

Monitoring on RSPB nature reserves in the UK

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Talk outline

Introduction to RSPB nature reserves

Monitoring on RSPB nature reserves

- 1. Reasons for monitoring**
- 2. Our system of setting objectives, monitoring, reporting & reviewing management**
- 3. Deciding what to monitor**
- 4. Who carries out the monitoring & how much does it cost?**
- 5. Maintaining consistency of methods & reporting**
- 6. Some problems & issues**
- 7. Some conclusions**



RSPB nature reserves



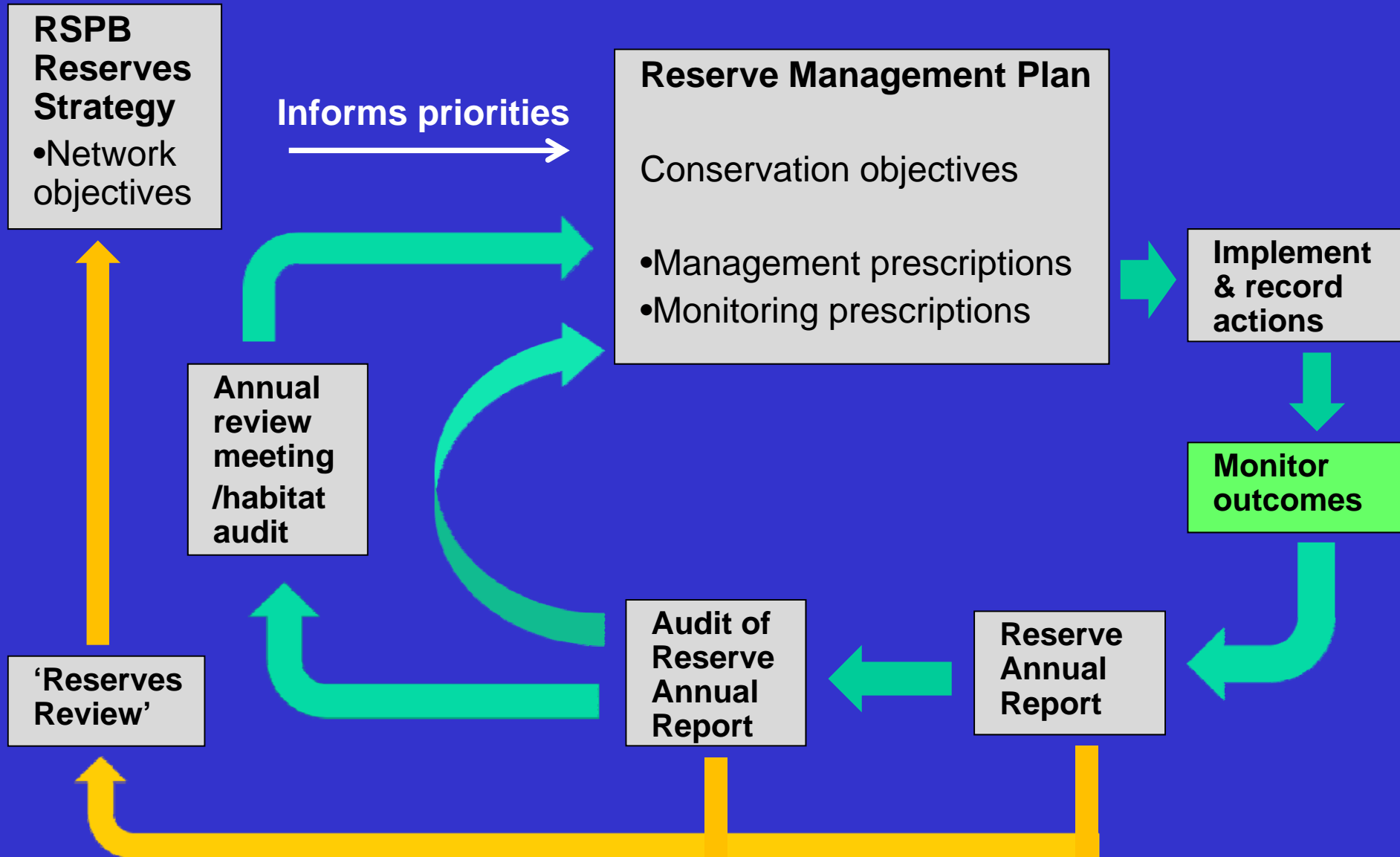
- 213 nature reserves
- 143,780 ha
- 0.6% of the UK land surface
- All owned or leased



1. Reasons for carrying out monitoring & surveillance on our reserves

- To determine progress towards achieving the site's conservation objectives
 - Natura 2000 & SSSI objectives
 - RSPB objectives
- To contribute towards national monitoring schemes (e.g. national waterbird counts)
- Surveillance e.g. invasive non-native species

2. RSPB's system of setting objectives, monitoring, reporting and reviewing management





3. How do we decide what to monitor?

Important feature	Influencing management?	Why?
<i>Phragmites</i> – <i>Peucedenum</i> fen	✓✓	Natura 2000 feature
Breeding <i>Botaurus stellaris</i>	**	RSPB priority species
Breeding wildfowl		Regionally important
Dyke invertebrate fauna	✓	SSSI (UK statutory) feature



Important feature	Attribute(s)	Target for attribute(s)
<i>Phragmites</i> – <i>Peucedenum</i> fen	Area Extent of scrub Presence of +ive plant indicator spp	≥ 25 ha < 5% >5 spp frequent
Breeding <i>Botaurus stellaris</i>	Booming (‘singing’) males	>2
Dyke invertebrate fauna	Presence of different successional stages	>15% early successional > 15% late successional



Important feature		Main factor(s)	Target for main factor(s)
<i>Phragmites</i> – <i>Peucedenum</i> fen		Area of scrub removed Area mown per year	>7ha > 3 ha
Breeding <i>Botaurus stellaris</i>		Extent of open water Fish biomass	>20%, < 30% > 10 kg/ha
Dyke invertebrate fauna		Length of ditch cleaned per year	> 7 ha, < 12 ha



Objective 1: To maintain favourable condition of the SAC fen and increase numbers of booming bitterns

Species targets:

- Increase numbers of booming bitterns to > 2

Habitat targets:

- ≥ 25 ha of S24 fen
- $< 5\%$ of scrub
- > 5 +ive plant indicator spp frequent
- $> 20\%$, $< 30\%$ open water
- etc

Management prescriptions:

- Remove > 7 ha of scrub
- Mow 3 ha of scrub per year
- etc



Objective 1: To maintain favourable condition of the SAC fen and increase numbers of booming bitterns

Monitoring prescriptions:

- Monitor breeding bitterns
- Monitor extent of S24 fen, scrub and open water
- Monitor frequency of +ive plant indicators in the fen
etc



4. Who carries out the monitoring & how much does it cost?

Type of monitoring	Carried out by	Cost (Euros per ha of land per year)	Cost (% of annual site management costs)
<i>Annual</i> monitoring of birds & <i>simple</i> measures of habitat condition	Site staff	13	7
Natura 2000 & SSSI objectives	Statutory staff	-	-
Auditing, ecological advice, botanical & some other specialist surveys	HQ-based ecologists	7	4
Invertebrates	Specialist contractors		

5. Maintaining consistency of methods & reporting

The screenshot shows a Windows Internet Explorer browser window with the following details:

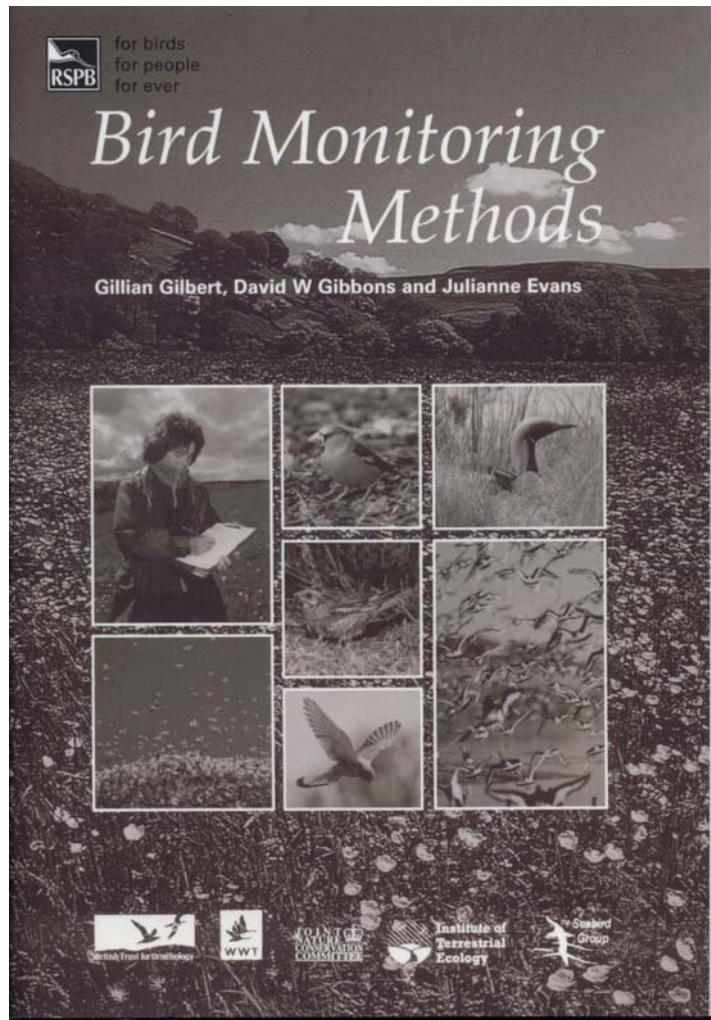
- Address Bar:** http://intranet.rspb.org.uk/essential/conservation_work/nature_reserves/surveys_monitoring.asp
- Navigation:** Back, Forward, Stop, Refresh, Home, Print, Page, Safety, Tools, Help.
- Menu Bar:** File, Edit, View, Favorites, Tools, Help.
- Search:** Search box with a magnifying glass icon.
- Navigation Links:** Home, About, Directory, Essential, Forums, My career, News, Resources.
- Left Sidebar (Nature reserves):**
 - [Acquisition and disposal](#)
 - [Management planning](#)
 - [Annual reporting guidance](#)
 - [Reserve policies and guidance](#)
 - [Estate management](#)
 - [Buildings](#)
 - [Survey and monitoring methods](#) (highlighted)
 - [Projects on reserves](#)
 - [Reports and presentations](#)
 - [Land management obligations](#)
- Main Content Area:**
 - Breadcrumbs:** Home > Essential > Conservation work > Nature reserves
 - ## Survey and monitoring methods
 - ### Bird monitoring

Guidance on which birds to monitor on our reserves and which methods to use is available below.

For further information on monitoring birds on reserves, reserve staff should consult their regional or country contact in the Reserves Ecology team or Malcolm Ausden: malcolm.ausden@rspb.org.uk.

 - [Monitoring breeding birds on RSPB reserves](#)
23 February 2012, 176Kb, Word document
Guidance on which birds to monitor on RSPB reserves
 - [Lowland wet grassland waders and their predators \(updated Oct 2008\)](#)
20 October 2008, 384Kb, PDF
Guidance on monitoring lowland wet grassland waders and their predators (updated version which includes clarification of methods for estimating lapwing productivity)
 - [Woodland birds](#)
16 June 2008, 59Kb, Word document
Guidance on monitoring woodland birds
- Right Sidebar:**
 - Directory**
 - [Reserves Ecology](#)
 - [Species & Land Management](#)
 - See also**
 - [Annual Reserves Monitoring \(ARM\)](#)
 - [Research Library](#)

5. Maintaining consistency of methods & reporting



Gilbert et al. (1998).
Bird Monitoring Methods.
Pelagic Publishing

5. Maintaining consistency of methods & reporting

ARM - Recording Sheet Report - Windows Internet Explorer

http://intranet.rspb.org.uk/applications/arm/RecordingSheetReport.aspx?LocationListId=2371

File Edit View Favorites Tools Help

National action plans - Biodi... National action plans - Biodi... UK BAP list of habitats Live Staging

Annual Reserves Monitoring ... ARM - Recording Sheet R...

my Reserves | my Recording Sheets | Regions | Species | Guidelines | Contact Data Unit

Reserve / Recording Area MINSMERE

Year 2012

Status Submitted

Last Saved 31/08/2012 11:54:48

Last Saved By RSPB\RobinHarvey

Submitted 31/08/2012 11:57:02

Submitted By RSPB\RobinHarvey

[QuickMap](#)

Species	Breeding Count	Unit	Fledged Count	Pairs Count	Prod.	Comment	Last Year
Little Grebe	21	Pair					Y / P
Great Crested Grebe	3	Pair	0	3	0	3 other lone birds present	2 / P
Bittern	10	Singing/disp. male				4 nests confirmed - all successful	11 / S
Mute Swan	8	Pair					Y / P
Greylag Goose	Present	Pair					Y / P
Canada Goose	Present	Pair					Y / P
Barnacle goose	31	Pair	4	31	0.13		35 / P
Shelduck	Present	Pair					Y / P
Gadwall	80	Pair					44 / P
Teal	0	Pair					0 / P
Mallard	114	Pair					87 / P
Garganey	1	Pair					1 / M
Shoveler	105	Pair					59 / P
Pochard	1	Pair					0 / P

Local intranet 100%



6. Some issues/problems

- **Blank records in databases – what do they mean? (zero count, present but not counted, or data not entered onto the database?)**
- **Changes in recording areas**
- **Changes in taxonomy of invertebrates**
- **Ensuring consistency of methods between different people**

7. Conclusions

From our experience, you need:

- **A good system**
- **Sufficient resources**
- **A suitable culture**

Thank you

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