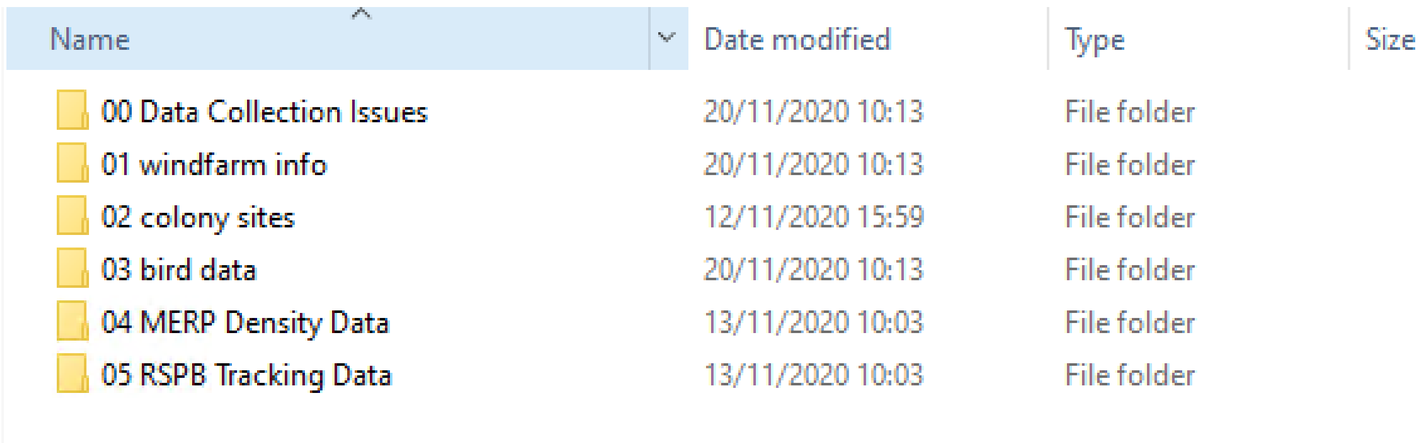
Workshop C – Data store sign off

Time	Agenda Item	Lead
10:00 - 10:05	Housekeeping	AC
10:05 - 10:15	Workshop C: Intro to workshop, aims & structure (10 mins)	AC
10:15 - 10:45	Data store structure (30 mins)	AC
10:45 – 11:15	Metadata (30 mins)	AC
11:15 - 11:25	BREAK	
11:25 – 11:55	Bird Data (30 mins)	AC
11:55 – 12:25	Marine Mammal Data (30 mins)	CS
12:25 – 12:35	BREAK	
12:35 – 12:55	Next steps and finalising the data store (20 mins)	AC
12:55 – 13:00	Final observations and close	AC

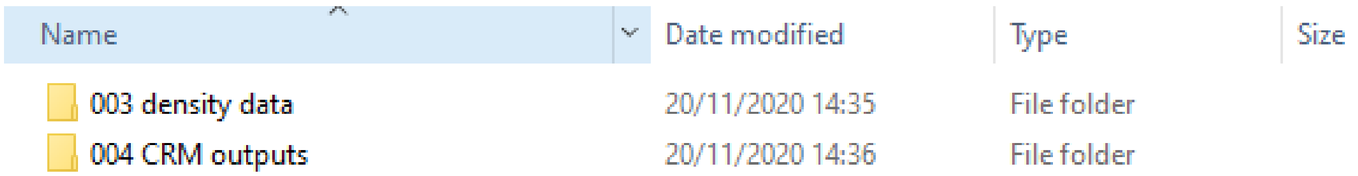
- Flexibility
- Easy to update
- Inclusive approach to data
- Past assessments of collision risk etc.
- Where possible, data to recreate these analyses

Structure

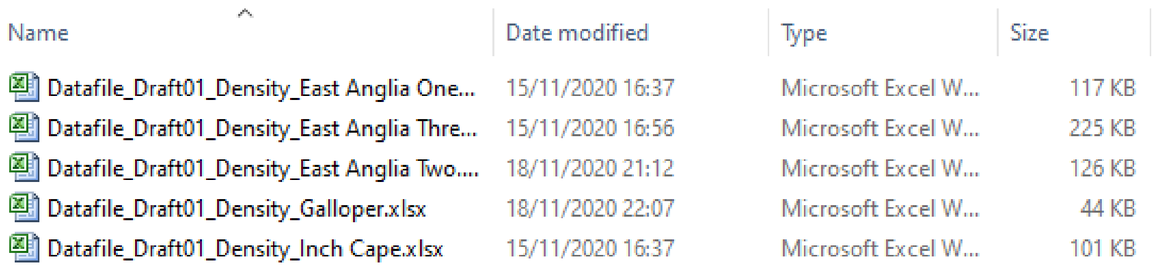


Name	Date modified	Type	Size
00 Data Collection Issues	20/11/2020 10:13	File folder	
01 windfarm info	20/11/2020 10:13	File folder	
02 colony sites	12/11/2020 15:59	File folder	
03 bird data	20/11/2020 10:13	File folder	
04 MERP Density Data	13/11/2020 10:03	File folder	
05 RSPB Tracking Data	13/11/2020 10:03	File folder	

Structure



Name	Date modified	Type	Size
003 density data	20/11/2020 14:35	File folder	
004 CRM outputs	20/11/2020 14:36	File folder	



Name	Date modified	Type	Size
Datafile_Draft01_Density_East Anglia One...	15/11/2020 16:37	Microsoft Excel W...	117 KB
Datafile_Draft01_Density_East Anglia Thre...	15/11/2020 16:56	Microsoft Excel W...	225 KB
Datafile_Draft01_Density_East Anglia Two....	18/11/2020 21:12	Microsoft Excel W...	126 KB
Datafile_Draft01_Density_Galloper.xlsx	18/11/2020 22:07	Microsoft Excel W...	44 KB
Datafile_Draft01_Density_Inch Cape.xlsx	15/11/2020 16:37	Microsoft Excel W...	101 KB

Name	Date modified	Type	Size
Datafile_Draft01_CRM_outputs_East Angli...	18/11/2020 11:07	Microsoft Excel W...	48 KB

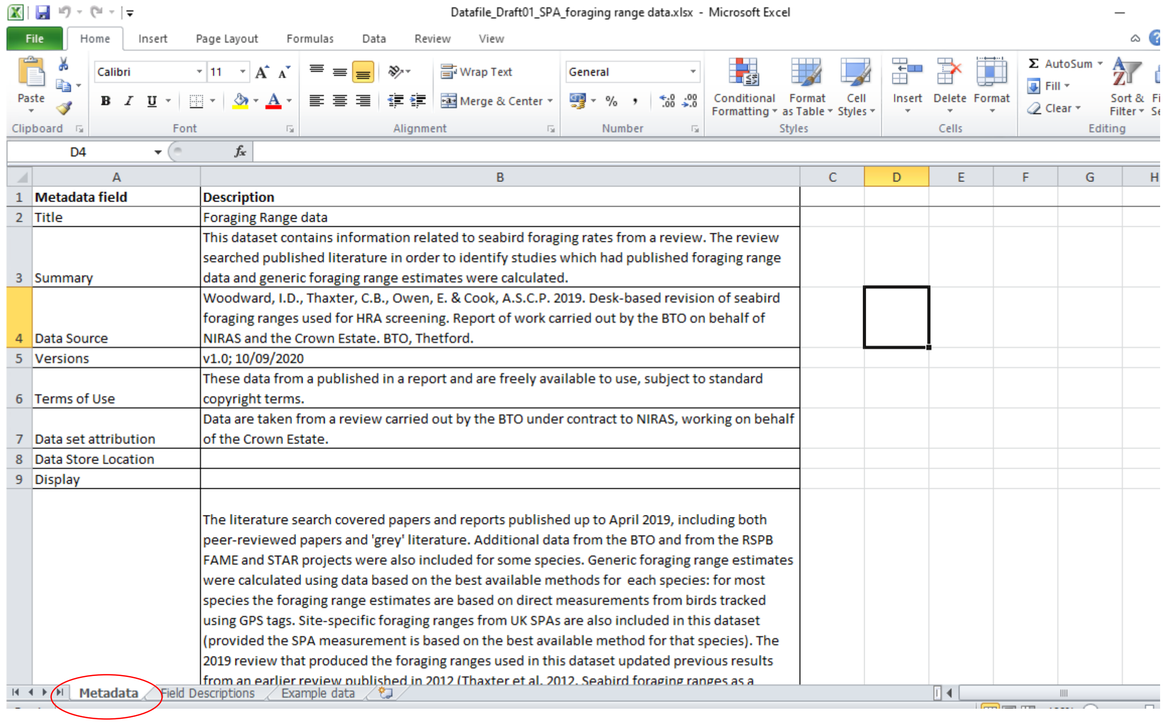
Structure

Name	Date modified	Type
001 Basic bird info	20/11/2020 10:13	File folder
002 Foraging Ranges data	20/11/2020 14:20	File folder
003 Survival data	20/11/2020 10:13	File folder
004 Productivity data	20/11/2020 10:13	File folder
005 Flight speeds	20/11/2020 10:13	File folder
006 Nocturnal activity	20/11/2020 10:13	File folder
007 Displacement	20/11/2020 10:13	File folder
008 Avoidance rates	20/11/2020 10:13	File folder
009 Energetics and prey	20/11/2020 10:13	File folder
010 Breeding season months	20/11/2020 10:13	File folder
011 Flight heights	20/11/2020 10:13	File folder

Name	Date modified	Type	Size
Datafile_Draft01_SPA_foraging range data...	12/11/2020 16:16	Microsoft Excel W...	21 KB

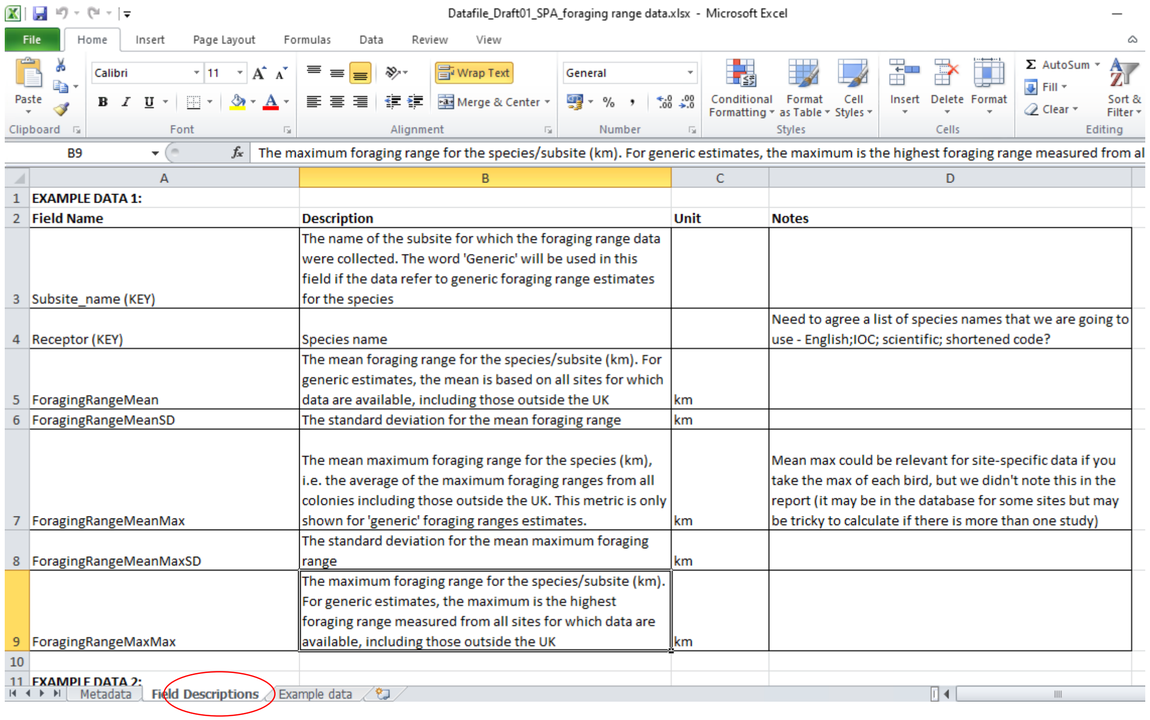
Name	Date modified	Type	Size
Datafile_Draft01_seasons.xlsx	12/11/2020 16:24	Microsoft Excel W...	40 KB

Structure



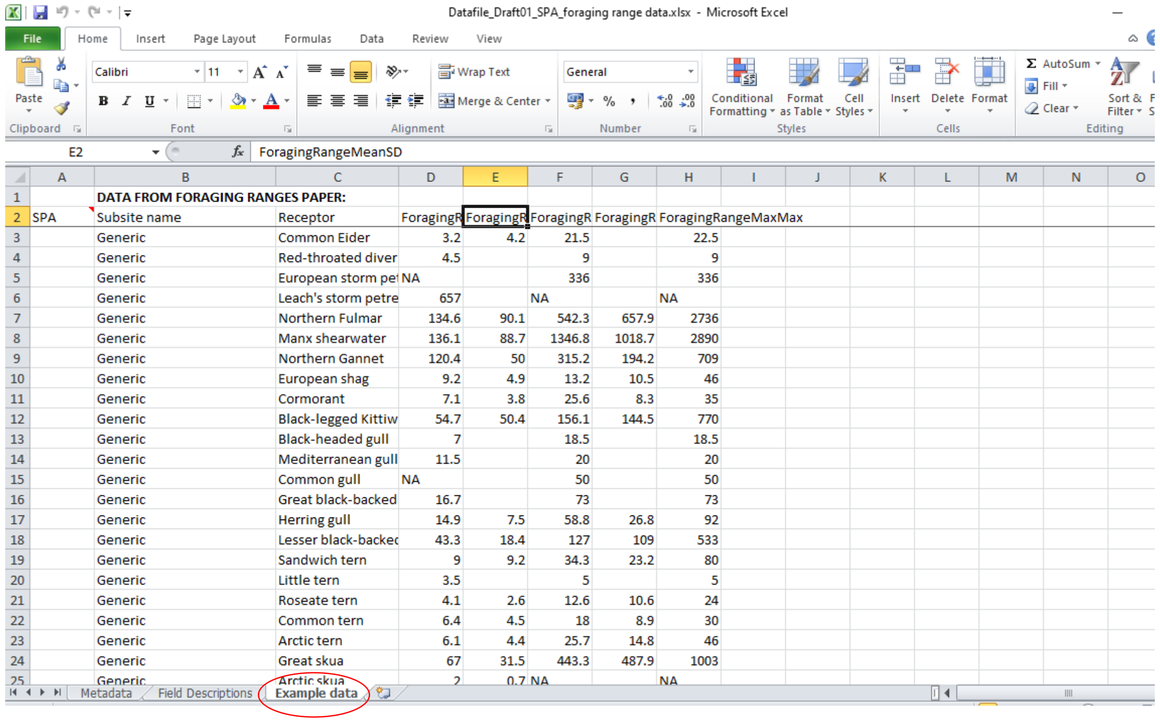
	A	B	C	D	E	F	G	H
1	**Metadata field**	**Description**						
2	Title	Foraging Range data						
3	Summary	This dataset contains information related to seabird foraging rates from a review. The review searched published literature in order to identify studies which had published foraging range data and generic foraging range estimates were calculated.						
4	Data Source	Woodward, I.D., Thaxter, C.B., Owen, E. & Cook, A.S.C.P. 2019. Desk-based revision of seabird foraging ranges used for HRA screening. Report of work carried out by the BTO on behalf of NIRAS and the Crown Estate. BTO, Thetford.						
5	Versions	v1.0; 10/09/2020						
6	Terms of Use	These data from a published in a report and are freely available to use, subject to standard copyright terms.						
7	Data set attribution	Data are taken from a review carried out by the BTO under contract to NIRAS, working on behalf of the Crown Estate.						
8	Data Store Location							
9	Display							
		The literature search covered papers and reports published up to April 2019, including both peer-reviewed papers and 'grey' literature. Additional data from the BTO and from the RSPB FAME and STAR projects were also included for some species. Generic foraging range estimates were calculated using data based on the best available methods for each species: for most species the foraging range estimates are based on direct measurements from birds tracked using GPS tags. Site-specific foraging ranges from UK SPAs are also included in this dataset (provided the SPA measurement is based on the best available method for that species). The 2019 review that produced the foraging ranges used in this dataset updated previous results from an earlier review published in 2012 (Thaxter et al. 2012. Seabird foraging ranges as a						

Structure



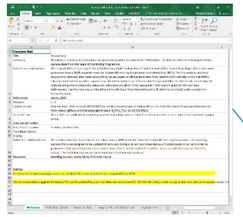
	A	B	C	D
1	**EXAMPLE DATA 1:**			
2	**Field Name**	**Description**	**Unit**	**Notes**
3	Subsite_name (KEY)	The name of the subsite for which the foraging range data were collected. The word 'Generic' will be used in this field if the data refer to generic foraging range estimates for the species		
4	Receptor (KEY)	Species name		Need to agree a list of species names that we are going to use - English;IOC; scientific; shortened code?
5	ForagingRangeMean	The mean foraging range for the species/subsite (km). For generic estimates, the mean is based on all sites for which data are available, including those outside the UK	km	
6	ForagingRangeMeanSD	The standard deviation for the mean foraging range	km	
7	ForagingRangeMeanMax	The mean maximum foraging range for the species (km), i.e. the average of the maximum foraging ranges from all colonies including those outside the UK. This metric is only shown for 'generic' foraging ranges estimates.	km	Mean max could be relevant for site-specific data if you take the max of each bird, but we didn't note this in the report (it may be in the database for some sites but may be tricky to calculate if there is more than one study)
8	ForagingRangeMeanMaxSD	The standard deviation for the mean maximum foraging range	km	
9	ForagingRangeMaxMax	The maximum foraging range for the species/subsite (km). For generic estimates, the maximum is the highest foraging range measured from all sites for which data are available, including those outside the UK	km	
10				
11	**EXAMPLE DATA 2:**			

Structure

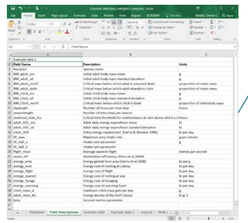


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1		DATA FROM FORAGING RANGES PAPER:													
2	SPA	Subsite name	Receptor	ForagingR	ForagingR	ForagingR	ForagingR	ForagingRangeMaxMax							
3		Generic	Common Eider	3.2	4.2	21.5		22.5							
4		Generic	Red-throated diver	4.5		9		9							
5		Generic	European storm pe	NA		336		336							
6		Generic	Leach's storm petre	657		NA		NA							
7		Generic	Northern Fulmar	134.6	90.1	542.3	657.9	2736							
8		Generic	Manx shearwater	136.1	88.7	1346.8	1018.7	2890							
9		Generic	Northern Gannet	120.4	50	315.2	194.2	709							
10		Generic	European shag	9.2	4.9	13.2	10.5	46							
11		Generic	Cormorant	7.1	3.8	25.6	8.3	35							
12		Generic	Black-legged Kittiw	54.7	50.4	156.1	144.5	770							
13		Generic	Black-headed gull	7		18.5		18.5							
14		Generic	Mediterranean gull	11.5		20		20							
15		Generic	Common gull	NA		50		50							
16		Generic	Great black-backed	16.7		73		73							
17		Generic	Herring gull	14.9	7.5	58.8	26.8	92							
18		Generic	Lesser black-backe	43.3	18.4	127	109	533							
19		Generic	Sandwich tern	9	9.2	34.3	23.2	80							
20		Generic	Little tern	3.5		5		5							
21		Generic	Roseate tern	4.1	2.6	12.6	10.6	24							
22		Generic	Common tern	6.4	4.5	18	8.9	30							
23		Generic	Arctic tern	6.1	4.4	25.7	14.8	46							
24		Generic	Great skua	67	31.5	443.3	487.9	1003							
25		Generic	Arctic skua	2	0.7	NA		NA							

Metadata

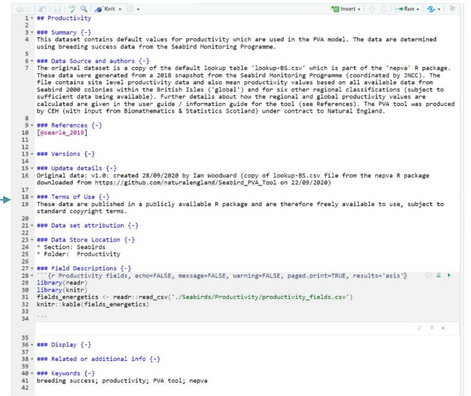


Metadata sheet



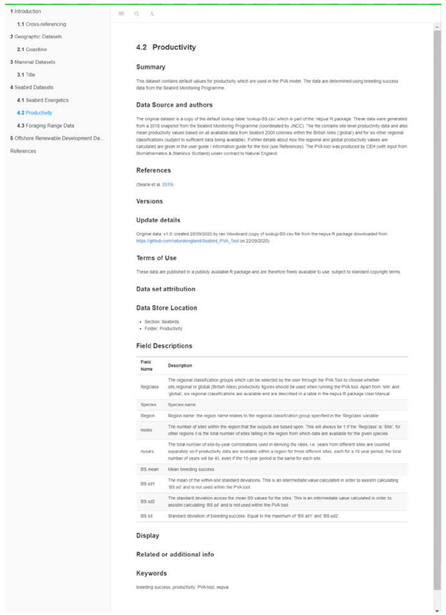
Field description sheet

R script

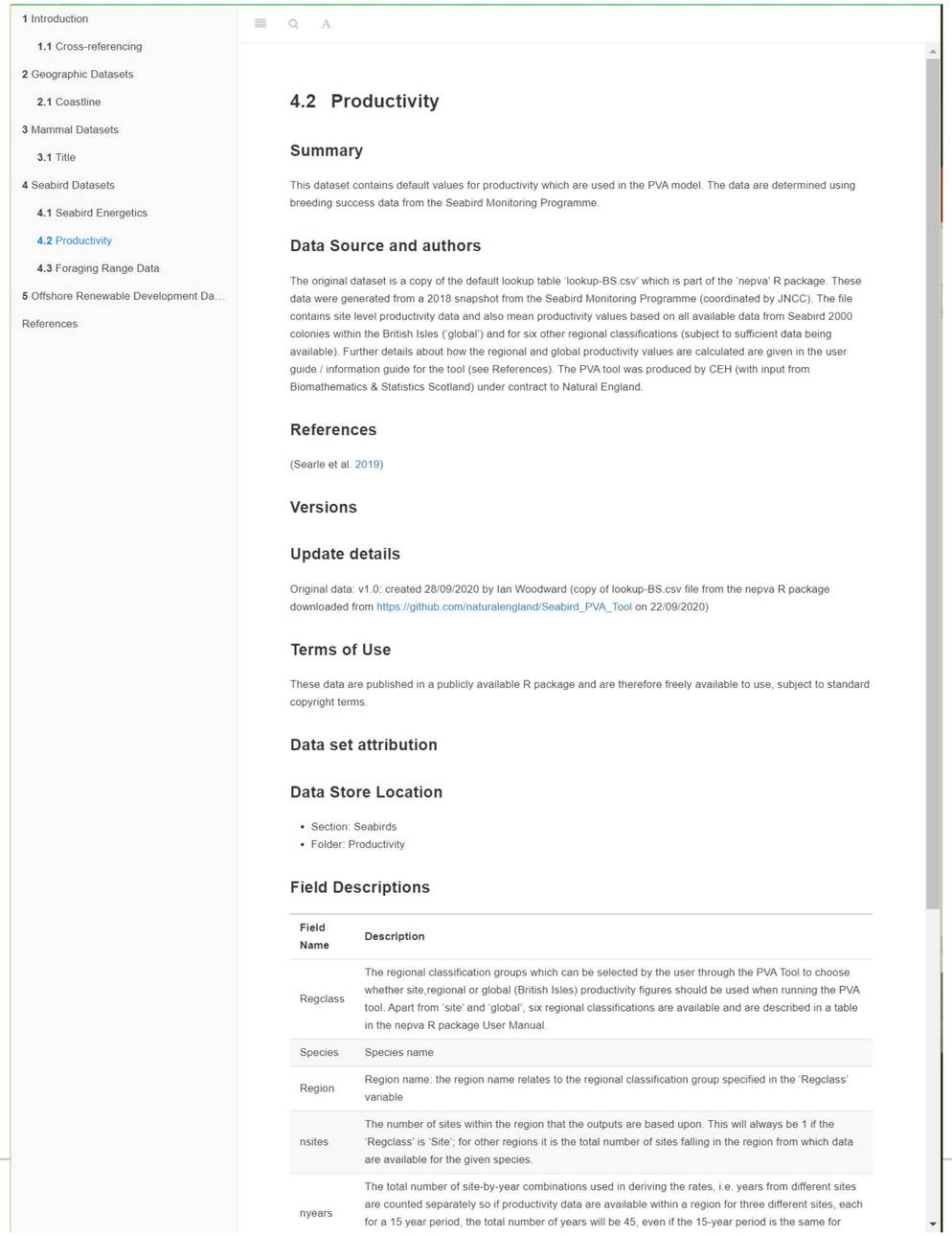


Output is an R markdown file, including writing a table of field descriptions (and potentially displaying some or all of the data if appropriate)

Displayed as a page in the online library, with hyperlinks to/from the CEF interface



Metadata



4.2 Productivity

Summary

This dataset contains default values for productivity which are used in the PVA model. The data are determined using breeding success data from the Seabird Monitoring Programme.

Data Source and authors

The original dataset is a copy of the default lookup table 'lookup-BS.csv' which is part of the 'nepva' R package. These data were generated from a 2018 snapshot from the Seabird Monitoring Programme (coordinated by JNCC). The file contains site level productivity data and also mean productivity values based on all available data from Seabird 2000 colonies within the British Isles ('global') and for six other regional classifications (subject to sufficient data being available). Further details about how the regional and global productivity values are calculated are given in the user guide / information guide for the tool (see References). The PVA tool was produced by CEH (with input from Biomathematics & Statistics Scotland) under contract to Natural England.

References

(Searle et al. 2019)

Versions

Update details

Original data: v1.0: created 28/09/2020 by Ian Woodward (copy of lookup-BS.csv file from the nepva R package downloaded from https://github.com/naturalengland/Seabird_PVA_Tool on 22/09/2020)

Terms of Use

These data are published in a publicly available R package and are therefore freely available to use, subject to standard copyright terms.

Data set attribution

Data Store Location

- Section: Seabirds
- Folder: Productivity

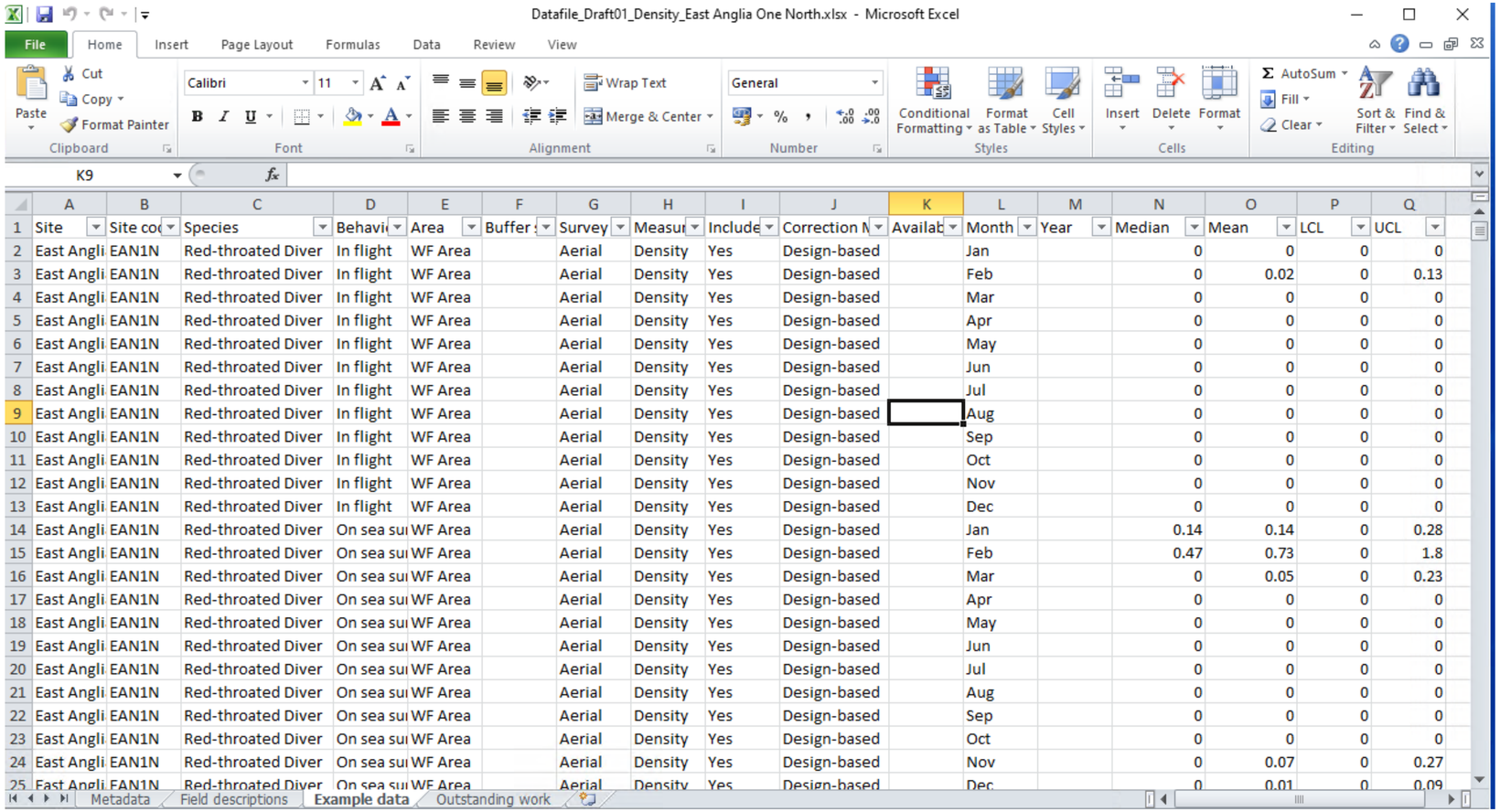
Field Descriptions

Field Name	Description
Regclass	The regional classification groups which can be selected by the user through the PVA Tool to choose whether site,regional or global (British Isles) productivity figures should be used when running the PVA tool. Apart from 'site' and 'global', six regional classifications are available and are described in a table in the nepva R package User Manual.
Species	Species name
Region	Region name: the region name relates to the regional classification group specified in the 'Regclass' variable
nsites	The number of sites within the region that the outputs are based upon. This will always be 1 if the 'Regclass' is 'Site'; for other regions it is the total number of sites falling in the region from which data are available for the given species.
nyears	The total number of site-by-year combinations used in deriving the rates, i.e. years from different sites are counted separately so if productivity data are available within a region for three different sites, each for a 15 year period, the total number of years will be 45, even if the 15-year period is the same for

Bird data - density

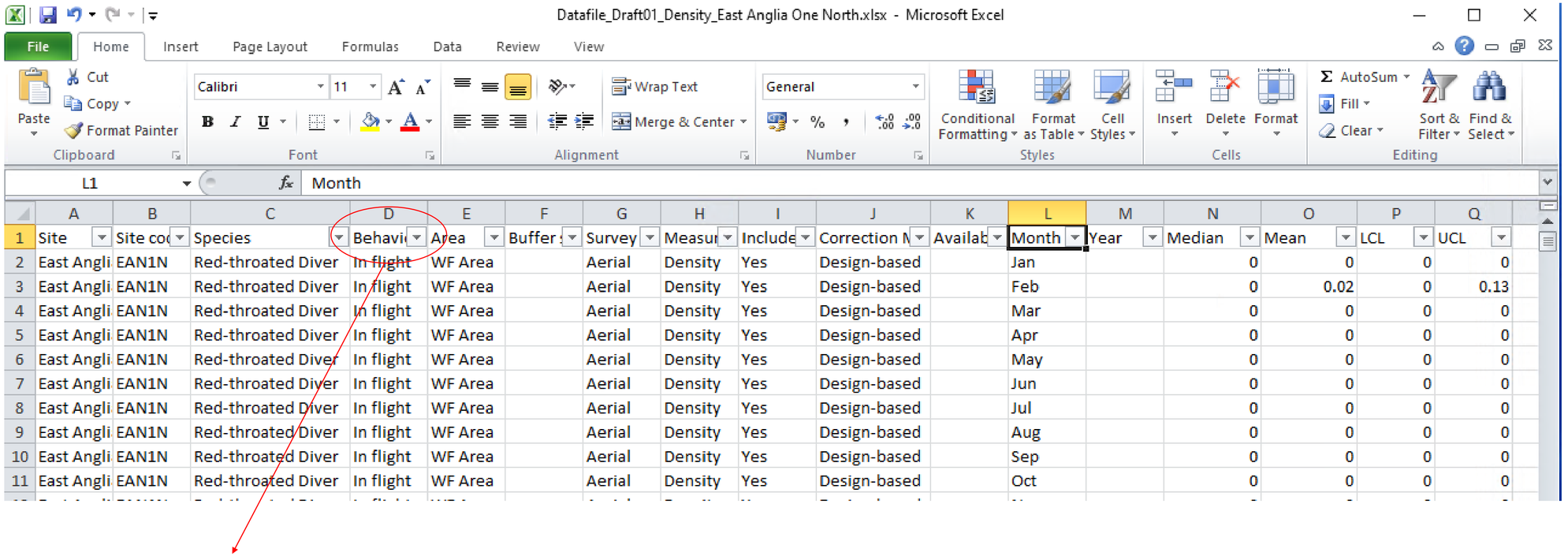
- Inclusive approach – include all types of data, filter at later stage
- Include buffers where available
- Breakdown by birds in flight/on sea surface

Bird data - density



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Site	Site co	Species	Behavi	Area	Buffer	Survey	Measu	Include	Correction M	Availab	Month	Year	Median	Mean	LCL	UCL
2	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Jan		0	0	0	0
3	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Feb		0	0.02	0	0.13
4	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Mar		0	0	0	0
5	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Apr		0	0	0	0
6	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		May		0	0	0	0
7	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Jun		0	0	0	0
8	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Jul		0	0	0	0
9	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Aug		0	0	0	0
10	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Sep		0	0	0	0
11	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Oct		0	0	0	0
12	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Nov		0	0	0	0
13	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Dec		0	0	0	0
14	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Jan		0.14	0.14	0	0.28
15	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Feb		0.47	0.73	0	1.8
16	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Mar		0	0.05	0	0.23
17	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Apr		0	0	0	0
18	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		May		0	0	0	0
19	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Jun		0	0	0	0
20	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Jul		0	0	0	0
21	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Aug		0	0	0	0
22	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Sep		0	0	0	0
23	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Oct		0	0	0	0
24	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Nov		0	0.07	0	0.27
25	East Angli	EAN1N	Red-throated Diver	On sea sur	WF Area		Aerial	Density	Yes	Design-based		Dec		0	0.01	0	0.09

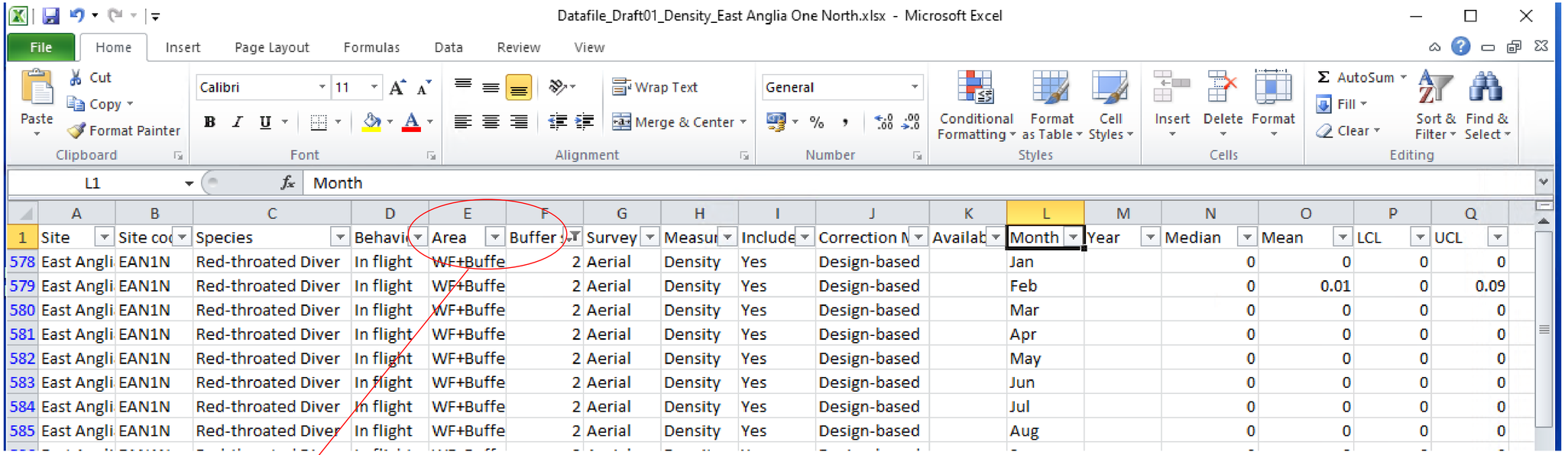
Bird data - density



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Site	Site co	Species	Behavi	Area	Buffer	Survey	Measur	Include	Correction M	Availab	Month	Year	Median	Mean	LCL	UCL
2	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Jan		0	0	0	0
3	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Feb		0	0.02	0	0.13
4	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Mar		0	0	0	0
5	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Apr		0	0	0	0
6	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		May		0	0	0	0
7	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Jun		0	0	0	0
8	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Jul		0	0	0	0
9	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Aug		0	0	0	0
10	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Sep		0	0	0	0
11	East Angli	EAN1N	Red-throated Diver	In flight	WF Area		Aerial	Density	Yes	Design-based		Oct		0	0	0	0

In flight/sea surface/all birds

Bird data - density



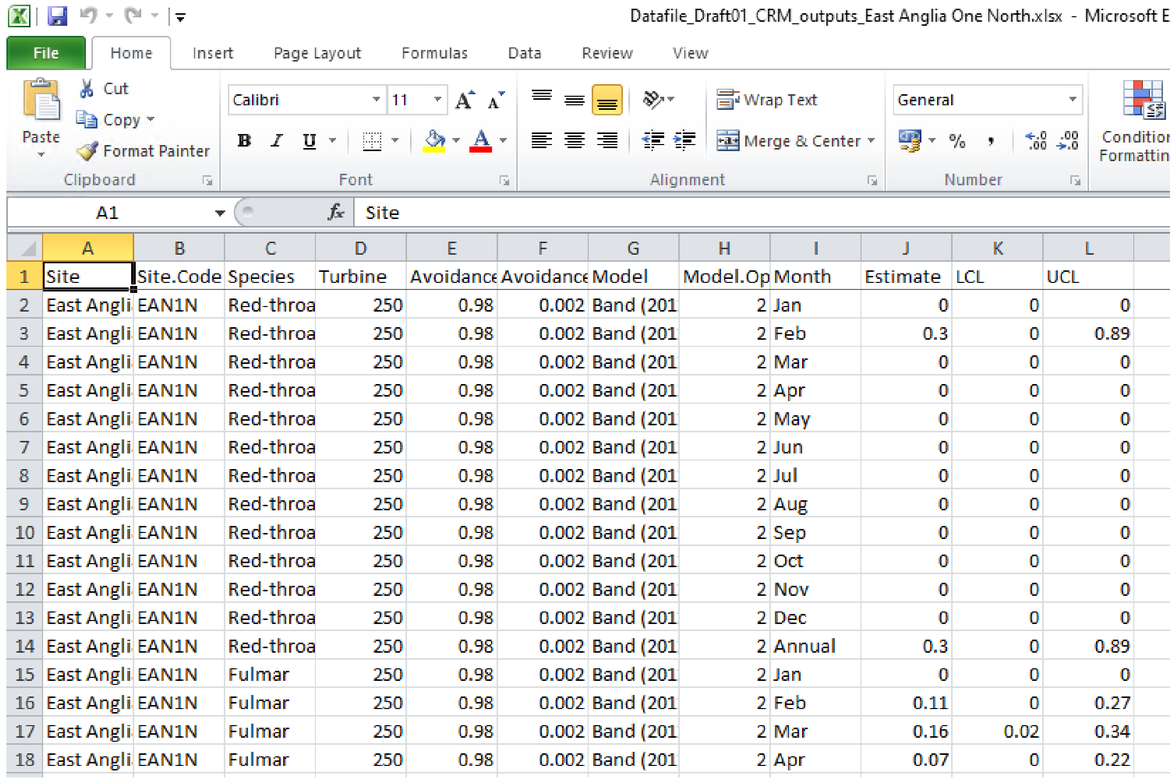
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Site	Site co	Species	Behavi	Area	Buffer	Survey	Measu	Include	Correction M	Availab	Month	Year	Median	Mean	LCL	UCL
578	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Jan		0	0	0	0
579	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Feb		0	0.01	0	0.09
580	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Mar		0	0	0	0
581	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Apr		0	0	0	0
582	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		May		0	0	0	0
583	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Jun		0	0	0	0
584	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Jul		0	0	0	0
585	East Angli	EAN1N	Red-throated Diver	In flight	WF+Buffe	2	Aerial	Density	Yes	Design-based		Aug		0	0	0	0

Wind farm/Wind farm + buffer, different buffer sizes

Bird data - density

- Include results from past assessments

Bird data – CRM Outputs

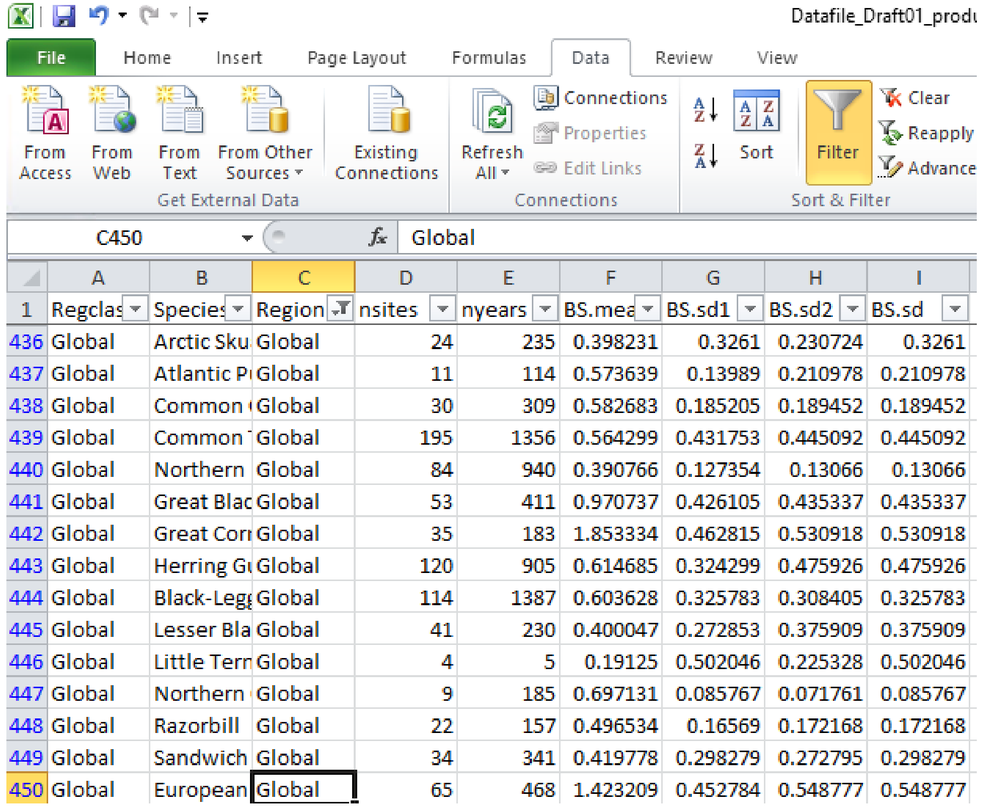


	A	B	C	D	E	F	G	H	I	J	K	L
1	Site	Site.Code	Species	Turbine	Avoidance	Avoidance	Model	Model.Op	Month	Estimate	LCL	UCL
2	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Jan	0	0	0
3	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Feb	0.3	0	0.89
4	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Mar	0	0	0
5	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Apr	0	0	0
6	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	May	0	0	0
7	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Jun	0	0	0
8	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Jul	0	0	0
9	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Aug	0	0	0
10	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Sep	0	0	0
11	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Oct	0	0	0
12	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Nov	0	0	0
13	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Dec	0	0	0
14	East Angli	EAN1N	Red-throa	250	0.98	0.002	Band (201	2	Annual	0.3	0	0.89
15	East Angli	EAN1N	Fulmar	250	0.98	0.002	Band (201	2	Jan	0	0	0
16	East Angli	EAN1N	Fulmar	250	0.98	0.002	Band (201	2	Feb	0.11	0	0.27
17	East Angli	EAN1N	Fulmar	250	0.98	0.002	Band (201	2	Mar	0.16	0.02	0.34
18	East Angli	EAN1N	Fulmar	250	0.98	0.002	Band (201	2	Apr	0.07	0	0.22

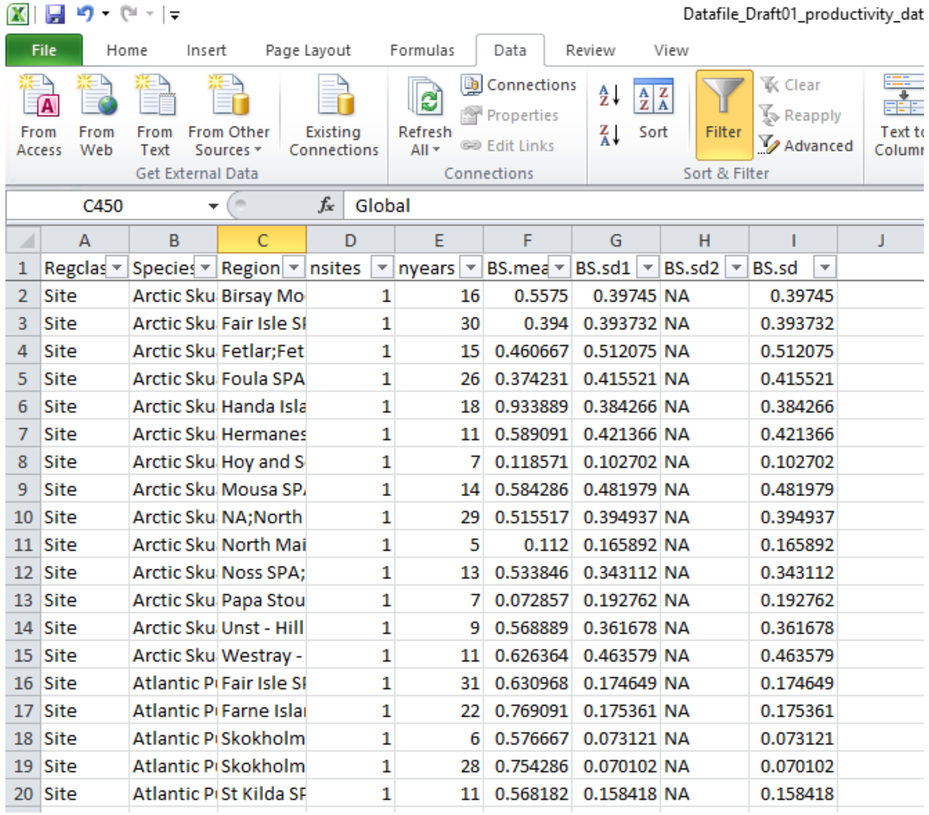
Bird data - density

- Generic & site specific data where available

Bird data - productivity



	A	B	C	D	E	F	G	H	I
1	Regclas	Species	Region	nsites	nyears	BS.mea	BS.sd1	BS.sd2	BS.sd
436	Global	Arctic Sku	Global	24	235	0.398231	0.3261	0.230724	0.3261
437	Global	Atlantic P	Global	11	114	0.573639	0.13989	0.210978	0.210978
438	Global	Common (	Global	30	309	0.582683	0.185205	0.189452	0.189452
439	Global	Common '	Global	195	1356	0.564299	0.431753	0.445092	0.445092
440	Global	Northern	Global	84	940	0.390766	0.127354	0.13066	0.13066
441	Global	Great Blac	Global	53	411	0.970737	0.426105	0.435337	0.435337
442	Global	Great Cor	Global	35	183	1.853334	0.462815	0.530918	0.530918
443	Global	Herring G	Global	120	905	0.614685	0.324299	0.475926	0.475926
444	Global	Black-Leg	Global	114	1387	0.603628	0.325783	0.308405	0.325783
445	Global	Lesser Bla	Global	41	230	0.400047	0.272853	0.375909	0.375909
446	Global	Little Tern	Global	4	5	0.19125	0.502046	0.225328	0.502046
447	Global	Northern	Global	9	185	0.697131	0.085767	0.071761	0.085767
448	Global	Razorbill	Global	22	157	0.496534	0.16569	0.172168	0.172168
449	Global	Sandwich	Global	34	341	0.419778	0.298279	0.272795	0.298279
450	Global	European	Global	65	468	1.423209	0.452784	0.548777	0.548777



	A	B	C	D	E	F	G	H	I	J
1	Regclas	Species	Region	nsites	nyears	BS.mea	BS.sd1	BS.sd2	BS.sd	
2	Site	Arctic Sku	Birsay Mo	1	16	0.5575	0.39745	NA	0.39745	
3	Site	Arctic Sku	Fair Isle SI	1	30	0.394	0.393732	NA	0.393732	
4	Site	Arctic Sku	Fetlar;Fet	1	15	0.460667	0.512075	NA	0.512075	
5	Site	Arctic Sku	Foula SPA	1	26	0.374231	0.415521	NA	0.415521	
6	Site	Arctic Sku	Handa Isla	1	18	0.933889	0.384266	NA	0.384266	
7	Site	Arctic Sku	Hermanes	1	11	0.589091	0.421366	NA	0.421366	
8	Site	Arctic Sku	Hoy and S	1	7	0.118571	0.102702	NA	0.102702	
9	Site	Arctic Sku	Mousa SP/	1	14	0.584286	0.481979	NA	0.481979	
10	Site	Arctic Sku	NA;North	1	29	0.515517	0.394937	NA	0.394937	
11	Site	Arctic Sku	North Mai	1	5	0.112	0.165892	NA	0.165892	
12	Site	Arctic Sku	Noss SPA;	1	13	0.533846	0.343112	NA	0.343112	
13	Site	Arctic Sku	Papa Stou	1	7	0.072857	0.192762	NA	0.192762	
14	Site	Arctic Sku	Unst - Hill	1	9	0.568889	0.361678	NA	0.361678	
15	Site	Arctic Sku	Westray -	1	11	0.626364	0.463579	NA	0.463579	
16	Site	Atlantic P	Fair Isle SI	1	31	0.630968	0.174649	NA	0.174649	
17	Site	Atlantic P	Farne Isla	1	22	0.769091	0.175361	NA	0.175361	
18	Site	Atlantic P	Skokholm	1	6	0.576667	0.073121	NA	0.073121	
19	Site	Atlantic P	Skokholm	1	28	0.754286	0.070102	NA	0.070102	
20	Site	Atlantic P	St Kilda SF	1	11	0.568182	0.158418	NA	0.158418	

Any other bird datasets?

Marine Mammal Data

Datastore MAMMALS

Data type	Example	Agreed source for defaults	Notes
Demographic parameters	Adult, juvenile and calf/pup survival rates by species and management unit	Sinclair, Sparling & Harwood (2020) Review Of Demographic Parameters And Sensitivity Analysis To Inform Inputs And Outputs Of Population Consequences Of Disturbance Assessments For Marine Mammals. Scottish Marine and Freshwater Science Vol 11 No 14, 74pp. DOI: 10.7489/12331-1	• Will incorporate ability to substitute own values for selected parameters • Will not include parameters for whitebeaked, Risso's and common dolphins
Population parameters	Abundance by species and management unit	• IAMMWG Cetacean Management Units – in draft • SCOS 2020 Seal Management Unit abundance	• Will incorporate ability to substitute own values for selected species/MUs • Will not include data for whitebeaked, Risso's and common dolphins

Datastore MAMMALS

Data type	Example	Agreed source for defaults	Notes
Project level impacts	Number of animals predicted to be disturbed/injured	• User submitted for new projects Published ES chapters or later updates for existing projects (e.g. in Piling Strategy (Scotland), Site Integrity Plans or Supplementary Environmental Information submissions for hammer energy variations)	• Will incorporate ability to substitute own values for projects • Datastore will include projects constructed since 2016 • Datastore will include metadata on how numbers were generated • Developers/consultants using tool for their own projects in development – can indicate whether submitted data can be made available to other users • Range of scenarios will be included where possible – eg WC, RWC, ML

Datastore MAMMALS

Data type	Example	Agreed source for defaults	Notes
Project detail – timing of impacts	Piling Schedules	• User submitted for new projects • For existing projects: submitted data with ES/EIAR • Or generated using info provided in ES – (number of piles, piling programme) • Or from data submitted to Marine Noise Registry or in Piling Compliance reports	• Developers/consultants using tool for their own projects in development – can indicate whether submitted data can be made available to other users • Range of scenarios will be included where possible – e.g. WC, RWC, ML

TWG outcomes

1) How would we develop a consistent approach for a future tool aimed at consistent estimation of project level effects?

- No consensus on best approach – pros and cons discussed at length

2) Discussion about replacing Expert Elicitation element within iPCoD with Dynamic Energy Budgets that explicitly model outcome of predicted disturbance on survival and reproduction

- Both have uncertainties and limitations – ideally would like to see comparison

TWG outcomes

3) How would we go about incorporating Risso's, common and white-beaked dolphins into the framework?

- Abundance info is available for these species but on a very large spatial scale (CGNS) – many questioned whether this is appropriate for impact assessment
- No demographic parameter estimates for these species in the North Atlantic
- No data or information to inform predictions of effect on vital rates

4) How would we go about incorporating other stressors into the framework

- Additional direct mortality can be incorporated if there are good estimates
- Identified lots of risk mapping activity that could feed into future tools

Next steps

- Finalise data store
- Check contents
- Agree process for updating with new information