

**Title:**        **A New Proposal of Sustainable Seafood Markets Index (Smi): the Case Study of the Port of Vigo (Spain)**

**Authors:**   Sebastian Villasante, INIDEP. University Santiago de Compostela (Argentina)  
                  Gonzalo Rodriguez, University of Santiago de Compostela (Spain)

**Abstract:**   There is a consensus in the scientific community that overexploitation of most fisheries worldwide has had significant negative effects on coastal marine ecosystems, and the majority of assessed fish stocks still require rebuilding programs. Almost all of the scientific studies conducted in recent decades have focused primarily on analysis related to the biological state of marine ecosystems (e.g., biomass, fishing effort, catches per unit of effort, trophic levels). However, despite the relevance of the economic effects of fish markets on the patterns of exploitation by fishermen, an analysis linking the state of stocks with fish markets has not been attempted. Herein we describe the first effort to construct a seafood market index to measure the sustainability of seafood products. It is essential to understand not only the behavior of the harvested species from marine ecosystems, but also how economic factors (e.g., prices, concentration of seafood demand, concentration of local markets) can shift the status of exploited species and the strategies used by fishing companies. By combining data on monthly prices, trophic levels, size, and longevity of ~130 fresh seafood species traded in the Port of Vigo (Spain) during 2001-2009 we demonstrate the potential value of the use of our sustainability of seafood markets index (SSMI). Preliminary results presented herein indicate: (i) a decrease in the unit value of the majority of seafood products, which has increased competitiveness among fishing companies, (ii) a decline of trophic levels of catches in the majority of species, and (iii) an increase in the mean longevity of traded species. These results highlight the need to consider economic factors and link them not only to the evolution of market incentives and their effects (e.g., prices, tax incentives, subsidies), but also to the state of marine resources and the availability of food for human consumption.