

WP3.2: Game monitoring systems in Northern Europe: a review of current and best practise

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The need to monitor

Knowledge of species distribution, and trend of population abundance/density is essential for wildlife management

Understanding the impact of human harvest is fundamental to the effective management of many wildlife populations

=> Ecological sustainability of hunting

Mandatory monitoring

- The EU has been committed to nature conservation for along period:
- Birds Directive (1979)
- The Convention on the Conservation of Migratory Species of Wild Animals 1979 (Bonn Convention)
- Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Bern Convention)
- European Communities Directive 92/43/EEC, on the Conservation of Natural and Semi-natural Habitats and of Wild Flora and Fauna 1982 (The EU Habitats Directive)
- *Convention on Biological Diversity 1992 (CBD) (Earth Summit, Rio Convention)*
- The EU developed its own European Community Biodiversity Strategy in 1998 to complement biodiversity strategies developed in individual member states following the Convention on Biological Diversity
- Natura 2000 network of protected areas under these Directives
- Signatories/member states have legal obligation to monitor species populations

Implementation

- Varies by country, for example;
 - Scotland; no single overarching monitoring programme of wildlife or game species, but ~ 70 different wildlife monitoring programmes currently running, some of which include game species.
 - Finland; Wildlife Triangle Scheme which effectively monitors all game species.
- Monitoring feedback into management;
 - Moose monitoring in northern Sweden effectively informs discussion on quota through active involvement with a range of stakeholders.
- Much to learn from good and poor practice of different schemes

Aims of WP3.2 “Monitoring models”

“information to support hunting tourism”

- Ecological sustainability; monitoring populations, harvest, and quota systems.
- For each partner country, plus Norway, compare: Population monitoring of game species, harvest (game bag), and quota systems at the national, regional and local level.
- Not focusing on technical details of population assessment, rather focus on schemes and processes.
- => *Wildlife Biology review paper*

Progress

- Started! (February 2009)
- Collated national hunting statistics.
- Prepared a table to record how and what species populations and harvest are monitored, any quota systems at each scale that we are interested in.
- Common structure for national accounts:
 - Brief Overview; introduction to hunting in country,
 - Administrative Structures; government and non-government responsibility for hunting, wildlife and game management,
 - Monitoring; detailed accounts of game and harvest monitoring and if/how these feedback into management/quotas.
- Circulated country authors asked for input ...

Table 1

	Iceland (2005-06) ¹	Scotland ^{2,3}	Norway (2006-07) ⁴	Sweden (2006-07) ⁵	Finland (2006-07) ⁶
Ungulates					
Moose		n/p	35,657	81,000	62,557
Deer (unspecified species)		(UK: 120,000) ⁽²⁾			
Whitetailed deer		n/p		4,318	22,623
.....					
Small Game					
Hare (unspecified species)		(UK: 47,000) ⁽²⁾			
Northern hare/Mountain hare		data not available	22,947	30,744	209,900
...					
Predatory Mammals/Pests					
Red fox		data not available	18,170	63,173	50,500
...					
Grouse					
Willow grouse/Red grouse		(UK: 400,000) ⁽²⁾	217,002	12,272	52,200
Hazel grouse		n/p	2,581	9,253	88,400
Black grouse		data not available	21,924	43,625	176,000
Capercaillie		n/h	10,465	33,921	41,800
Rock Ptarmigan/Ptarmigan	51,553	data not available	95,189	1,680	
Ducks/Geese					
Goose (unspecified species)		(UK: 47,000) ⁽²⁾			
Canada goose		data not available	2,996		5,000
... /continued ...					

Table 2

Group/Species	National			Regional (eg county, agreed management area)			Local (eg estate, leased hunting area)		
	Species monitoring	Collection of hunting records/bag data	Any hunting quota set	Species monitoring	Collection of hunting records/bag data	Quota	Species monitoring	Collection of hunting records/bag data	Quota
Scotland									
Ungulates									
Red deer	BBS/TMP Scotland	DCS annual cull & larder data. NGC	No	No?	DCS annual cull & larder data. NGC	No	Designated areas monitored for deer impacts and possibly surveyed. Estates and Foresters may monitor local populations by direct counts or pellet counts.	DCS annual cull & larder data. NGC	Minimum/recommended cull levels may be set

Questions and Discussion

- Species coverage – focus on a few or cover as many as possible? Include predatory/pest species?
- How much detail on legislation?
- How much methodological detail?
- Rear and release?
- Population performance?