

## Europe: Collecting and using information on otter road casualties



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A survey invited by the OSG

European Otter Workshop 2008 - Slovenia

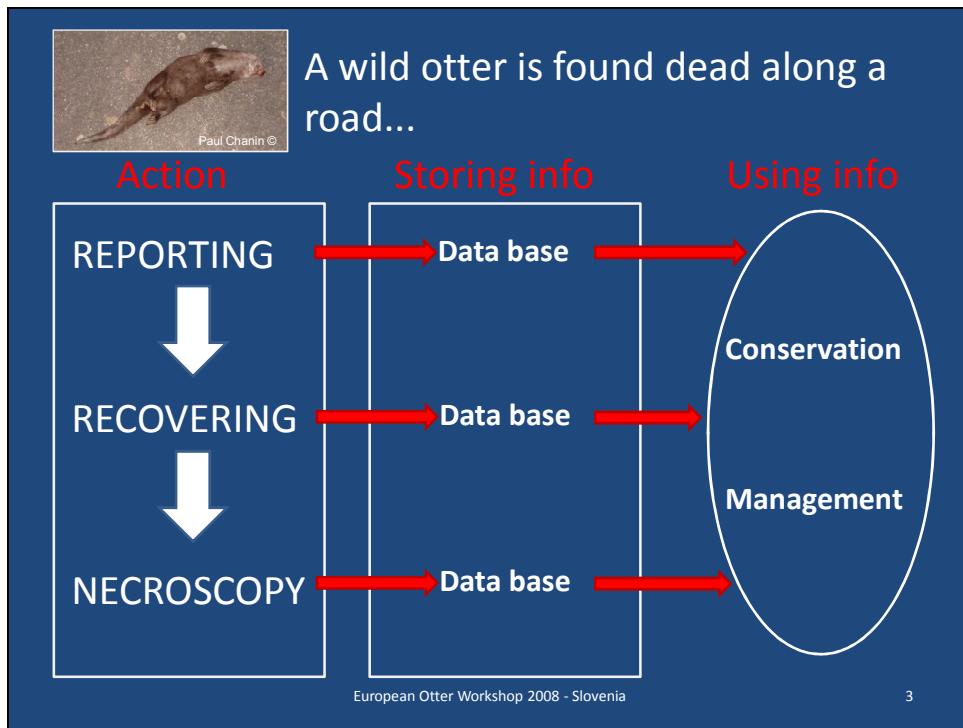
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## OBJECTIVES

- To **understand** what is the *status of reporting, recovery and necropsy 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

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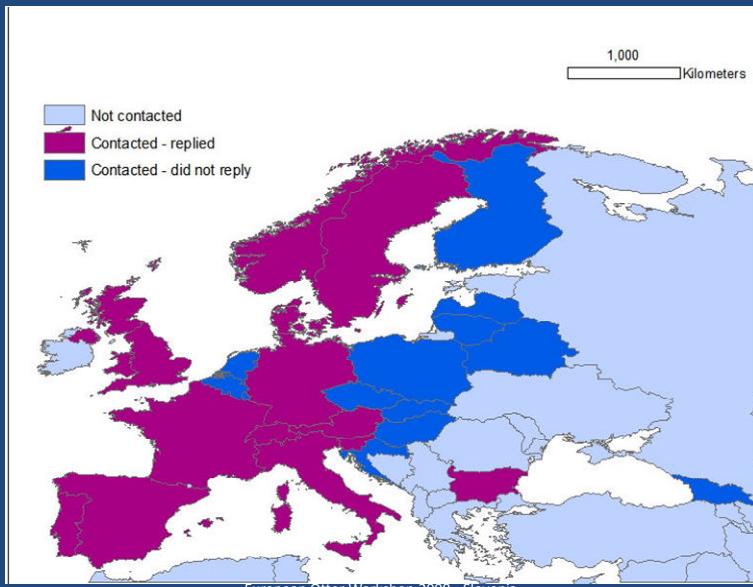
## The Questionnaire: topics

**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



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## 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 volunteers.
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. Necropsies 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 necropsies 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. Necropsies are sometimes carried out.

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## 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

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## 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)

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## 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**

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## Observations from a system that works: UK - England

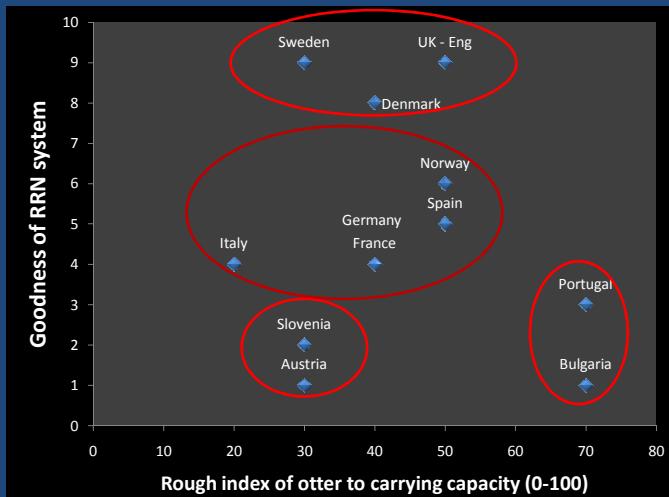
**Chanin P. 2006. Otter road casualties. Hystrix 17:79-90**

- Otters killed on roads do not seem to have an adverse effect on the recovery of the population in England (but what about small populations; 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 necropsies that allowed to gain **important insights** into the health status of the population (But could funds be spent better?)

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## Otter status and RRN system



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

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This graph was build as an attempt to identify groups of countries that should act in different ways regarding their RRN system. Two factors were taken into consideration: the health of the otter population and the goodness of the RRN system\*. The health of the otter population was measured as a rough index of how close are otters to carrying capacity in the given country (x axis). While the goodness of the RRN system was measured based on the results in slide number 9, by giving different scores according to whether the system was judged to be poor, mediocre or good (Y axis). In this way four groups of countries were identified. The first group comprises Slovenia and Austria that have relatively small populations of otters and a poor RRN system: they should definitely try to improve their RRN system. The second group comprises countries with mediocre RRN systems (Italy, Germany, France, Norway and Spain) with a variable situation regarding their otter populations. In this second group, especially countries on the left side of the graph should try and improve their RRN system. Then there are three countries (Denmark, Sweden and the UK – England) that have good systems in place and should try to maintain them (but what about Scotland, Northern Ireland and Wales?). Finally there are two countries, Bulgaria and Portugal, having a good population of otters but poor RRN systems. These countries are also likely to see a rapid increase of their road network in the near future (Margarida Santos Reis presentation at this meeting for Portugal) and therefore should consider improving their RRN systems. (\*For RRN system I mean a Reporting, Recovery and Necroscopies system. A country can have all three of these in place, or only one or two).

## 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 necropsies 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.

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## 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 (Necropsies)
- TISSUE BANK (Recovery of carcasses or parts)

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## ACKNOWLEDGEMENTS

	Compiled questionnaire
Austria	Michaela Bodner & Andreas Kranz
Bulgaria	Dilian Georgiev
Denmark	Aksel Bo Madsen & Bjarne Søgaard
France	Helene Jacques & Lionel Lafontaine
Germany	Hans-Heinrich Krüger
Italy	Laura Bonesi & Anna Loy
Norway	Thrine Moen Heggberget
Portugal	Margarida Santos-Reis
Slovenia	Marjana Höningfeld Adamič
Spain	Jordi Ruiz-Olmo
Sweden	Anna Roos
UK – England	Paul Chanin, Liz Chadwick & Vic Simpson

**Andreas Kranz, Anna Loy, Sam Erlinge, Lesley Wright  
Photos: Harry Harrington, Paul Chanin, Malcom Sharp**

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The talk ended with a useful and constructive discussion which continued on the last day of the meeting. As a result of the discussions the following decisions were made:

- 1) What is urgently required is a means whereby we can readily exchange information about the Reporting, Recovery, and Necropsies systems implemented in each country as well as the results obtained. The platform for this will be provided by a web page(s) hosted by the OSG web site.
- 2) Laura Bonesi will plan and implement this web page with the help of Leslie Wright. A draft page will be produced, hopefully by May-June 2009, and circulated for comments amongst the specialists in this field and the OSG national representatives.

- 3) Once the page is approved Laura will ask for published material, grey literature (e.g. national reports), and useful web sites (e.g. Anna Roos mentioned the GBIF) related to this subject to be linked and hosted on the OSG road kills web page.
- 4) A protocol for necroscopies is currently being developed by a collaboration of different European groups interested in the subject. Hugh Jansman gave a presentation on this at the EOW08. This protocol will be discussed further and an agreed protocol will be presented on the web page (Laura will contact the necroscopies group).
- 5) Likewise tissue banks are and need to be implemented in different European countries. There is interest in sharing information about the existence of such samples. It is possible to exploit the OSG road kill web site to share information about the existence of tissue banks. A discussion will be initiated regarding this issue. Liz Chadwick and Margarida Santos-Reis will initially be contacted by Laura regarding this issue.
- 6) Andreas Kranz announced a workshop on necroscopies to be held in May 2008.
- 7) For the moment the European coordination on otter road kills will only involve sharing information. If in the future we think that there is scope for more coordination amongst countries further actions can be implemented.

I hope that I have summarised well enough the outcome of our discussion, but if there are any comments or questions please do not hesitate to contact me. I wish to thank all those that have contributed by compiling the questionnaires and by sharing ideas. Let's hope that all this will be of help to the otter!

Best wishes,

Laura Bonesi

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