The ECOPOTENTIAL implementation: working with PAs

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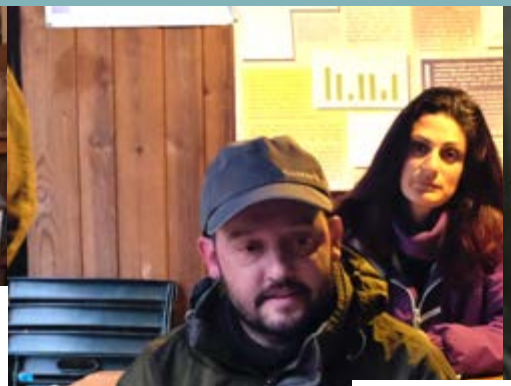
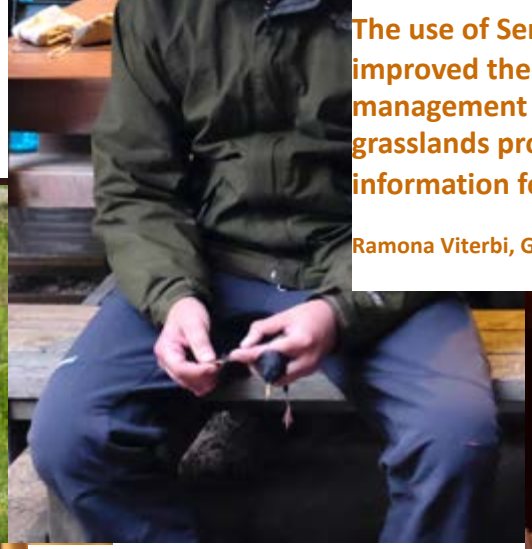
The use of Sentinel for conservation and environmental monitoring provide us new way of working

Antonis Tsakirakis, Samaria National Park



The use of Sentinel data has improved the control and management of high altitude grasslands providing plenty of information for remote areas

Ramona Viterbi, Gran Paradiso national Park



"The EODESM system provides timely information on wetland conditions and dynamics that determine the distribution of flora and fauna species. This can assist in efforts to ensure planning of conservation management"

Ricardo Díaz-Delgado (EBD Doñana) and Loïc Willm (Camargue).

Silvia Giamberini – CNR and the ECOPOTENTIAL Community of Practice

Geneva, 24/10/2019
ECOPOTENTIAL-GEO workshop

The co-design approach

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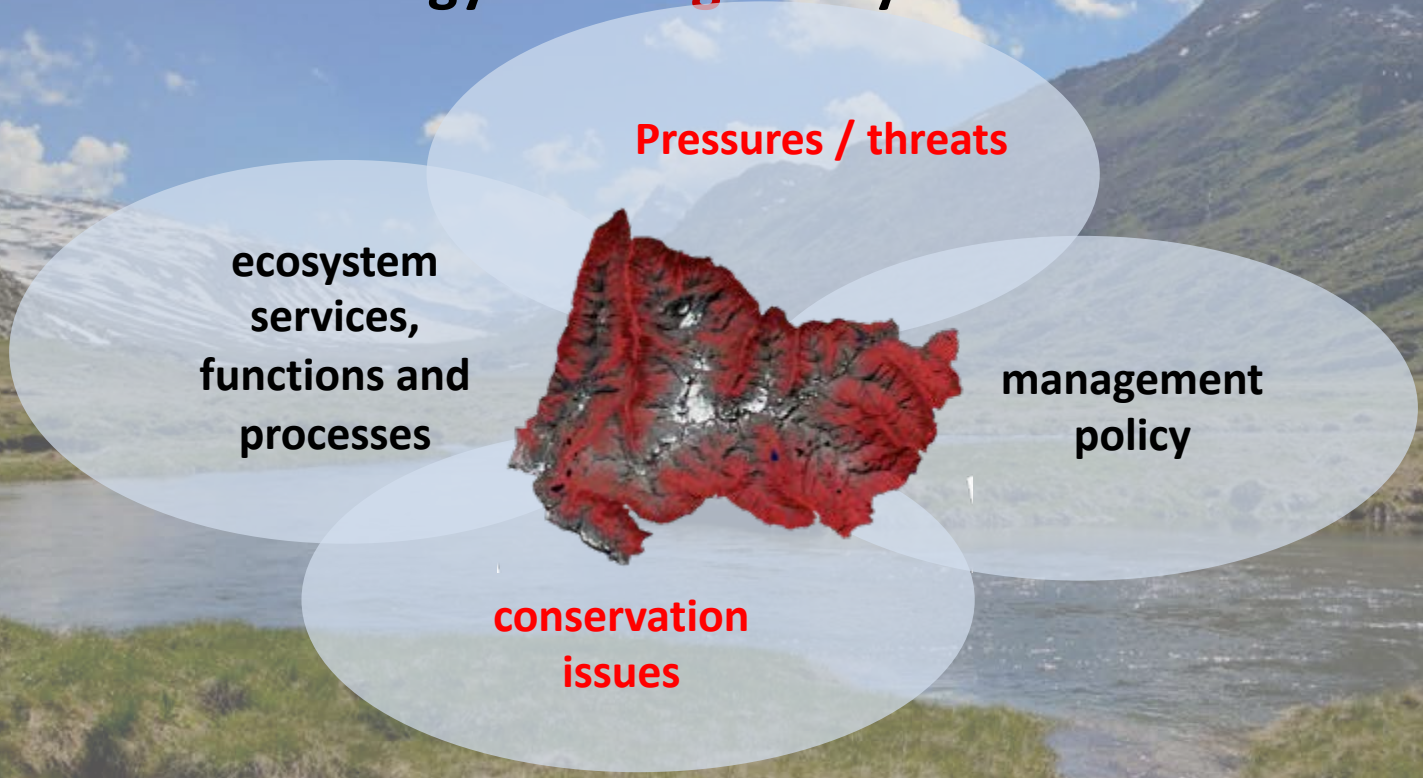
Research strategy co-designed by scientists and PA staff:



Address Conservation issues

Identify IS/RS data

Develop Ecological models

Set knowledge-based management policy

Project workflow

Did the «storyline driven» research work?

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Premise: Nature conservation needs open data for knowledge informed management

Many advantages offered by ECOPOTENTIAL / EO / RS data: Spatial distributed data, frequent revisiting, time series, automatic detection, money saving….

……We know it!!

BUT

"PA people" reported to us also some difficulties / constraints:

- RS Proxies not always depicting reality
- Are essential variables really useful?
- Difficulties in discovering reliable and complete datasets
- Difficulty in managing complex IT technologies
- Need of training and support
- Language barriers

This proxy is not useful to me!

I need to find complete datasets easily in a unique reliable repository

RS derived maps would make my job easier, but I don't have time to learn how to run the software myself!

After 4 years: What outcomes?

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Research Threads (Storylines): 25 protected areas - 23 ”storylines” co-designed with park managers and staff

- only 2 discontinued

- A **survey** on results at the end of 4 years of scientific collaborations revealed the following number of cases:

Co-designed research produced:	
In situ data	13
Remote Sensing data	18
Models/apps/algoritms	18
Publications (*)	14

Level of interaction Researchers / PAs			
very good	good	fair	poor
6	6	5	4
Results applied by PAs			
YES	NOT YET	NO PLANS	
6	7	7	

(*)= the number of publications directly generated by research threads in PAs is around 70 over 130+

After 4 years: What outcomes?

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***"The best of possible worlds"*:**

Research co-designed, long term collaborations, results adopted by PA managers

Key of success: long – term collaboration

6 case studies

***"Almost there"*:**

Research co-designed, no LT collaboration, results not yet applied

High TRL products need <u>further</u> <u>resources</u> and <u>long term projects</u>

7 case studies

***"Knowledge made available"*:**

Research not so co-designed, results freely shared – no application plans by PAs in the short term

The enhanced knowledge of ES can be generalised to other PAs

7 case studies

Lesson learned: ingredients for a successful application

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what are the factors that influence the application of co-designed research results?

WHY RESULT NOT/NOT YET APPLIED		total cases	poor involvement / lack of commitment	need more time / poor TRL	lack of HR/money/capacity	research too broad	other priorities/policy
	NOT APPLIED	7	5	1	2	3	2
	NOT YET	7	0	3	3	1	3

WHY RESULTS APPLIED	total cases	involvement of PA	high TRL	human resources/capacity
	6	5	1	5

Commitment of PA and human resources are the major factor of success/not success

High/low TRL is a limiting factor in the "not yet" case in <50% times, together with other causes

"Research too broad" identified as limiting factor only when the involvement of PA is scarce

Other priorities/lack of policy and lack of HR are equally distributed in NOT/NOT YET cases

Lesson learned from the users' workshops: can we overcome the obstacles?

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EO data: user needs for conservation management:

What did PA staff reported to us

What can be done

RS Proxies sometimes not depicting reality
Are Essential variables really useful?

→ Research, research, research…
In Situ + RS data complementary

Difficult to discover reliable and complete data sets
IT technologies are too complex
Will the data repositories last for many years?

→ Unique entry points
Clear pathways to reach data
Easy-to-use products
Long-living and authoritative sources

More training and support
English is a language barrier

→
- Support services and training
- Services close to people (local/regional)

After ECOPOTENTIAL…

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http://natura2000.eea.europa.eu/

e-shape

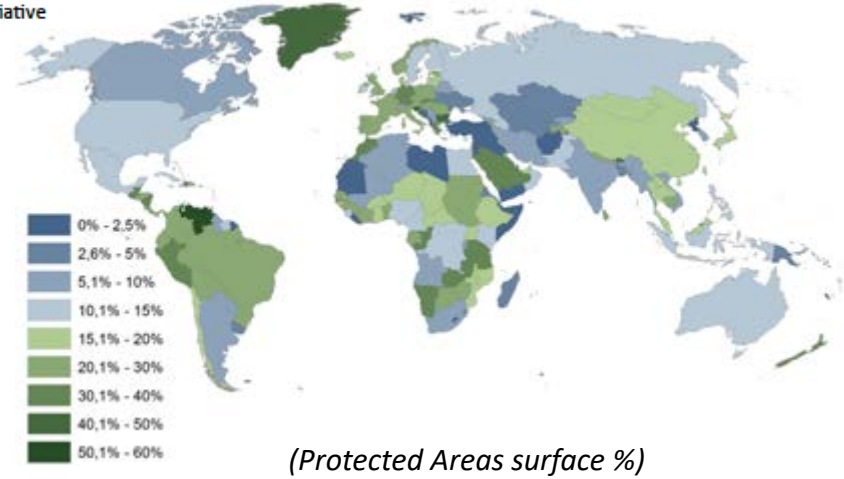
EuroGEO

GEO BON

The GEO Global Ecosystem Initiative

Extend knowledge and products' use to other Protected Areas

Protected Areas in the World



(Protected Areas surface %)

What can GEO ECO CoP do to support EO use

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”The last mile”

Coordinate efforts – support a long lasting framework to give continuity to projects’ research - role of LifeWatch ERIC and eLter RI

Support **long living and authoritative EO services** that provide a unique entry point for accessing EO services

Increase **dissemination** and **capacity building** efforts / enlarge the pool of **potential users** (NATURA 2000 – International networks of PAs..)

Create **support services** that are easily accessible and close to users at national / local level

Thanks a lot!!

Muito obrigada!! Muchas gracias! Merci !! Grazie!! Mersi!!
Vielen Danken! Ευχαριστώ! תודה شُكْراً Bedankt!

ECOPOTENTIAL

Improving future ecosystem benefits through Earth Observations

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www.ecopotential-project.eu