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Fitting the Stocking Rate with Pastoral Resources to Manage and Preserve Mediterranean Forestlands: A Case Study

Elisa Bianchetto ¹, Ivan Buscemi ², Piermaria Corona ³, Giovanni Giardina ²,
Tommaso La Mantia ^{2,*} and Salvatore Pasta ⁴

¹ Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria—Agrobiology and Pedology Research Centre (CRA-ABP), Piazza Massimo d'Azeglio 30, 50121 Firenze, Italy;

E-Mail: elisa.bianchetto@entecra.it

² Agricultural and Forest Sciences Department, University of Palermo, Viale delle Scienze, Ed.4, Ingr. H, 90128 Palermo, Italy; E-Mails: ivan.buscemi@gmail.com (I.B.); giardinagiovanni@libero.it (G.G.)

³ Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria—Forestry Research Centre (CRA-SEL), viale Santa Margherita 80, 52100 Arezzo, Italy;

E-Mail: piermaria.corona@entecra.it

⁴ Institute of Biosciences and BioResources, National Council of Research (IBBR-CNR), Unit of Palermo, Corso Calatafimi n° 414, 90129 Palermo, Italy; E-Mail: salvatore.pasta@ibbr.cnr.it

* Author to whom correspondence should be addressed; E-Mail: tommaso.lamantia@unipa.it; Tel.: +39-091-2386-1240.

Academic Editor: Marc A. Rosen

Received: 25 March 2015 / Accepted: 29 May 2015 / Published: 4 June 2015

Abstract: Pasture practices have affected Mediterranean forest ecosystems for millennia, and they are still quite widespread in mountainous areas. Nevertheless, in the last decades, the stability of forest ecosystems has been jeopardized due to the abandonment of traditional agro-pastoral practices, so that the gradual reduction of open areas due to progressive succession processes has caused a high increase of grazing pressure by livestock and wild ungulates feeding on forest areas. This paper aims at showing a methodological approach for evaluating the effect of applying measures in order to improve the grazing value of grasslands and ecotonal patches and lower the grazing impact on native woodlands. A protected area in Sicily (Italy) is considered as a representative case study. The analysis of remotely sensed imagery and several field surveys enabled to identify and map six different land use units subject to grazing, *i.e.*, (1) forests; (2) grasslands (pastures dominated by palatable herbs and grasses); (3) overgrazed grasslands (dominated