CONSERVATION AND RESTORATION OF *CYSTOSEIRA* FORESTS: THE ROLE OF MPAs

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ECOMERS — Écosystèmes Côtiers Marins et Réponses aux Stress

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Mediterranean marine forests formed by *Cystoseira* species

High reproductive potential but low dispersal ability:

NATURAL RECOVERY UNLIKELY
especially when forests are degraded/lost on wide areas

ECOLOGICAL RESTORATION

First experiments encouraging

(Falace et al., 2006; Susini et al., 2007; Perkol-Finkel and Airoldi 2010; Perkol Finkel et al., 2012)

Cystoseira forests loss have been recorded in several areas

Cormaci &Furnari 1999
Mangialajo et al., 2008
Perkol-Finkel & Airoldi, 2010
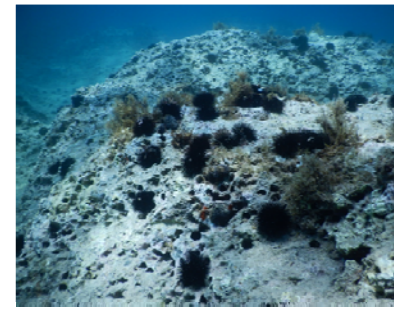Serio et al. 2006
Thibaut et al. 2005
Vukovik 1982

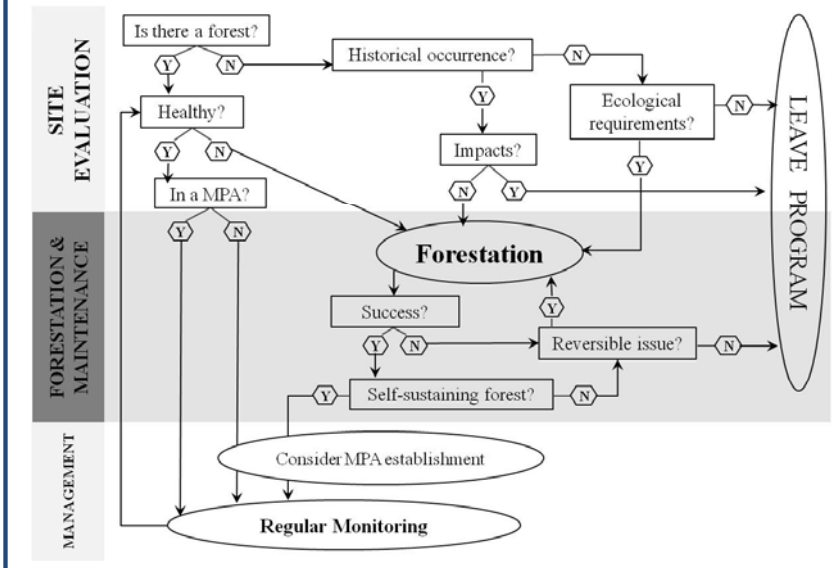## Many forests remain unprotected

Which role can play MPAs in the conservation of *Cystoseira* forests?

| Better protection from (some) impacts | source of propagules | preferential sites for reforestation |

Major causes of loss

Coastline urbanization
(Habitat destruction, decreased water quality; increased sedimentation; barrier for connectivity)

Unregulated / illegal fishery
(i.e. overfishing of sparids; date-mussel harvesting) Direct and indirect effects
(destruction; proliferation of herbivores)

Flow-chart for the conservation (and reasoned restoration) of *Cystoseira* forests

Conservation and recovery of marine forests are possible, raising awareness of the importance of *Cystoseira* species, reducing impacts and, whenever necessary, adopting restoration actions