



# LIFE BLUE NATURA:

MORE FUNDS FOR CONSERVATION AND RESTORATION OF BLUE CARBON COASTAL HABITATS

Interdisciplinary symposium

Corte, 5-6-7 July 2017

Track: Global Change

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CEAB-CSIC



Socios beneficiarios:

JUNTA DE ANDALUCIA  
CONSEJERÍA DE MEDIO AMBIENTE  
Y ORDENACIÓN DEL TERRITORIO  
Agencia de Medio Ambiente y Agua

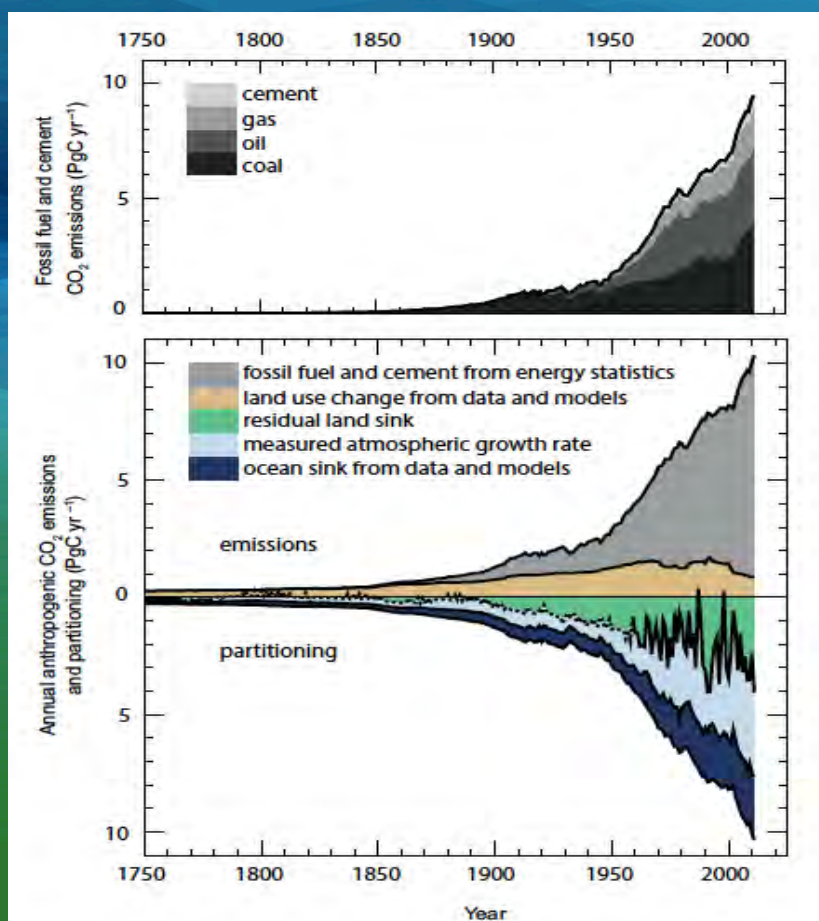


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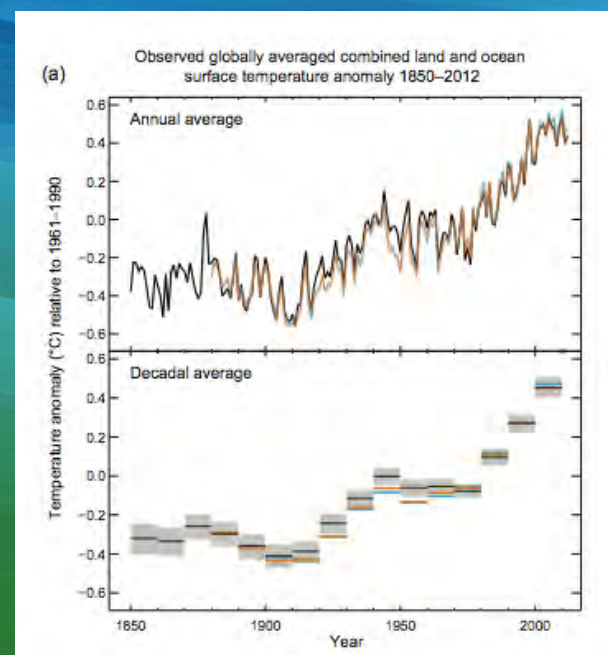


Nearly  $\frac{3}{4}$  of CO<sub>2</sub> increase in the atmosphere comes from fossil fuel burning

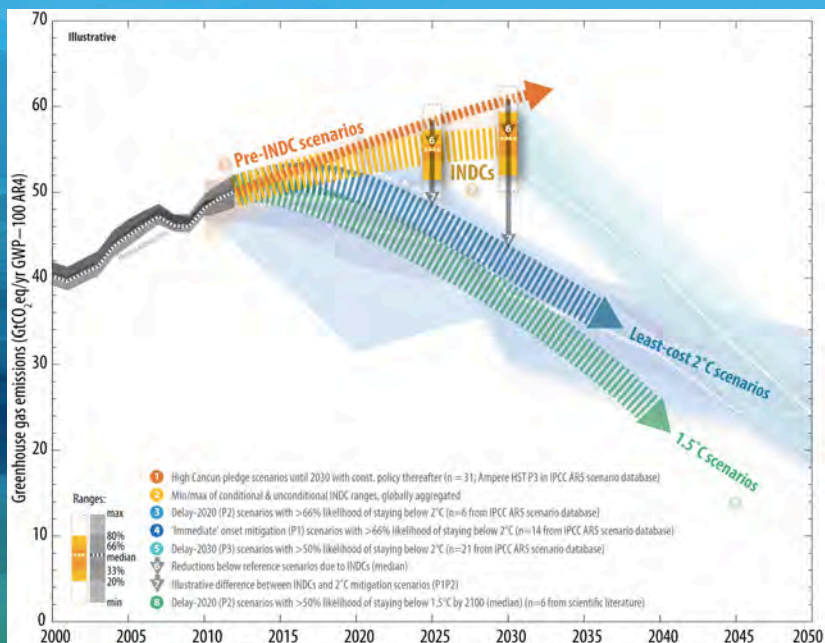
Around  $\frac{1}{4}$  comes from LULUCF since agriculture invention



IPCC 2013



IPCC 2013



We urgently need more ambitious action

3/4



**Important  
 reduction in fossil  
 fuel burning**

1/4



**Widening and  
 improvement of  
 natural carbon sink  
 protection and  
 restoration**

PARIS 2015: scenario with INDC still  
 well above 2°C

REDD+ (2009, COP16)  
 Blue Carbon Initiative  
 ...



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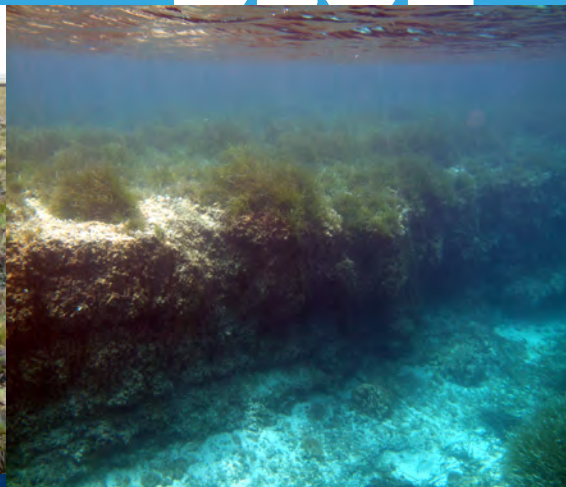


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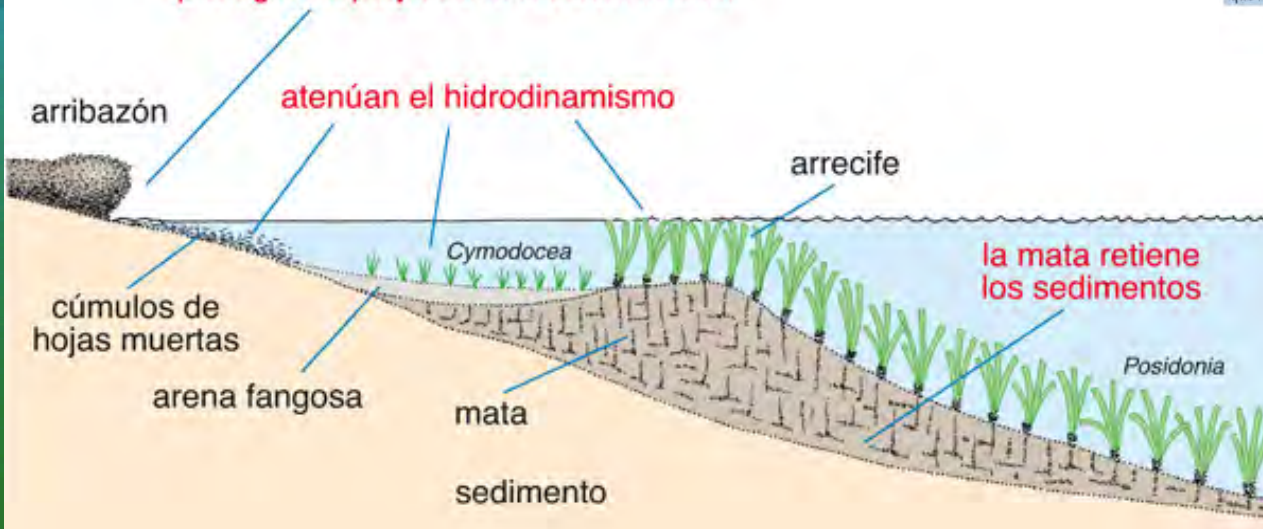


# LIFE BLUE



VALOR INSTRUMENTAL	
<b>Aprovisionamiento</b>	<b>Regulación</b>
Productos obtenidos de las praderas de fanerógamas marinas	Beneficios derivados de la regulación de procesos del ecosistema
Fuente de alimento para humanos	Atenuación hidrodinamismo
- Peces, moluscos, equinodermos, harinas	- Control erosión costera
Usos agropecuarios	- Estabilización de sedimentos
- Forrajes, fertilizantes, camas	- Transparencia del agua
Ortos usos	Papel en los ciclos biogeoquímicos
- Materiales de construcción	- Control de la eutrofia (nutrientes)
- Materiales para artesanía	- Detoxificación (contaminantes)
- Objetos ornamentales	Mitigación CCG (secuestro de CO2)
- Ejemplares para acuarios	
- Cebos	
- Productos medicinales	
<b>Apoyo</b>	<b>Cultural</b>
Funciones necesarias para la existencia del resto de servicios	Beneficios inmateriales relacionados con el enriquecimiento espiritual/intelectual
Reciclado de nutrientes	Valor recreacional/turístico
- Base de cadenas tróficas locales	Valor didáctico
- Base de cadenas tróficas externas	Valor estético
Reserva de biodiversidad	Valor religioso/espiritual
Reserva de resiliencia	Fuente de información
	- Bio-indicador y alerta temprana
	- Archivo paleo-ecológico
<b>VALOR INTRÍNSECO</b>	
Legado evolutivo y potencial de los ecosistemas	
Valor que las praderas, sus comunidades y sus procesos encierran por si mismos con independencia del que le otorguen los seres humanos.	

protegen la playa de la erosión marina



Cofinanciador:





# BUILDING ON PREVIOUS RESULTS FROM LIFE+ POSIDONIA ANDALUCIA

## C1: ANÁLISIS ECONÓMICO Y SOCIAL DE LAS AGUAS EN LAS QUE HABITAN LAS PRADERAS DE POSIDONIA: COSTE QUE ENTRAÑA SU DEGRADACIÓN

Nutrient recycling  
22.500 € Ha/year

Fisheries  
1/3 fish sold in  
Almeria stock  
market linked

Tourism: at least  
21.060 € Ha/year

Carbon sink  
108 € Ha/year

Carbon STOCKS, around 25  
MegaTonnes CO<sub>2</sub> (80-300 M€)

EVALUATION OF CLIMATE  
CHANGE MITIGATION SERVICE  
OF ANDALUSIAN SEAGRASSES  
AND SALTMARSHES

L I F E  
**BLUE**  
N A T U R A



**SÚMATE A BLUE NATURA Y COMBATE EL CAMBIO CLIMÁTICO**

**LIFE 2014**

Sub-program: Climate change

Area: Mitigation

Sector: Greenhouse gas accounting /reporting

**2.513.792 €**  
**1.508.275 € EU**

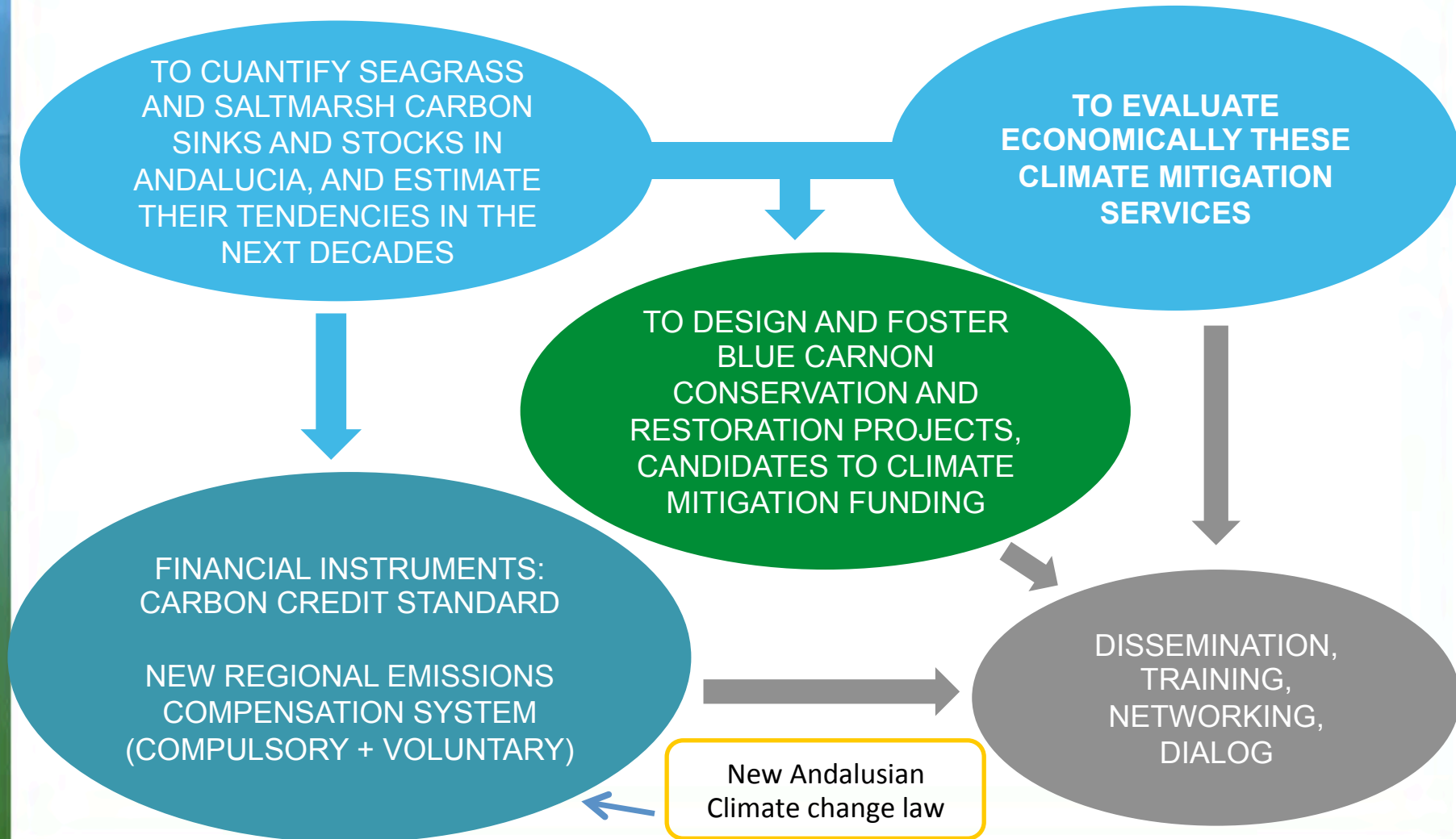
COORDINATOR PARTNER: CMAOT (Andalusian Regional Government)

4 PARTNERS: AMAYA, CSIC, UICN, HYT

1 CO-FINANCING PARTNER: CEPSA

	2015				2016				2017				2018				2019			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Overall project Schedule			S				P				P				M					F
PROJECT TIMETABLE																				
PROGRESS																				

### 5 OBJECTIVES





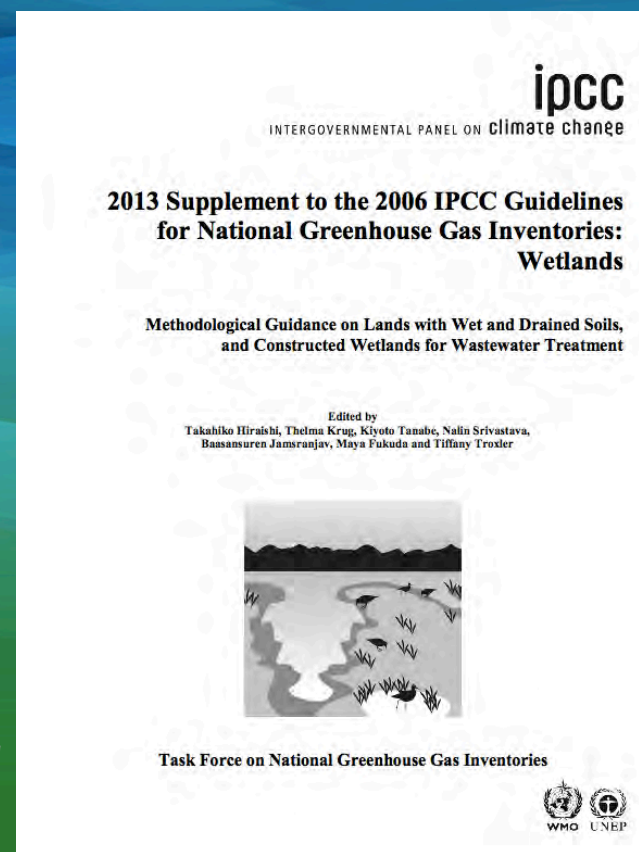
**Possible strategies for monetizing blue carbon sink environmental habitats to protect them:**

- Regulated and **voluntary carbon markets**: compensating for emissions in excess

The normal compensation carbon credit (1mT CO<sub>2</sub>eq) is now too cheap

- Increasing the cost of carbon emissions permissions, and using the money for carbon sink conservation (ETS 50% to 100% in 2024)

- Including coastal habitats (seagrasses, saltmarshes, mangroves...) in national inventories of emissions and sinks

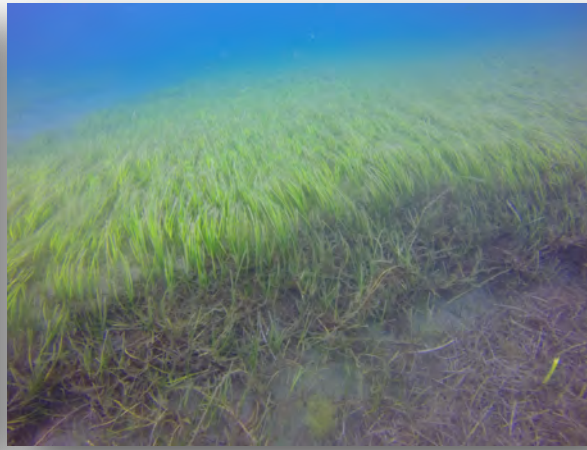
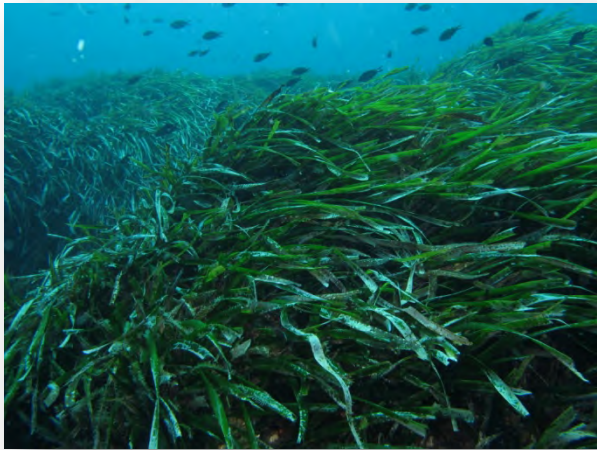


Socios beneficiarios:





## SÚMATE A BLUE NATURA Y COMBATE EL CAMBIO CLIMÁTICO



Around 7.000 ha  
*Posidonia oceanica*  
and other seagrasses  
(*Cymodocea nodosa*,  
*Zostera noltei*)

Saltmarshes: Around 24.400 Ha  
Just around Cadiz bay and Odiel  
rivermouth





# FIRST: IMPROVING CARTOGRAPHY AND BLUE CARBON HABITAT CHARACTERIZATION, IN ORDER TO IMPROVE RESOLUTION ON THEIR EXTENSION, ESTIMATE POTENTIAL AREA AND TEMPORAL TENDENCIES

2015-2017



(LIFE2014/CCM/ES000957)  
**El Carbono Azul en Andalucía**  
La importancia de su conservación para alcanzar los objetivos de mitigación del cambio climático.  
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## JORNADA DE VOLUNTARIADO

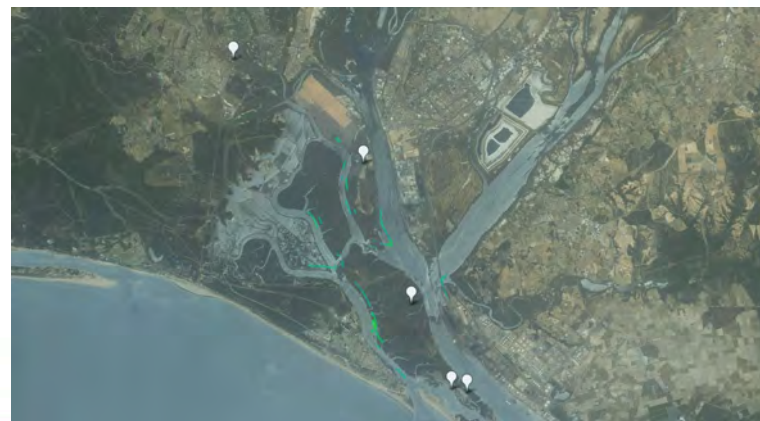
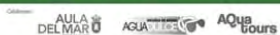
# POSIMED ANDALUCÍA 2016

8 y 9 de Octubre. Roquetas de mar - Aguadulce (Almería)

Inicio de la campaña Posimed- Andalucía 2016: la red de seguimiento del estado de conservación de Posidonia oceánica en Andalucía, en la que participan buceadores voluntarios.



Infórmate en:  
[www.life-bluenatura.eu](http://www.life-bluenatura.eu)  
[info@life-bluenatura.eu](mailto:info@life-bluenatura.eu)







SECOND: ESTIMATE CARBON SINK AND STOCKS ASSOCIATED TO THESE HABITATS, THEIR POTENTIAL AND TENDENCIES

2016-2018



1<sup>st</sup> campaign in  
October 2016

Capture natural and  
anthropogenic variability







LAB ANALYSES:

OM, CaCO<sub>3</sub>, bulk density

<sup>13</sup>C, <sup>15</sup>N isotopic signals

C<sub>org</sub>, N<sub>org</sub>, granulometry

<sup>14</sup>C and <sup>210</sup>Pb, lepidochronology



Actions to help defining a blue carbon financing strategy and to design blue carbon mitigation projects and communication have also started.

**2015-2019**

**RESULTS EXPECTED: 2016-2019**

Carbon stocks and fluxes to the seagrass and saltmarsh habitats in Andalucía  
 Effects of degradation and restoration  
**End 2018**

**Andalusian certification standard:** carbon credits generated by conservation and restoration projects on seagrasses and saltmarshes: **end 2019**

Handbook for financing EU blue carbon conservation and restoration projects:  
**mid 2019**

**End 2019:** At least 2 restoration projects with carbon credits calculated for the SACE (Andalusian Emissions Compensation System): mandatory and voluntary compensation systems

**Itinerant campaign:**

schools (Aldea), municipalities...

**2017-2018**

**2 conferences**

**scientific publications**

**Monograph (2016-2019)**

**Workshops:**

- Managers
- Journalists
- Politicians
- Enterprises

**2018 - 2019**

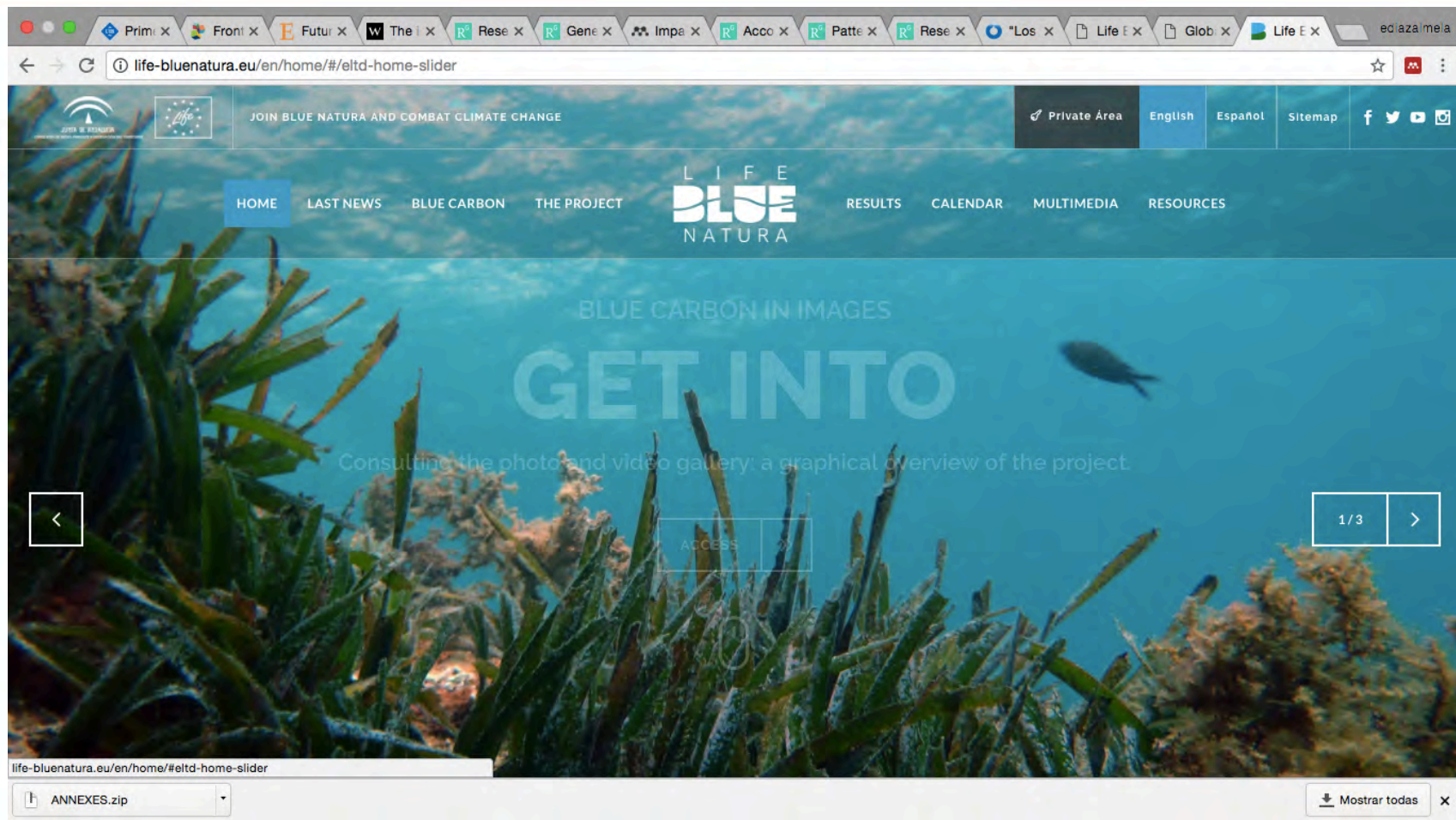
**LAW IN PROJECT: ANDALUSIAN CLIMATE CHANGE ACT, DEVELOPING THE ANDALUSIAN SYSTEM FOR CARBON EMISSIONS COMPENSATION (SACE)**

**Article 31:** contemplates emissions compensation projects increasing carbon sink capacity through actions on marshes and marine areas

**Article 41:** Andalusians System for emissions compensation (SACE), managed by the Regional Environmental Council, including a compulsory and a voluntary regime and a certification system of UDAs (Units of Absorption) through the standards produced.

The SACE will include blue carbon projects in their catalogue offered to entities willing or having to compensate.





[www.life-blunatura.eu](http://www.life-blunatura.eu)

@lifeblunatura

#blunatura

#carbonoazul

# L I F E BLUE NATURA

## SÚMATE A BLUE NATURA Y COMBATE EL CAMBIO CLIMÁTICO

(LIFE2014/CCM/ES000957)

**El Carbono Azul en Andalucía**  
y su papel para la mitigación del cambio climático

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