

Distribution of the genetic diversity within *Lithophyllum cabiochiae* within the Mediterranean basin.

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Lithophyllum cabiochiae

Phylum	Class	Order	Genus
Rhodophyta	Florideophyceae	Corallinales	Lithophyllum

Reproduction cycle is isomorphic triphasic

- 1.Gametophyte (1n),
 - 2.Carposporophyte (2n)
 - 3.(Tetra) Sporophyte (2n)

Spores with no mobility skill = passive dispersal

Aims of the study

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 1. The study of the genetic and specific diversity with the use of molecular markers (Barcodeing)
 2. The supply of information on the phylogeny of cryptic species.
 3. To study the connectivity amongst the study sites at local and Mediterranean scale.

Material and Methods

Sampling: About 30 individual samples per site
 28 ± 1 m depth, distributed on two different profiles
(CICESEMED protocol)

Genetic analysis: PCR primers mitochondrial COI (Saunders, 2005) and psbA plastidial marker (Yoon et al., 2002)

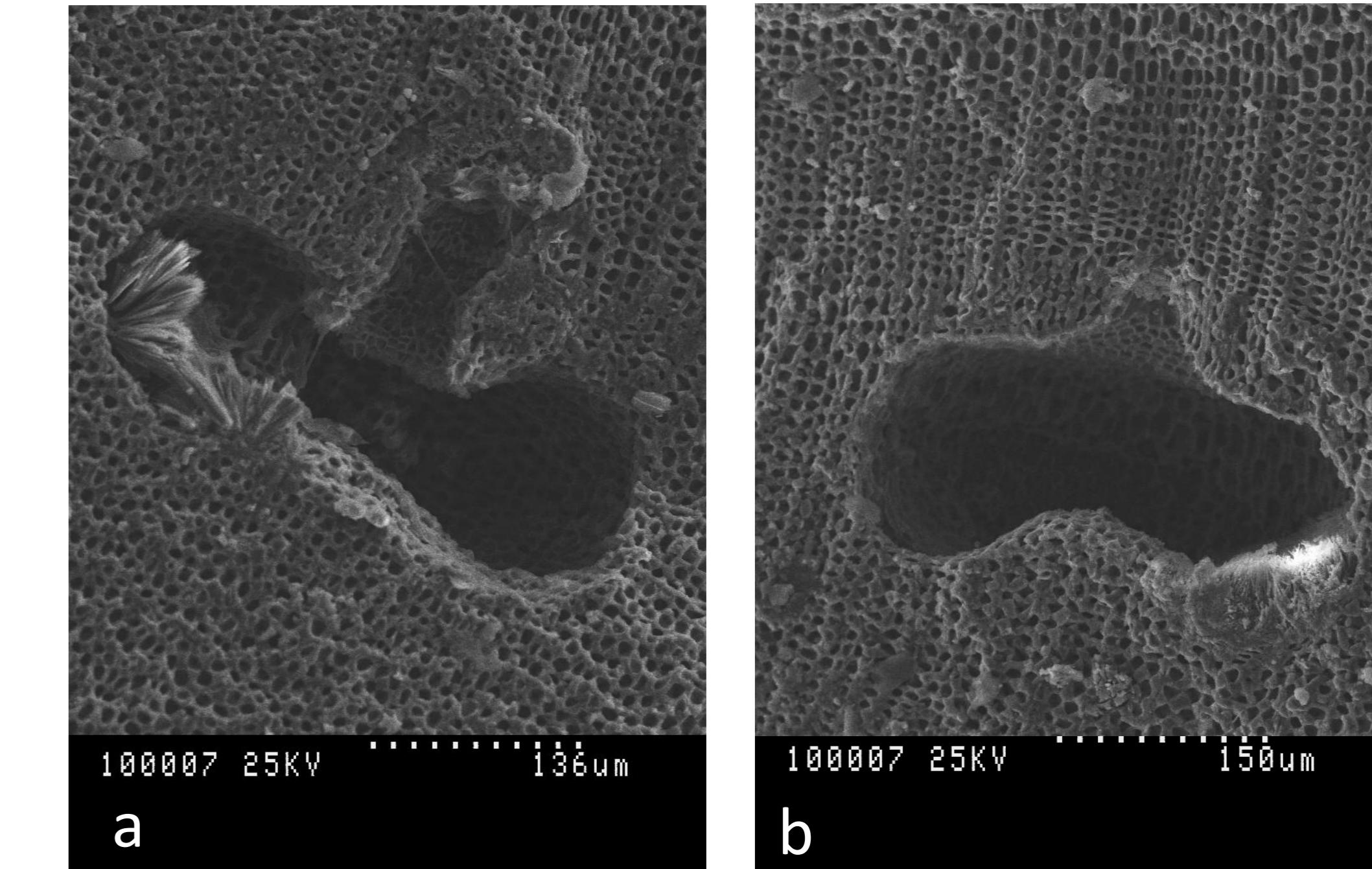
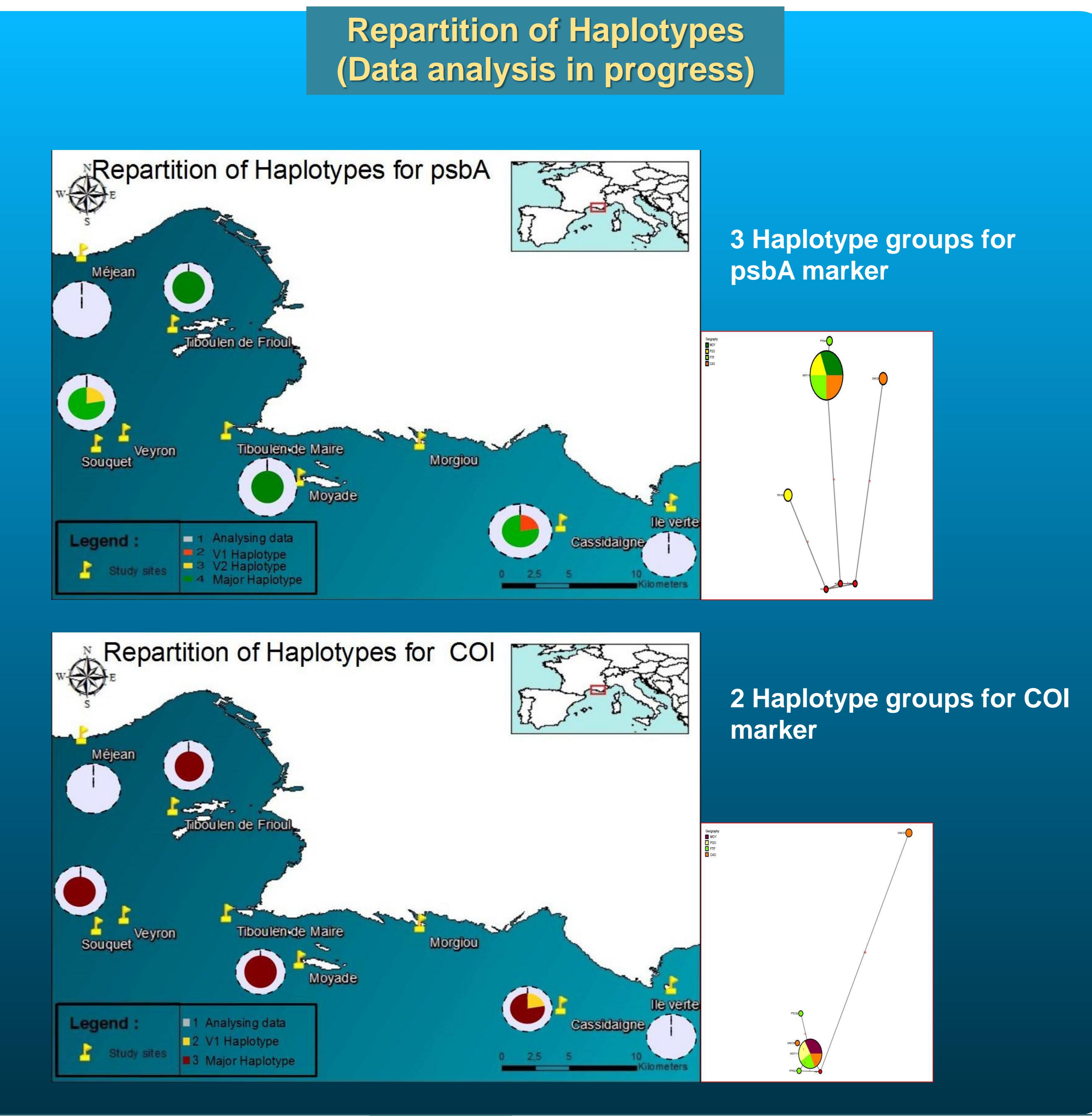
Coralligenous habitat

Endemic Mediterranean hard substrates bio-constructed habitats of great functional complexity which develop in low light conditions, 3% - 0.05% of the surface irradiance.

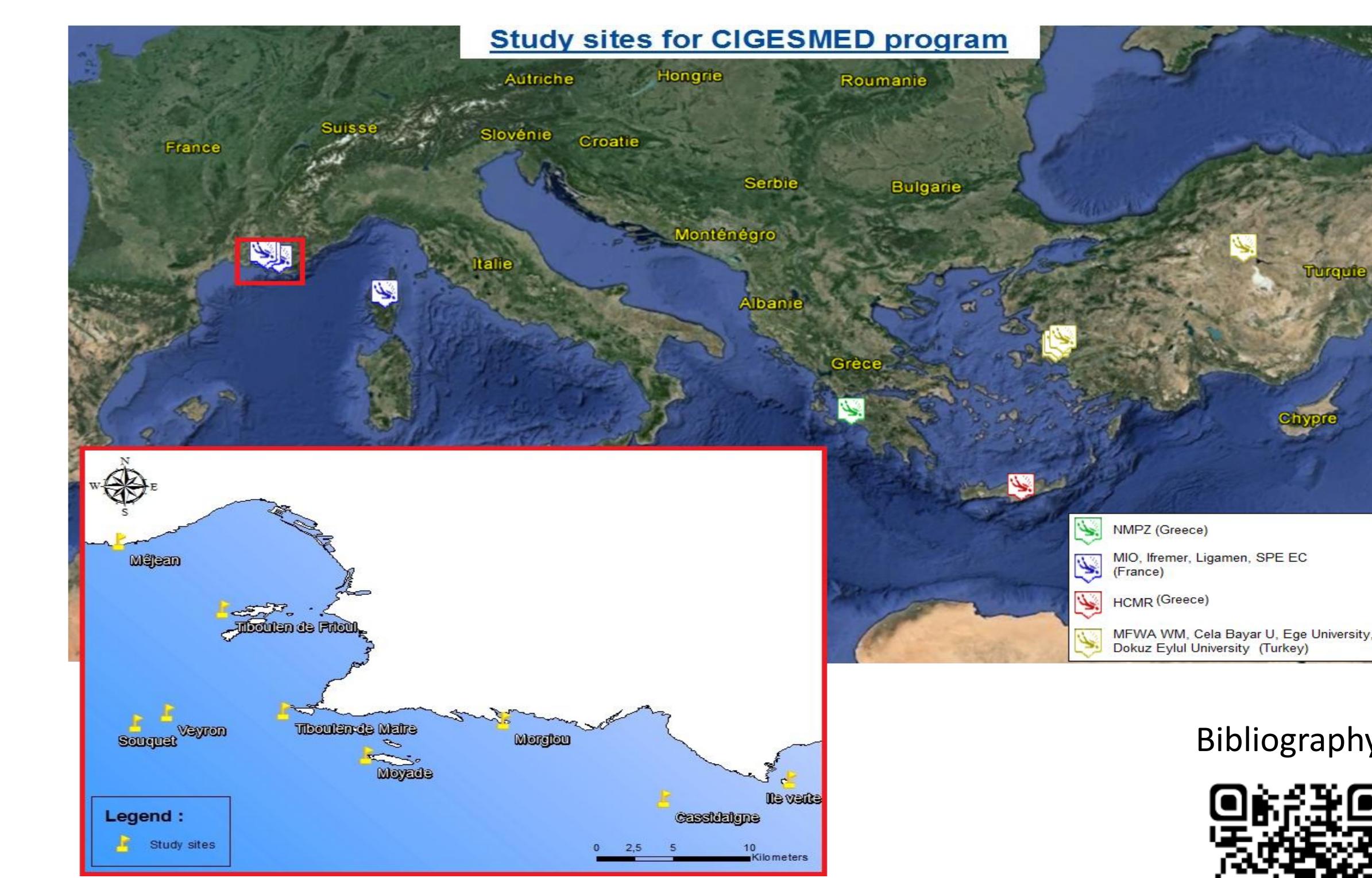
The principal Coralligenous builders are red calcareous algae of the order Corallinales, also major contributors to carbon flux, benthic productivity and habitat complexity (Canals & Ballesteros, 1997).

Perspectives

- Genetic analysis of all population of the study sites
 - Is there any association between the different branches and the ecological profiles
 - Genetic analysis of Eastern Mediterranean coralline algae (Greece, Turkey, Cyprus)
 - Morphological differences between the different haplotypes groups.



An anatomical difference between *L. cabiochiae* (a) and *L. stictaeforme* (b) is the shape of their conceptacles pore.



Bibliography:



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