Research Report NO. 252.
 2. Skreslet, S., C. Alonso, A. Borja, H.C. Eilertsen, G. Hansen, R. Meerkoetter, F. Saborido-Rey, J. Verdebout, T. Wyatt. UVAC, the European Commission Project N° EVK3-CT-1999-00012 on the Influence of UVR and Climate Conditions on Fish Stocks: A Case Study of the Northeast Arctic Cod. 2000 Cod and Climate Change Working Group Meeting, Dartmouth
 1. Saborido Rey, F. and K. Nedreaas. Population structure of *Sebastes mentella* in the North-East Arctic. 1998. ICES C.M. 1998/AA:2
- POSTERS
35. García-Seoane, E. G. Álvarez-Colombo, J. Miquel, J. M. Rodríguez, C. Fletcher, P. Álvarez, F. Saborido-Rey. 2014. Acoustic characterization of gadoid larvae aggregations in Galician waters (NW Spain), Johan Hjort Symposium on Recruitment Dynamics and Stock Variability 7-9 October 2014, Bergen, Norway
 34. Casas-Castano, L., F. Saborido-Rey, C. Michell, X. Irigoien. Genomics underlying sex change in *A. bicinctus* as a case study for hermaphrodite species. 2014 Ocean Sciences Meeting. Honolulu, Hawaii, USA. 23-28 February 2014
 33. Álvarez Colombo, G., García-Seoane, E., Rodríguez, J., Saborido-Rey, F., Vergara-Castaño, A. 2012. Prospección acústica de concentraciones de larvas de peces en la plataforma continental gallega. II Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Mar del Plata, Argentina, 19-23 Noviembre 2012
 32. De Santana, I., Saborido-Rey, F. 2012. Afragilidade do paramirim (*Rhomboplites aurorubens* (Cuvier, 1829) - Lutjanidae) às estratégias de pesca da frota artesanal no Litoral Norte da Bahia, Brasil. II Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Mar del Plata, Argentina, 19-23 Noviembre 2012
 31. García-Seoane, E., Bernal, A., Saborido-Rey, F. 2012. Diferencias reproductivas en *Benthoosema glaciale* asociado a las aguas subpolares de Flemish Cap y a la influencia templada del Mediterráneo Occidental. II Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Mar del Plata, Argentina, 19-23 Noviembre 2012
 30. Anastasopoulou, , Fran Saborido- Rey. 2011. Reproductive ecology of *Mullus barbatus* in E. Mediterranean Sea. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
 29. García-Seoane, Eva, Antonio Vázquez, Fran Saborido-Rey. 2011. Reproduction of the lanternfish *Benthoosema glaciale* from Flemish Cap. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
 28. Dominguez-Petit, Rosario , José Manuel Pintor Freire, Sonia Rábade, Mariña Fabeiro, Angel Dacal-Nieto, Pilar Carrión, Encarnación González-Rufino, Eva Cernadas, Manuel Fernández-Delgado Dolores Dominguez-Vázquez, Fran Saborido-Rey, Arno Formella. 2011. New automatic software tool

- to estimate fish fecundity based on image analysis. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
27. Vergara, Alba R. , Fran Saborido-Rey. 2011. Comparative fecundity estimates of redfish *Sebastes marinus* and *S. mentella* (Pisces: Scorpaenidae) in the Northwest Atlantic .Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
 26. Mucientes, Gonzalo R. , Alexandre Alonso, Fran Saborido-Rey. 2011. Energy allocation and maternal effects of shortfin mako shark, *Isurus oxyrinchus* (Elasmobranchii: Lamnidae) in waters of South Pacific: looking for a place to birth. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
 25. Haslob, Holger, Fran Saborido-Rey. 2011. Seasonal variability of Baltic sprat spawning traits .Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
 24. De Santana, I., Barros Paiva, Rafaela, Ierecê Lucena Rosa, Leonel Serrano Gordo, Fran Saborido-Rey. 2011. Reproduction, age and growth of *Balistes vetula* (Linnaeus, 1758) in the Northern Coast of Bahia, Brazil. Fish Reproduction and Fisheries Conference. 17-20 May, 2011. Vigo, Spain.
 23. Hernández A. y Saborido-Rey F. Sobre la estrategia reproductiva de las hembras de *Brycon guatemalensis* en el Lago de Nicaragua y su importancia en la gestión pesquera. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 22. Santana, I. de, Saborido-Rey F., Rosa I.L. Idade de primeira maturação de Lutjanidae explorada no Litoral Norte da Bahia, Brasil. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 21. García-Seoane E., Vázquez A. y Saborido-Rey F. Evolución temporal de la proporción de sexos respecto a la talla en Flemish Cap. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 20. Santana I. de, Saborido-Rey F., Monteiro I.R.T., Rosa I.L.. Escala de maturação macroscópica gonadal de Lutjanidae aplicada a censos embarcados e desembarcados na pesca artesanal no Litoral Norte da Bahia, Brasil. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 19. Pita A., Pérez M, Saborido-Rey F. y Presa P. Evolución interanual de la diversidad genética de la merluza europea (*Merluccius merluccius*) en el caladero Cantábrico Noroeste de la Península Ibérica. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 18. Fabeiro –Quinteiro M., Domínguez-Vázquez D., Rábade-Úberos S., Alonso- Fernández A., Domínguez-Petit R., Saborido-Rey F. Técnicas histológicas para el estudio de la reproducción de peces aplicado a la evaluación pesquera. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 17. Saborido-Rey F., R. Domínguez-Petit, A. Alonso-Fernandez, D. Domínguez-Vázquez, R. Collazo, M. Fabeiro-Quinteiro, S. Rábade-Úberos. Investigación en ecología reproductiva aplicada a la gestión pesquera: el caso del grupo de Ecología Pesquera del Instituto de Investigaciones Marinas. I Simposio Iberoamericano de Ecología Reproductiva, Reclutamiento y Pesquerías. Vigo, 24-28 November 2009
 16. D. Domínguez-Vázquez, M. Fabeiro-Quinteiro, S. Rábade-Úberos, A. Alonso-Fernández, R. Domínguez-Petit, R. Alpoim and F. Saborido-Rey. Staining techniques for the improvement of differentiation of immature and resting fish. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
 15. M. Fabeiro-Quinteiro, S. Rábade-Úberos, D. Domínguez-Vázquez, A. Alonso-Fernández, R. Domínguez-Petit, and F. Saborido-Rey. A quick method for an easy identification of ovarian structures: the use of autofluorescence. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
 14. S. Rábade, M. Fabeiro, D. Domínguez-Vázquez, A. Alonso, E. Cernadas, P. Carrión, N. Rufino, A. Formella, R. Domínguez and F. Saborido-Rey. Automatic software tool to determine fish fecundity by means of a computing aided image analysis and stereology on histological images. 4th Workshop on

- gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
13. A. Hernández and F. Saborido-Rey. Reproductive cycle, fecundity and maturity ogive of *Brycon guatemalensis* in Lake Cocibolca. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
 12. G. Basilone, R. Ferreri and F. Saborido-Rey. Ageing of postovulatory follicles in anchovy (*Engraulis encrasicolus*) by means of DEPM surveys data in the Strait of Sicily: a critical review. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
 11. H. Haslob, F. Saborido Rey and G. Kraus. Aging of post ovulatory follicles and oocyte recruitment in Baltic sprat. 4th Workshop on gonadal histology of fishes. Puerto Santa María, Spain, 16-19 June 2009.
 10. Domínguez-Petit, R., Alonso-Fernandez, A. and Saborido-Rey, F. Description and incidence of ovary cysts in two gadoids from the North Atlantic: *Merluccius merluccius* and *Gadus morhua*. NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 9. Alonso-Fernandez, A., Domínguez-Petit, R. and Saborido-Rey, F. Energy allocation related to spawning season in a temperate fish, *Trisopterus luscus* (Linnaeus, 1758). NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 8. Saborido-Rey, F., R. Domínguez-Petit and A. Alonso-Fernández. A quick method for an easy identification of ovarian structures: the use of autofluorescence. NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 7. Domínguez-Petit, R., Saborido-Rey, F. and Alonso-Fernandez, A. Reproductive dynamic and strategy and oocyte recruitment process of European hake (*Merluccius merluccius*, L. 1758) in Galician shelf waters. NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 6. Alonso-Fernandez, A., Domínguez-Petit, R. and Saborido-Rey, F. Fecundity assessment of pouting, *Trisopterus luscus* (Linnaeus, 1758) in Galician shelf. NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 5. Witthames, P.R., A .Thorsen, M. Fonn, L.N. Greenwood, F. Saborido-Rey, R. Dominguez, H. Murua, M. Korta and O.S. Kjesbu. Advances in fecundity methodology applied to marine fish. NAFO/PICES/ICES Symposium on Reproductive and Recruitment Processes of Exploited Marine Fish Stocks. 1-3 October 2007, Lisboa.
 4. R. Domínguez and F. Saborido-Rey. New atretic structures identified in ovary of European hake (*Merluccius merluccius*, L.1758) in Galician coast. ICES CM 2005/Session Q. Advances in Reproductive Biology: Methodology and Applications for Fisheries Science.
 3. F.Saborido-Rey, R. Dominguez, D. Garabana and T. Sigurdsson. *S. mentella* maturity ogive in the Irminger Sea and Iceland waters. ICES CM 2005/Session Q. Advances in Reproductive Biology: Methodology and Applications for Fisheries Science.
 2. R. Domínguez; M. Korta; H. Murua; F. Saborido-Rey and Iñaki Quincoces. Variability in size at maturity of European hake (*Merluccius merluccius*) at Bay of Biscay and Galician Coast. ICES CM 2005/Session Q. Advances in Reproductive Biology: Methodology and Applications for Fisheries Science.
 1. Saborido Rey, F. Differences in weight and length of otoliths between populations of genus *Sebastes* in the North Atlantic. 1998. 2nd international symposium on Fish Otolith Research & application. Bergen, Noruega. 20-25 June.

CONFERENCE PARTICIPATION

- III SIMPOSIO IBEROAMERICANO DE ECOLOGÍA REPRODUCTIVA, RECLUTAMIENTO Y PESQUERÍAS. Recife, Brasil, 22-26 Noviembre 2015.
- JOHAN HJORT SYMPOSIUM ON RECRUITMENT DYNAMICS AND STOCK VARIABILITY. Bergen, Norway, 7-9 October 2014.
- II SIMPOSIO IBEROAMERICANO DE ECOLOGÍA REPRODUCTIVA, RECLUTAMIENTO Y PESQUERÍAS. Mar del Plata, Argentine, 19-22 November 2012.
- ICES ANNUAL SCIENCE CONFERENCE. Gdansk, September 2011.
- FISH REPRODUCTION AND FISHERIES. Vigo, 16-20 May 2011.
- WORKSHOP ON IMPLEMENTATION OF STOCK REPRODUCTIVE POTENTIAL INTO ASSESSMENT AND MANAGEMENT ADVICE FOR HARVESTED MARINE SPECIES. April 12-14 2011, University of ABERDEEN, UK
- REPRODUCTIVE RESILIENCE IN EXPLOITED FISHES OF THE SOUTHEAST UNITED STATES: WHAT DO WE NEED TO KNOW? January 2011. Southern Division of the American Fisheries Society meeting. Tampa Bay, EEUU
- JORNADAS SOBRE ASPECTOS MEDIOAMBIENTALES Y SOCIOECONÓMICOS DE PARQUES EÓLICOS MARINOS. Madrid, 14 y 15 de June de 2010.
- WORKSHOP on EGG PRODUCTION METHODS FOR ESTIMATING FISH BIOMASS. Atenas, Grecia, 10-13 March 2010.
- I SIMPOSIO IBEROAMERICANO DE ECOLOGÍA REPRODUCTIVA, RECLUTAMIENTO Y PESQUERÍAS. Vigo, España, 24-28 November 2009.
- 4TH WORKSHOP ON GONADAL HISTOLOGY OF FISHES. Puerto Santa María, Spain, 16-19 June 2009.
- NAFO/PICES/ICES SYMPOSIUM ON REPRODUCTIVE AND RECRUITMENT PROCESSES OF EXPLOITED MARINE FISH STOCKS. Lisboa. 1-3 October 2007.
- 3RD WORKSHOP ON GONADAL HISTOLOGY OF FISHES. Nueva Orleans. July 2006.
- ANNUAL SCIENCE CONFERENCE. ICES. Aberdeen (Reino Unido), 20-24 September 2005.
- REUNIÓN FINAL DE COORDINACIÓN PARA EL ANÁLISIS Y CONTRASTE DE RESULTADOS DE LAS ACCIONES ESPECIALES URGENTES CONTRA VERTIDOS MARINOS ACCIDENTALES. Santander (España). 29-30 January 2004.
- ANNUAL SCIENCE CONFERENCE. ICES.. Vigo (España), 22-25 September 2004.
- DEEP-SEA FISHERIES SYMPOSIUM. NAFO. Varadero (Cuba). 12-14 September 2001.
- AUTHENTICITY OF SPECIES IN MEAT AND SEAFOOD PRODUCTS. Vigo, 18-20 September 2000.
- 1998 ANNUAL SCIENCE CONFERENCE. ICES. Cascais, Portugal. 16-19 September 1998.
- SYMPOSIUM IN MATURATION, GROWTH, CONDITION AND SPAWNING STOCK BIOMASS PRODUCTION IN GROUND FISH. NAFO. Lisboa, 9-11 September 1998.
- 2ND INTERNATIONAL SYMPOSIUM ON FISH OTOLITH RESEARCH AND APPLICATION. Bergen, Noruega. 20-25 June, 1998.
- FISHERIES MANAGEMENT UNDER UNCERTAINTIES SYMPOSIUM. Bergen (Noruega) 3-5 June 1997
- A CONFERENCE ON RESEARCH TRAINING IN EUROPE. Snekersten (Dinamarca). 29-31 May 1997.
- X REUNIÓN DE DIALOGO DEL ICES. Vigo, 19 y 20 de October de 1995.
- FORO INTERNACIONAL DE LA CONSERVACIÓN DE PRODUCTOS DE LA PESCA. Vigo, 11-15 September 1995.
- REUNIÓN PREPARATORIA DE LA CEE. Previo a la reunión científica de la NAFO (Organización de Pesquerías del Atlántico Norte). Vigo. May 1990.
- I JORNADAS "HOMBRE Y MEDIO AMBIENTE". Alcobendas (Madrid). October 1989.

9. NOMINATIONS AND COMMITTEES

NOMINATIONS IN INTERNATIONAL ORGANIZATIONS

- Designated expert in the Food and Agriculture domain of the Spanish delegation at COST Office (European Cooperation in Science and Technology). Since 2009.
- Designated expert in the Latin-American network on fisheries research for the sustainable use of fishing resources (INVIPESCA). Since 2009
- Designated expert on reproductive potential to participate at the *Northwest Atlantic Fisheries Organization* (NAFO) Working Group. Since 2000.
- Designated Chair of ICES WORKSHOP FOR MATURITY STAGING CHAIRS. 2012
- Designated Chair of ICES WORKSHOP ON SEXUAL MATURITY STAGING OF REDFISH AND GREENLAND HALIBUT. 2011
- Designated Chair of the WORKSHOP FOR THE REVISION OF THE HISTOLOGICAL CRITERIA FOR MATURITY STAGING IN CHILEAN JACK MACKEREL. 2011.
- Designated Chair of ICES WORKSHOP ON AGE DETERMINATION OF *SEBASTES*. 2008
- Designated international expert by ICES within STUDY GROUP ON STOCK IDENTITY AND MANAGEMENT UNITS OF REDFISHES. 2004 and 2009.
- Designated expert consultant for technical assistance in AECID (Spanish Agency for International Cooperation and Development) projects. 2004-2009.
- Designated Chair of ICES WORKSHOP ON AGE DETERMINATION OF *SEBASTES*. 2006
- Designated expert on “Fisheries Induced adaptive changes” by the International Institute for Applied Systems Analysis (IIASA). 2000-2004.

MEMBERSHIP OF INTERNATIONAL COMMITTEES AND DELEGATIONS

- GENERAL ASSEMBLY OF THE LATIN-AMERICAN NETWORK ON FISHERIES RESEARCH FOR THE SUSTAINABLE USE OF FISHING RESOURCES. Recife, Brazil, 24 November 2015.
- GENERAL ASSEMBLY OF THE LATIN-AMERICAN NETWORK ON FISHERIES RESEARCH FOR THE SUSTAINABLE USE OF FISHING RESOURCES. Mar del Plata, Argentine, 23 November 2012.
- PLANNING GROUP ON COMMERCIAL CATCH, DISCARDS AND BIOLOGICAL SAMPLING. ICES. Member of the Spanish delegation. Vienna (Austria). 2011.
- GENERAL ASSEMBLY OF THE LATIN-AMERICAN NETWORK ON FISHERIES RESEARCH FOR THE SUSTAINABLE USE OF FISHING RESOURCES. Curitiba, Brazil, 17 June 2011.
- TECHNICAL MEETING FOR THE IMPLEMENTATION IN BRAZIL THE LATIN-AMERICAN NETWORK ON FISHERIES RESEARCH - IBEROPESCA BRASIL Curitiba, Brazil, 15-17 June 2011.
- PLANNING GROUP ON COMMERCIAL CATCH, DISCARDS AND BIOLOGICAL SAMPLING. ICES. Member of the Spanish delegation. Lisbon (Portugal). 2010.
- EUROPEAN FISHERIES TECHNOLOGY PLATFORM. Member of working group (Task Force). 2009.
- PLANNING GROUP ON COMMERCIAL CATCH, DISCARDS AND BIOLOGICAL SAMPLING. ICES. Member of the Spanish delegation. Montpellier (France). 2009.
- GENERAL ASSEMBLY OF THE LATIN-AMERICAN NETWORK ON FISHERIES RESEARCH FOR THE SUSTAINABLE USE OF FISHING RESOURCES. Vigo, Spain, 28 November 2009.
- WORKING GROUP ON REPRODUCTIVE POTENTIAL. NAFO. Lisbon (Portugal), 1-6 October 2007. Member of the Spanish delegation.
- WORKING GROUP ON REPRODUCTIVE POTENTIAL. NAFO. Rome (Italy), 20-22 October 2004. Member of the Spanish delegation.

- STUDY GROUP ON STOCK IDENTITY AND MANAGEMENT UNITS OF REDFISHES. ICES. Bergen, Norway, 31 August – 3 September 2004. Member of the Spanish delegation.
- WORKING GROUP ON REPRODUCTIVE POTENTIAL. NAFO. Woods Hole (EEUU), 15-18 October 2003. Member of the Spanish delegation.
- WORKING GROUP ON REPRODUCTIVE POTENTIAL. NAFO. San Petersburg, 23-26 October 2001. Member of the Spanish delegation.
- WORKING GROUP ON REPRODUCTIVE POTENTIAL. NAFO. San Sebastian, 10-13 October 2000. Member of the Spanish delegation.
- NORTH WESTERN WORKING GROUP. ICES. Copenhagen, 26 April-4 de May 2000. Member of the Spanish delegation.
- NORTH WESTERN WORKING GROUP. ICES. Copenhagen, 28 April-6 de May 1999. Member of the Spanish delegation.
- NORTH WESTERN WORKING GROUP. ICES. Copenhagen, 28 April-6 de May 1998. Member of the Spanish delegation.
- STUDY GROUP ON REDFISH STOCKS. ICES. Hamburg (Germany). 24-26 January 1998. Member of the Spanish delegation.
- NORTH WESTERN WORKING GROUP. ICES. Copenhagen, 29 April-7 de May 1997. Member of the Norwegian delegation.
- WORKSHOP ON AGE READING OF *SEBASTES* SPP. ICES. Bremerhaven (Germany), 4-8 December 1995. Member of the Spanish delegation.
- STUDY GROUP ON REDFISH STOCKS. ICES. Copenhagen. May 1992. Member of the Spanish delegation.
- WORKSHOP ON REDFISH AGE READING. ICES. Murmansk (Russia). August-September 1991. Member of the Spanish delegation.
- ARCTIC FISHERIES WORKING GROUP. ICES. Copenhagen. September de 1989. Member of the Spanish delegation.

10.INTERNATIONAL COOPERATION

INTERNATIONAL COOPERATION TO DEVELOPMENT (CONSULTANT)

Acting as consultant in the next technical assistances and/or research projects:

- Stock status and sustainable management of the coastal fisheries in the III and IV Regions. 2017. Target country: Chile
- Diagnosis and proposal of a sustainable management of the coastal fisheries in the XV, I and II Regions. 2014. Target country: Chile
- Master Plan for the development of small scale fishery. 2010-2012. AECID (Spanish Agency for International Cooperation and Development) and CETMAR (Technological Center of the Sea). Target country: Cape Verde
- Improving research and training in marine science: assessment and strategies. 2011. CETMAR. Target country: Colombia
- Small-scale fishery development. 2009-2010. AECID and CETMAR. Target country: Cape Verde
- Assessment and recommendations to promote institutional capacity building in relation with fishing and aquaculture activities. February 2009. AECID and CETMAR. Target country: Liberia
- Reproductive biology and fisheries of mackerel. 2008. AECID. Target country: Morocco

- Population dynamics of Lutjanidae (Teleostei) and sustainable Management of artisanal fisheries. 2007-2009. AECID. Target country: Brazil
- Integrated coastal Management in Pacific Costa Rica. 2007. BID (Inter-American Development Bank) and CETMAR. Target country: Costa Rica
- Improving small-scale fishery in Nicaragua lake (Department of Chontales) and San Juan river. 2004-2005. AECID. Target country: Nicaragua

STAYS AS A VISITING RESEARCHER

(stays longer than a week)

Institution: Institute of Marine Research

City: Bergen

Date: October-November 1990 (8 weeks)

Subject: Stock structure analysis of redfish (Genus *Sebastes*) in Norwegian Sea

Country: Norway

Type: PhD student

Institution: IFREMER

City: St Pierre et Miquelon

Date: March-April 1991 (8 weeks)

Subject: Analysis of Redfish (Genus *Sebastes*) populations in NAFO división 3Ps

Country: France

Type: PhD student

Institution: Institute of Marine Research

City: Bergen

Date: 1996-1997 (52 weeks)

Subject: Analysis of Redfish (Genus *Sebastes*) in the Northeast Atlantic: stock structure, reproduction and growth

Country: Norway

Type: Postdoctoral

Institution: Institute of Marine Research

City: Bergen

Date: March-May 1998 (12 weeks)

Subject: Analysis of the neutral buoyancy on Arcto-norwegian cod larvae

Country: Norway

Type: Postdoctoral

Institution: Marine Research Institute

City: Reykjavik

Date: May 2001 (2 weeks)

Subject: Analysis of morphometric characters on redfish

Country: Iceland

Type: Invited

Institution: Instituto de Investigaciones Pesqueras y Acuicolas

City: Managua

Date: November 2004// March 2006 (2+2 weeks)

Subject: Experimental design and sampling strategy for fisheries research

Country: Nicaragua

Type: Invited

Institution: National University of Singapore

City: Singapore

Date: December 2004-January 2005 (5 weeks)

Subject: Analysis of reproductive parameters in tropical fish

Country: Singapore

Type: Invited

Institution: Florida Fish and Wildlife Research Institute

City: Tampa

Date: January 2011 (2 weeks)

Subject: Recovery mechanisms of overexploited fish populations

Country: USA

Type: Invited

Institution: King Abdullah University of Science and Technology

City: Thuwal

Date: February 2013-July 2015 (75 weeks)

Subject: Analysis of fish hermaphroditism in tropical waters

Country: Saudi Arabia

Type: Invited

VISITORS FROM R+D INSTITUTIONS

Visitors developing collaboration outside funded projects.

- INSTITUTE OF MARINE RESEARCH (NORWAY)
Investigación de la pesca artesanal y costera. 2012. Dr. Kjell Nedreaas (1 month)
- INSTITUTO DE OCEANOGRAFIA. UNIVERSIDADE DE LISBOA (PORTUGAL)
Análisis morfológico de *Helicolenus dactylopterus*. 2009. Vera Sequeira (1 month)
- HELLENIC CENTER FOR MARINE RESOURCES (GREECE)
Reproductive ecology of *Mullus barbatus* in E. Mediterranean. 2009. Aikaterini Anastasopoulou (1 month)
- LEIBNIZ INSTITUTE OF MARINE RESEARCH (GERMANY)
Variation of spawning parameters of Sprat (*Sprattus sprattus*) during spawning season. 2008-2009. Holger Haslob (4 months)
- ISTITUTO AMBIENTE MARINO COSTIERO (ITALY)
Histological investigations of maturation process in the European Anchovy (*Engraulis encrasicolus*). 2009. Rosella Ferreri (2 months).
- INSTITUTO NACIONAL DE RECURSOS BIOLÓGICOS (PORTUGAL)
Identification of maturity stages on resting ovaries of American Plaice. 2008. Ricardo Alpoim (1 month)
- DEPARTMENT OF FISHERIES AND OCEANS (CANADA)
Analysis of reproductive potential for the sustainability of Greenland halibut fishery. 2007. Dr. Joanne Morgan y Dr. Edward Trippel (2 semanas)
- UNIVERSITE ABDEL MALEK ESSAADI (MORROCO)
Reproductive biology and fisheries of mackerel. 2007-2008. Mohamed Tchetach (4 months).
- UNIVERSIDADE DO ESTADO DA BAHIA (BRAZIL)
Population dynamics of Lutjanidae (Teleostei) and sustainable Management of artisanal fisheries. 2007-2010. Iramaia de Santana (40 months).
- ISTITUTO AMBIENTE MARINO COSTIERO (ITALY)
Estimation of spawning stock biomass of anchovy in Sicily strait. November 2003- September 2009. Dr. Walter Basilione (2 months).
- CENTRO DE INVESTIGACIONES PESQUERAS Y ACUICOLAS (NICARAGUA)
Small scale fishing activity in Nicaragua. November 2004-2010. Aldo Hernandez (21 months).
- GALWAY-MAY INSTITUTE OF TECHNOLOGY (IRELAND)
Estimation of spawning stock biomass of blue whiting in the Irish Sea. July 2004. Gavin Power (2 months).
- INSTITUTE OF MARINE RESEARCH (NORWAY)
Reproductive analysis of *Sebastes* in the Irminger Sea. 2002. Dr. Kjell Nedreaas (1 month)

11. RESEARCH AND DEVELOPMENT SERVICES

ORGANIZATION OF R+D ACTIVITIES

- III SIMPOSIO IBEROAMERICANO DE ECOLOGÍA REPRODUCTIVA, RECLUTAMIENTO Y PESQUERÍAS. Recife, Brasil, 22-26 Noviembre 2015. Scientific steering committee.
- II SIMPOSIO IBEROAMERICANO DE ECOLOGÍA REPRODUCTIVA, RECLUTAMIENTO Y PESQUERÍAS. Mar del Plata, Argentina, 19-22 Noviembre 2012. Scientific steering committee.
- ICES WORKSHOP ON SEXUAL MATURITY OF REDFISH AND GREENLAND HALIBUT. Vigo, 28 November-1 December 2011. Head of steering committee.
- FISH REPRODUCTION AND FISHERIES. International Conference, Vigo, 16-20 May 2011. Head of steering committee.
- NAFO - FRESH WORKING GROUP ON REPRODUCTIVE POTENTIAL. Athens (Greece), 15-19 March 2010. Head of steering committee.
- LATIN-AMERICAN NETWORK ON FISHERIES RESEARCH FOR THE SUSTAINABLE USE OF FISHING RESOURCES. Vigo, Spain, 28 November 2009. Head of steering committee.
- I SIMPOSIO IBEROAMERICANO DE ECOLOGÍA REPRODUCTIVA, RECLUTAMIENTO Y PESQUERÍAS. Vigo, Spain, 24-27 November 2009. Head of steering committee.
- 4TH WORKSHOP ON GONADAL HISTOLOGY OF FISHES. Puerto Santa María, Spain, 16-19 June 2009. Head of steering committee.
- NAFO - FRESH WORKING GROUP ON REPRODUCTIVE POTENTIAL. Istituto Ambiente Marino Costiero (CNR), Palermo (Italia), 17-21 November 2008. Head of steering committee.
- WORKSHOP ON AGE DETERMINATION OF REDFISH. ICES. Pacific Biological Station, Department of Fisheries and Oceans, Nanaimo (Canada), September de 2008. Head of steering committee..
- METHODOLOGICAL ADVANCEMENTS IN APPLIED FISH REPRODUCTIVE BIOLOGY. Training School of Fish Reproduction and Fisheries, Cost Action FA0601. Institute of Marine Research and University of Bergen, Norway. 3-5 March, 2008. Steering committee member.
- WORKSHOP ON ACCURACY AND PRECISION ON METHODS USED TO OBTAIN REPRODUCTIVE INFORMATION. Fish Reproduction and Fisheries, Cost Action FA0601. Institute of Marine Research and University of Bergen, Norway. 6-7 March, 2008. Steering committee member
- REPRODUCTIVE AND RECRUITMENT PROCESSES OF EXPLOITED MARINE FISH STOCKS NAFO/PICES/ICES Symposium- Coordinated with COST. October 2007. Co-organizer.
- FISH REPRODUCTION AND FISHERIES. COST Action. June 2007-May 2011. Coordinator
- ECOSYSTEM APPROACH TO SUSTAINABLE MANAGEMENT OF THE MARINE ENVIRONMENT AND ITS LIVING RESOURCES. EU Marie Curie Actions. Host fellowships for Early Stage Research Training (EST). Principal investigator at IIM. January 2006-December 2009
- WORKSHOP ON AGE DETERMINATION OF REDFISH. ICES. IIM, Vigo, September 2006. Head of steering committee.
- PROSPECTIVE STUDY OF MARINE TECHNOLOGIES. Fishing technologies. Dirección Xeral de I+D. Xunta de Galicia. January-December 2004. Steering committee member.
- NAFO WORKING GROUP ON REPRODUCTIVE POTENTIAL. FAO Headquarter, Rome, October de 2004. Head of steering committee..
- FORESIGHT ANALYSIS OF RELEVANT SCIENTIFIC-TECHNOLOGICAL TRENDS. Secretaría Xeral de Investigación e Desenvolvemento. Xunta de Galicia. January-December 2003. Steering committee member.
- I WORKSHOP OF MICROSCOPY IN MARINE SCIENCES. IIM, Vigo, November de 1999. Head of steering committee.

SCIENTIFIC EVALUATION, ASSESSMENT AND REVIEW

- Designated expert by COST office for assessment of COST Actions proposals in the *Food and Agriculture Domain*. 2008-2017.
- Member of the Scientific-technical monitoring committee of R+D projects in Marine Science domain. Spanish Science Ministry. 2011.
- Designated expert for the R+F Project Evaluation Panel on Marine Science. 2007 and 2011 calls. Spanish Science Ministry.
- R+D project evaluator for the National Evaluation and Foresight Agency (ANEP). Spanish Science Ministry 2004, 2006, 2007, 2011, 2012, 2015, 2016, 2017.
- R+D project evaluator for: the National Agency for the Scientific and Technical Promotion (Argentina); the Department for Environment, Food and Rural Affairs (UK); the Department of Commerce, USA (NMFS); Dirección General de Asuntos del Personal Académico, UNAM (México).
- R+D project evaluator for the Junta de Andalucía (2008) and Comunidad de Valencia (2006) Science Offices.
- Reviewer of scientific manuscripts for *African Journal of Marine Science*, *Aquaculture Environment Interactions*, *Archive of Fishery and Marine Research*, *Boletín del Instituto Español de Oceanografía*, *Cahiers de Biologie Marine*, *Ciencias Marinas*, *Estuarine, Coastal and Shelf Science*, *Fish and Fisheries*, *Fisheries Bulletin*, *Fisheries Oceanography*, *Fisheries Research*, *ICES Journal of Marine Science*, *Journal of Applied Ichthyology*, *Journal of Fish Biology*, *Journal of the Marine Biological Association of the United Kingdom*, *Journal of Northwest Atlantic Fishery Science*, *Journal of Sea Research*, *Marine and Freshwater Research*, *Marine Biology*, *Marine Biology Research*, *Marine Ecology Progress Series*, *Mediterranean Marine Science*, *Micron*, PLOS ONE, *Progress in Oceanography*, *Revista de Biología Marina y Oceanografía*, *Scientia Marina*, *Skifter*, *Thalassas*, *Vie et Milieu*, y *Zoological Studies*.
- External evaluator for the Quebec University of the PHD Tesis “Application de la méthode d’analyse morphométrique en réseau à la différenciation des espèces *Sebastes fasciatus* et *Sebastes mentella* dans le Golfe du Saint –Laurent” defended by Alexandra Valentin in July 1999.
- Member of the examination board of the next PhD thesis dissertations:
 - “Multispecies population modelling of the common dolphin (*Delphinus delphis*), the bottlenose dolphin (*Tursiops truncatus*) and the southern stock of european hake (*Merluccius merluccius*), in atlantic waters of the iberian peninsula” defended by Camilo Saavedra Penas in the Universidade de Vigo on 20 December 2017.
 - “Ictiofauna del Banco de Galicia: Composición taxonómica y aspectos biogeográficos” defended by Rafaél Bañón Diaz in the Universidade de Vigo on 26 May 2016.
 - “Etude de la biologie du maquereau espagnol *Scomber japonicus* Houttuyn, 1782 au niveau des régions de M’diq et Larache (côtes méditerranéennes et atlantiques marocaines)” defended by Mohamed Techetach in the Universite Abdelmalek Essaadi on 20 February 2016.
 - “Comunidades de peces de los arrecifes rocosos costeros de Galicia: ecología e impactos humanos” defended by Pablo Pita Orduna in the Universidade da Coruña on 14 July 2011.
 - “New methodologies applied to quantify the dynamics of the ovary in indeterminate fecundity species” defended by Maria Korta Albisua in the Universidad del País Vasco on 16 December 2010.
 - “Biología reproductiva de diversas especies de interés pesquero en el litoral andaluz” defended by Natalia Jiménez Tenorio in the universidad de Cádiz on 2 July 2010.
 - “El almacenaje de esperma en *Helicolenus dactylopterus dactylopterus* (Pisces, Scorpaenidae)” defended by Silvia Vila España in the Universidad de Girona on 8 April 2010.

- “Teoría y práctica en la identificación de stocks de peces de interés comercial. El jurel (*Trachurus trachurus*) como ejemplo de una aproximación holística a la identificación de stocks” defended by Pablo Abaunza Martínez in the Universidad del País Vasco on 18 January 2008
- “Recruitment process and population dynamics of the European hake (*Merluccius merluccius*, L) off the Balearic Islands: seasonal and inter-annual approach” defended by José Manuel Hidalgo Roldán in the Universidad de Vigo on 14 November 2007
- “Reproductive Fundamentals for the Estimation of Egg Production of the European Hake, *Merluccius merluccius*, in the Bay of Biscay”. Defended by Hilario Murua Aurizenea in the Universidad del País Vasco on 9 January 2007.
- “Biología y pesca del voraz [(*Pagellus bogaraveo*) Brünnich, 1768] en el Estrecho de Gibraltar”. Defended by Juan Gil Herrera in the Universidad de Cádiz on 15 December 2006.
- “La anchoa europea (*Engraulis encrasicolus*): aspectos de la ecología y explotación de la población en el Estrecho de Sicilia” defended by Gualterio Basilone in the Universidad de Vigo on 13 December 2004.
- “Ecología de huevos y larvas de anchoa *Engraulis encrasicolus* en el Canal de Sicilia” defended by Angela Cuttita in the Universidad de Vigo on 13 December 2004.

RESEARCH SURVEYS

As survey leader

- FLEMISH CAP-00 Bottom trawl fisheries survey. 3 July to 4 August 2000. R/V "Cornide de Saavedra".
- FLEMISH CAP-02 Bottom trawl fisheries survey. 24 June to 29 July 2002. R/V "Cornide de Saavedra".
- FLEMISH CAP-05 Bottom trawl fisheries survey. 1 July to 4 de August 2005. R/V "Vizconde de Eza".
- DR0307. 13 a 28 de marzo de 2017. B/O "Sarmiento de Gamboa". Multidisciplinary: Ichthyology, plankton, oceanography and fishery.
- DR0707. 17 a 30 de junio de 2017. B/O "Sarmiento de Gamboa". Multidisciplinary: Ichthyology, plankton, oceanography and fishery.

As scientist crew

- FLEMISH CAP-89 Bottom trawl fisheries survey. 6 July to 12 August 1989. Flemish Cap (Newfoundland). R/V "Cryos" (France).
- FLEMISH CAP-90 Bottom trawl fisheries and acoustic survey. 12 July to 26 August 1990. Flemish Cap (Newfoundland). R/V "Ignat Pavlichenkov" (USSR)
- SEITOKT-90 Acoustic survey. Barents Sea and Norwegian Sea. 1 October to 1 November 1990. Norway. R/V "G. O. Sars" (Norway).
- ERHAPS-91 Bottom trawl fisheries survey. 4 to 28 March 1991. Bank of St. Pierre (Newfoundland). R/V "Cryos" (France).
- GADUS-91 Cod tagging survey. 1 to 17 April 1991. Flemish Cap (Newfoundland). R/V "Cryos" (France).
- FLEMISH CAP-91 Bottom trawl fisheries survey. 14 June to 18 July 1991. R/V "Cornide de Saavedra" (Spain).
- GADUS-92 Cod tagging survey. 10 February to 18 March 1992. R/V "Atlántida" (Russia).
- FLEMISH CAP-92 Bottom trawl fisheries survey. 25 June to 28 July 1992. R/V "Cornide de Saavedra".
- FLEMISH CAP-93 Bottom trawl fisheries survey. 16 June to 14 July 1993. R/V "Cornide de Saavedra".
- FLEMISH CAP-94 Bottom trawl fisheries survey. 28 June to 28 July 1994. R/V "Cornide de Saavedra".

- SELECT-95 Bottom trawl fisheries survey fishing selectivity. 10 Febrero to 1 March 1995. B/C "Playa de Sartaxens"(Spain).
- FLEMISH CAP-95 Bottom trawl fisheries survey. 26 June to 25 July 1995. R/V "Cornide de Saavedra".
- FLEMISH CAP-96 Bottom trawl fisheries survey. 22 June to 20 July 1996. R/V "Cornide de Saavedra".
- SEITOKT-96. Acoustic survey. Barents Sea. 6 October to 15 October 1996. R/V "Johan Hjort" (Norway).
- FLEMISH CAP-97 Bottom trawl fisheries survey. 9 July to 8 August 1997. R/V "Cornide de Saavedra".
- FLEMISH CAP-98 Bottom trawl fisheries survey. 10 July to 9 August 1998. R/V "Cornide de Saavedra".
- FLEMISH CAP-99 Bottom trawl fisheries survey. 24 June to 28 July 1999. R/V "Cornide de Saavedra".
- CRAMER 0712 Ichthyoplankton survey. 17 July to 31 July 2012. R/V "Cornide de Saavedra".

PATENTS

Authors: Formella, Arno; Carrión Pardo, Pilar; González Rufino, M. Encarnación; Pintor Freire, José Manuel; Cernadas García, Eva; Fernández Delgado, Manuel; Domínguez-Petit, Rosario; Saborido-Rey, J. Francisco y Alonso-Fernández, Alexandre. Title: Software Govocitos 2.1. Owner: Uvigo-USC-CSIC (60-30-10%). Number: being processed. Priority country: Spain

12. TEACHING EXPERIENCE

TEACHING AT UNIVERSITY

- International Master in sustainable fisheries management. University of Alicante, Spanish Ministry of Agriculture, Food and Environment, International Centre for Advanced Mediterranean Agronomic Studies, and FAO. 2015
- Master in Economy, assessment and management of Marine environment and fisheries resources. University of Vigo. External lecturer. 2009-2011.
- Master in Ecological Marine Management. Vrije Universiteit Brussel and Universiteit Antwerpen. External lecturer. 2009.
- Master in Aquaculture. Universities of Vigo, Coruña and Santiago. External lecturer. 2008-2012.
- Master course: Analysis of reproductive parameters in marine fish populations. PhD Program of Department of Biology of Systems and Organisms. University of Vigo. External lecturer. 2002-2009.
- Post graduate external lecturer. Course: Ecology of the reproduction in marine fish populations. PhD Program of Department of Biology of Systems and Organisms. University of Vigo. External lecturer. 1998-2009.
- Microscopy and Image analysis. Organizer by Gabinete de Formación del CSIC. Vigo, 5-9 November 2007.
- Post graduate external lecturer. Course: North Atlantic Spanish fishery: demersal species and tunids. PhD Program of System and Organisms Biology Department. University of Vigo. 1996-1997.
- Computer assisted design and illustration. Image Analysis. Vigo, 16-27 October 1995.
- Teacher of practical courses: Identification of commercial marine fish species. Department of Zoology. Autonomous University of Madrid. 1991-1994.
- Teacher of practical courses: Benthic sampling in the seashore. Department of Zoology. Autonomous University of Madrid. 1991-1994.

SUPERVISOR OF MASTER THESIS

- 2017. Francisco González Carrión. Análisis temporal de los efectos maternos en la productividad de *Sebastes fasciatus* y su efecto en el reclutamiento en Flemish Cap
- 2017. Cristina García Fernández. Hake recruitment and adult demography: implication for fisheries sustainability
- 2011. Raúl Rodríguez Coma. Potencial reproductivo del gallo (*Lepidorhombus boschii*) y su implicación en la Evaluación y Gestión Pesquera. University of Vigo.
- 2010. Aldo Hernandez Portocarrero. Ecología íctica de la costa oriental del lago de Nicaragua. University of Vigo.
- 2009. Eva García Seoane. Evolución temporal de la proporción de sexos respecto a la talla en Flemish Cap. University of Vigo.
- 2009. Rebeca Rodríguez Mendoza. Dimorfismo sexual de la gallineta (*Helicolenus dactylopterus*) en Galicia. University of Vigo.
- 2009. Sonia Mehault. Variability in Total Egg Production and implications for management of the Southern stock of European hake. University of Vigo.
- 2007. Alfonso Pérez Rodríguez. Estimación de la talla de maduración del bacalao de Flemish Cap a través de la relación alométrica entre la longitud del pez y la de su otolito. University of Vigo.
- 2007. Alexandre Alonso Fernández. Aplicación del análisis de la composición elemental de otolitos a la identificación de stocks. University of Vigo.

- 2005. Rosario Domínguez-Petit. Ecología reproductiva de la merluza europea (*Merluccius merluccius*) y su relación con el vertido de fuel del Prestige. University of Vigo.
- 2005. Isabel Bruno Basalo. Estimación de la fecundidad total de *Sebastes mentella* en el Mar de Irminger para el año 2002. University of Vigo.
- 2004. Ángeles Armesto López. Estimación de la tasa de atresia en *Sebastes mentella* en el Mar de Irminger. University of Vigo.
- 2004. Itxaso Salinas Aguilera. Estimación de la tasa de atresia en *Sebastes mentella* en el Mar de Irminger. University of Vigo.
- 2004. Paz Díaz Conde. Estimación de la tasa de atresia en *Sebastes mentella* en el Mar de Irminger. University of Vigo.
- 2003. Patricia Molina Cáceres. Análisis de la Variación de la Talla de Primera Maduración de la Merluza *Merluccius gayi peruannus*, en el mar del Perú. University of Vigo.
- 2003. Rafaél Bañón. Aspectos reproductivos del pulpo (*Octopus vulgaris*) en Galicia. University of Vigo.
- 2003. Dolores Garabana Barro. Analisis de parámetros reproductivos en poblaciones de *Sebastes* en el mar de Irminger. University of Vigo.

TRAINEES SUPERVISOR

- 1 PhD fellowship awarded with JAE-CSIC scholarship (4 years)
- 1 PhD fellowship awarded with FPU scholarship, Science Ministry (4 years)
- 3 PhD fellowships from Spanish Foreign Office (one year each)
- 3 graduate COST Short Term Scientific Mission scholarships
- 4 graduate students on University practical courses (6 months each)
- 1 graduate Erasmus (3 months)
- 2 Technician fellowships with JAE-CSIC scholarship (2 year each)
- 3 Technician fellowships from Galician government training program (2 years each)
- 7 Technician fellowships for practical courses (6 months each).