

# Accepted Manuscript

The mass balance of production and consumption: Supporting policy-makers for aquatic food security

A.S. Lopes, J.G. Ferreira, C. Vale, J. Johansen



PII: S0272-7714(16)30769-7

DOI: [10.1016/j.ecss.2017.02.022](https://doi.org/10.1016/j.ecss.2017.02.022)

Reference: YECSS 5399

To appear in: *Estuarine, Coastal and Shelf Science*

Received Date: 22 December 2016

Revised Date: 14 February 2017

Accepted Date: 17 February 2017

Please cite this article as: Lopes, A.S., Ferreira, J.G., Vale, C., Johansen, J., The mass balance of production and consumption: Supporting policy-makers for aquatic food security, *Estuarine, Coastal and Shelf Science* (2017), doi: 10.1016/j.ecss.2017.02.022.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# 1 The mass balance of production and consumption: supporting 2 policy-makers for aquatic food security

3 A.S. Lopes<sup>1</sup>, J.G. Ferreira<sup>1</sup>, C. Vale<sup>2</sup>, J. Johansen<sup>3</sup>

4 <sup>1</sup>DCEA, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Quinta da Torre,  
5 2829-516 Monte de Caparica, Portugal

6 <sup>2</sup>Terminal de Cruzeiros do Porto de Leixões, Av. General Norton de Matos, 4450-208  
7 Matosinhos, Portugal

8 <sup>3</sup>GIFAS, Nordvågen, N-8140 Inndyr, Norway

## 9 **Summary**

10 This work addresses divergences between data on consumption and availability for wild-  
11 caught and farmed fish, and normalisation of reported production data, to support integrated  
12 fisheries and aquaculture management. The methodologies developed, centred on improved  
13 parameterisation and on mass balance closure, were tested in two case studies: (i) the cod  
14 fishery in Europe, with particular emphasis on Iceland and the United Kingdom; and (ii) the  
15 overall balance of aquatic products for Portugal, the ICES member with the most diverse range  
16 of landed marine species. Data for consumption, Illegal, Unreported, or Unregulated (IUU)  
17 catch, and official availability statistics were used to identify discrepancies between  
18 consumption and official availability data. The identification of discrepancies between supply  
19 and demand, when coupled with source-discriminated data, showed a pattern where products  
20 with no unmet demand tend to display a considerable IUU percentage—above 9% in three  
21 cases (hake, sardine, and horse mackerel).

22 By contrast with fished products with an over-met demand such as cod (143.5%) and sardine  
23 (124.2%), farmed species display low Optimal Consumption Level (OCL) satisfaction. Atlantic

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات