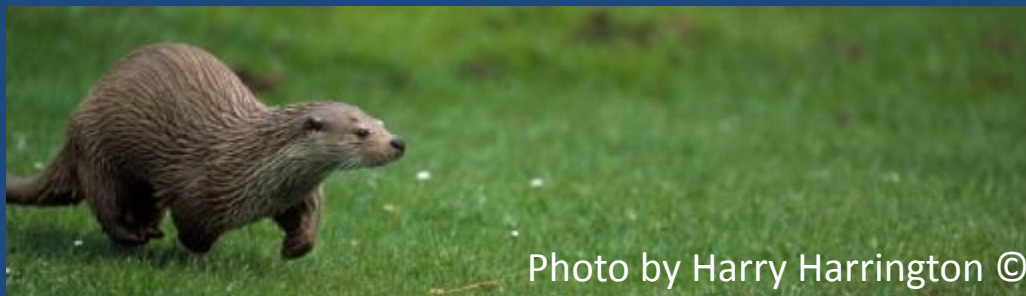


Europe: Collecting and using information on otter road casualties



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A survey invited by the OSG

OBJECTIVES

- To **understand** what is the *status of reporting, recovery and necroscopy of otter carcasses* in different European countries
- To **discuss** how the results from the collection of these data can be used for *otter conservation and management*
- To **discuss** whether it is *useful to set up a European based system* for some of these actions

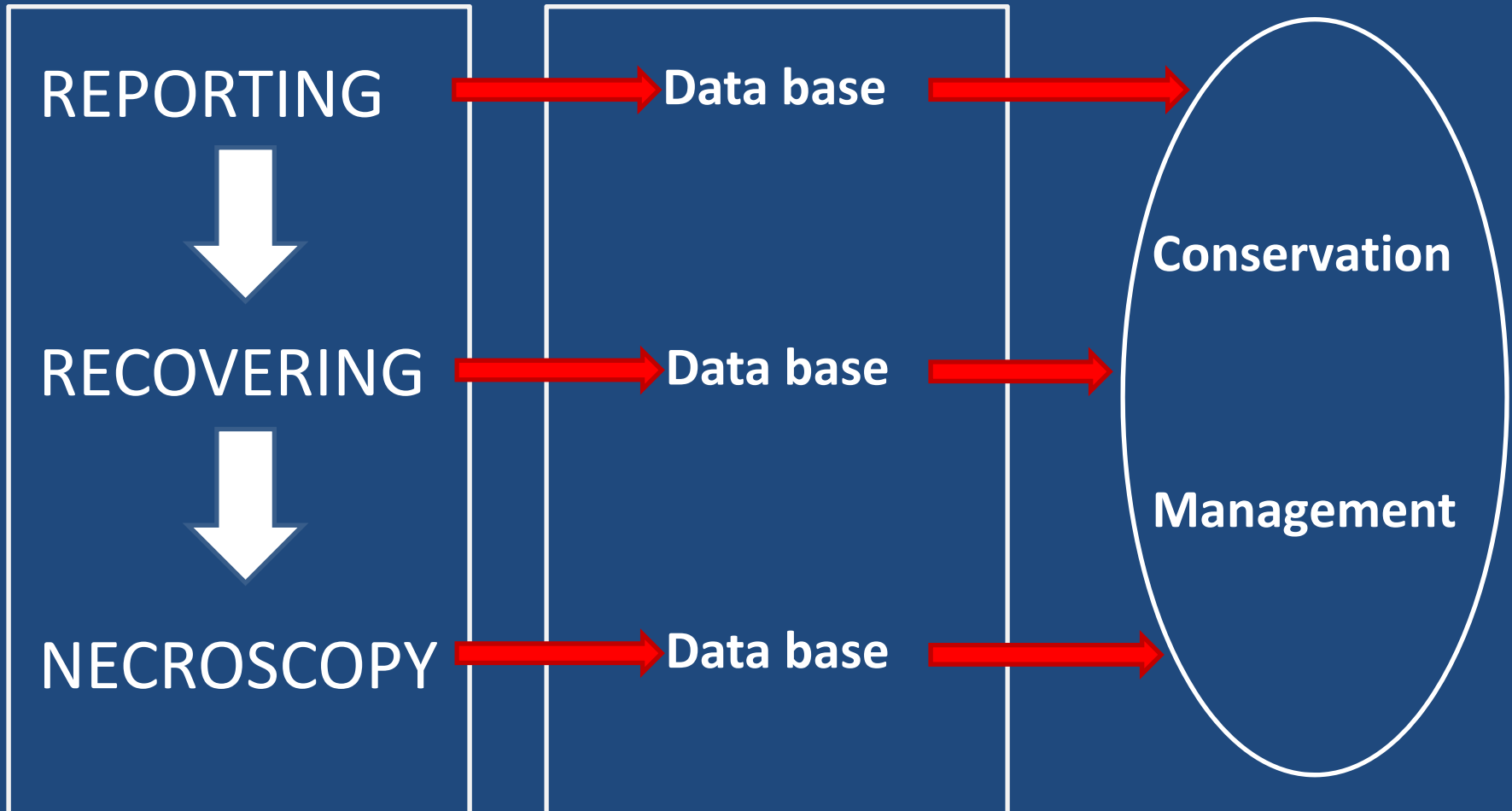


A wild otter is found dead along a road...

Action

Storing info

Using info



The Questionnaire: topics

Destinataries: OSG national representatives plus some others

Scale: National

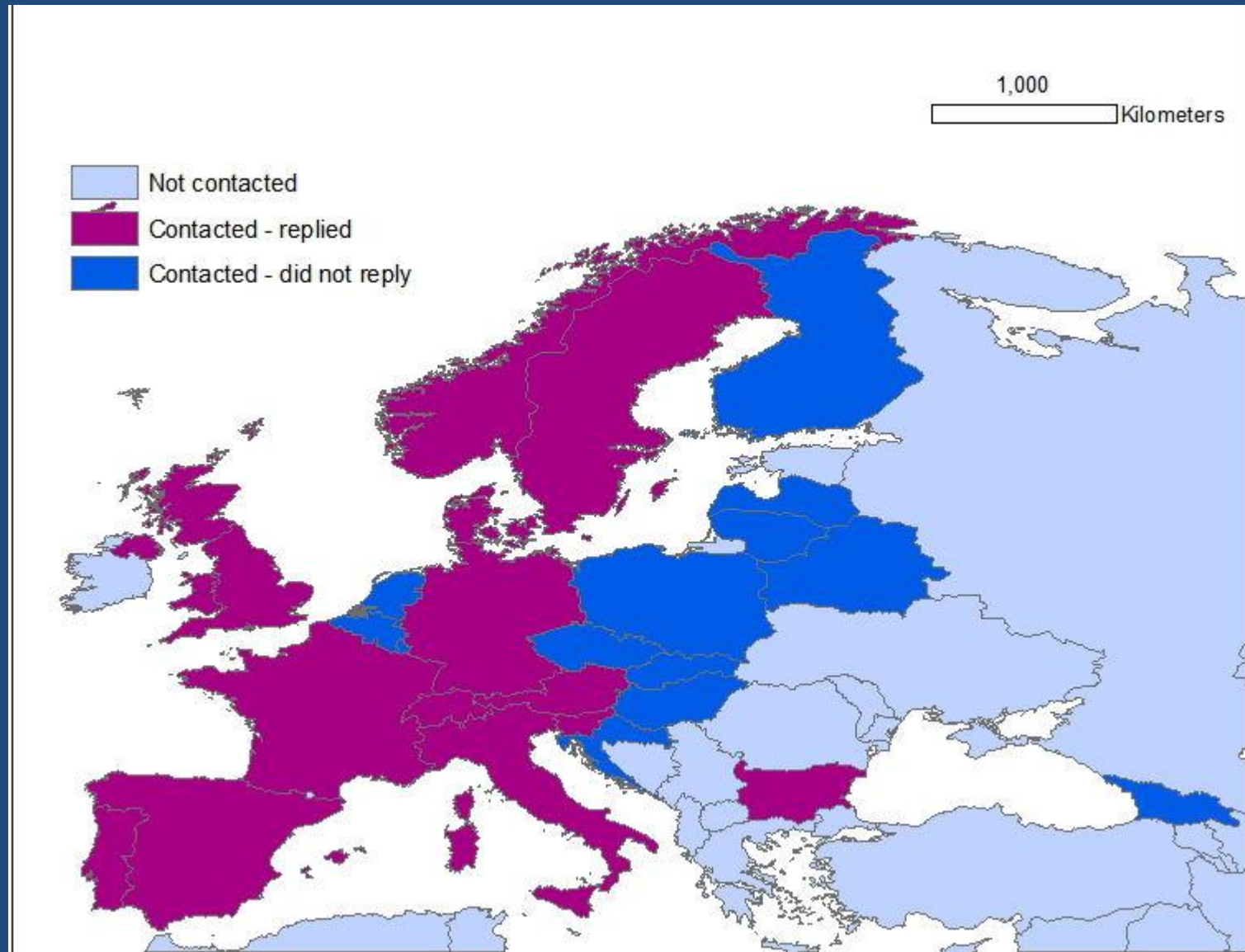
REPORTING

RECOVERY

NECROSCOPY

1. Is there a system in place?
2. Action/Funding
3. How system advertised
4. Existence of database
5. Use of data
6. Whether system works

The Questionnaire: countries



Situations in different countries

1. **Austria:** Hunting laws regulate handling of wild species such as otters, so hunters permission is needed to collect wounded or dead otters. System is not satisfactory.
2. **Bulgaria:** There is no national system of RRN but recovery of wounded otters is efficient, although wounded otters are a rarity. The system is based on voluntaries.
3. **Denmark:** There is no system for only reporting but there is a good national-based system for recovering dead or wounded otters that are taken to Danish Forest and Nature Agency and then to the Museum. Necroscopies are nowadays not carried out continuously. The system is funded by government.
4. **France:** Has a patchy and complex system with many different competences taking care of RRN but they are trying to improve the system and create a national based system properly financed and where results used for conservation
5. **Germany:** Animals when dead are the competence of hunters and RRN systems are very variable amongst 16 states and overall not very good.
6. **Italy:** There is a relatively new national based system for reporting online. Recovery and necroscopies are the duty of provinces and sanitary surveillance national institutes and are not carried out satisfactorily.
7. **Norway:** There is a national and government based system for RR that used to work quite well but the information reported has recently deteriorated. The system works mostly when somebody wants to apply for the pelt, taxidermists then have to report. Necroscopies are sometimes carried out.

Situations in different countries

8. **Portugal:** Some universities collect data on otters and other carnivores. Since 1998 Institute for Nature Conservation and Biodiversity created a tissue bank of wild animals collected mainly in protected areas. Necroscopies are carried out in a non-systematic way. National-based system is needed.
9. **Spain:** The RRN systems work mostly on a regional basis and are supported and implemented by the Wildlife Service (Government). Only some regions have this system in place and it should be extended to the whole of Spain.
10. **Slovenia:** The Slovenian Museum of Natural History should be in charge of collecting wildlife road casualties but they do not fulfill this task and hunters often are contacted. The LUTRA Institute is trying to collect the data. Necroscopies are not carried out. System not satisfactory.
11. **Sweden:** Carcasses are reported to the police that will collect them and send them to the Swedish Museum of Natural History. System is OK but could be improved. Necroscopies are carried out by the museum as well. System is funded.
12. **UK – England:** England has probably the best system in place with a way of reporting, recovering and doing the necroscopies. System is well advertised and funded by government although recently funding has been partly withdrawn.

2. RR: Action and funding

	Recipient	Funding
Austria	Hunters	(No funding)
Bulgaria	NP NGOs	No funding
Denmark	Government/Museum	Government
France	Govern./Hunters/NP NGOs	Government No funding
Germany	Hunters	(No funding)
Italy	University/Provinces	Government No funding
Norway	Government	Government
Portugal	University/Government	Highways No funding
Slovenia	Museum	(No funding)
Spain	Government	Government
Sweden	Museum	Government
UK - England	Government	Government

6. Does system work?

	Reporting	Recovery	Necroscopy
Austria	NO	POOR	NO
Bulgaria	NO	POOR	NO
Denmark	GOOD	GOOD	MODERATE
France	MODERATE	POOR	POOR
Germany	MODERATE	POOR	POOR
Italy	MODERATE	POOR	POOR
Norway	MODERATE	MODERATE	MODERATE
Portugal	POOR	POOR	POOR
Slovenia	POOR	POOR	NO
Spain	MODERATE	MODERATE	MODERATE
Sweden	GOOD	GOOD	GOOD
UK – England	GOOD	GOOD	GOOD



Generalisations/Observations

- Countries have very **variable** RRN systems
- Most OSG and otter experts are **not satisfied** with the systems in place in their country
- **Hunting** laws and hunters govern the system in some countries – not efficient (e.g. Austria, Germany)
- **Personal initiative** is very important in setting up systems (e.g. Bulgaria, Italy, Portugal)
- **Giving back info** to who reports or recovers the animal is extremely important to keep the systems working (UK, Italy, Sweden)

Generalisations/Observations

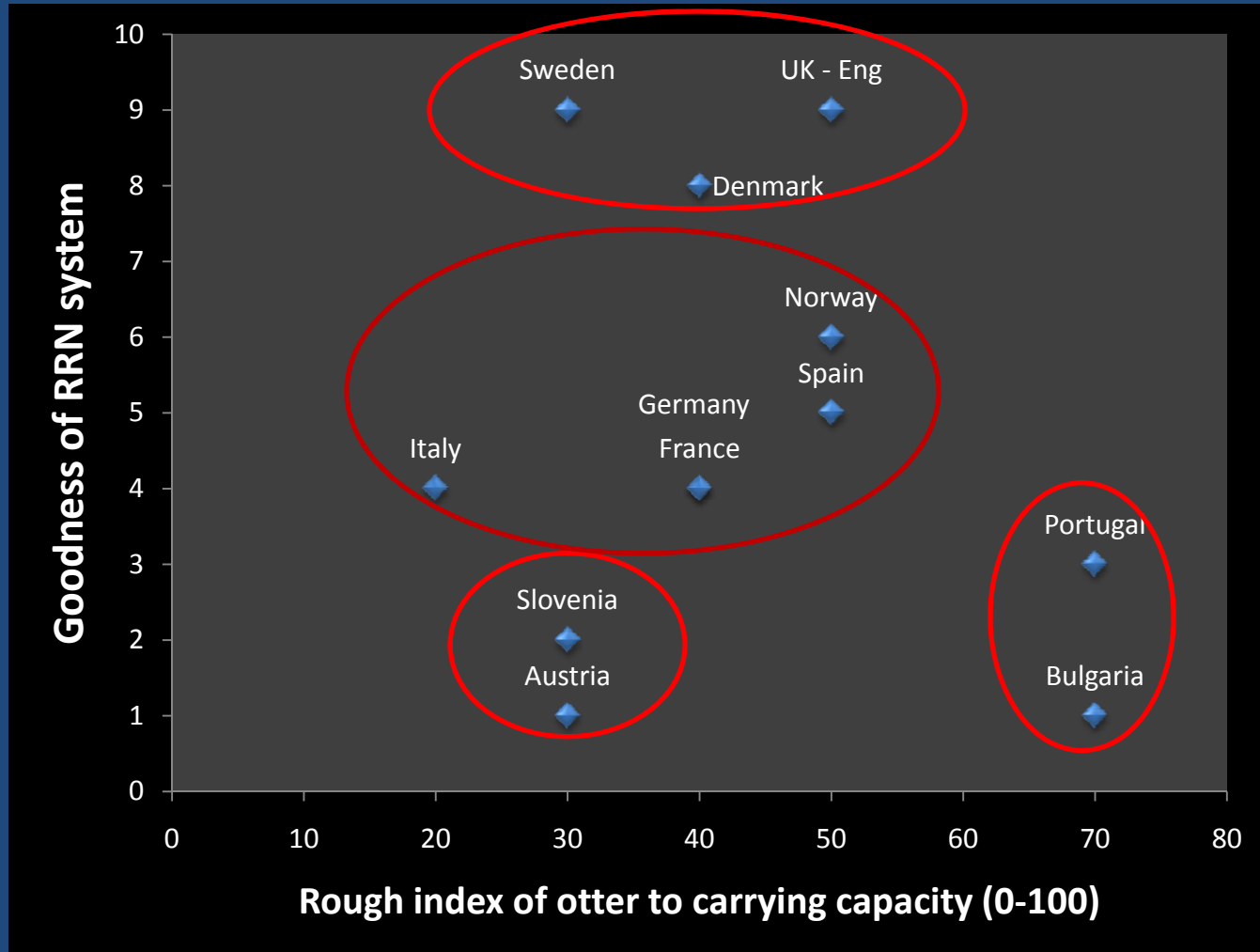
- As otter numbers increase systems become **less efficient** (e.g. UK, Denmark)
- Info from RRN can be used for **mitigation** but it is not clear how much this contributes the conservation of the otter
- **Dissemination of information** collected is mostly done at a national level
- Most countries, even where advertised, think **advertising insufficient**, indeed reporting of otters done mostly by specialists
- Most have data base and results have been published and **used for conservation**

Observations from a system that works: UK - England

Chanin P. 2006. *Otter road casualties*. *Hystrix* 17:79-90

- Otters killed on roads do not seem to have an adverse effect on the recovery of the population in England (but what about small population; e.g. Reintroduced?)
- Number positive sites positively correlated with number of road casualties (spatial vs temporal comparison)
- Collecting info on otter road casualties has allowed to **mitigate** the impact of some killing **hot spots** and to carry out necroscopies that allowed to gain **important insights** into the health status of the population (But could funds be spent better?)

Otter status and RRN system



(Otter status from Conroy and Chanin 2000, European Atlas of Mammals 2000, Randi et al. 2003)

Conclusions: at national level

- **REPORTING:** Collecting info on otters found dead or wounded is relatively cheap so all countries should try to have a system in place – the cost of this system is mainly that it takes “time” to stimulate reporting and networking (ADVERTISING!). Web based systems are promising. Benefits: Indirect measure of trend and identify road killings hot spots - mitigation
- **RECOVERING:** Collecting dead animals is mostly regulated by national laws. Systems in many countries could/should be improved but the effort is worthwhile only if carcasses are then undergoing necroscopies and/or tissue banks are implemented (benefits)
- **NECROSCOPIES:** These should be carried out especially in those countries that have small populations and for which threats to otters are not well known. These are also important to detect diseases.



Conclusions: at a European level

Is not useful:

- REPORTING AT A EUROPEAN LEVEL MAKES NO SENSE
- RECOVERY AT A EUROPEAN LEVEL NOT POSSIBLE NEEDS TO BE NATIONAL/LOCAL

May be useful:

- **SHARING INFORMATION** (Making reports available and on a publicly accessible web site)
- **STANDARDISING NECROSCOPY PROTOCOLS**
- **CREATING A NETWORK TO REPORT FINDINGS ON CONDITION, CLINICAL DISEASES AND POLLUTANT BURDENS** (Necroscopies)
- **TISSUE BANK** (Recovery of carcasses or parts)



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