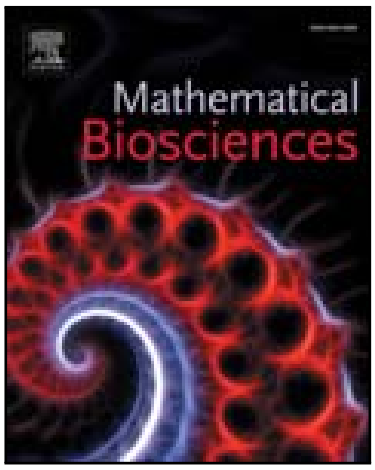

Carrying capacity influence on the incomes of seiners exploiting marine species in the Atlantic coast of Morocco

Imane Agmour, meriem Bentounsi, Naceur Achtaich, Youssef El Foutayeni

PII: S0025-5564(18)30048-8
DOI: https://doi.org/10.1016/j.mbs.2018.08.012
Reference: MBS 8116

To appear in: *Mathematical Biosciences*

Received date: 21 January 2018
Revised date: 15 May 2018
Accepted date: 29 August 2018

Please cite this article as: Imane Agmour, meriem Bentounsi, Naceur Achtaich, Youssef El Foutayeni, Carrying capacity influence on the incomes of seiners exploiting marine species in the Atlantic coast of Morocco, *Mathematical Biosciences* (2018), doi: https://doi.org/10.1016/j.mbs.2018.08.012

Highlights

- This paper is devoted to studying a bioeconomic model of several seiners exploiting Sardina pilchardus, Engraulis encrasicolus and Xiphias gladius marine species in the Atlantic coast of Morocco based on the parameters given by 'Institut National de Recherche Halieutique' INRH.
- Local stability of the feasible equilibrium points of the biological model is established
- Maximize the profit of fishermen exploiting the three marine species
- Show that the carrying capacity influence on the profit of fishermen
- Solve a Generalized Nash Equilibrium problem GNE
- Solve linear complementarity problem LCP
- A numerical simulation is conducted in order to show this influence.