

FUEL ECOLOGICAL DESCRIPTION IN CALCAREOUS PROVENCE : EFFECTS OF WILDFIRE RECURRENCE AND VEGETATION TYPES

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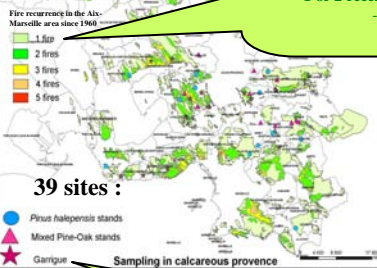
CONTEXT & OBJECTIVES

Assessing combustibility and flammability on Mediterranean vegetation in the framework of the European programme Fire Paradox

=> Assessing the influence of past fire regimes and vegetation types on fuel characteristics

METHODOLOGY

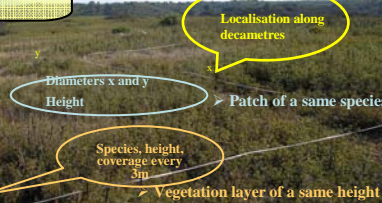
Sampling :



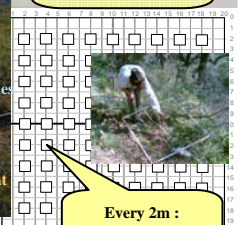
4 modalities of fire :
 - No fire
 - 1 or 2 old fire (>15 years)
 - 1 or 2 recent fires (<15 years)
 - ≥3 fires

Description of georeferenced 20m x 20m plots :

LIVE FUEL



DEAD FUEL

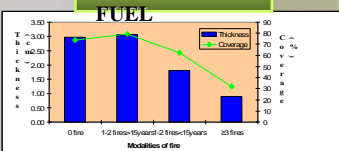


Every 2m :
 Thickness (cm)
 Coverage (%)

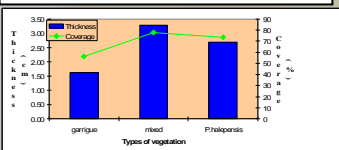
3 types of vegetation

MAIN RESULTS

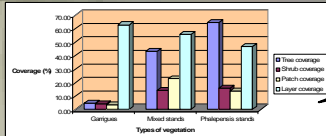
ON DEAD FUEL



Decrease of litter thickness and coverage
 > with increasing number of fires
 > with decreasing age of the last fire
 > under garrigue

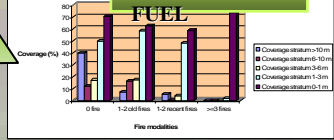


> Vertical continuity between the highest (>10m) and the lowest strata in mixed stands but not in *P. halepensis* stands
 > Increasing coverage of >3m strata, especially the tree coverage with decreasing number of fires and increasing age of the last fire

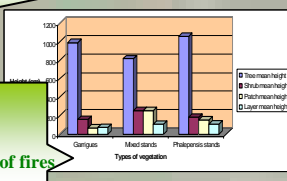


> Increasing height of shrubs and patches under mixed stands
 > Decreasing height of layers in garrigues
 > Increasing height of trees and layers with decreasing number of fires

ON LIVE FUEL



> Decreasing coverage of trees, shrubs and vegetation patches in garrigues



CONCLUSIONS

Vegetation types and fire modalities, induced by anthropogenic activities in this region, influence the structure of stands. As diverse fire regimes within ecological limits are essential for maintaining biodiversity, the variation of structure may play a part in diversity at local and landscape scale. The latter is indirectly ensued from urbanization.

