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ERBFacility Working Group 4 Slovenia workshop (September 2019)

Introduction to guidance development



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STSM – Lucie Michel

Guidance for Peregrine and other falcons

CONTENTS

- Introduction to contaminants and Peregrines
- Basic contextual data
- Guidelines for observing, handling and timing of nest visits
- Measurements of eggs
- Determining chick age and sex
- Determining breeding parameters
- Feather terminology and choice of feathers
- Prey item determination
- Land use data
- Known contamination source data
- Dealing with public attention
- Dealing with intentional poisoning
- Appendices including photos and suggested data sheet
- Suggested extra reading material and links



Other available species-specific guidance

Rupis VCF

ANNEX II
PROTOCOL FOR TAKING BIOLOGICAL SAMPLES IN THE FIELD FROM LIVE BIRDS, FOR TOXICOLOGICAL AND PARASITOLOGICAL ANALYSIS

INTRODUCTION

This protocol was basically prepared to support the research activities foreseen in the Rupis Project, such as the sampling of the captured birds within action D6. It can be also use for the presumably poisoned live animals entering into the wildlife recovery centres on Portuguese or Spanish side.

Although the project foresees only toxicological analysis we consider it to be important to include also parasitological samples/analysis that can also be easily collected while sampling for toxicology (only small additional effort is needed and the cost of these analyses is nearly insignificant compared to the cost of the toxicological analyses).

The results of the toxicological and parasitological analysis can provide important information regarding the physical condition of the animal but could also identify some unknown threat/problem.

The protocol is offering recommendations and guidelines for taking biological samples from birds (target species: Egyptian Vulture and Bonelli's Eagle while capturing

Rupis VCF

Rupis VCF

SAMPLING PROCEDURES

1. Collection of samples by swabs from cloaca in Amies medium and virus medium

- Use the swab to collect cloacal and / or oropharynx samples. Insert and turn the swab in rubbing effort to obtain content.
- Number of swabs: ideally 1 per organism (bacteria) for study
- Analysis:
 - o Conservation in Amies medium (blue swab):
 - Microbiology: diverse bacteria species: *Salmonella*, *Campylobacter*, *Escherichia coli* O157.
 - o Conservation in virus medium (pink swab):
 - Virology (molecular diagnostics PCR, virus cultivation). Different viruses.



Collection of samples from cloaca with swab in Amies medium (blue)



Collection of samples from cloaca with swab in virus medium (pink)



Collection of samples from oropharynx with swab in virus medium (pink)

* Also check table 1 at the end of this document.

- 3 -

Rupis VCF

Image 13. Remains of bait in the peak




Image 14. Ventricle





Image 15. Claws



- 10 -

Rupis VCF

action: FAECES

of faeces. Try to discard the urea phase (the white or yellow content).

sterile container.

is:

Microbiology: diverse bacteria species: *Salmonella*, *Campylobacter*, O157.



OOD IN EDTA AND HEPARIN

epuncture, previously disinfect the area with 70% alcohol and s.

with blood. Overturn smoothly 3-4 times for mixing the blood and event lyse (blood cell destruction) of the erythrocytes.


tube of 1 ml heparin to study toxicology: heavy metals, Non Drugs (NSAIDs), antimicrobials and pesticides; 1 tube of 1 ml Diagnostics (PCR); 1 tube EDTA for haematology and sex tips in alcohol can also do); 1 tube heparin for biochemistry

erent microorganisms (bacteria, virus, parasites).

IDS

Other available species-specific guidance

← → ↻ ⓘ Not secure | raptormonitoring.org/getting-involved/raptor-patch



About ▾ SRMS Partners ▾ Species ▾ Raptor Conservation ▾ Data ▾ Advice ▾ Getting Involved ▾

Scottish Raptor Monitoring Scheme

RECENT POSTS

Article about the work of the SRMS published in Bird Study

JOHJ ADVERT: Scottish Raptor Monitoring Coordinator - Maternity Cover

SRMS 2017 Annual Report now published

Scottish Raptor - July 2018

SRMS 2016 Annual Report now published

Scottish Raptor - September 2017

Scottish Raptor - November 2016

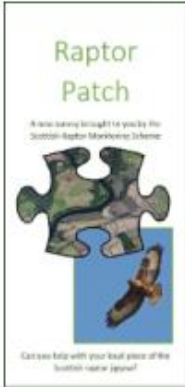
SRMS 2015 Annual Report now published

Forthcoming event - The North of England Raptor Conference 2016

Scottish Raptor - May 2016

Raptor Patch


You do not need to already know lots about raptors or raptor monitoring to be able to take part. Everything you need to get started is available here on the SRMS website. Click [here](#) to understand progressively develop your skills and experience at a pace that suits you or take a look at the



Raptor Patch

A new survey brought to you by the Scottish Raptor Monitoring Scheme.


Can you help with your local sites of the Scottish raptor (jigsaw)?



Raptor Patch

A new survey brought to you by the Scottish Raptor Monitoring Scheme.

Getting started



Raptor Patch

A new survey brought to you by the Scottish Raptor Monitoring Scheme.

My Raptor Patch

Monitoring Buzzards – at a glance

We recommend that you undertake six breeding season visits, one per month, to your Raptor Patch between February and July. During the winter we would recommend that you also visit your Raptor Patch to identify potentially suitable nest sites.

The table below shows the optimum timing for visits to your Raptor Patch during (red) and outwith (blue) the breeding season and how these visits are timed to coincide with when Buzzards are likely to be undertaking key activities in their annual cycle (grey). Cells marked with an "X" indicate peak periods for particular Buzzard activity within the wider range.

Aim of monitoring visit and key breeding activities of Buzzards	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Visit: To search for potential nest sites												
Occupation of home range												
Visit: To check for occupancy												
Occupation of home range												
Visit: To check activity at known nests												
Nest building												
Egg laying												
Incubation												
Visit: To check for young												
Hatching												
Young in nest												
Visit: To check for fledged												
Juveniles												

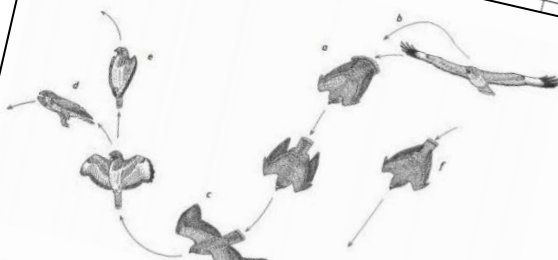
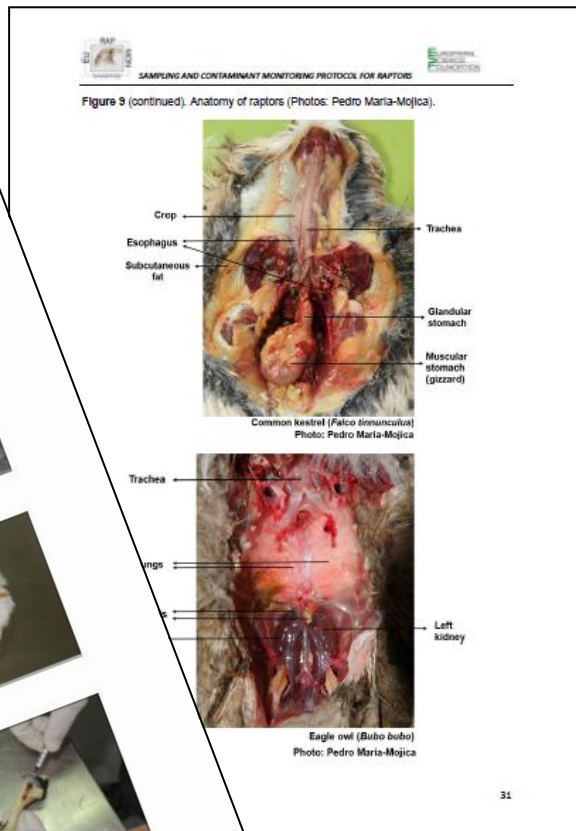
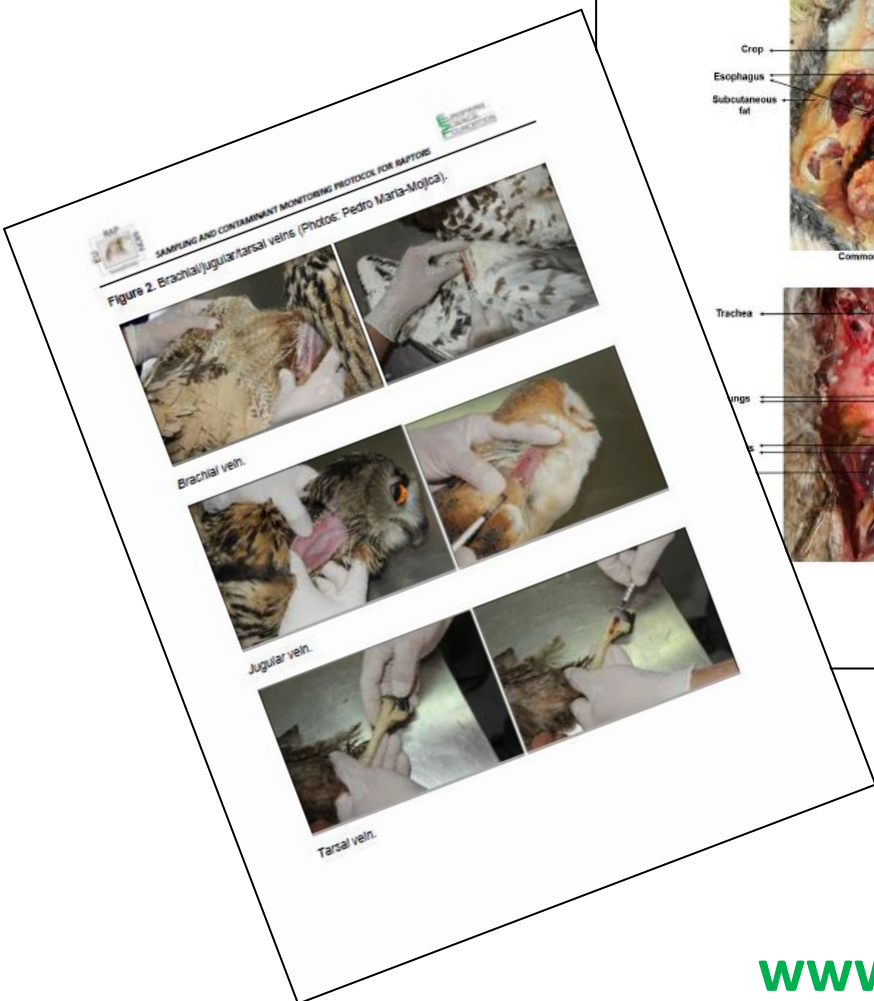


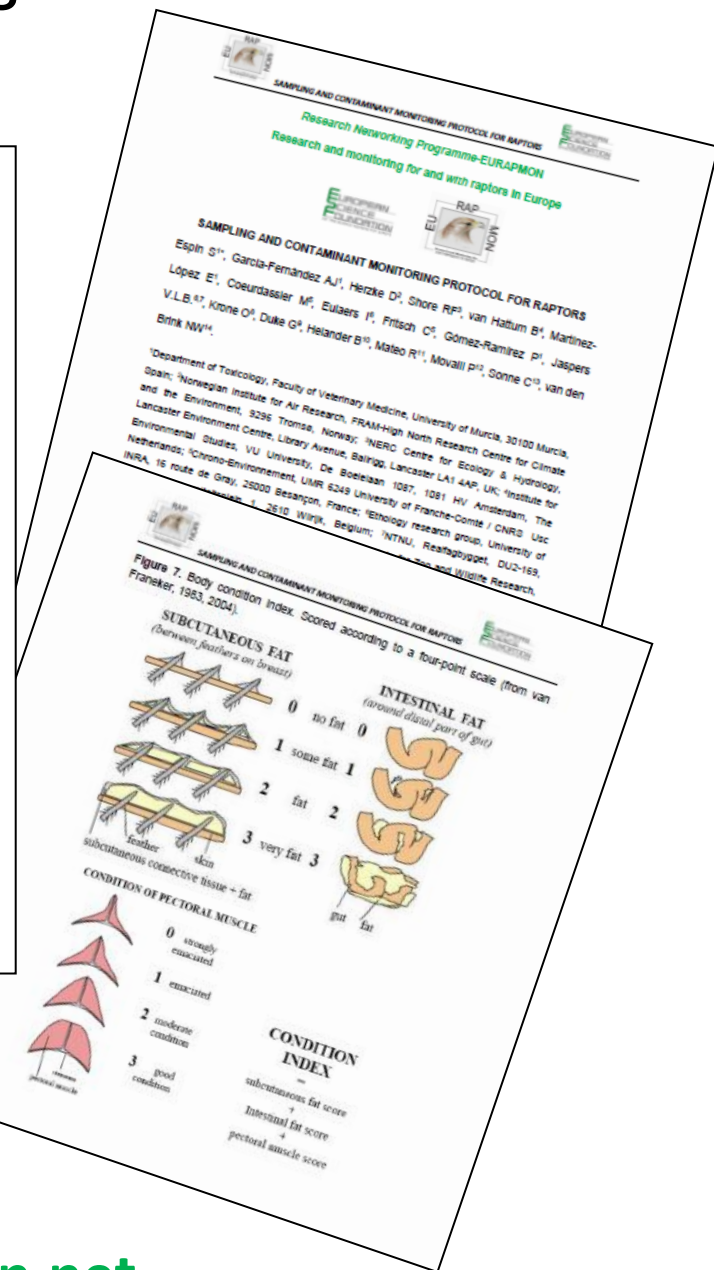
Figure 2: One display stooop to reveal the detail. The degree of closure of the wings at (a) is highly variable (both within and between series) and some display stooops will be so shallow that the wings will not close more than shown at (c). The display dive posture is shown in (f).

In addition to vantage point watches, spend some time walking through your Raptor Patch keeping an eye out for field signs of Buzzards (such as prey remains, pellets or potential nest sites). If you are searching an area on foot you should attempt to get within 100 m of every part of your Raptor

Best practice sampling protocols (Espín et al.)



31





Scottish Raptor Monitoring Scheme

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Advice

The Scottish Raptor Monitoring Scheme has published a field guide which provides expert advice on surveying and monitoring raptors.

Now onto its third edition the *Raptors: A Field Guide for Surveys and Monitoring* details the survey techniques that should be employed to successfully survey each of the raptor species which regularly occurs in Britain.

Chapters can be accessed through following the links below:

- Part 1: Introduction
- Part 2: Species accounts
 - Honey Buzzard
 - Red Kite
 - White-tailed Eagle
 - Marsh Harrier
 - Hen Harrier
 - Montagu's Harrier
 - Northern Goshawk
 - Russet-backed Sparrowhawk
 - Common Buzzard



Hardey, J., Clark, H., Mannion, C., Elley, H., Etheridge, D. & Thompson, D. (2013). *Raptors: a field guide to survey and monitoring* (2nd Edition). The Stationery Office, Edinburgh.

Overall ERB Facility guidance needs?



Raptor Patch

You do not need to already know lots about raptors or raptor monitoring to be able to take part in Raptor Patch. Everything you need to get started is available here on the SRMS website. Click [here](#) to understand how you can progressively develop your skills and experience at a pace that suits you or take a look at the three leaflets below.



Get on well with your local people of the Scottish raptor species!



Getting Started



My Raptor Patch



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Monitoring breeding outcome

For this phase, it is of utmost importance that the timing of visits to the nest is undertaken according to best practice, i.e. at times when the risk of disturbing the adult birds is minimal. Visits should not be undertaken in adverse weather conditions (i.e. cold, wet or excessively hot). For some species, it is even recommended that no visits should be done during the egg stage of the breeding season (Hardey et al. 2013).

The raptor worker tries to establish clutch size, brood size and fledging success, using the minimum number of visits required to establish these parameters. Often a visit during the chick stage is combined with the ringing of the chicks. For this, the person must be a licensed ringer (ringing permits issued by BTO on behalf of SNH), following best practice described in Hardey et al. (2013) and BTO's 'Ringers' Manual' (Redfern and Clarke 2001).

Finally, a visit around or just after the chicks are expected to fledge will reveal the number of fledglings from each nest. This visit should involve a nest inspection to check if any chicks might have died at the later stages of the breeding attempt. This is an important part of the monitoring, as it will give the final piece of information of the outcome of the breeding attempt.

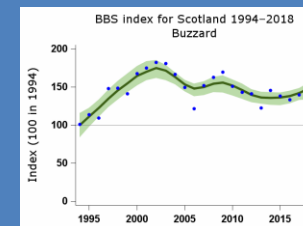
Data collected during the nest monitoring phase includes, apart from clutch size, brood size and fledging numbers, the type of nest (e.g. nest box, tree or cliff), nest site (e.g. species of tree) and if ringing occurs, the age, sex and size (e.g. wing and tarsus length as well as body mass) of the chicks. Thorough recording of visit dates is again essential, as it will indicate stages and even specific dates when a potential nest failure might have happened.

For more detailed species-specific information please refer to [Hardey et al. \(2013\)](#).

How to monitor raptors



How to share your data



How to collect samples



How to submit samples for analysis



How to build capacity for monitoring and sampling



Training opportunities & skills sharing hub



Information on legislation / permits / licensing / wildlife crime

SPECIES-SPECIFIC GUIDANCE





ERBFacility 'advice hub'?



How to monitor raptors

- ❖ How to survey population numbers (e.g. chapters 2, 3, 4 of Hardey et al.)
- ❖ How to find active pairs and active nests (e.g. chapter 5 of Hardey et al.)
- ❖ How to measure breeding success
- ❖ How to measure survival rates
- ❖ How to handle raptors (guidance for ringers)
- ❖ How to measure raptors
- ❖ How to measure eggs
- ❖ How to establish laying dates
- ❖ Bird welfare when visiting nests/ringing
- ❖ Health and safety guidance for those handling raptors

How to collect samples

- ❖ Espín et al. protocols
- ❖ Guidance videos (University of Murcia)
- ❖ Necropsy video
(<http://www.eurapmon.net/raptor-necropsy-guideline>)
- ❖ Collecting contextual data
- ❖ Best practice recording sheets

How to build monitoring and sampling capacity

- ❖ General principles for encouraging participation, motivating and retaining participants
- ❖ Training materials
- ❖ Training opportunities
- ❖ Skills exchange opportunities



Development of guidance

- Overall design and content of advice hub
- Guidance required for the Proof of Concept study (focused on Tawny Owl and Common Buzzard – carcasses, live sampling, contextual monitoring data)*
- Vulture guidance (Jovan)*
- Sampling guidance (Silvia)
- Guidance on how to build capacity*
- Use of STSMs (*) and other help required (task groups)





Task Groups (leads and members)

- Overall design and content of advice hub – **Pablo**, Silvia, Madis, Ulf
- Guidance required for the Proof of Concept study –Tawny Owl – **Rui**, Marcello, Gunnar, Pertti, Meto, Al, Spela
- Guidance required for the Proof of Concept study –Common Buzzard – Oliver, **Gaby**, Manu, Rob, Damijan, Stiven
- Vulture guidance (**Jovan**) – Fulvio, Yael, Emma

