

Scottish Raptor Monitoring Scheme work plan 2018-19 (as agreed by the SRMG)

Tasks	Sub-tasks	Dependencies	2018/19	2019/20	2020-21
1. SURVEY METHODS, STANDARDS & MONITORING COVERAGE					
1.1 Establish and maintain inventory of raptor survey coverage in Scotland.	1.1.1 Complete the picture of coverage for each SRMS species:	5.1.2	Complete coverage information for Kestrel, Raven, Peregrine, Hen Harrier and Merlin	Complete coverage information for Golden Eagle, Red Kite, White-tailed Eagle and Buzzard.	Complete coverage information for remaining SRMS species.
	1.1.2 Establish a process to integrate coverage and trend information with new information submitted (via the online system and via a semi-automated annual process for non-online users).	2.4 (2.4.6 in particular)	Timescales depend on uptake of new system and building of reporting facilities. Likely to start in Year 2 and complete in Year 3.		
1.2 Enhance raptor monitoring coverage in Scotland.	1.2.1 Produce species-specific guidance for enhancing raptor monitoring coverage in Scotland as coverage and trends information becomes available.	1.1.1	Guidance on enhancing coverage for Kestrel, Raven, Peregrine, Hen Harrier and Merlin	Guidance on enhancing coverage for Golden Eagle, Red Kite, White-tailed Eagle and Buzzard.	Guidance on enhancing coverage for remaining SRMS species.
	1.2.2 Assess the potential of <i>Raptor Patch</i> to deliver enhanced monitoring coverage for widespread species.	4.2	Run <i>Raptor Patch</i>	Run <i>Raptor Patch</i>	Full review of <i>Raptor Patch</i> potential
	1.2.3 Produce overarching plan (with priorities) for enhancing raptor monitoring coverage in Scotland.	1.2.1, 1.2.2, 1.4.2	Individual species coverage and gaps work	Individual species coverage and gaps work. Begin thinking about enhancement Strategy.	Finalise over-arching Strategy and Plan.
1.3 Support for SCARABBS raptor surveys (national surveys and their outputs)	1.3.1 Explore whether future data submission needs of SCARABBS may be met by the SRMS online data entry system to minimise double data entry in future SCARABBS survey years.	2.4	Demo online system to key individuals within SCARRABBS organisations to establish whether the SRMS online system has the potential to meet SCARRABS needs, whether there is an appetite for this approach, and what further enhancements would be required.	If SRMS online system is to be used for future SCARRABS, ensure any additional functionality is built into the system for trialing from the Merlin national survey in 2020. Additional functionality may require additional resources not currently in budgeted costs.	There may be a national Merlin survey in 2020 (so thinking needs to be done ahead of this).
	1.3.2 Assess the extent to which outputs from national surveys (population estimates and change estimates) can be generated from annual monitoring information submitted to the SRMS.	1.1 & 3.2	Assess individual species once coverage/trends work is complete.	Assess individual species once coverage/trends work is complete.	There may be a national Merlin survey in 2020 (so thinking needs to be done ahead of this).
1.4 Survey and monitoring good practice methods	1.4.1 Review the value of producing a revised/online/app version of <i>Raptors - a field guide to surveys and monitoring</i>	Possibly 1.4.2 (or at least some of it)		Enough information from 1.1.1 and 5.1.2 to start this in Year 2.	Complete in Year 3.
	1.4.2 Draw together informal review of survey approaches (coverage and effort) employed in all major study areas contributing data to the SRMS to inform future survey guidance needs.	1.1.1 & 5.1.2		Enough information from 1.1.1 and 5.1.2 to start this in Year 2.	Complete in Year 3.

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2. DATA COLLATION & SHARING					
2.1 Management of data submitted to the SRMS	2.1.1 Collate and clean data set submitted in 2018 (ensure the following: all observer identities assigned; audit to check all know data submitted; matching through grid refs and site codes; standardised outcome codes).	2.1.5	Collate and clean 2018 breeding season data.	N/A	N/A
	2.1.2 Collate and clean data set submitted in 2019 (ensure the following: all observer identities assigned; audit to check all know data submitted; matching through grid refs and site codes; standardised outcome codes).	2.1.5	N/A	Collate and clean 2019 breeding season data.	N/A
	2.1.3 Collate and clean data set submitted in 2020 (ensure the following: all observer identities assigned; audit to check all know data submitted; matching through grid refs and site codes; standardised outcome codes).	2.1.5	N/A	N/A	Collate and clean 2020 breeding season data.
	2.1.4 Maintain the SRMS master dataset to ensure it is kept updated with new historic data as it comes to light (e.g. historic data that the SRMS has never held, and corrections that may come to light such as erroneous grid refs revealed by a move to the online system).		Keep SRMS master dataset up to date.	Keep SRMS master dataset up to date.	Keep SRMS master dataset up to date.
	2.1.5 Develop effective process for ensuring that the existing master and online database are linked effectively for data sharing and ongoing analytical and reporting requirements (involving the integration of data submitted on- and off-line).	2.4, 2.2.2		Most work in Year 2.	Completion in Year 3.
2.2 Data sharing	2.2.1 Finalise SRMS Data Sharing and Use Policy.		Finalise SRMS Data Sharing & Use Policy and make available on SRMS website.	Annual review of SRMS Data Sharing & Use Policy	Annual review of SRMS Data Sharing & Use Policy
	2.2.2 Establish protocols and pathways for routine data sharing between SRMS Partners (web services).	2.2.1	Agree web services, or alternative(s), as the main pathway for routine sharing of data from SRMS to partners. Set up protocols and pathway infrastructure.	Share SRMS data in line with SRMS Data Sharing & Use Policy and agreed protocols.	Share SRMS data in line with SRMS Data Sharing & Use Policy and agreed protocols.
	2.2.3 Develop data sharing agreement and protocols for sharing with National Wildlife Crime Unit.	Would be odd to progress this ahead of 2.2.1?	Develop data sharing agreement with NWCUCU.	Finalise data sharing agreement with NWCUCU. Mobilise data through appropriate pathways.	Annual review of data sharing agreement with NWCUCU.

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2. DATA COLLATION & SHARING					
2.3 Servicing of data requests.	2.3.1 Run an efficient and professional data request service (for non-Partner organisations and data requests that fall outside the SRMS Data Sharing and Use Policy).		Review current SRMS data request form and make available on SRMS website. Ensure SRMS Data Shaing & Use Policy explains the data request process for requests for non-partner organisations and requests falling out of scope. Agree the extent to which there is a desire for SRMC to assist partners with data extraction to service these requests and (in the case of SRSg) handling of payments for commercial requests.	Service data requests in a timely manner.	Service data requests in a timely manner.
2.4 On-line data submission functionality.	2.4.1 Develop guidance materials for data submission using the new on-line system (to underpin training; see XXX).		Adapt guidance materials produced for Nest Record System to make them SRMS specific and make available on the SRMS website.	Review and update guidance materials in line with feedback received from users.	Keep guidance materials up to date.
	2.4.2 Work with SRSg to establish definitive list of sites and permissions to be pre-loaded onto online system.		Liaise with observers/Species Coordinators/SRSg Chairs as necessary.	Liaise with observers/Species Coordinators/SRSg Chairs as necessary.	Liaise with observers/Species Coordinators/SRSg Chairs as necessary.
	2.4.3 Pre-load sites and set permissions for SRSg folks on online system.		Pre-load sites and set permissions, prioritising known testers.	Continue to help new users with setting up site lists etc	Continue to help new users with setting up site lists etc
	2.4.4 Pilot the new on-line system with observers during data submission in 2018 - including provision of central support from the SRMC.		Pilot with a range of observers according to an agreed strategy and priorities.		
	2.4.5 Review feedback and functioning of the system and de-bug ahead of 2019 field season.			Carry out review of 2018 field season and address any major bugs.	Keep under review.
	2.4.6 Assess reporting requirements from the new system and further IS developments required.	1.3.1, 2.4.5		Review utility of existing query/reporting features and assess additional needs (of the SRMS and its observers and Partners).	
	2.4.7 Implement further IS developments to provide necessary reporting/querying functions.	2.4.6		Develop and implement those new features that can be addressed with the budget set aside for this. Develop proposals to seek additional funding if required.	

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3. DATA ANALYSIS & REPORTING					
3.1 Annual SRMS reporting	3.1.1 Finalise processes and programming to automate as much of the annual reporting process as possible, including integration of information submitted on-line.	2.4	Ensure process using off-line data is automated as far as possible.	Set up processes for integrating data received on-line.	
	3.1.2 Streamline processes for checking SRMS data against data submitted via other routes.		Ensure these processes are efficient as possible (fit for purpose for SRMS annual reporting)	New processes will need to be added as data are submitted to the SRMS from other Partners.	
	3.1.3 Publish 2017 annual report and associated web-based supplementary information.	2.1.1, 3.1.2	2017 annual reporting.		
	3.1.4 Publish 2018 annual report and associated web-based supplementary information.	2.1.2		2018 annual reporting.	
	3.1.5 Publish 2019 annual report and associated web-based supplementary information.	2.1.3			2019 annual reporting.
	3.1.6 Publish 2020 annual report and associated web-based supplementary information.				2020 annual reporting (if processes can be fully automated to increase efficiency).
3.2 Development of trends, indicators and alerts for Scottish raptor populations.	3.2.1 Complete generation of trends in breeding numbers and breeding parameters at study area, regional and national scales where appropriate for all SRMS species.	1.1	Trends completed for Raven, Peregrine, Hen Harrier and Merlin	Trends completed for Golden Eagle, Red Kite and Buzzard.	Trends completed for remaining SRMS species.
	3.2.2 Update all existing trends in Year 3 of the funding period.	1.1.2			All species trends updated in Year 3.
3.3 Optimise the use of SRMS data for understanding and tackling wildlife crime.	3.3.1 Complete summary of causes of failure work across all SRMS species since 2003 (and any feasible trends) for publication in the Annual Report and website.	2.1.4	Ideally should be completed in 2018/19 if sufficient Research Ecologist time can be funded.		
	3.3.2 Develop plan for analyses of spatial variation in breeding success and occupancy and seek additional funding.	2.1.4	Ideally should be completed in 2018/19 if sufficient Research Ecologist time can be funded.		
3.4 Other research using SRMS data to supporting the evidence base on raptors in Scotland.	3.4.1 Support the production of an objective scientific review of the current drivers of the decline in the Scottish Kestrel population (akin to a Kestrel Conservation Framework).		Support and review the work being carried out by Staffan Roos and Gordon Riddle as required.		
	3.4.2 Keep a watching brief and respond to other needs in terms of raptor research using SRMS datasets (which may come from e.g. the Joint Raptors and Forestry Working Group or PAW Scotland).		Keep a watching brief and respond accordingly.	Keep a watching brief and respond accordingly.	Keep a watching brief and respond accordingly.

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4. SUPPORTING VOLUNTEERS & GROWING VOLUNTEERS & THE SRMS					
4.1 "Scottish Raptor" - SRMS newsletters.	4.1.1 Produce an issue of "Scottish Raptor" after each SRMG meeting (aiming for minimum two and ideally three issues per year).		Publish 2-3 issues.	Publish 2-3 issues.	Publish 2-3 issues.
4.2 Increasing the numbers of active raptor monitoring volunteers in Scotland	4.2.1 Continue to run the new <i>Raptor Patch</i> initiative for monitoring widespread raptors, seeking to increase the number of study areas registered (with a focus over the next 3-year period on at least one SRMS region in addition to the current Central Belt focus).		No proactive promotion to new audiences or training events in 2018/19 but Amy to support existing volunteers and set up any new patches requested.	As for 2018/19 but also review time allocations of the SRMC and decide whether further promotion is feasible in 2019/20 (e.g. to target one other region) or whether this must wait until 2020/21.	Return to active promotion and expansion of <i>Raptor Patch</i> , with either a regional or Scotland-wide focus depending on the time and resources available.
	4.2.2 Run <i>Raptor Patch</i> training/de-briefing events.	4.2.1	No events in 2018/19.	Deliver up to two training/de-briefing events if resources allow.	Deliver two training/de-briefing events.
	4.2.3 Carry out a further review of <i>Raptor Patch</i> to assess its potential both for raptor information provision and volunteer engagement.	4.2.1 & 4.2.2			Carry out review and plan the next phase of <i>Raptor Patch</i> development.
4.3 Volunteer training needs and opportunities	4.3.1 Develop guidance and training materials for use of the new on-line data submission system (See 2.4.1 above).	2.4	(See 2.4.1 above).	(See 2.4.1 above).	(See 2.4.1 above).
	4.3.2 Provide training in the on-line data submission system for Ambassadors and Species Coordinators within SRSG branches.	2.4	Training to those agreeing to trial the new system in 2018.	Training for further roll-out to observers.	Continued support targeted as required.
	4.3.2 Training for <i>Raptor Patch</i> (See 4.2.2 above).	4.2	(See 4.2.2 above).	(See 4.2.2 above).	(See 4.2.2 above).
4.4 The SRMS website.	4.4.1 Update annually with new breeding season data to supplement that published in the Annual Report.	2.1	Update website with 2017 breeding season data.	Update website with 2018 breeding season data.	Update website with 2019 breeding season data.
	4.4.2 Add new trend information and suggestions for gap filling for each species as trends are developed, and for all species in Year 3.	1.2.1, 3.2.1	Update website with trends information for Raven, Peregrine, Hen Harrier and Merlin.	Update website with trends information for Golden Eagle, Red Kite and Buzzard.	Update website with trends information for the remaining SRMS species.
	4.4.3 Add any further guidance/support required for <i>Raptor Patch</i> (including consideration of on-line Forum for participants).	4.2		Add or update guidance if required.	Add or update guidance if required.
	4.4.4 Add guidance and training materials for the new on-line data submission system.	2.4.1	Update website with guidance materials for the online data entry system.	Review/enhance guidance as required.	Review/enhance guidance as required.

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5. SRMS DEVELOPMENT, PROFILE & FUNDING					
5. 1 Liaison with, and servicing the needs of, SRMS and its Partners.	5.1.1 Provide efficient checking of data submission to support mileage claims and Schedule 1 licencing for SNH.	2.1.1, 2.1.2 & 2.1.3	Provide report to SNH Licensing & BTO Ringing Team team summarising return information from 2018 breeding season.	Provide report to SNH Licensing & BTO Ringing Team team summarising return information from 2019 breeding season.	Provide report to SNH Licensing & BTO Ringing Team team summarising return information from 2020 breeding season.
	5.1.2 Attend a programme of meetings and field visits with observers to build information on coverage and enhance working relationships.	Required to achieve 1.1.1	Identify and meet key raptor workers with studies of Raven, Peregrine, Hen Harrier & Merlin. Opportunistically collect information on their coverage of other SRMS species where they have a relevant study.	Identify and meet key raptor workers with studies of Golden Eagle, Red Kite & Buzzard. Opportunistically collect information on their coverage of other SRMS species where they have a relevant study.	Identify and meet key raptor workers with studies of the remaining SRMS species.
	5.1.3 Carry out range of other liaison activities (as explained in the Work Programme; including regular liaison with SRSB branches) and feedback issues raised to the SRMG.		Ongoing.	Ongoing.	Ongoing.
5.2 Raising the profile of the SRMS	5.2.1 Plan and attend a programme of events/talks to promote SRMS and its initiatives (<i>Raptor Patch</i>).		Ongoing.	Ongoing.	Ongoing.
	5.2.2 Continue to raise the profile of the SRMS with stakeholders/users of its information, by production of a promotional brochure in Year 3.				Produce brochure in Year 3.
	5.2.3 Continued enhancement of the SRMS website (see 4.4 above).		Ongoing.	Ongoing.	Ongoing.
5.3 SRMS Secretariat	5.3.1 Continue to provide efficient Secretariat for the SRMG.		Draft agendas, papers and minutes from SRMG meetings.	Draft agendas, papers and minutes from SRMG meetings.	Draft agendas, papers and minutes from SRMG meetings.
5.4 Securing resources for the continuation of SRMS funding and for any additional work required during the Work Programme duration.	5.4.1 Seek funding to support the core SRMS work beyond 31 March 2019 (assuming SNH funding will need to reduce after 2018_19).		Develop active proposals to seek funding from other sources.		
	5.4.2 Funding for work on spatial variation in breeding success/occupancy.	3.3.2	Seek funding as required.		
	5.4.3 Funding for additional query/reporting IS developments for the on-line data submission system.	2.4.7		Seek funding as required.	
	5.4.4 Funding beyond March 2021.		Make annual case for continued funding.	Make annual case for continued funding.	Make case for funding beyond 3-year programme.