

## Theme session F

### Small-scale fisheries under data limited scenarios

Conveners: Cristina Pita (Portugal), José Pascual (Spain), and Sebastian Villasante (Spain)

Thursday 24 September, 10:30–18:30, Sankt Hans Torv

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#### Thursday 24 September

**10:30**      **Opening and introduction**

**Appointment of rapporteur**

**Presentation of papers**

**10:35**      **CM code:** F:14 Oral

**Title:** How to facilitate data collection in small-scale fisheries? The case of La Restinga, El Hierro (Canary Islands, Spain)

**Authors:** José Pascual-Fernández and Carmelo Dorta-Morales

**Keywords:** small-scale fisheries, data collection, governance, software, small-scale fishing unit strategies

**10:50**      **CM code:** F:03 Oral

**Title:** Coastal community CPUE standardization in the Galician small-scale fishery (southeastern Atlantic shelf) from 1999 to 2013 using on board observer

**Authors:** Jaime Otero, Alexandre Alonso-Fernández, Rafael Bañón Díaz, José Manuel Campelos Álvarez, and Fernando Quintero Fernández

**Keywords:** finfishes, invertebrates, small-scale fisheries, CPUE standardization, GLMs, model selection, NE Atlantic

**11:05**      **CM code:** F:04 Oral

**Title:** Monitoring fishing effort of a data-limited artisanal fishery. The case of common octopus small-scale fleet operating in the Galician coast (southeastern Atlantic shelf)

**Authors:** Rafael Bañón, Jaime Otero, Alexandre Alonso-Fernández, José Manuel Campelos Álvarez, and Fernando Quintero Fernández

**Keywords:** fishing effort, small-scale fisheries, biomass, *Octopus vulgaris*, NE Atlantic

**11:20**      **CM code:** F:05 Oral

**Title:** Development of a probability-based sampling design for landings of Scottish shellfish

**Authors:** Tanja Miethe, Alastair Pout, and Liz Clarke

**Keywords:** brown crab, crustacean, *Nephrops*, port, probability

**11:35**      **CM code:** F:09 Oral

**Title:** Diversity and efficiency indices of small-scale fisheries in the Western Mediterranean (Minorca's Channel, Balearic Islands)

**Authors:** Sandra Mallol and Raquel Goñi

**Keywords:** small-scale fisheries, métiers, diversity, efficiency, Western Mediterranean

**11:50**      **CM code:** F:11 Oral

**Title:** Analysis of the small-scale fleet's coverage under different biological sampling strategies: from the DCR stock-based sampling to the concurrent DCF métier-based sampling in the Northern Spanish coastal gillnets fleet

**Authors:** Jose Rodriguez Gutierrez, Eva Velasco, and Jose Castro Pampillon

**Keywords:** data collection, small-scale fisheries, concurrent sampling

<b>12:05</b>	<p><b>CM code:</b> F:10 Oral</p> <p><b>Title:</b> Assessment of small-scale data-limited Arctic charr fisheries using productivity-susceptibility, and landscape models coupled with local community monitoring</p> <p><b>Authors:</b> Ross Tallman, Marie-Julie Roux, and Zoya Martin</p> <p><b>Keywords:</b> data-limited, Arctic charr, productivity</p>
<b>12:20</b>	<p><b>CM code:</b> F:15 Oral</p> <p><b>Title:</b> From species to function: Using the tool of biological traits analysis to detect the effects of small-scale fisheries on the functioning of fish assemblages</p> <p><b>Authors:</b> Martha Koutsidi and Evangelos Tzanatos</p> <p><b>Keywords:</b> biological traits analysis, ecological functions, small-scale fisheries, coastal ecosystems</p>
<b>12:35</b>	<p><b>CM code:</b> F:13 Oral</p> <p><b>Title:</b> The small-scale trap fishery for <i>Plesionika narval</i> (Decapoda, Pandalidae) in the eastern Mediterranean Sea: bio-economics and challenges for management</p> <p><b>Authors:</b> Paris Vasilakopoulos, Christos D. Maravelias, Kostas Kapisir, Aikaterini Anastasopoulou, Chris Smith, and Stefanos Kalogirou</p> <p><b>Keywords:</b> CPUE, dodecanese, management plan, socio-economics, sustainability</p>
<b>12:50</b>	<p><b>CM code:</b> F:12 Oral</p> <p><b>Title:</b> BATEGIN: A user friendly GIS tool for the spatial management of the Basque small-scale fleet</p> <p><b>Authors:</b> Estanis Mugerza, Arantza Murillas-Maza, Iñaki Quincoces, Estibaliz Diaz, and Luis Arregi</p> <p><b>Keywords:</b> small-scale fisheries coastal impact, geospatial data collection, management tools conservation measures, fleet interactions</p>
<b>13:00</b>	<b>Lunch break</b>
<b>15:00</b>	<p><b>CM code:</b> F:02 Oral</p> <p><b>Title:</b> Short- and long-term impacts of a large marine protected area on artisanal fisheries in the Northwestern Mediterranean</p> <p><b>Authors:</b> Sandra Mallol and Raquel Goñi</p> <p><b>Keywords:</b> artisanal fisheries, marine protected area, fishing effort, spatial distribution, western Mediterranean</p>
<b>15:15</b>	<p><b>CM code:</b> F:07 Oral</p> <p><b>Title:</b> Management tools for small-scale fisheries in Europe: a review</p> <p><b>Authors:</b> C. Pita, E. Selig, K. Kleisner, G. Macho, J. Santiago, P. Pita, S. Rivero Rodriguez, J. Rodriguez, J. Isusi de Rivero, P. Lopes, and S. Villasante</p> <p><b>Keywords:</b> artisanal fisheries, traditional fisheries, fisheries management measures, tool, Europe, governance</p>
<b>15:30</b>	<p><b>CM code:</b> F:21 Oral</p> <p><b>Title:</b> Integrated decision support tools to inform small-scale fisheries management</p> <p><b>Authors:</b> Michaela Clemence, Erica Cunningham, Rod Fujita, Kendra Karr, Catherine Longo, Jake Kritzer, Jennifer Macy Humberstone, Gavin McDonald, Kaia Joye Moyer, Janelle Mueller, Rodrigo Oyanedel, Sarah Poon, Salvador Rodriguez van Dyck, Keith Shattenkirk, Katherine Siegel, and Amy Tourgee</p> <p><b>Keywords:</b> data-limited fisheries assessment, small-scale fisheries management tools, adaptive fisheries management, marine reserves, user rights, Fish Forever, tradeoff analysis, community-based management</p>

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<b>15:45</b>	<p><b>CM code:</b> F:08 Oral</p> <p><b>Title:</b> Sustainability of small-scale fisheries: How can we estimate it?</p> <p><b>Authors:</b> Rosana Ourens and Larry Crowder</p> <p><b>Keywords:</b> small-scale fisheries, indicators, sustainability, fisheries assessment, review</p>
<b>16:00</b>	<p><b>CM code:</b> F:22 Oral</p> <p><b>Title:</b> Assessing SSF social and economic performance in an MPA with limited data</p> <p><b>Author:</b> Leyre Goti</p> <p><b>Keywords:</b> SSF, data poor, MPA, social and economic impact</p>
<b>16:15</b>	<p><b>CM code:</b> F:20 Oral</p> <p><b>Title:</b> Integrating fishers knowledge in data-limited fisheries assessment: a case study using productivity-susceptibility analysis (PSA) of small-scale Arctic charr fisheries in Canada's Arctic</p> <p><b>Authors:</b> Marie-Julie Roux, Ross F. Tallman, and Zoya A. Martin</p> <p><b>Keywords:</b> data-poor, small-scale fisheries, PSA assessment, Arctic, fishers knowledge</p>
<b>16:30</b>	<p><b>Coffee break</b></p>
<b>17:00</b>	<p><b>CM code:</b> F:31 Oral</p> <p><b>Title:</b> Clam fisheries as a poverty trap</p> <p><b>Authors:</b> L. M. Rocha, P. F. M. Lopes, A. Begossi, J. J. Roper, and S. Villasante</p> <p><b>Keywords:</b> co-management, <i>Anomalocardia brasiliiana</i>, social-ecological sustainability, small-scale fisheries</p>
<b>17:15</b>	<p><b>CM code:</b> F:18 Oral</p> <p><b>Title:</b> Untangling the tentacles: fisher perceptions on the octopus fishery management in the Algarve</p> <p><b>Authors:</b> M.O. Rangel, C. Pita, M.M. Oliveira, M.H. Guimarães, C. Sonderblohm, A. Antunes, A. Barreto, P. Monteiro, F. Oliveira, L. Pereira, J.M.S Gonçalves and K. Erzini.</p> <p><b>Keywords:</b> octopus, small-scale fishery, fisher associations, management measures, management, Portugal, Algarve</p>
<b>17:30</b>	<p><b>CM code:</b> F:19 Oral</p> <p><b>Title:</b> Enhance our understanding of small-scale fisheries with the geolocation of fishing vessels: the case of the French kelp fishery off Brittany</p> <p><b>Authors:</b> Mathieu Woillez, Martial Laurans, Emilie Leblond, and Patrick Berthou</p> <p><b>Keywords:</b> small-scale fishery, geolocalisation, fishing vessels, Hidden Markov Models</p>
<b>17:45</b>	<p><b>CM code:</b> F:16 Poster</p> <p><b>Title:</b> The landing obligation in European small-scale fisheries</p> <p><b>Authors:</b> Sebastian Villasante, Cesar Guimeráns, Joao Rodriguez, Manel Antelo, Susana Rivero Rodríguez, Jose Alberto de Santiago, Cristina Pita, Graham Pierce, Lee Hastie, Jose Maria Da Rocha, Marta Coll, Dorleta Garcia, and Rashid Sumaila</p> <p><b>Keywords:</b> discards, Common Fisheries Policy, landing obligation, small-scale fisheries, Europe</p>
<b>17:47</b>	<p><b>CM code:</b> F:06 Poster</p> <p><b>Title:</b> Small-scale fisheries targeting cephalopods in Europe: socioeconomic importance and management</p> <p><b>Authors:</b> C. Pita, A. Adamidou, P. Belcari, J. M. Bellido, D. Cuccu, M. García Tasende, A. Gonzalez, A. Guerra, E. Lefkaditou, S. Maguire, J. Pereira, J. P. Robin, B. Roel, D. Turnbull, S. Villasante, and G. J. Pierce</p> <p><b>Keywords:</b> cuttlefish, octopus, squid, governance, France, Greece, Italy, Portugal, Spain, United Kingdom</p>

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<b>17:49</b>	<p><b>CM code:</b> F:01 Poster</p> <p><b>Title:</b> Coastal fisheries in Europe are not what they were: ecological, social and economic changes</p> <p><b>Authors:</b> Josep Lloret and Karim Erzini</p> <p><b>Keywords:</b> artisanal fisheries, biological impacts, socioeconomic challenges</p>
<b>17:51</b>	<p><b>CM code:</b> F:24 Poster</p> <p><b>Title:</b> Integrating data and fisheries management in small-scale fisheries in the Shetland Isles</p> <p><b>Authors:</b> Beth Mouat and Amos Barkai</p> <p><b>Keywords:</b> inshore fisheries, data led fisheries management, spatial data, Olrac Dynamic Data Manager, marine spatial planning</p>
<b>17:53</b>	<p><b>CM code:</b> F:25 Poster</p> <p><b>Title:</b> Towards an ecosystem based fisheries management in Norway, including small-scale and data-limited fisheries – practical tools for keeping track of relevant issues and prioritizing management efforts</p> <p><b>Authors:</b> Peter Gullestad, Anne Marie Abotnes, Gunnstein Bakke, Mette Skern-Mauritzen, Kjell Nedreaas, and Guldborg Sjøvik</p> <p><b>Keywords:</b> small-scale, data-limited, practical ecosystem based management tool, indicators</p>
<b>17:55</b>	<p><b>CM code:</b> F:26 Poster</p> <p><b>Title:</b> Women’s invisible work in small-scale fisheries</p> <p><b>Authors:</b> Yesmina Mascarell Rocher and Paloma Herrera Racionero</p> <p><b>Keywords:</b> gender, feminism, co-governance, inequity, sexual division of labor</p>
<b>17:57</b>	<p><b>CM code:</b> F:27 Poster</p> <p><b>Title:</b> Life history traits determine the shape and response to environmental conditions of a coastal community targeted by a small-scale fishery</p> <p><b>Authors:</b> Alexandre Alonso-Fernández, Jaime Otero, Rafael Bañón Díaz, José Manuel Campelos Álvarez, and Fernando Quintero Fernández</p> <p><b>Keywords:</b> finfishes, small-scale fisheries, life traits, temperature, NE Atlantic</p>
<b>17:59</b>	<p><b>CM code:</b> F:28 Poster</p> <p><b>Title:</b> Eliciting expert judgments to inform the depletion prior in data-poor stock assessment</p> <p><b>Authors:</b> Anna Chrysafi, Jason Cope, and Andre Punt</p> <p><b>Keywords:</b> data-poor, expert judgment, stock assessment</p>
	<p><b>CM code:</b> F:29 Poster</p> <p><b>Withdrawn</b></p>
<b>18:01</b>	<p><b>CM code:</b> F:30 Poster</p> <p><b>Title:</b> Mixed demersal/deep-water hook and line small-scale fishery from the Azores (ICES Xa2)</p> <p><b>Authors:</b> Mário Rui Pinho, Ana Novoa-Pabon, Priscila Silva, Helena Krug, and João Gil Pereira</p> <p><b>Keywords:</b> small-scale, hook and line, deep-water, Azores, seamounts, ICES Xa2</p>
<b>18:03</b>	<p><b>CM code:</b> F:32 Poster</p> <p><b>Title:</b> A spatial multivariate approach to understand what controls fish assemblages in small-scale fisheries</p> <p><b>Authors:</b> M. G. Pennino, M. J. F. Thomé-Souza, A. R. Carvalho, P. F. M. Lopes, L. C. S. Fontes, and C. Parente</p> <p><b>Keywords:</b> fish assemblage, fishing effort, multivariate analysis, multi-species</p>

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- 18:05** **CM code:** F:33 Poster  
**Title:** Temporal variability of landings composition in the Conil artisanal fishery (SW Spain): octopus collapse, subsidies and climate  
**Authors:** Rafael González-Quirós, Alfonso J. Silva-García, Beatriz Lado, Laura Prieto, José Luis Muñoz, Nicolás Fernández, and Javier Ruiz  
**Keywords:** small-scale fisheries, octopus, landings, temporal patterns, subsidies, climate
- 18:07** **CM code:** F:34 Poster  
**Title:** Challenges in minimizing illegal, unreported and unregulated fishing (IUU) of small-scale fisheries sector in Thailand  
**Authors:** Wichin Suebpala, Thamasak Yeemin, Makamas Sutthacheep, and Ratana Chuenpagdee  
**Keywords:** IUU fishing, small-scale fisheries, Thailand
- 18:09** **CM code:** F:35 Poster  
**Title:** The situation of small-scale fisheries management in Turkey: Evaluation of approaches regulations and researches  
**Authors:** Didem Gokturk and Tomris Deniz  
**Keywords:** small-scale fisheries, management, Turkey
- 18:11** **CM code:** F:36 Poster  
**Title:** MPA effects on the management of fish stocks could be questionable in some cases due to their localized geographic scale: the Mediterranean Sea as an example  
**Authors:** Ninon Mavraki, Michalis Georgiadis, and Evangelos Tzanatos  
**Keywords:** marine protected areas, conservation, small-scale fisheries
- 18:13** **CM code:** F:37 Poster  
**Title:** Using the dynamic dependency of sampling design on the hierarchical structure of fisheries heterogeneity to develop a roadmap for the optimization of small-scale fisheries sampling schemes  
**Authors:** Alexis Lazaris, Constantin Koutsikopoulos, and Evangelos Tzanatos  
**Keywords:** optimal sampling design, multi-stage sampling, small-scale fisheries
- 18:15** **CM code:** F:38 Poster  
**Title:** Early assessment with management purposes of the multi-species, multi-gear and data-poor complex fisheries  
**Authors:** J.G. Ramírez, J. Lleonart, G. Puentes, and J. Salat  
**Keywords:** gear competition, multi-species, management
- 18:17** **CM code:** F:39 Poster  
**Title:** Bringing together the knowledge of small-scale fishers and the scientific knowledge for length-based management purposes in data-limited fisheries  
**Authors:** Luis Manjarres-Martinez, Jairo Altamar López, Luis Orlando Duarte, Lina Saavedra, and Felix Cuello  
**Keywords:** local ecological knowledge, data-limited fisheries, management, Colombian Caribbean, simple indicators
- 18:19** **CM code:** F:40 Poster  
**Title:** Colombian small-scale marine fishers' knowledge as a fundamental management tool in data limited context  
**Authors:** Lina M. Saavedra-Diaz, Andrew A. Rosenberg, and Robert Pomeroy  
**Keywords:** fisher's knowledge, fishery management tool, small-scale fisheries

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<b>18:21</b>	<b>CM code:</b> F:41 Poster <b>Title:</b> Estimating uncertainty in data-limited stock assessments <b>Authors:</b> Alexandros Kokkalis, Uffe Høgsbro Thygesen, Anders Nielsen, and Ken Haste Andersen <b>Keywords:</b> size-structure, single-species, data-limited, stock status
<b>18:23</b>	<b>CM code:</b> F:42 Poster <b>Title:</b> The path-dependence and European fisheries management <b>Authors:</b> Fernando Gonzalez Laxe, Manel Antelo, and Sebastian Villasante <b>Keywords:</b> path dependence, fisheries management, EU fisheries policy
<b>18:25</b>	<b>CM code:</b> F:43 Poster <b>Title:</b> New practices to improve the conservation status of the benthic communities in small-scale fisheries <b>Authors:</b> David Díaz, Anabel Muñoz, Carlos Dominguez-Carrió, Jordi Grinyó, Stefano Ambroso, Laura Oliver, Sandra Mallo, Victor Gutiérrez, Raquel Goñi, and Josep-Maria Gili <b>Keywords:</b> artisanal fishery, conservation, benthic communities, bycatch
<b>18:30</b>	<b>End of session</b>

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