Accepted Manuscript

A simulation-based method to compare the pest suppression potential of predators: a case study with spiders

Jacinto Benhadi-Marín, José Alberto Pereira, David Barreales, José Paulo Sousa, Sónia A.P. Santos

PII: S1049-9644(18)30150-6
DOI: https://doi.org/10.1016/j.biocontrol.2018.05.007
Reference: YBCON 3770

To appear in: *Biological Control*

Received Date: 10 March 2018
Accepted Date: 14 May 2018

Please cite this article as: Benhadi-Marín, J., Pereira, J.A., Barreales, D., Sousa, J.P., Santos, S.A.P., A simulation-based method to compare the pest suppression potential of predators: a case study with spiders, *Biological Control* (2018), doi: https://doi.org/10.1016/j.biocontrol.2018.05.007

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.

ACCEPTED MANUSCRIPT

A simulation-based method to compare the pest suppression potential of predators: a case study with spiders.

Jacinto Benhadi-Marín[1,2]*, José Alberto Pereira[1], David Barreales[1], José Paulo Sousa[2], Sónia A.P. Santos[3,4]

[1]Centro de Investigação de Montanha (CIMO), ESA, Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal.

[2]Centre for Functional Ecology, Department of Life Sciences, University of Coimbra, Calçada Martim de Freitas, 3000-456 Coimbra, Portugal.

[3]CIQuiBio, Barreiro School of Technology, Polytechnic Institute of Setúbal, Rua Américo da Silva Marinho, 2839-001 Lavradio, Portugal.

[4]LEAF, Instituto Superior de Agronomia, Tapada da Ajuda, 1349-017 Lisboa, Portugal.

*jbenma@hotmail.com

Abstract

Assessing and comparing the pest killing capacity of predators is a crucial but laborious task during the implementation of sustainable farming systems. Critical attributes of assessment include quantifying predator´s attack rate (a) and handling time (T_h). The maximum attack rate (T/T_h) (i.e. the maximum number of prey that can be attacked by a predator during the time interval (T) considered) could be a more precise and interpretable indicator of the potential suppression of pests exerted by a predator; however, its calculation only provides a point

Download English Version:

https://daneshyari.com/en/article/8877596

Download Persian Version:

https://daneshyari.com/article/8877596

Daneshyari.com