

Research Networking Programme – EURAPMON

Research and monitoring for and with raptors in Europe

WORKSHOP - REVIEW OF INVENTORY OF MONITORING *FOR*RAPTORS

FINAL REPORT TO ESF



Centro Educativo del Medio Ambiente, CEMACAM

Torre Guil, Sangonera La Verde, Murcia, SPAIN

Friday 31st May to Saturday 1st June 2013

SUMMARY

The EURAPMON workshop was held in Murcia, Spain, between 31st of May and 1st of June, 2013. Seventeen participants (including one ESF member) represented 13 countries (Estonia, Finland, Georgia, Germany, Italy, Latvia, Poland, Portugal, Russia, Slovenia, Spain, Turkey and United Kingdom).

A main objective of the workshop was to focus on the science related to EURAPMON Work Package 2 (WP 2), Inventory of Existing Raptor Monitoring within Europe. Moreover a critical review was made of the inventory data gathered since the previous Murcia workshop (February 2012) that brought together key national experts from 27 countries. Preliminary review papers and results from a questionnaire survey submitted thereafter were examined. During workshop sessions, participants explored and agreed approaches to filling the current gaps in inventory coverage and contributed to the content of the subsequent review paper for publication in a peer-reviewed scientific journal (Derlink *et al.* in preparation: A review of raptor monitoring activity across Europe and its implications for capacity building towards pan-European monitoring). In addition, activities and recommendations were discussed relevant to advancing other EURAPMON work packages (WP3 User Needs; WP4 Prioritisation; WP5 Best Practice; WP6 Capacity-building; and WP7 Database, Reporting and Analysis).

A Joint Session of *for* and *with* raptors groups was organised to progress work in contaminant monitoring. The *with* group introduced the structure of their database of contaminant monitoring activities and a draft sampling and contaminant protocol to the *for* group. The *For* group prepared a preliminary list of priority species for the monitoring of contaminants, drawing on knowledge of existing European monitoring coverage from the *for raptors* inventory.

Due to the great enthusiasm and cooperative input from all the participants, the workshop was considered to achieve its objectives and once again indicated a promising future for successful pan-European networking under the EURAPMON initiative.

SCIENTIFIC CONTENT

The EURAPMON workshop "Review of inventory of monitoring *for* raptors" held in Centro Educativo del Medio Ambiente, CEMCAM, Murcia, Spain in May 2013, continued the work started in the previous workshops. In February 2012 in the same venue, a Questionnaire Survey for building an inventory of monitoring of raptors in Europe was first introduced to National Coordinators of the EURAPMON Working Group responsible for the monitoring *for* raptors part of the work programme. Overview papers about the recent state of monitoring *for* raptors in individual countries were collated concurrently by National Coordinators (now published in a thematic issue of *Acrocephalus* volume 33, number 154/155, 2012). The current workshop critically reviewed the existing Inventory, building on these two sources, and assessed how the resulting information will be used to support the remaining work packages of the EURAPMON project.

The workshop:

♣ Summarized preparatory work to review the results of the overview papers on the state of monitoring in individual countries to be published in the journal *Acrocephalus*;

- ♣ Presented preparatory work summarizing the results gathered in 6 months from the online Questionnaire Survey (launched on the EURAPMON website in November 2012);
- Invited representatives (National Coordinators; EURAPMON Steering Committee Members and Experts; and others with essential insight into the monitoring activity within their countries) that were best placed to assist in filling gaps in knowledge of the state of monitoring across Europe. Priority was given to representatives and countries that were not involved in the previous Murcia Workshop on Monitoring *for* Raptors in February 2012 and countries which do not currently have National Coordinators.

The Opening Plenary Session involved a welcome address from the workshop hosts António Garcia-Fernandez and Emma Martínez-Lopez (University of Murcia). Al Vrezec, EURAPMON Chair, reminded the participants of the EURAPMON objectives and opened the scientific content with a review of the results from overview papers for *Acrocephalus* prepared by the National Coordinators (Vrezec et al., 2012, Overview of raptor monitoring activities in Europe). Plenary talks continued with Chris Wernham presenting the objectives and structure of the online Questionnaire of existing monitoring *for* raptors (on behalf of András Kovács, who led the development of the questionnaire) and preliminary results of the survey by Maja Derlink (ESF-funded Exchange Student working with Chris Wernham at BTO Scotland).

Before the Discussion Sessions, participants (6 National Coordinators from 6 countries and another 8 representative raptorologists from 6 countries) briefly introduced themselves and their involvement with EURAPMON. In addition, they commented on the success of the Questionnaire Survey in their country and any existing gaps. Two groups were then formed for 6 Discussion Sessions that took part over the two days. The second days Sessions were supplemented by a Joint Session of *for* and *with* raptors groups. Chair, Al Vrezec, introduced how results from *for* raptors group feed into *with* raptors group needs, and Bert van Hattum showed the database structure of contaminant monitoring activities and a draft sampling and contaminant protocol that was jointly discussed by both groups.

Discussion Sessions on the *for* raptors workshop:

- **♣** Discussion Session 1 Benefits for users in connection with WP3
- ♣ Discussion Session 2 Filling gaps in coverage of monitoring programmes
- Discussion Session 3 Caveats in interpretation of results from the Questionnaire Survey
- Discussion Session 4 Prioritisation of species in connection with WP4
- **♣** Discussion Session 5 Content of paper in preparation
- Discussion Session 6 Informing WP5, WP6 and WP7

Plenary presentations

The questionnaire was prepared on the basis of a similar questionnaire by BirdLife Hungary in 2006 to establish an overview of BirdLife Partners raptor monitoring activities. Its structure and content were agreed at the previous Workshop in Murcia in February 2012. The questionnaire contains questions about parameters measured, monitoring methods, materials collected, individual marking techniques and application of data. The majority of the questions have fixed responses (selected from a series of options). For ease of gathering information and standardisation, the questionnaire was primarily promoted via National Coordinators. Where reply was not received, the survey was advertised to other contacts gathered from the EURAPMON network. Altogether 120 people took

part in the survey. In addition a Short Survey was sent to National Coordinators to assess how they went about gathering information and any difficulties encountered.

By the time of the workshop, 210 submitted questionnaires from 32 countries had been received. The programmes reported involved single species and multi species schemes, covering from 1 to 39 species within a single questionnaire. The majority, 80 % of the received questionnaires, concerned breeding populations, 10 % migration monitoring, and the remaining winter populations, summer visitors, and broader atlases or demographic studies. Counting each species in a monitoring programme as a scheme, we detected 1016 schemes. We found 74, 94, 38 and 3 programmes of national, regional, local and international scale respectively.

The most monitored bird of prey species (Falconiformes) that occurred in top ten places in both the overview papers and questionnaires were: Golden Eagle (Aquila chrysaetos), White-tailed Eagle (Haliaeetus albicilla), Peregrine Falcon (Falco peregrinus), Montagus Harrier (Circus pygargus), Common Kestrel (Falco tinnunculus), Osprey (Pandion haliaetus), Marsh Harrier (Circus aeruginosus), Goshawk (Accipiter gentilis) and Common Buzzard (Buteo buteo). The most monitored owl species (Strigiformes) that occurred in the top three places in both the overview papers and questionnaires were Eagle Owl (Bubo bubo) and Tawny Owl (Strix aluco).

Discussion Session 1 – Benefits for users in connection with WP3

Potential users were identified and the best ways in which each would benefit from EURAPMON activities were suggested. A detailed table of users that would provide further guidance in the future was also drafted (Table 1).

- **Field researchers** (amateurs and professionals) guidance on survey techniques and analysis, knowledge of who uses specialist techniques
- Academics guidance on analysis, access to data for research
- **Conservation NGOs** (national and international e.g, BirdLife, IUCN) information collation for lobbying purposes for active conservation and planning of specific projects,
- Policy makers/government (national and international e.g. DG Environment) problem of government storing but not using the data. Make data available for analysis by those who will do this.
- International raptor community networking with database of contacts, homogenising practices allowing national/global overview of trends, help to seek common interests and collaboratively apply for funding, filling gaps in migration monitoring
- **Commercial companies** (consultancies/developers) information on their specific properties (locations of e.g. breeding sites) for development purposes (scoping studies and for reference purposes e.g. surrounding areas)

Discussion Session 2 – Filling gaps in coverage of monitoring programmes

Based on preliminary results, emphasis was placed on countries that did not provide feedback about their state of monitoring. It was noted that it is important to get a response even if there is no monitoring in a country. Particular difficulties within individual countries were pointed out and solutions were suggested. The group concluded that the questionnaire design was not optimal for reporting migration monitoring schemes, but we nonetheless received information about several important migration studies.

Discussion Session 3 – Caveats in interpretation of results from the Questionnaire Survey

This session focussed on some questions that were potentially ambiguous in the questionnaire, so that cautious interpretation may be required. For example, data connected with the time and costs invested in a monitoring programme require careful interpretation, especially if schemes include different numbers of species. Furthermore, some multi-species programmes provided only provisional information about methods or expertise: not necessarily provide specific information for each species within a programme. The questionnaire did not ask specific enough questions to assess the quality of data for trend calculations (e.g. changes in distribution, numbers, productivity / breeding success or survival rates), but we agreed that schemes can be categorized to reflect the probability that they will be suitable for providing robust results.

Discussion Session 4 – Prioritisation of species in connection with WP4

Because resources for EURAPMON (and raptor monitoring in general) are always limited, we discussed how we might choose priority species for inclusion in activities under future EURAPMON work packages. A range of possible theoretical criteria for selection were emphasised, including: global responsibility for species; suitability for habitat change detection; suitability as biodiversity indicators; contaminant influence; specific threats to raptors; sensitivity to climate change. Practical criteria were also considered: existing monitoring coverage; and ease of monitoring of certain species. This was a difficult session, with broadly differing views from participants as to the need for prioritisation and the criteria that should be used. An approach to take this forward was agreed, that would involve:

- i) Ranking each species as 'very suitable', 'moderately suitable' or 'not suitable' under each agreed criterion;
- ii) Allowing workshop participants to do this initial ranking, for the criteria on which they felt qualified to comment (and summarising these results for each criterion);
- iii) Sending the preliminary rankings to a small number of experts on particular criteria (e.g. climate change) for their expert confirmation or otherwise;
- iv) Deriving the rankings for global conservation obligation and current state of monitoring objectively from published sources and the current inventory respectively;
- v) Making no attempt to come up with a final priority list (e.g. by averaging ranks across all criteria) but rather using the matrix of criteria, species and rankings in a flexible way depending on the question that required an answer (e.g. for which species would it be most beneficial to provide summarised trends across Europe; for which species would better good practice guidance be of most benefit etc).

The with raptors group asked the for raptors group to advise them on preliminary lists of priority species for contaminant monitoring (separate lists for widespread and threatened species). Context of suitability (ecology and life history, distribution, conservation status, feasibility of monitoring/sample collection and resource needs) was considered by the participants and cross-reference was made to the inventory results about current monitoring status.

Discussion Session 5 – Contents of paper in preparation

An outline for the draft review paper was discussed and revised. Especially debated were the reasons for differences in raptor monitoring coverage across Europe (for discussion in the paper). It was accepted that many factors are likely to be involved: the type of lead organisation might influence the continuity of research programs; the influence of key passionate individuals may be important (particularly in smaller countries); cultural characteristics (e.g. are raptors hunted?) and extent of tradition of 'citizen science; policy on issue of appropriate licensing (enabling or barrier culture); human population age structure and standards of living (time and money available for volunteer participation); pressures from international legislation to monitor.

Discussion Session 6 – Informing WP5, WP6 and WP7

In this final session, the group of participants considered future EURAPMON work packages and what the programme can offer, with good knowledge now of existing monitoring activities, to facilitate and enhance more effective monitoring at a pan-European scale.

In the context of best practice (WP5), participants thought guidance on setting up new schemes and selecting suitable survey protocols for each species would be beneficial (building on UK guidance and the template developed by the Scottish Raptor Monitoring Scheme).

In the context of capacity building (WP6), participants thought EURAPMON would be well-placed to share knowledge about how to recruit volunteers and to promote sharing of volunteers between countries.

It the context of database, reporting and analysis (WP7) it was collectively acknowledged that an active network would be beneficial to several user groups. EURAPMON cannot itself carry out standardised analysis of data but could suggest good practice protocols for data analysis and reporting, and perhaps act as a 'hub' for published results from across Europe.

Furthermore, participants saw EURAPMON assisting in motivating administrations to support raptor monitoring by showcasing results from across Europe and their utility for a range of user groups.

Possibilities for short visits, summer schools and international supervisorship, conferences, provision of papers as reports of trends were discussed and were all well accepted among participants.

ASSESMENT OF RESULTS AND FUTURE DIRECTION OF THE FIELD

The workshop was well attended with 17 participants and 13 countries represented. The workshop focused on the science related to EURAPMON Work Package 2 (WP 2), Inventory of Existing Raptor Monitoring within Europe, and thereby advanced progress with this WP in relation to the *for* raptors strand of work. It was successful in meeting its objectives:

- a critical review of the submitted information for inventory
- recommendations for filling gaps in current inventory coverage
- revision of content of a review paper for publication in a peer-reviewed scientific journal
- informing other EURAPMON work packages (WP3 User Needs; WP4 Prioritisation; WP5 Best Practice; WP6 Capacity-building; and WP7 Database, Reporting and Analysis).

Next steps involve:

- Closure of the on-line questionnaire survey (by 10 July 2013);
- Incorporation of new results into the draft results;
- Drafting and publication of the peer-reviewed paper;
- Publication of the for raptors inventory results on-line;
- Promotion of the utility of the inventory to users via the EURAPMON network;
- Further use of the results of the *for raptors* inventory to influence the future EURAPMON work packages.

In the end, the realized workshop programme differed somewhat from the draft programme (attached). This allowed the workshop to be responsive to needs identified during the EURAPMON Steering Committee meeting just before the workshop, and to include a joint session with the *with raptors* group, which was mutually beneficial and supported the continued development of EURAPMON work packages.

References

Vrezec et al., 2012; Overview of raptor monitoring activities in Europe; *Acrocephalus* 33, 145-155; p. 145-157.

Table 1. Suggested table of users that would benefit from the EURAPMON programme and activities and their needs.

		User groups									
• Key benefi	o Some benefit	Raptor fieldworker (volunteer)	Raptor ecologists and analysts (professional)	Research / academic institutes	National NGO	International NGO (e.g. BirdLife, IUCN)	National administration (government departments or agencies)	International administration (e.g. EC DG Environment)	Commercial companies (e.g. consultants or developers)	Educator community (teachers, universities)	Public citizen scientists (including ecotourism monitoring like Earthwatch)
	Networking	•	•	•	•	•	•	•	•	•	0
	Database of contacts	•	•	•	•	•	•	•	•	•	0
needs	Database of sources of expertise. Who is working on which species and where?	•	•	•	•	•	•	•	•		
	Guidance on field craft and survey methods	•	•		•	•	•	•	•	•	
Sor	Guidance on analytical methods	•	•	•	0	0	0	0	•	•	
Benefits	Access to data for research purposes (e.g. to make comparisons between countries)	•	•	•		0		O	•		
	Access to summarised data/trends for conservation or development lobbying				•	•				•	•

purpose	es.									
Access t	o summarised ends for active			•	•	•	•		•	
	ation purposes									
data/tre	o summarised ends for			•	•	•	•			
conserv and poli	ation planning									
defining	conservation									
status)										
Access t	o summarised			•	•	•	•	•		0
	ce data for									
	ment/planning									
purpose										
research	o raw data for • n purposes	•	•	0	•	•	•			
	o raw data for o ation site-			•	•	•	•			
	casework									
	o raw data for							•		
develop										
Internat	ions/EIAs etc				•		•			
	g obligations				•		•			
e.g. Arti										
reportin										

Appendix 1

Programme

Friday 31 May

- 09:00 Welcome & introduction to the work package
 O9:10 Overview of the results of the Murcia 2012 monitoring for raptors workshop results and review papers
 Al Vrezec

 09:30 Introduction to the monitoring for raptors questionnaire (background, objectives, design & limitations) given on behalf of András Kovács
 Chris Wernham

 10:00 Preliminary results from the questionnaire survey: extent of monitoring for raptors activities across Europe, survey effort and
- 10:45 Initial questions and discussion of questionnaire success Maja & Chris

Maja Derlink

- 11:00 COFFEE
- 11:30 Short introductions from all participants and update on the success of the questionnaire in each of the countries they represent at the meeting (maximum 5 minutes per country covered)

 Chris to Chair

A chance for all workshop participants to briefly introduce themselves, their involvement with EURAPMON and to make any comments about the success (or any problems with filling) of the questionnaire survey of their country so far.

There is no need to bring formal presentations.

- Al Vrezec (Slovenia, other ex-Yugoslavian nations not represented)
- Chris Wernham (UK and Ireland)

appraisal of the success of the survey

- Pertti Saurola (Finland, and other Scandinavian countries?)
- Alessandro Andreotti (Italy)
- Luis Palma (Portugal)
- Janusz Sielicki (Poland)
- Ülo Väli (Estonian any other countries that Ülo can cover?)
- Jasper Wehrmann (Germany & Georgia)
- Elvira Nikolenko (Russia)
- Janis Reihmanis (Latvia)
- Beatriz Martin & José Enrique Martinez (Spain)
- Bilgecan Şen (Turkey)

Each participant to review the information submitted for their country/countries so far, whether they feel it is comprehensive, what is missing and how might we obtain this missing information? Have they struggled to get information and, if so, why?

13:00 LUNCH

14:00 DISCUSSION SESSION 1: filling the gaps and interpretation of questionnaire results (see Section 1 in the review questions below)

We may break into two groups for this session and report back on our ideas.

- Which are the priorities to fill and how might we do this most successfully?
- Have we learned any lessons about communication success and barriers/motivations to getting involved that can inform EURAPMON in general as we move forward?
- We will agree any limitations of the questionnaire and caveats to interpretation.
- We will start to think about the questions that we wish to answer with the
 questionnaire results in the review paper to ensure that we make the results as
 useful as possible for the community of potential users (including links with the other
 EURAPMON work packages).
- We should identify user groups and their likely needs.
- We should be clear about the ways the questionnaire results can feed into WP5 Best Practice Guidance, WP6 Capacity-building and WP7 Database, Reporting and Analysis, informed by the identified user needs.

15:30 COFFEE

16:00 DISCUSSION SESSION 2: presenting the results of monitoring coverage across Europe (see Section 2 in the review questions below)

We may break into two groups for this session and report back on our ideas.

- Suggest and agree which biological parameters are appropriate for consideration of Europe wide monitoring coverage and the selection criteria (questionnaire responses) that should be used to define satisfactory levels of monitoring (see Table 2.1 below for draft ideas).
- Suggest and agree the key questions that we need to address in the review paper.
- Suggest and agree the most appropriate ways of presenting the information in summary form for the review paper to address the agreed questions.

17:30 SUMMARY OF DAY 1

Al, Chris & other SC members

18:00 END OF FORMAL SESSION DAY 1

Saturday 1 June

09:15 Summary of what we agreed at the end of Day 1

Al/Chris/Pertti

09:30 DISCUSSION SESSION 3: prioritisation of species for monitoring (WP4) – what criteria should be used to select species priorities and how can the *for raptors* questionnaire results help?

We may break into two groups for this session and report back on our ideas.

- EURAPMON needs to be working towards defining a shorter list of species for which pan-European monitoring/reporting might be a realistic aspiration in future.
- Which species will be useful as indicators of a range of environmental drivers/threats or the overall 'health' of ecosystems?
- Should focus fall on widespread versus scarce species, or those of current conservation concern at EU scale?
- We will consider how the results from the *for raptors* questionnaire might be used to further refine these priorities and identify gaps (based on our discussions on Day 1).
- The questionnaire results should point us towards species that may be suitable (from an existing survey coverage perspective), and for these species we should perhaps be aiming to highlight geographical areas (countries) within their European range where there are obvious monitoring gaps.

11:00 COFFEE

11:30 DISCUSSION SESSION 4: Best Practice Guidance and Capacity Building (see Section 3 in the review questions below)

We may break into two groups for this session and report back on our ideas.

- How can we best summarise the skills, experiences and resources for raptor monitoring held across Europe in the review paper (and subsequently in an on-line database for users)?
- How are skills and resources distributed across Europe and what might this tell us about capacity building needs and approaches?
- How might we assemble best practice guidance, synthesize this guidance and make it available to users (on-line presentation, development of case studies, summer school ideas etc)?
- Can we identify the gaps in best practice in monitoring for raptors and form a subgroup of experts for supplementation of best practice for monitoring of all birds of prey and owls in Europe and make it available in a sense of reference guide.

13:00 LUNCH

14:30 DISCUSSION SESSION 5: WP7 Database, reporting and analysis (see Section 4 in the review questions below)

We may break into two groups for this session and report back on our ideas. We may start this session before lunch if we have time.

- Which questionnaire responses can be used to assess possibilities for reporting and analysis at a pan-European scale?
- What do the user groups actually need?
- How accessible are the raw datasets or even summarised reporting?
- What should we cover on this aspect in the review paper?
- What can EURAPMON feasibly achieve with regard to pan-European reporting (case studies)? How can this be maintained, who would continue to organise this, who would look after the data and who could use it? EURAPMON activity in this area needs to be complementary to other existing work (BirdLife, MEROS etc).

16:00 COFFEE

16:30 Final structure of the *for raptors* monitoring review paper and draft contents of each section.

Chris & Maja

17:30 Final summing up and next steps

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18:00 END OF FORMAL WORKSHOP

Appendix 2

List of participants

Key: SC = EURAPMON Steering Committee member

COUNTRY	TITLE	NAME	GENDE	AFFILIATION	EMAIL	
			R			
Estonia	Dr	Ulo Vali (SC)	Male	Estonian University of Life Sciences, Institute of Agricultural and Environmental Sciences, Tartu, Estonia	ulo.vali@gmail.com	
Finland	nland Prof Pertti Saurola (SC)		Male	University of Helsinki, Finnish Museum of Natural History, Helsinki, Finland	pertti.saurola@helsinki.fi	
Georgia	Mr	Jasper Wehrman	Male	MEROS / BRC Georgia; Hafenstr. 3, 06108 Germany	jasper.wehrmann@batum iraptorcount.org	
Germany	Mr	Jasper Wehrman	Male	MEROS / BRC Georgia; Hafenstr. 3, 06108 Germany	jasper.wehrmann@batum iraptorcount.org	
Italy	Dr	Alessandro Andreotti (SC)	Male	High Institute for Environmental Protection and Research (ISPRA), Ozzano dell'Emilia (BO), Italy	Alessandro.andreotti@isp rambiente.it	
Latvia	Mr	Janis Reihmans	Male	Latvian Ornithological Society (NGO); Dzirnavu Street 73-2, Riga, Latvia	janis.reihmanis@ldf.lv	
Poland	Mr	Janusz Sielicki (SC)	Male	"Falcon" Society for Protection of Wild Animals, Wloclawek, Poland	j.peregrinus@gmail.com	
Portugal	Dr	Luis Palma (SC)	Male	CIBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, Olhão, Portugal	luis.palma@cibio.up.pt	
Russia	Mrs	Elvira Nikolenko	Female	Siberian Environmental Center, NGO; Russian Raptor Research and Conservation Network; Rogacheva str., 20A-51; Berdsk, Novosibirskaya district; Russia	elnik2007@ya.ru	
Slovenia	Ms	Maja Derlink	Female	National Institute of Biology, Večna pot 111, Ljubljana, Slovenia	Maja.derlink@nib.si	
Slovenia	Dr	Irena Bertoncelj	Female	National Institute of Biology, Večna pot 111, Ljubljana, Slovenia	irenabertonceljnib@gmail .com	

		(coordinator)			
Slovenia	Dr	Al Vrezec	Male	National Institute of Biology, Večna pot 111, Ljubljana, Slovenia	Al.vrezec@nib.si
Spain	Mrs	Ester Cerezo	Female	Consultant; Plaza de Toledo 10, 5º E, Murcia, 30009 Spain	estercerezovalverde@gm ail.com
Spain	Dr	Beatriz Martin	Female	Migres Foundation; Ctra. N-340, km 96,2; Huerta Grande, El Pelayo; Algeciras, 11390, Spain	bmartin@fundacionmigre s.org
Spain	Dr	José Enrique Martinez	Male	Ecology and Hydrology; University of Murcia; Campus of Espinardo, Murcia, 30100 Spain	ecoljemt@um.es
Turkey	Mr	Bilgecan Sen	Male	Middle East Technical University; Emek mahallesi, 20. Sokak, 5/4; Cankaya, 06500 Turkey	bilgecan.sen@gmail.com
ИК	Dr	Chris Wernham	Female	BTO Scotland, University of Stirling, School of Biological and Environmental Sciences, Stirling, United Kingdom	Chris.wernham@bto.org
ESF	Dr	Paola Campus	Female	ESF representative	pcampus@esf.org