



Fulmar Finders Information United Kingdom 2020 and 2021

(file: FulmarFindersInfo_UK-2020and2021.pdf)

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Wageningen Marine Research



Abstract

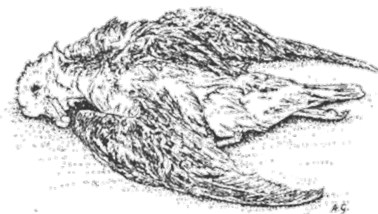
This document is an illustrated report intended for the surveyors in the monitoring program of plastic particles from stomachs of beached Northern Fulmars (*Fulmarus glacialis*). It contains brief summary information and photos of stomach contents from individual birds. The previous report contained only some of birds collected in 2020 because of corona travel restrictions. The current report therefore shows all birds from the UK for 2020 and 2021 (plus a late 2018 bird from Shetland). Low sample sizes are not a problem for the monitoring program although larger sample sizes will increase the potential for statistical analyses. In order to avoid the variability in annual samples, the 'current situation' is viewed as an average over the most recent five consecutive years. During 2017-2021, 84% of 108 fulmar stomachs from the UK North Sea coasts contained plastic with an average per bird of 24 particles and 0.17 g in mass. The Fulmar-Threshold-Value (FTV) of 0.1 g was exceeded by 45% of the stomachs. The international policy aim is that this percentage should be reduced to below 10%. For details on e.g. trends, see the 2021 update of the scientific monitoring report series for the UK.

Citation

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Beached fulmar
 Drawing by Arnold Gronert



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Dear all,

This document intends to inform our project-volunteers about the beached Northern Fulmars which they collected for the study of plastics in stomachs. This monitoring project is commissioned by national and international authorities in order to provide scientific information about current levels of, and trends in the abundance of plastic litter found in the North Sea. This update is the fifth for the UK, providing information on all fulmars found during 2020 and 2021.

We occasionally receive birds without a stomach, but these are also dealt with in this report because we aim to provide a full overview. Please note that we strongly prefer to receive occasional 'empty', old and dirty birds to avoid that any fulmar with stomach would be left on the beach! When in doubt, just collect the bird, and don't be disappointed if the occasional one proves to have no stomach.

We thank all helpers, not only those who found a bird discussed in this report, but all the volunteers who year after year are on the lookout for fulmars suitable for our project. Your individual support represents an important contribution to marine litter policy decisions!

In order to promote the collection of old and smelly corpses, on 15 April 2021 we have placed a message on our dossier www.wur.eu/plastics-fulmars that contains a short video on how to collect a dirty bird with clean hands. The short video is also available on YouTube www.youtube.com/watch?v=QvzadnYkapM

We are extremely thankful for your help,

Susanne Kühn, Jan van Franeker and the local project coordinators Keith Fairclough, Sally Huband, Jenni Kakkonen, Kelly McIntosh, Will Miles & Dan Turner

Beste allen

Dit document beoogt de vrijwilligers te informeren over de verzamelde Noordse Stormvogels voor ons graadmeteronderzoek van plastic in de magen. Deze lange termijn monitoring wordt uitgevoerd op verzoek van nationale en internationale overheden om wetenschappelijke informatie te verschaffen over de huidige situatie en ontwikkeling van plastic zwerfvuil in de Noordzee. Deze update (UK nr 5) betreft alle Noordse stormvogels gevonden in het Verenigd Koninkrijk in 2020 en 2021.

Niet alle vogels hadden een maag, maar we blijven benadrukken, dat we veel liever zo nu en dan een vogel met incomplete of ontbrekende maag op de snijtafel hebben, dan dat er bruikbare stormvogels op het strand blijven liggen! Dus blijf s.v.p. ook oudere vieze kadavers verzamelen zolang je het enigzins mogelijk acht dat de maag nog aanwezig is. Laat een dode stormvogel alleen maar liggen als het echt zeker is dat maag e.d. ontbreekt.

We bedanken iedereen voor de steun aan dit onderzoek: niet alleen de mensen die de hier besproken stormvogels hebben verzameld, maar ook al diegenen die jaar in jaar uit voor ons op de uitkijk zijn en trouw met een plastic verzamelzak naar het strand gaan. De resultaten van al die inspanningen bepalen mede hoe het zwerfvuil-beleid van de Nederlandse en Europese overheden zich ontwikkelt.

Om het verzamelen van oude stinkende kadavers iets minder onaangenaam te maken, hebben we op 15 april 2021 een bericht op ons dossier www.wur.nl/plastics-stormvogels geplaatst met een filmpje met een handleiding hoe je vieze vogels toch met schone handen kunt verzamelen. Het filmpje staat ook op YouTube www.youtube.com/watch?v=7kzh8es7VGA

Met veel dank voor alle hulp,

Susanne Kühn, Jan van Franeker en de plaatselijke project coördinatoren Keith Fairclough, Sally Huband, Jenni Kakkonen, Kelly McIntosh, Will Miles & Dan Turner,

This report provides, for each individual bird, a separate information page with stomach content photos. Pages are also included for birds lacking a stomach or having a stomach without any plastic. Incidental additional pages may be provided to illustrate other remarkable issues. Most abbreviations used to provide information are fairly self-evident or directly explained. However, the acronyms for cause of death are sometimes less straightforward and are explained in the supplementary pages at the end of this document.

Dit rapport bevat voor iedere onderzochte vogel een pagina met detailinformatie en foto's van de maaginhoud. Dus er zijn ook pagina's voor de vogels zonder bruikbare maag of waar de maag geen plastic bevatte. Speciale pagina's kunnen zijn toegevoegd ter illustratie van andere opmerkelijke zaken. De meeste afkortingen op de individuele pagina's zijn min of meer vanzelfsprekend of ter plekke verklaard. Alleen de afkorting voor doodsoorzaak is niet altijd duidelijk voor wat er aan de hand was. Daartoe wordt in een supplement aan het eind van het document uitleg gegeven over gebruikte afkortingen.

For reporting finds and to arrange temporary storage and transport, contact your regional coordinator. If you do not have their contact information, get in touch with the Dutch coordinator to obtain contact details for your area:

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Summary view: Northeast England 2020-2021



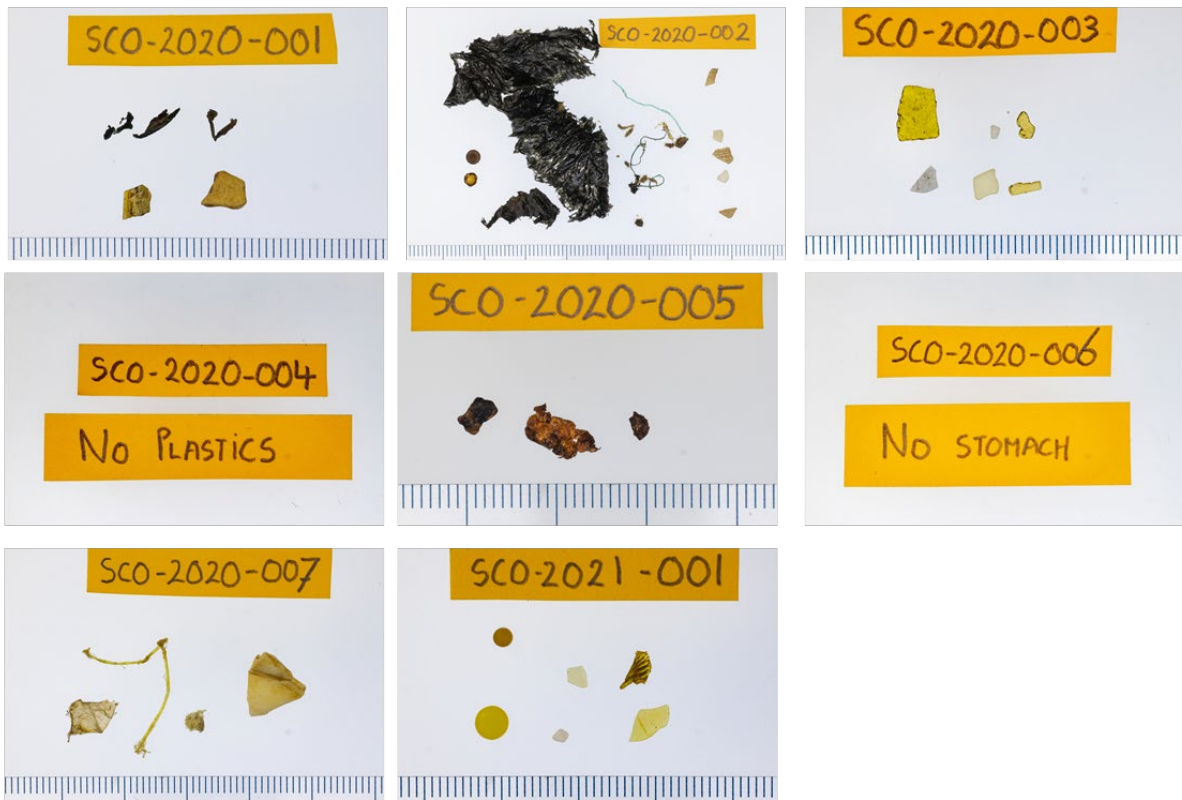
Summary view: Orkney Islands 2020-2021



'Natural' food remains seen in stomach of ORK-2020-002. Probably more 'semi-natural' as the food remains indicate feeding on fisheries offal from gutted large benthic fishes: a large crustacean, a fresh brittle-star, small snails and a small urchin



Summary view: Scotland Mainland 2020-2021



Summary view: Shetland Islands 2020-2021

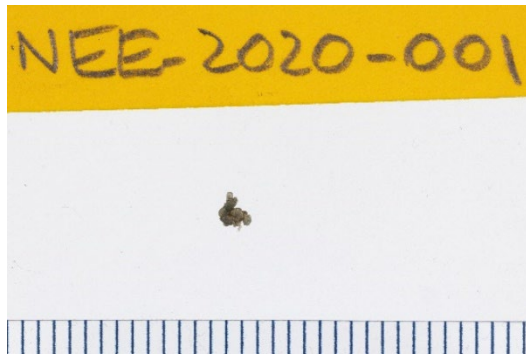


PAGES FOR INDIVIDUAL BIRDS
summary findings from dissection and stomach analyses,
with photos of plastics in the stomachs.
The smaller photos show label with number and a scale bar in mm.

PAGINAS VOOR INDIVIDUELE VOGELS
samengevatte resultaten van dissectie en maaganalyse,
met foto's van de plastics in de magen.
(de kleinere fotos tonen het registratienummer en een schaalverdeling in mm)

Nr: NEE-2020-001

JAFCODE	NEE-2020-001
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay south
Date	27-Apr-2020
Finder	Mo Dewar
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	small lumps on kidney; 1 tailfeather was missing
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0004



Nr: NEE-2020-002

JAFCODE	NEE-2020-002
Country	United_Kingdom
Location	Northeast England; Northumberland; Boulmer
Date	28-Apr-2020
Finder	Mo Dewar
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	2
nr of consumer debris plastic particles	53
Total mass of plastic in stomach (g)	0.1517

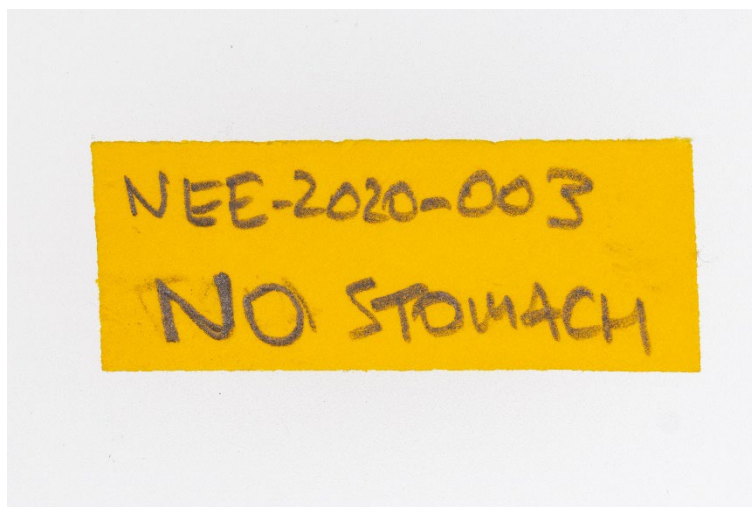


Nr: **NEE-2020-003**

JAFCODE	NEE-2020-003
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay
Date	6-May-2020
Finder	Pauline Gilbertson
Sex (Male, Female or UNKnown)	UNK
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	UNK
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	UNK
Likely cause of death (STA=starvation for unknown reason)	UNK
Notes from dissection	No stomach present; old corpse scavenged and mummified; wing tips had been clipped
nr of industrial plastic pellets	
nr of consumer debris plastic particles	
Total mass of plastic in stomach (g)	

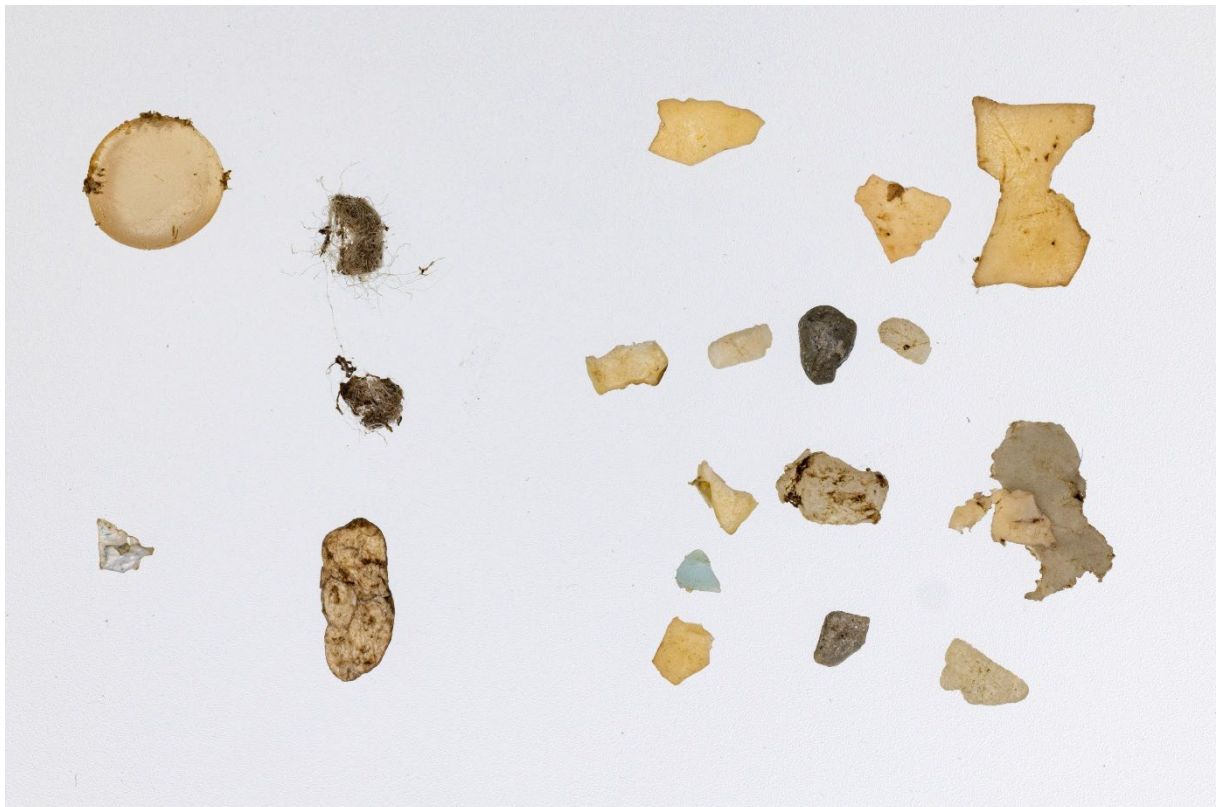
NO STOMACH PRESENT, which means that this bird could not be used for the plastic monitoring program.

However, **please remember** that we ask you to also collect older decayed damaged corpses, as often these may still contain a stomach that contributes to our dataset. We prefer to occasionally receive birds without a stomach, rather than leaving potentially valuable material on the beach. Only leave fulmar corpses at the beach when you are absolutely sure that the full interior has been scavenged.



Nr: NEE-2020-004

JAFCODE	NEE-2020-004
Country	United_Kingdom
Location	England; Cleveland; Redcar
Date	15-Jun-2020
Finder	Martin A. Blick
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	GUT
Notes from dissection	swollen fluid-filled intestines; constipated at end
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	19
Total mass of plastic in stomach (g)	0.0304



Nr: NEE-2020-005

JAFCODE	NEE-2020-005
Country	United_Kingdom
Location	England; Cleveland; Between Redcar and Marske
Date	15-Jun-2020
Finder	Martin A. Blick
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for unknown reason)	CAN
Notes from dissection	2 cancerlike outgrowths on stomach 24 and 13 mm diameter
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0231



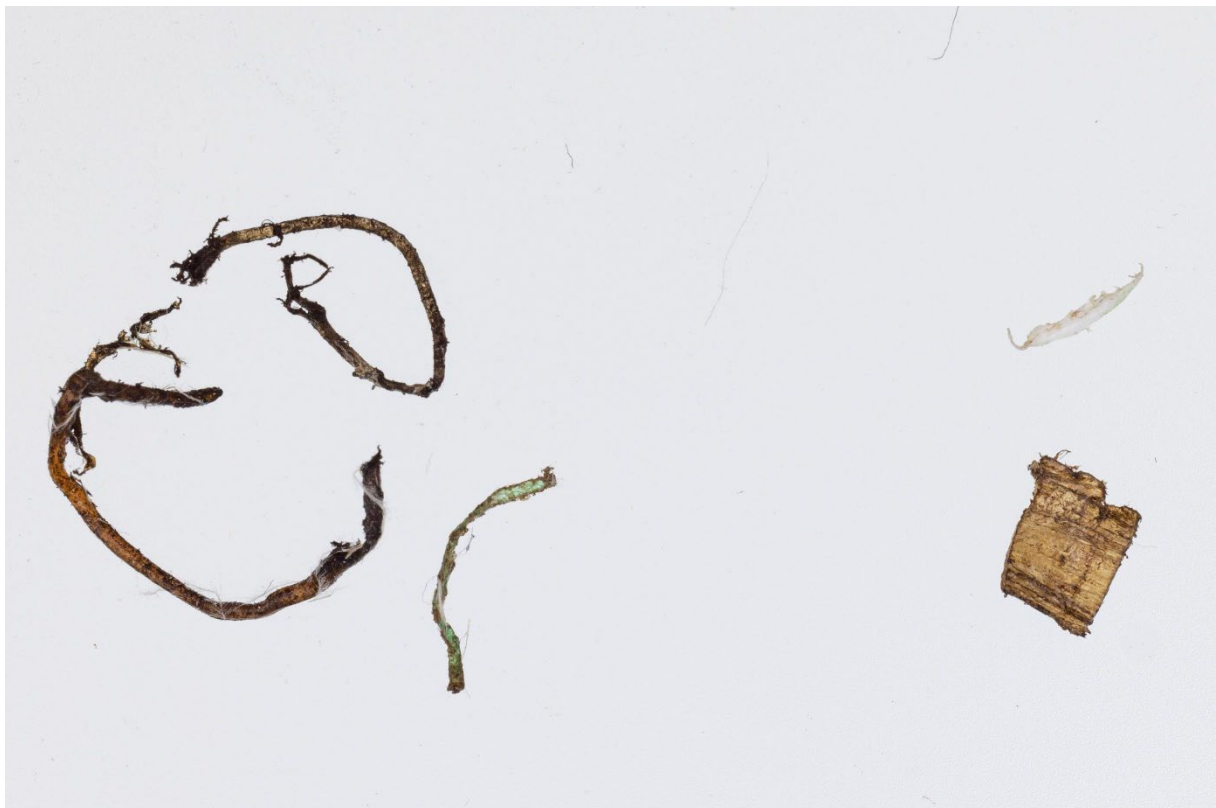
Nr: NEE-2020-006

JAFCODE	NEE-2020-006
Country	United_Kingdom
Location	England; Cleveland; Between Saltburn and Marske
Date	15-Jun-2020
Finder	Martin A. Blick
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	gut and kidney degenerated; damage to bill at gonys;
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0054



Nr: NEE-2021-001

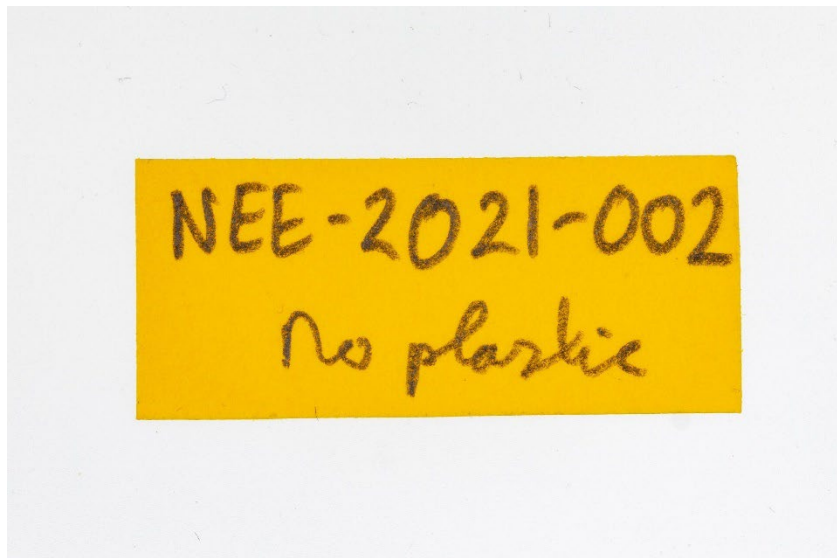
JAFCODE	NEE-2021-001
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay north
Date	07-Feb-2021
Finder	Helen Wilson and Jonathan Darling
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	kept for possible dissection by Adrian Johnstone
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0065



Nr: NEE-2021-002

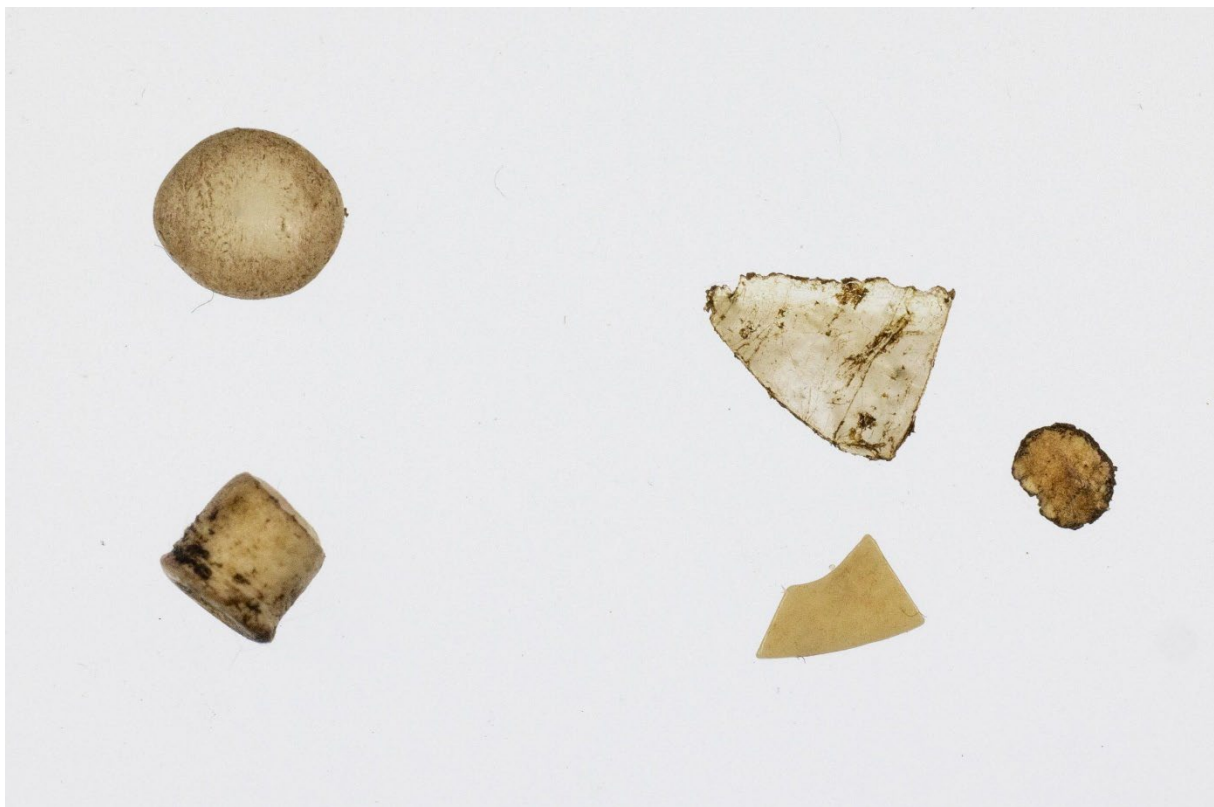
JAFCODE	NEE-2021-002
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay
Date	07-Feb-2021
Finder	Daniel M. Turner
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	PLU
Notes from dissection	somewhat scavenged; with some sand 562g;
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

**In order to avoid misunderstanding:
fulmar corpses that contain a complete stomach but that do not contain any plastic, are equally important to the monitoring scheme as stomachs that do contain plastics!**



Nr: NEE-2021-003

JAFCODE	NEE-2021-003
Country	United_Kingdom
Location	Northeast England; Northumberland; Amble
Date	13-Feb-2021
Finder	Paul Morrison
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	RINGED BIRD London FR578.. (last 2 numbers on ring too worn to allow reading; details will follow); skeleton to Natural History Museum Rotterdam (NMR, curator Willem Beekhuizen)
nr of industrial plastic pellets	2
nr of consumer debris plastic particles	3
Total mass of plastic in stomach (g)	0.0458



Nr: NEE-2021-004

JAFCODE	NEE-2021-004
Country	United_Kingdom
Location	Northeast England; Northumberland; Warkworth to Birling Carrs
Date	26-Feb-2021
Finder	Tom Patterson
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	some gritty stuff near cloaca
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	3
Total mass of plastic in stomach (g)	0.0319



Nr: NEE-2021-005

JAFCODE	NEE-2021-005
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay
Date	06-Apr-2021
Finder	Pauline Gilbertson
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	218
Total mass of plastic in stomach (g)	0.3494



Nr: NEE-2021-006

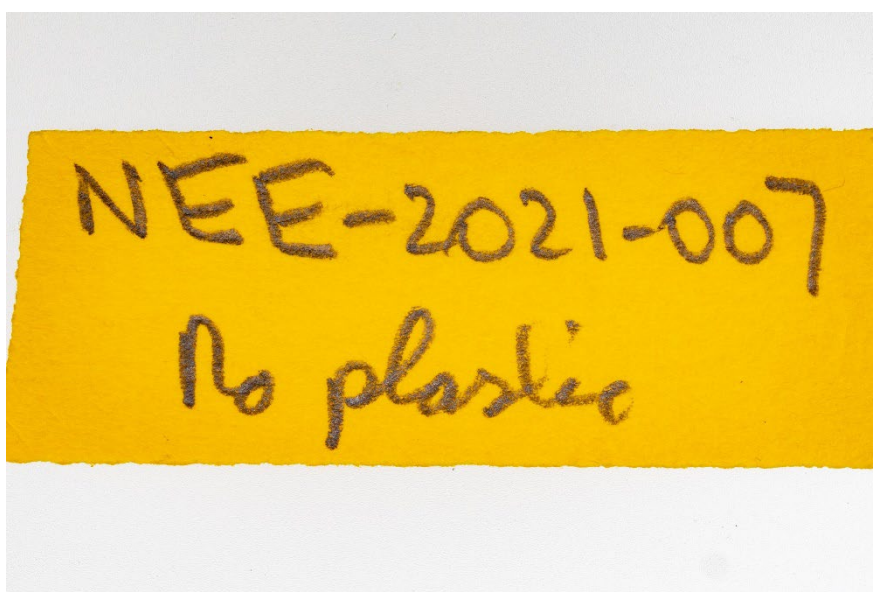
JAFCODE	NEE-2021-006
Country	United_Kingdom
Location	England; Tyne and Wear; Littlehaven, South Shields
Date	06-May-2021
Finder	Matthew Livsey
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	6
Likely cause of death (STA=starvation for unknown reason)	COL
Notes from dissection	broken wing likely cause of death
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	62
Total mass of plastic in stomach (g)	0.1172



Nr: NEE-2021-007

JAFCODE	NEE-2021-007
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay
Date	05-Aug-2021
Finder	Brian Ward and Dan Turner
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	CEM
Notes from dissection	no details on cementcloaca?
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

**In order to avoid misunderstanding:
fulmar corpses that contain a complete stomach but that do not contain any plastic, are equally important to the monitoring scheme as stomachs that do contain plastics!**



Nr: NEE-2021-008

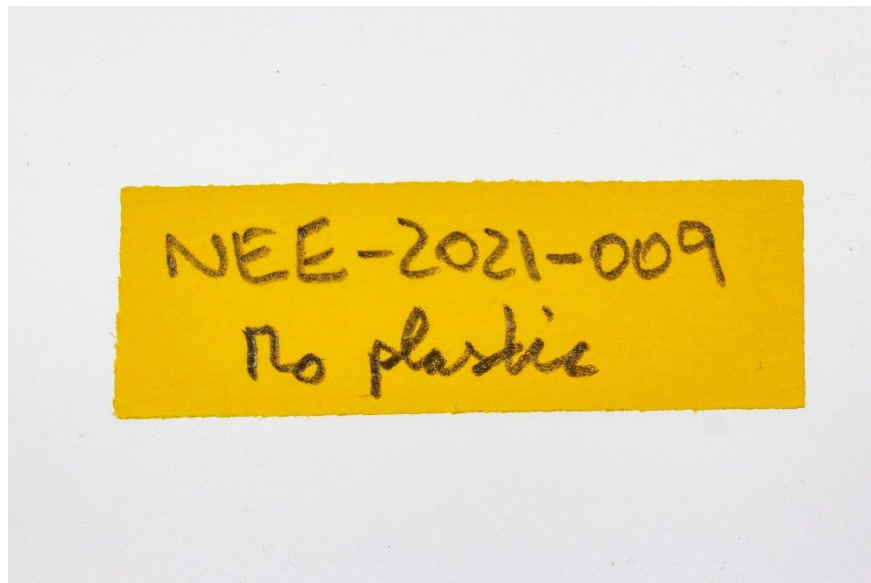
JAFCODE	NEE-2021-008
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay
Date	06-Aug-2021
Finder	Pauline Gilbertson
Sex (Male, Female or UNKnown)	UNK
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	UNK
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	no sex organs found
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	7
Total mass of plastic in stomach (g)	0.0193



Nr: NEE-2021-009

JAFCODE	NEE-2021-009
Country	United_Kingdom
Location	England; Tyne and Wear; Seaburn
Date	04-Sep-2021
Finder	Peter Collins
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	scavenged
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

**In order to avoid misunderstanding:
fulmar corpses that contain a complete stomach but that do not contain any plastic, are equally important to the monitoring scheme as stomachs that do contain plastics!**



Nr: NEE-2021-010

JAFCODE	NEE-2021-010
Country	United_Kingdom
Location	Northeast England; Northumberland; Druridge Bay
Date	05-Sep-2021
Finder	Alan Thompson
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	testis blackish colour and size indicate young (IM?) male
nr of industrial plastic pellets	6
nr of consumer debris plastic particles	31 (includes large sewage wheel biomedica)
Total mass of plastic in stomach (g)	0.7531



Nr: NEE-2021-011

JAFCODE	NEE-2021-011
Country	United_Kingdom
Location	England; Northumberland; Seaton Sluice; Collywell Bay
Date	27-Apr-2021
Finder	Matthew Livsey
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	4
Likely cause of death (STA=starvation for unknown reason)	UNK
Notes from dissection	incomplete damaged corpse
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	7 (a whitish fragment broke in two pieces during cleaning and sorting)
Total mass of plastic in stomach (g)	0.0267



Nr: ORK-2020-001

JAFCODE	ORK-2020-001
Country	United_Kingdom
Location	Orkney South Ronaldsay Widewall Bay
Date	1-Feb-2020
Finder	Martin Gray
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	0
Likely cause of death (STA=starvation for emaciated with unknown reason)	CEM
Notes from dissection	Cement cloaca 30 x 35 mm; soft mustard yellow; liver has dark growth 20 x 10 mm; cancer?
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.1193



Nr: **ORK-2020-002**

JAFCODE	ORK-2020-002
Country	United_Kingdom
Location	Birsay Bay Orkney Mainland
Date	5-Feb-2020
Finder	Keith Fairclough
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	4
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK; reasonable body condition, and natural food remains in stomach indicating offal feeding. (see photo on the summary view page for the Orkney Islands)
Notes from dissection	x
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	9
Total mass of plastic in stomach (g)	0.1366



Nr: ORK-2021-001

JAFCODE	ORK-2021-001
Country	United_Kingdom
Location	Orkney; East Mainland; Deerness; Newark Beach HY570042
Date	22-Feb-2021
Finder	Pauline Wilson
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	3
Total mass of plastic in stomach (g)	0.0567



Nr: **ORK-2021-002**

JAFCODE	ORK-2021-002
Country	United_Kingdom
Location	Orkney South Ronaldsay; Newark Bay HY567040
Date	24-Feb-2021
Finder	Martin Gray
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	0
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	22
Total mass of plastic in stomach (g)	0.1132



Nr: ORK-2021-003

JAFCODE	ORK-2021-003
Country	United_Kingdom
Location	Orkney South Ronaldsay; 4 th Churchill Barrier Beach ND4810495324
Date	19-Mar-2021
Finder	Jo Wells; RSPB
Sex (Male, Female or UNKnown)	UNK
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	0
Likely cause of death (STA=starvation for emaciated with unknown reason)	CEM
Notes from dissection	Cementcloaca 42*20 mm
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0454



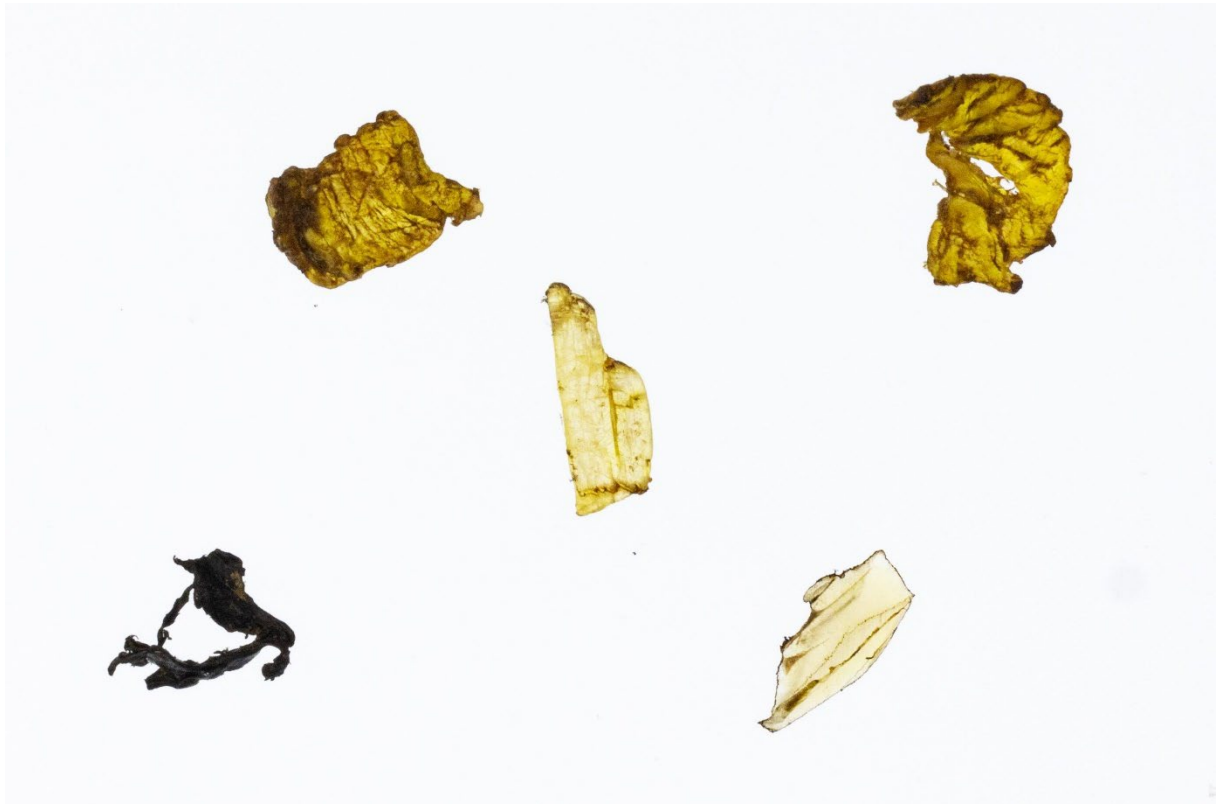
Nr: **ORK-2021-004**

JAFCODE	ORK-2021-004
Country	United_Kingdom
Location	Orkney West Mainland Marwick Bay
Date	07-Nov-2021
Finder	Martin Gray
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	15 includes foam and piece of sticky rubber
Total mass of plastic in stomach (g)	1.047



Nr: ORK-2021-005

JAFCODE	ORK-2021-005
Country	United_Kingdom
Location	Orkney West Mainland Marwick Bay
Date	07-Nov-2021
Finder	Martin Gray
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	2Y
Colourphase (LL, L, D, DD or UNKnown)	L
Condition score (0=fully emaciated to 9=excellent condition)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0223

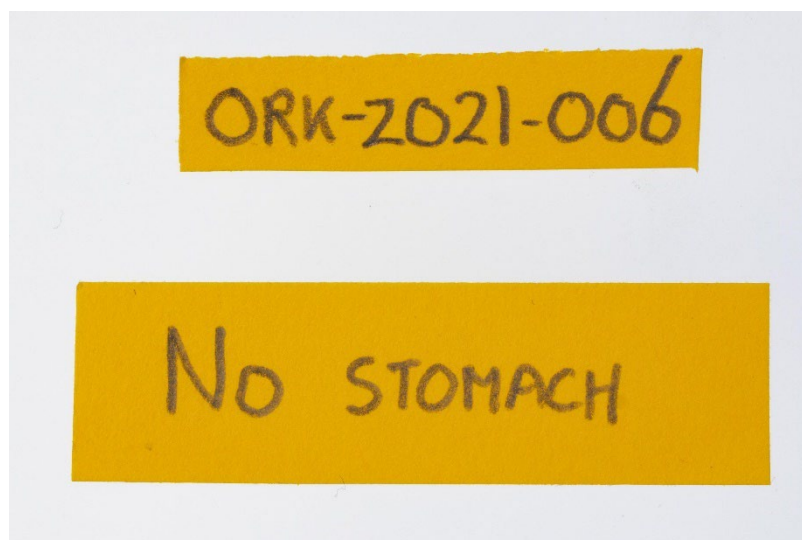


Nr: **ORK-2021-006**

JAFCODE	ORK-2021-006
Country	United_Kingdom
Location	Orkney West Mainland; Bay of Skail HY23208-18767
Date	01-Dec-2021
Finder	Kerry Harris
Sex (Male, Female or UNKnown)	UNK
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	UNK
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	heavily scavenged; no stomach
nr of industrial plastic pellets	
nr of consumer debris plastic particles	
Total mass of plastic in stomach (g)	ORK-2021-006

NO STOMACH PRESENT, which means that this bird could not be used for the plastic monitoring program.

However, **please remember** that we ask you to also collect older decayed damaged corpses, as often these may still contain a stomach that contributes to our dataset. We prefer to occasionally receive birds without a stomach, rather than leaving potentially valuable material on the beach. Only leave fulmar corpses at the beach when you are absolutely sure that the full interior has been scavenged.



Nr: SCO-2020-001

JAFCODE	SCO-2020-001
Country	United_Kingdom
Location	Kiess Beach; Wick; Caithness
Date	19-Jun-2020
Finder	Kelly McIntosh
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	4
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	Small wound on right chest wall - maybe shot injury? kidney; intestines; muscle; liver; feathers; wing collected (DTU)
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0514



Nr: **SCO-2020-002**

JAFCODE	SCO-2020-002
Country	United_Kingdom
Location	Kiess Beach; Wick; Caithness
Date	19-Jun-2020
Finder	via Kelly McIntosh
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	5
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	partly new down on inc patch. Only one testis (right side). kidney; intestines; muscle; liver; feathers; wing collected (DTU)
nr of industrial plastic pellets	2
nr of consumer debris plastic particles	13
Total mass of plastic in stomach (g)	0.2254



Nr: SCO-2020-003

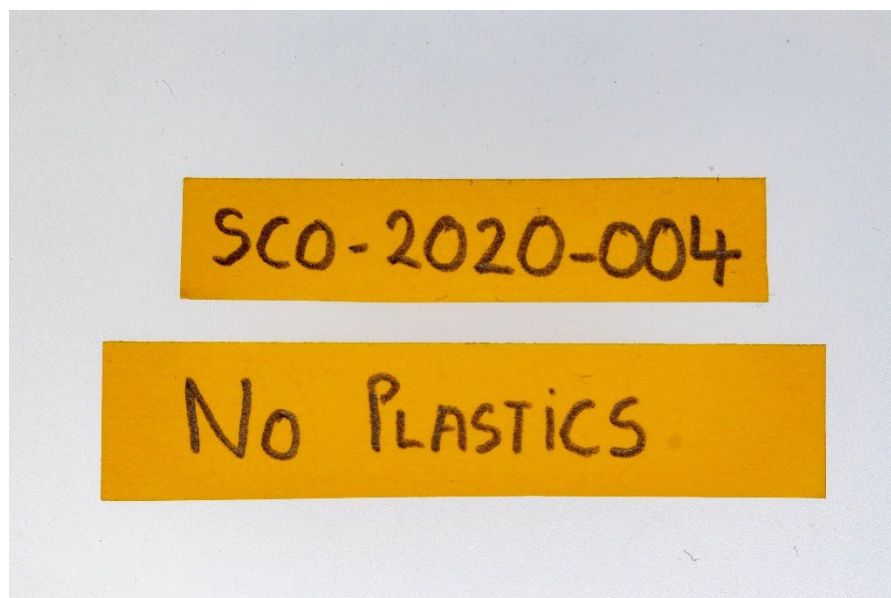
JAFCODE	SCO-2020-003
Country	United_Kingdom
Location	Dunnett Head; Thurso; Caithness
Date	24-Aug-2020
Finder	Samuel Langlos
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	8
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	A very young bird that maybe left colony early for unclear reason. Partly scavenged and mummified. No additional sampling
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	6
Total mass of plastic in stomach (g)	0.0266



Nr: SCO-2020-004

JAFCODE	SCO-2020-004
Country	United_Kingdom
Location	Traigh Mhai Beach; Isle of Lewis
Date	02-Sep-2020
Finder	Shona Morrison
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	8
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	euthanized. Found 29 Aug. 4 days in rehabilitation before death ;Some primaries and tail feathers completely missing? One breast muscle less developed than other. kidney; intestines; muscle; liver; fat feathers; wing collected (DTU)
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

**In order to avoid misunderstanding:
fulmar corpses that contain a complete stomach but that do not contain any plastic, are equally important to the monitoring scheme as stomachs that do contain plastics!**



Nr: SCO-2020-005

JAFCODE	SCO-2020-005
Country	United_Kingdom
Location	Balevullin Beach Tiree
Date	26-Feb-2020
Finder	Cat Spink
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	L
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for emaciated with unknown reason)	CAN (see next page)
Notes from dissection	large cancer tissue mass on skull. See next page. Unusual small individual. Organs scavenged. No additional sampling.
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	3
Total mass of plastic in stomach (g)	0.0162



Nr: SCO-2020-005 continued

We mostly find birds that starved for unclear reasons. However, death cause for this recently fledged bird was an extremely large cancer-like tissue growth on the head. The cancer seemed to originate from the back of the eye or even inside the brain, growing over the saltglands, which are embedded in the skull above the eyes.

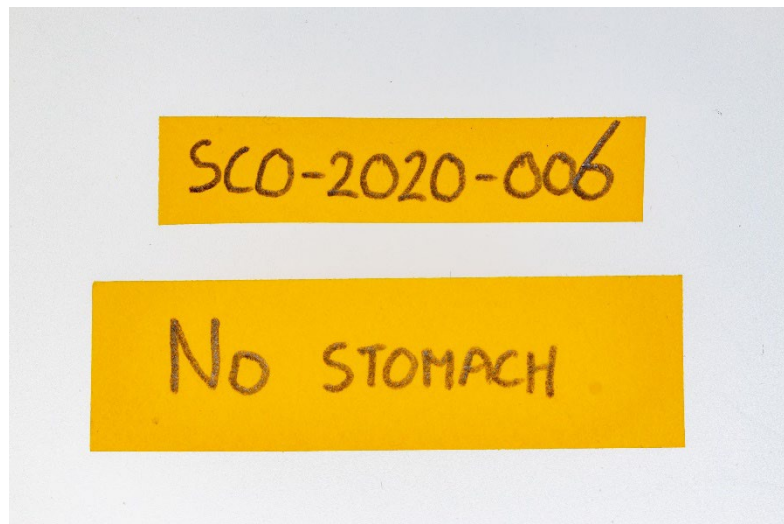


Nr: SCO-2020-006

JAFCODE	SCO-2020-006
Country	United_Kingdom
Location	Balevullin Beach Tiree
Date	26-Feb-2020
Finder	Cat Spink
Sex (Male, Female or UNKnown)	UNK
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	UNK
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	scavenged; no stomach
nr of industrial plastic pellets	
nr of consumer debris plastic particles	
Total mass of plastic in stomach (g)	

NO STOMACH PRESENT, which means that this bird could not be used for the plastic monitoring program.

However, **please remember** that we ask you to also collect older decayed damaged corpses, as often these may still contain a stomach that contributes to our dataset. We prefer to occasionally receive birds without a stomach, rather than leaving potentially valuable material on the beach. Only leave fulmar corpses at the beach when you are absolutely sure that the full interior has been scavenged.



Nr: **SCO-2020-007**

JAFCODE	SCO-2020-007
Country	United_Kingdom
Location	Cross Ness; Isle of Lewis
Date	02-Sep-2020
Finder	Shona Morrison
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	9
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	euthanized. 4 days in rehabilitation before death; Found 29 Aug. yellowish colour head/breast. likely stomach oil. kidney; intestines; muscle; liver; fat feathers; wing collected (DTU)
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0787



Nr: SCO-2021-001

JAFCODE	SCO-2021-001
Country	United_Kingdom
Location	Sandend Beach; Banff
Date	12-Sep-2021
Finder	Vivi Bolin
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	8
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	Kidney; intestines; muscle; liver; fat feathers; wing collected (DTU)
nr of industrial plastic pellets	2
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0502



Nr: **SHE-2018-014**

JAFCODE	SHE-2018-014
Country	United_Kingdom
Location	Meal; Burra; Shetland
Date	31-Dec-2018
Finder	SOTEAG
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	L
Condition score (0=fully emaciated to 9=excellent condition)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	intestines sampled for Dan; 2 tail feathers missing but clearly ripped out
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0354



Nr: SHE-2020-001

JAFCODE	SHE-2020-001
Country	United_Kingdom
Location	Shetland; South Mainland; Grutness
Date	27-Jul-2020
Finder	Helen Moncrieff RSPB
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	damage seems due to scavenging; so post-mortem wounds
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0367



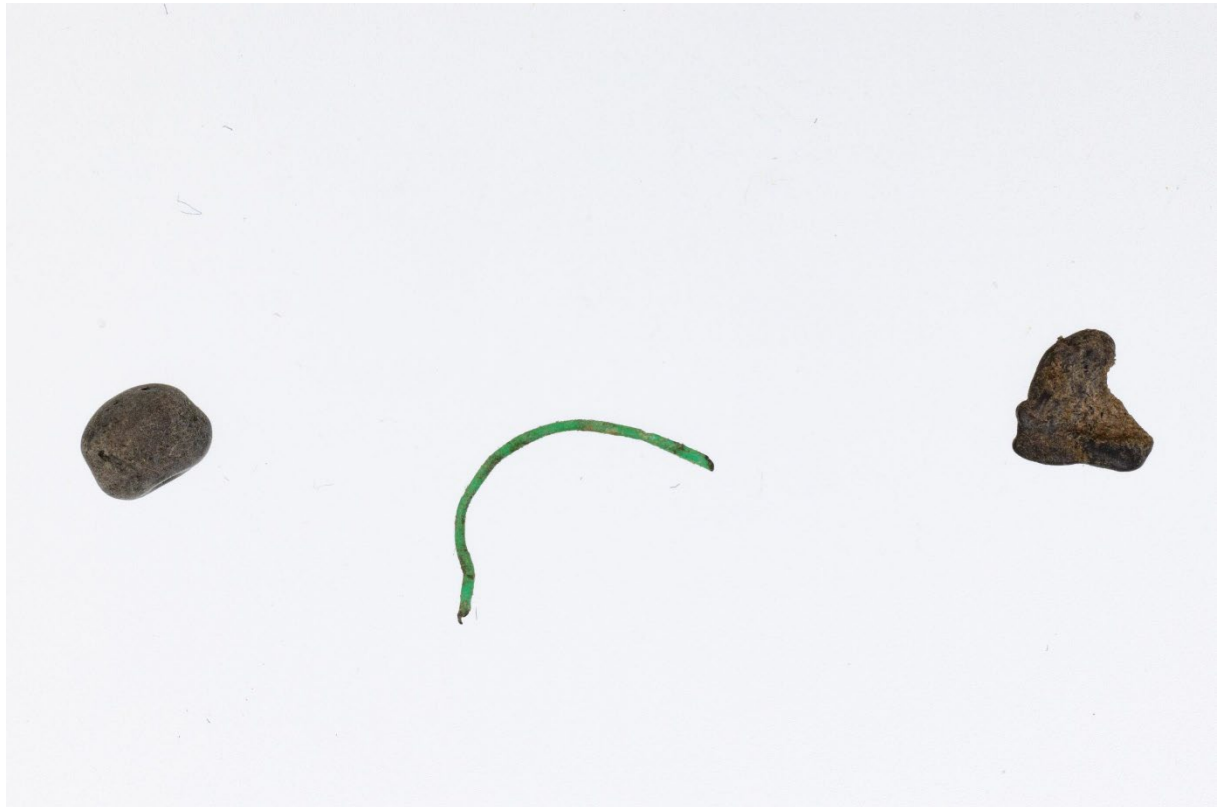
Nr: SHE-2021-001

JAFCODE	SHE-2021-001
Country	United_Kingdom
Location	Urafirth; Shetland
Date	31-Jan-2021
Finder	Will Miles
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	intestines sampled for Dan Turner
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	3
Total mass of plastic in stomach (g)	0.0201



Nr: SHE-2021-002

JAFCODE	SHE-2021-002
Country	United_Kingdom
Location	Bannamann; Burra; Shetland; HU 36493102
Date	28-Mar-2021
Finder	N. Pion
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	CEM
Notes from dissection	cementcloaca and intestines sampled for Dan Turner; cementcloaca size 32*30 mm
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	2
Total mass of plastic in stomach (g)	0.0203



Nr: **SHE-2021-003**

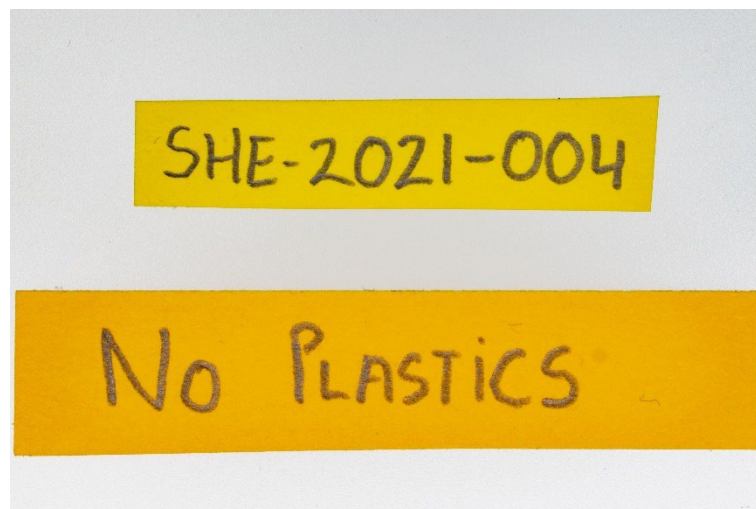
JAFCODE	SHE-2021-003
Country	United_Kingdom
Location	Maywick; Shetland
Date	29-Mar-2021
Finder	M. Mellor
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	intestines sampled for Dan Turner
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	6
Total mass of plastic in stomach (g)	0.2183



Nr: SHE-2021-004

JAFCODE	SHE-2021-004
Country	United_Kingdom
Location	Urafirth; Shetland
Date	30-Mar-2021
Finder	M. Mellor; SOTEAG
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	5
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	intestines sampled for Dan Turner
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

**In order to avoid misunderstanding:
fulmar corpses that contain a complete stomach but that do not contain any plastic, are equally important to the monitoring scheme as stomachs that do contain plastics!**



Supplement individual details (acronyms)

Supplement individuele details (afkortingen)

The ruler in photo's shows mm and cm scaling

De lineaal bij de fotos toont mm en cm schaal

CEM = cementcloaca - cementcloaca

A blockage in the final part of the intestine by a 'hard' egg-shaped ball formed by accumulation of layer upon layer of hardened faeces and ureum. At some stage this completely blocks defaecation, the parts of the intestine above this fill up with digested mud that can't be excreted.

Blokkering van de einddarm met een steenachtige meestal eivormig bal van laag op laag opgehoopte uitwerpselen met ureum. Op zeker moment blokkeert dit de volledige 'stoelgang' en de voorliggende darm zwelt op met darmmateriaal.

COL = collision – botsing

Collision is used when we observe signs of a mechanical death, e.g. broken bones, or internal heavy bruises. These may be caused by collisions with cables, wires, ship- or lighthouse lights, cliff accidents, and also roadkills. Collision may lead to instant death, but also to a slow starvation in birds being injured and alive, but unable to provide themselves with food.

Botsing als doodsoorzaak wordt gebruikt wanneer er tekenen zijn van een 'mechanische' doodsoorzaak, zoals gebroken botten of zware inwendige kneuzingen. Dit kan ontstaan door botsing met kabels, draden, verlichting op schepen of vuurtoren, ongelukken op de klif, maar bv ook verkeersslachtoffers. Botsingen kunnen de onmiddellijke doodsoorzaak zijn, maar kunnen ook leiden tot de hongerdood als een dier niet meer in staat is voldoende voedsel te verzamelen.

DRO = drowning – verdrinking

This is used when the birds appear healthy, and in good body condition, except for bloodfilled or soaked lungs. These things suggest that the bird may have drowned instantly in surface nets. This could also be on longline hooks but without visible damage from the longline (see below).

De term DRO wordt gebruikt als de vogel uitwendig en inwendig gezond oogt en in normale conditie is, maar waarbij bloed in longen of gesprongen aderen een aanwijzing zijn dat de vogel verdronken is. Dat kan in netten zijn, maar ook door lange-lijn-visserij maar zonder zichtbare schade van haken of lijnen (zie hieronder).

LLV = long-line victim Lange-lijn slachtoffer

A specific case of drowning or entanglement. Evidence showing that the bird drowned from longline hooking or entanglement, where birds are drawn down with the hooked line. This may be indicated by hook damage, often in the bill, or in the arm wing, in combination with good body condition, but e.g. fresh blood in lungs and burst internal veins.

Dit is een speciaal geval van verdrinking en verstrikking en wordt gebruikt wanneer uit aanwezigheid van haak en lijn, of daarvoor typerende schade aan snavel of lijf duidelijk is dat de vogel is vastgeraakt aan een beaasde haak en mee onder water is getrokken.

GUT = various internal problems diverse inwendige problemen

This acronym is used for a range of problems observed during autopsy in the internal parts of the bird. This could be serious inflammations, e.g. in the oviduct of females, or serious kidney problems (granular obstructions); malformations, etc., or combinations of such problems. In the case of heavy cancers, the more specific acronym CAN Cancer is used. In general some details will be given under dissection notes.

Deze afkorting wordt gebruikt voor een hele reeks inwendig geobserveerde problemen die als waarschijnlijke doodsoorzaak kunnen worden gezien. Dat kunnen zware ontstekingen zijn, bv in het vrouwelijk oviduct, nierfalen (korrelige structuur) misvormingen, etc. In het geval van grote kanker gezwellen wordt CAN Cancer als meer specifieke afkorting gebruikt. Veelal zal onder de dissectie notities wat meer toelichting worden gegeven.

PLU = plumage – veerkleed

In some cases, birds may have had problems in primary, tail or body feather moult, which has led to such poor plumage that difficulties in flying or water-proofing may be suspected causing excessive energy needs. In other cases, birds seem to suffer from problems with the down feathers, needed for insulation and additional water-proofing. Sometimes down is completely lacking, exposing bare skin immediately below the covers.

Soms hebben vogels ernstige problemen met de rui van vleugel, staart of lichaamsveren. Dit kan tot een dermate slechte toestand van het verenkleed leiden dat gebrekkig vliegvermogen of waterdichtheid van het verenpak hebben geleid tot extreem energieverbruik en de hongerdood. In andere gevallen kan de dons laag onder de dekveren slecht zijn of zelfs ontbreken.

OIL = oiling – Olie

Mineral oil in plumage is likely to have caused disrupted water-proofing of plumage or toxication.

Aardolie vervuiling van het verenkleed heeft waarschijnlijk de dood veroorzaakt, door lekkage van de veren of vergiftiging.

EXT = other external plumage fouling andere uitwendige vervuiling

Substances other than mineral oils, such as vegetable or animal oils, paraffins or complex chemical mixtures may affect birds in similar ways to mineral oil.

Andere substanties dan olie, bijv plantaardige of dierlijke olie, paraffine en chemische mengsels kunnen het verenkleed aantasten op een vergelijkbare manier als aardolie.

ING = ingestion – ingeslikte stoffen

Ingestion of materials is suspected to have caused the death of the bird, e.g. excessive amounts of paraffin or palmfat-like substances, but also extreme accumulation of plastics or other litter.

Het opeten van bepaalde substanties kan soms aangewezen worden als de meest waarschijnlijke doodsoorzaak. Het gaat dan om bijv. extreme hoeveelheden paraffine-achtige of palmolie-achtige stoffen, maar ook om bijv. extreme ophoping van plastics of ander zwerfvuil.

STA = starvation – Verhongering

The bird died slowly from starvation, but it is unknown what has caused this. It may have been prolonged food shortage, but individual problems that cannot be identified during simple autopsies may also play a role. For example one may think of some diseases, undetected injuries, invisible pollution, poisoning or whatever.

Deze term wordt gebruikt als de vogel totaal vermagerd is, zonder dat duidelijk is wat dat heeft veroorzaakt. Dat kunnen ernstige voedseltekorten zijn, maar ook niet direct zichtbare ziektes of verwondingen, vervuiling, vergiftiging e.d.

UNK = unknown – onbekend

Used if we really do not have any clue as to what has caused the death of the bird, which may be the case especially in very old or heavily scavenged corpses.

Dit wordt gebruikt als geen van de bovenstaande afkortingen bruikbaar is, bijvoorbeeld in het geval van extreem oude of totaal leeggevreten kadavers.