



FINDERS INFORMATION NETHERLANDS (2019)

SNS Fulmar Study Report:
FINDERSINFORMATION_NL_6THBATCH2019

Abstract

Report for surveyors in the monitoring program of plastics particles in stomachs of beached northern fulmars (*Fulmarus glacialis*) with short information and photos of stomach contents of individual birds.

Texel, 22 september 2020

Beste allen

Dit document beoogt vrijwilligers te informeren over de door hen verzamelde Noordse Stormvogels in het kader van ons graadmeteronderzoek van plastic in de magen. Dit lange termijn monitoring onderzoek 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 (nr 6) betreft de Noordse stormvogels gevonden in Nederland in 2019, voorafgegaan door een aantal 'laatkomers' uit eerdere jaren die pas dit jaar bij ons binnenkwamen. Vogels uit vroeger jaren worden gewoon aan de database toegevoegd, en kunnen de eerder gepubliceerde resultaten voor die jaren enigszins veranderen.

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 mogelijk acht dat de maag nog aanwezig is. Alleen laten liggen als echt duidelijk 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 zeker 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.

Met veel dank namens alle betrokken regionale en nationale en coördinatoren.

Dear all,

This document intends to inform 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 sixth for the Netherlands and provides information on fulmars found during 2019, preceded by a few birds from earlier years which were only received earlier. These older birds are added to the database which causes small differences between data presented in older and the newest report..

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 in case any that do have a stomach may be left on the beach! So, 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!

We thank you on behalf of all regional and national coordinators.

Liebe Partner im Eissturmvogelprojekt

dieses Dokument soll alle Partner und Sammler über die Eissturmvogel-Spülsaumfunde informieren, die sie für die Analyse von Plastikmüll in den Mägen beigesteuert haben. Dieses Monitoring-Projekt wird im Auftrag nationaler und internationaler Behörden durchgeführt, um wissenschaftliche Informationen hinsichtlich der aktuellen Belastung und der Trends von Plastikmüll in der Nordsee zu liefern.

Dieses Update betrifft Eissturmvögel, die in 2019 in den Niederlanden tot gefunden wurden. Dazu kommen einige Nachzügler aus früheren Jahren, die erst dieses Jahr zu uns gebracht wurden. Solche Vögel werden später in die Datenbank eingefügt und können in manchen Fällen zu leichten Veränderungen früherer Ergebnisse führen.

Ab und zu erhalten wir Vögel ohne Magen, dennoch sind diese ebenfalls im vorliegenden Bericht enthalten, um einen vollständigen Überblick zu ermöglichen. Bitte beachten Sie, dass wir viel lieber ab und zu einen „leeren“ alten und schmutzigen Vogel auf den Sektionstisch bekommen, als dass Vögel mit Magen am Strand liegen bleiben. Das heißt im Zweifelsfall bitte immer den Vogel einsammeln und nicht enttäuscht sein, wenn mal einer ohne Magen dabei ist.

Wir danken allen Unterstützern, nicht nur denjenigen, die einen Vogel für den vorliegenden Bericht beigesteuert haben, sondern allen Partnern und den Sammlern, die Jahr für Jahr die Augen nach geeigneten Eissturmvögeln für unser Projekt offen halten. Ihre individuelle Unterstützung ist ein wichtiger Beitrag für politische Entscheidungen in Sachen Meeresmüll!

Wir danken Ihnen herzlich im Namen aller regionalen und nationalen Koordinatoren.

This report provides a separate information page with stomach content photos for each individual bird. 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.

Dieser Bericht enthält für jeden Vogel eine Seite mit Detailinformationen und Fotos zum Mageninhalt. Dies umfasst auch Vögel ohne Magen oder solche, die kein Plastik im Magen hatten. Gelegentlich gibt es Extra-Seiten, die auf andere Besonderheiten aufmerksam machen. Die meisten, der verwendeten Abkürzungen sind selbsterklärend oder werden direkt erklärt. Die Abkürzungen zur Todesursache mögen zum Teil weniger leicht verständlich sein, weshalb sie im Anhang am Ende dieses Dokuments erklärt werden.

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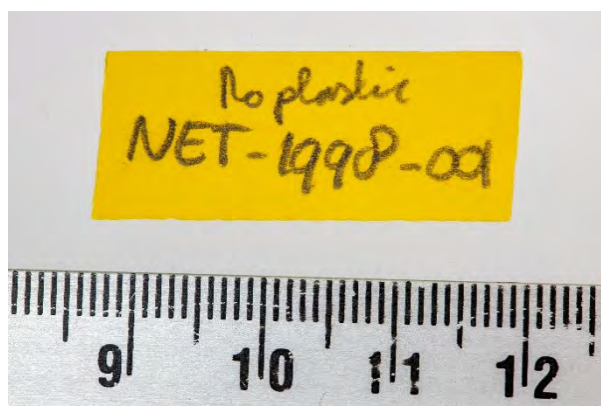


22 september 2020

Nr: NET-1998-001

JAFCODE	NET-1998-001
Country	Netherlands
Location	Ameland not specified
Date	20-Mar-1998
Finder	Hans Spoelstra via Johan Krol
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	D
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for unknown reason)	GUT
Notes from dissection	old freezer search; very light D close to L; somewhat dry after 22 years in freezer; obstipated inflamed gut
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

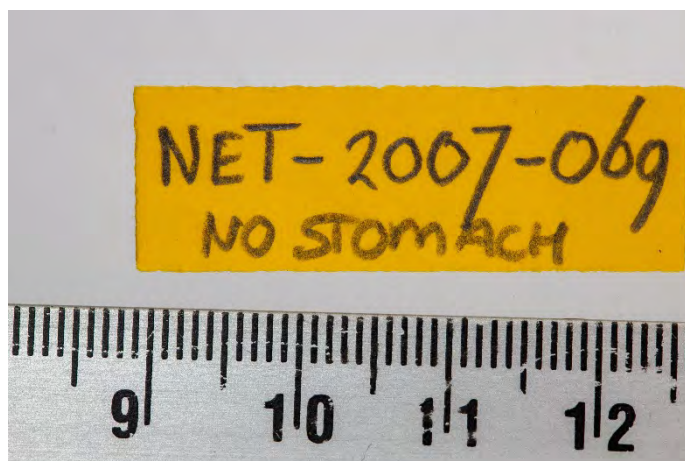
STOMACH CONTAINED NO PLASTICS



Nr: NET-2007-069

JAFCODE	NET-2007-069
Country	Netherlands
Location	Ameland paal 7 tot 11; nr 1 of 2
Date	3-Apr-2007
Finder	Johan Krol
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 emaciated with unknown reason)	UNK
Notes from dissection	scavenged; no stomach present
nr of industrial plastic pellets	No stomach
nr of consumer debris plastic particles	No stomach
Total mass of plastic in stomach (g)	NET-2007-069

SCAVENGED – NO STOMACH PRESENT



Nr: **NET-2007-070**

JAFCODE	NET-2007-070
Country	Netherlands
Location	Ameland paal 7 tot 11; nr 2 of 2
Date	3-Apr-2007
Finder	Johan Krol
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 unknown reason)	STA
Notes from dissection	old freezer search
nr of industrial plastic pellets	3
nr of consumer debris plastic particles	27
Total mass of plastic in stomach (g)	0.5463



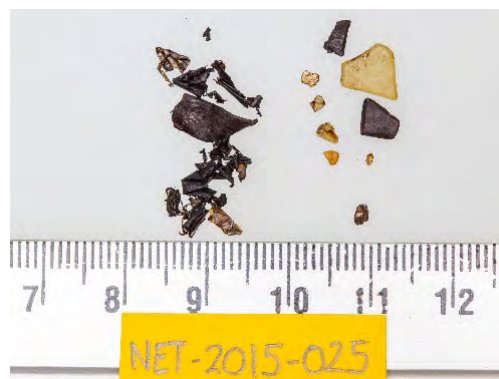
Nr: NET-2007-071

JAFCODE	NET-2007-071
Country	Netherlands
Location	Ameland paal 19
Date	15-Nov-2007
Finder	Johan Krol
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	old freezer search; corpse fairly dry
nr of industrial plastic pellets	12
nr of consumer debris plastic particles	56
Total mass of plastic in stomach (g)	0.5303



Nr: NET-2015-025

JAFCODE	NET-2015-025
Country	Netherlands
Location	Ameland paal 22
Date	19-Apr-2015
Finder	Johan Krol
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)	1
Likely cause of death (STA=starvation for unknown reason)	GUT
Notes from dissection	kidney strongly granular and swollen; kidney failure considered cause of death; old freezer search
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	15
Total mass of plastic in stomach (g)	0.1015



Nr: NET-2018-015

JAFCODE	NET-2018-015
Country	Netherlands
Location	Zeeland Domburg Golfbaan
Date	3-Oct-2018
Finder	via Floor Arts en Pim Wolf
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)	1
Likely cause of death (STA=starvation for unknown reason)	STA
Notes from dissection	use for TV filming by De Monitor - Teun vd Keuken
nr of industrial plastic pellets	6
nr of consumer debris plastic particles	89
Total mass of plastic in stomach (g)	0.7631

This bird was dissected during a film session for the TV program 'De Monitor' by Teun vd Keuken, showed on national television on 15 Sep 2019. The stomach of this bird contained **95 pieces of plastic, with a combined mass of 0.7631 gram**. This is an above average quantity of plastic. In detail plastics were (see photos):

- 6 industrial plastic pellets (left above on photo) and 89 user plastics:
- 4 sheets lower left,
- 47 foamed particles (second row from left),
- 37 hard fragments (third row)),
- 1 piece of red balloon latex ruber (right).



Nr: NET-2019-001

JAFCODE	NET-2019-001
Country	Netherlands
Location	Texel paal 18
Date	4-Jan-2019
Finder	Maarten Brugge
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	lung scavenged
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0221



Nr: NET-2019-002

JAFCODE	NET-2019-002
Country	Netherlands
Location	Ameland paal 14 tot 17 ; of 4 nr 01
Date	7-Jan-2019
Finder	Johan Krol
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)	3
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	2
Total mass of plastic in stomach (g)	0.0082



Nr: NET-2019-003

JAFCODE	NET-2019-003
Country	Netherlands
Location	Ameland paal 14 tot 17 ; of 4 nr 02
Date	7-Jan-2019
Finder	Johan Krol
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)	2
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	14
Total mass of plastic in stomach (g)	0.0381



Nr: NET-2019-004

JAFCODE	NET-2019-004
Country	Netherlands
Location	Ameland paal 14 tot 17 ; of 4 nr 03
Date	7-Jan-2019
Finder	Johan Krol
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 emaciated with unknown reason)	UNK
Notes from dissection	x
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	8
Total mass of plastic in stomach (g)	0.1256



Nr: NET-2019-005

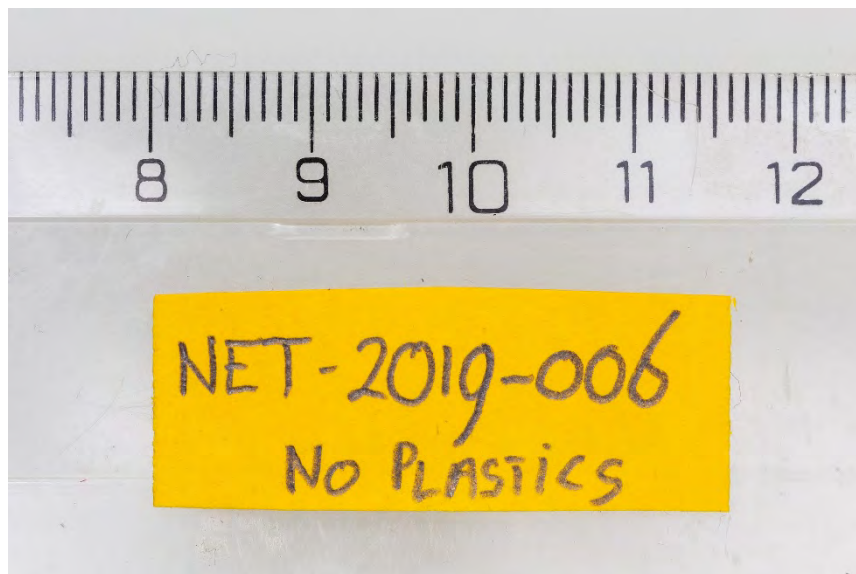
JAFCODE	NET-2019-005
Country	Netherlands
Location	Ameland paal 14 tot 17 ; of 4 nr 04
Date	7-Jan-2019
Finder	Johan Krol
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	x
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	21
Total mass of plastic in stomach (g)	0.0451



Nr: NET-2019-006

JAFCODE	NET-2019-006
Country	Netherlands
Location	Ameland not specified of 2 nr 1
Date	5-Jan-2019
Finder	SBB Ameland
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 28x20
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

STOMACH CONTAINED NO PLASTICS



Nr: NET-2019-007

JAFCODE	NET-2019-007
Country	Netherlands
Location	Ameland not specified of 2 nr 2
Date	5-Jan-2019
Finder	SBB Ameland
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	2Y
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)	PLU
Notes from dissection	x
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0163



Nr: NET-2019-008

JAFCODE	NET-2019-008
Country	Netherlands
Location	Vlieland Vliehors
Date	12-Jan-2019
Finder	Sander Lagerveld
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 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)	0.03



Nr: NET-2019-009

JAFCODE	NET-2019-009
Country	Netherlands
Location	Schiermonnikoog tussen paal 5 en 6.5; of 3 nr 1
Date	15-Jan-2019
Finder	J.A. van Franeker & Yvonne Hermes
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 emaciated with unknown reason)	STA
Notes from dissection	small oil spots on throat and rump
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0067



Nr: **NET-2019-010**

JAFCODE	NET-2019-010
Country	Netherlands
Location	Schiermonnikoog tussen paal 5 en 6.5; of 3 nr 2
Date	16-Jan-2019
Finder	J.A. van Franeker & Yvonne Hermes
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	AD
Colourphase (LL, L, D, DD or UNKnown)	D
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	bursa not recordable due to combi of small (15x15?) cementcloaca and faecaloma
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	12
Total mass of plastic in stomach (g)	0.4193

In the glass jar, stored in ethanol:
 Pieces of balloon rubber
 (latex like materials from stomachs become sticky
 and fluid when exposed to air)

On next page, see unusual
 plastic contents of swollen gut
 and cementcloaca.



NET-2019-010 intestinal plastics

Usually none or only few and small plastics are found in the intestines of fulmars. Once pre-digested food has entered the intestines, passage of digested remains only takes a few hours. So, also plastic, once broken or worn to a size allowing passage from gizzard to intestines, will be quickly excreted back into the environment.

However, in this fulmar, NET-2019-010, a cementcloaca had blocked normal passage of gut contents. Intestines were heavily swollen with accumulated gut material.

Contents, once cleaned and sieved over a 1mm mesh, revealed one industrial pellet and about 65 bits of user plastics.

Remarkably, contents were also sieved over a 0.3mm mesh, but no plastics in the size range 0.3 to 1mm were found.



Nr: NET-2019-011

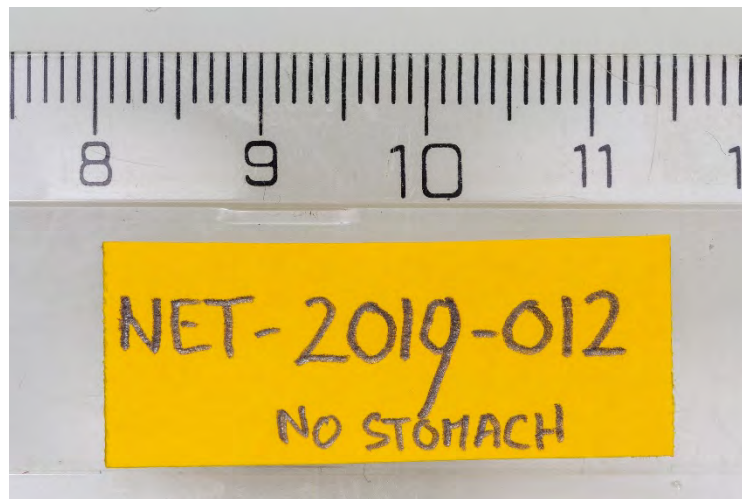
JAFCODE	NET-2019-011
Country	Netherlands
Location	Schiermonnikoog tussen paal 5 en 6.5; of 3 nr 3
Date	17-Jan-2019
Finder	J.A. van Franeker & Yvonne Hermes
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	13
Total mass of plastic in stomach (g)	0.1607



Nr: NET-2019-012

JAFCODE	NET-2019-012
Country	Netherlands
Location	Terschelling Oosterend
Date	18-Jan-2019
Finder	Jacob de Vries
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	D
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	stomach; liver; lung en partly gut scavenged
nr of industrial plastic pellets	
nr of consumer debris plastic particles	
Total mass of plastic in stomach (g)	

Scavenged, no stomach present



Nr: NET-2019-013

JAFCODE	NET-2019-013
Country	Netherlands
Location	Groningen Warffum Kwelders Noordpolder
Date	19-Jan-2019
Finder	Marjolein Postma
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 emaciated with unknown reason)	STA
Notes from dissection	x
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	6
Total mass of plastic in stomach (g)	0.1323



Nr: NET-2019-014

JAFCODE	NET-2019-014
Country	Netherlands
Location	Groningen Pieterburen Linthorst Homan polder binnenkant dijk
Date	20-Jan-2019
Finder	Marjolein Postma
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)	STA
Notes from dissection	x
nr of industrial plastic pellets	3
nr of consumer debris plastic particles	6
Total mass of plastic in stomach (g)	0.1786



Nr: NET-2019-015

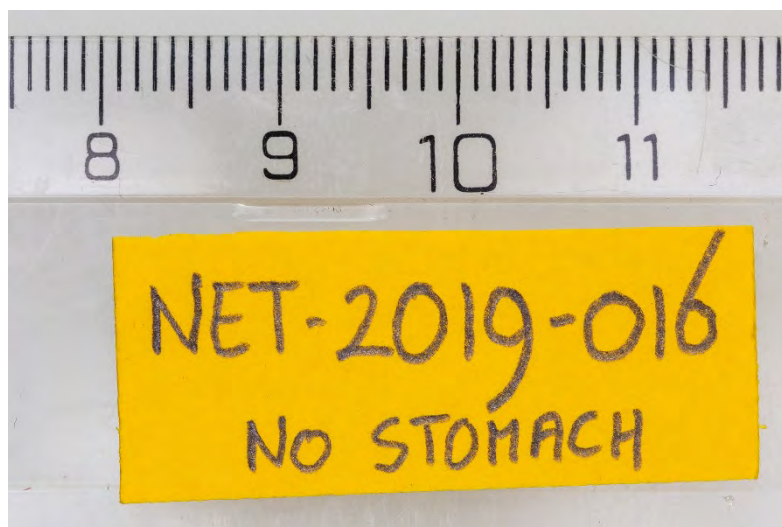
JAFCODE	NET-2019-015
Country	Netherlands
Location	Binnenklinge Den Haag levend via Dierenamb en Asiel de Wulp; overleden
Date	28-Jan-2019
Finder	Huib den Heijer en Sharon Lexmond
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	IM
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	2
Likely cause of death (STA=starvation for emaciated with unknown reason)	PLU
Notes from dissection	kidneys granular in poor condition
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	30
Total mass of plastic in stomach (g)	0.1834



Nr: NET-2019-016

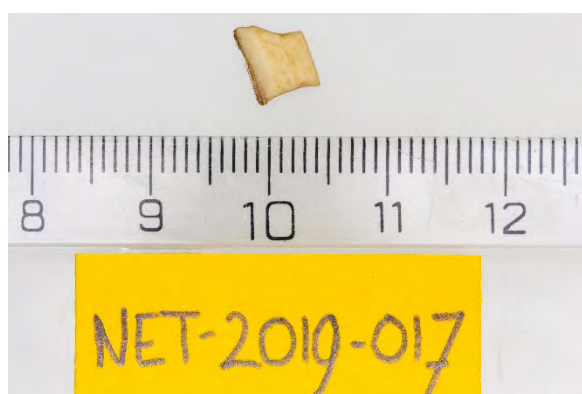
JAFCODE	NET-2019-016
Country	Netherlands
Location	Ameland paal 15
Date	29-Jan-2019
Finder	Johan Krol
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	2Y
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for emaciated with unknown reason)	PLU
Notes from dissection	scavenged no stomach but lots of paraffine out of oesophagus
nr of industrial plastic pellets	
nr of consumer debris plastic particles	
Total mass of plastic in stomach (g)	

Scavenged, no stomach present



Nr: NET-2019-017

JAFCODE	NET-2019-017
Country	Netherlands
Location	Texel paal 17
Date	30-Jan-2019
Finder	Daphna Lavy
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	heavily scavenged no liver lung gut but miraculously stomach remaining
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.023



Nr: NET-2019-018

JAFCODE	NET-2019-018
Country	Netherlands
Location	Callantsoog Noord-Holland
Date	31-Jan-2019
Finder	Job ten Horn en Sanne van den Berg-Blok
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	heavily scavenged but stomach present; had already been wing clipped before collection by Job
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	18
Total mass of plastic in stomach (g)	0.1527



Nr: NET-2019-020

JAFCODE	NET-2019-020
Country	Netherlands
Location	Texel paal 19
Date	12-Feb-2019
Finder	Maarten Brugge
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)	1
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	13
Total mass of plastic in stomach (g)	0.2285



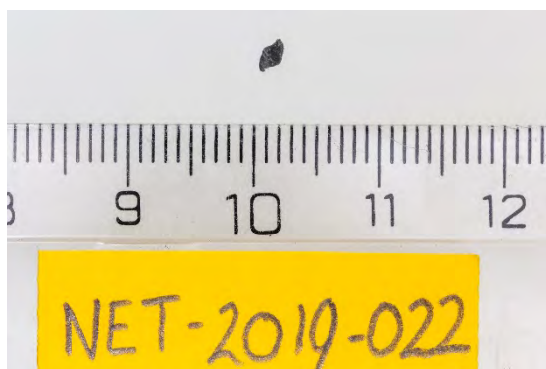
Nr: NET-2019-021

JAFCODE	NET-2019-021
Country	Netherlands
Location	Texel paal 15
Date	14-Jan-2019
Finder	Ecomare Mariette Smit
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)	8
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	stomach and probably gut heavily filled with probably paraffin
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	11
Total mass of plastic in stomach (g)	0.0986



Nr: NET-2019-022

JAFCODE	NET-2019-022
Country	Netherlands
Location	Strand Ijmuiden
Date	15-Jan-2019
Finder	Jurgen.rotteveel@gmail.com
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)	9
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK (but see stomach content)
Notes from dissection	stomach heavily filled with probably paraffin photos taken
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0016



The stomach was completely filled with paraffin or palmfat like substance. In this case, considering the otherwise fine body condition of the bird, this substance may have played a role in almost immediate death after ingestion. Only one small plastic item was found in the stomach.



Nr: NET-2019-023

JAFCODE	NET-2019-023
Country	Netherlands
Location	Engelsmansplaat
Date	20-May-2019
Finder	Arjen Dijkstra & Elisa Bravo Rebolledo
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	proventriculus has a hard part; maybe cancer-like grown to ribcage but not considered cause of death
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	11
Total mass of plastic in stomach (g)	0.114



NET-2019-023 intestinal plastics



To the left plastics from the intestines retained on a 1.0 mm sieve, to the right a single smaller fragment retained on a 0.3 mm sieve.



Nr: NET-2019-024

JAFCODE	NET-2019-024
Country	Netherlands
Location	Texel paal 17
Date	31-Mar-2019
Finder	Job ten Horn en Suse Kühn
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	GUT
Notes from dissection	strongly granular kidney likely trigger to starvation
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	8
Total mass of plastic in stomach (g)	0.0184

The fibres on the right were initially suspected to originate from a cigarette filter (filters are mostly made from a plastic (cellulose-acetate)). However, analysis by FTIR later showed that it was probably hair or wool, so it is not included in number or mass data for plastics.



Nr: NET-2019-025

JAFCODE	NET-2019-025
Country	Netherlands
Location	Texel paal 11
Date	29-Mar-2019
Finder	Sytske Dijkse
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)	GUT
Notes from dissection	inflamed yellowish filled and swollen follicle and oviduct
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0629



Nr: NET-2019-026

JAFCODE	NET-2019-026
Country	Netherlands
Location	Texel paal 16
Date	9-Mar-2019
Finder	Maarten Brugge
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	only one feather field strongly (internal?) moulting; not anywhere else
nr of industrial plastic pellets	3
nr of consumer debris plastic particles	19
Total mass of plastic in stomach (g)	0.0941



Nr: NET-2019-027

JAFCODE	NET-2019-027
Country	Netherlands
Location	Eemshaven of 2 nr 1
Date	12-Jan-2019
Finder	Arnout de Vries Zeehondencentrum
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	GUT
Notes from dissection	extremely large old deep ulcer low in proventriculus created almost a second gizzard like space complicating normal food passage
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	18
Total mass of plastic in stomach (g)	0.2084

Note the nylon line in the top right of the photo. The shape strongly points at the nylon line around a longline fishing hook. At hauling of the line, or when removing it from the fish, pieces of line with still baited hooks may be lost. If there is no tension on the line, this does not puncture the stomach of the bird. The metal hook degrades relatively quickly, but the nylon line remains for a long time.



Nr: NET-2019-028

JAFCODE	NET-2019-028
Country	Netherlands
Location	Eemshaven of 2 nr 2
Date	12-Jan-2019
Finder	Arnout de Vries Zeehondencentrum
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	CAN
Notes from dissection	big cancer-like tissue growth around the cloaca; swollen intestines may indicate problems in defaecation.
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0456



Nr: NET-2019-029

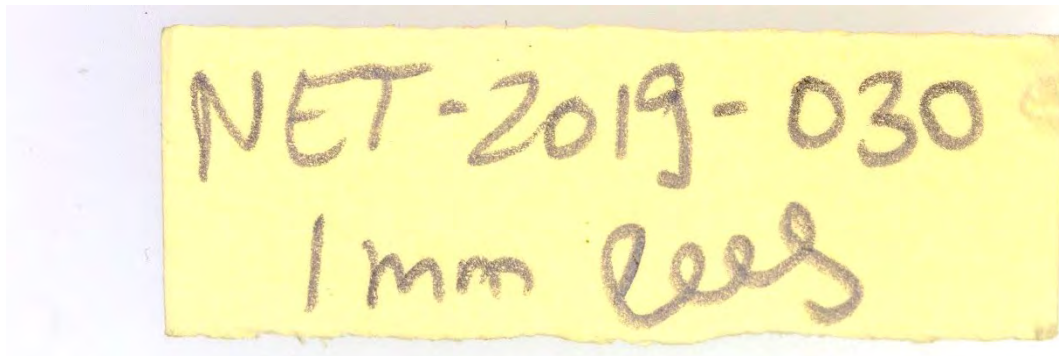
JAFCODE	NET-2019-029
Country	Netherlands
Location	Zeeland Schouwen between Westenschouwen and Haamstede
Date	16-Jan-2019
Finder	Maarten Sluijter
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	8
Likely cause of death (STA=starvation for emaciated with unknown reason)	DRO
Notes from dissection	fine body condition except lungs suggests instant drowning
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0001



Nr: NET-2019-030

JAFCODE	NET-2019-030
Country	Netherlands
Location	Terschelling of 2 nr 1
Date	26-Mar-2019
Finder	Jacob de Vries
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)	GUT
Notes from dissection	kidney in very poor granular condition likely cause to starvation; large creamy testis indicates breeding
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	0

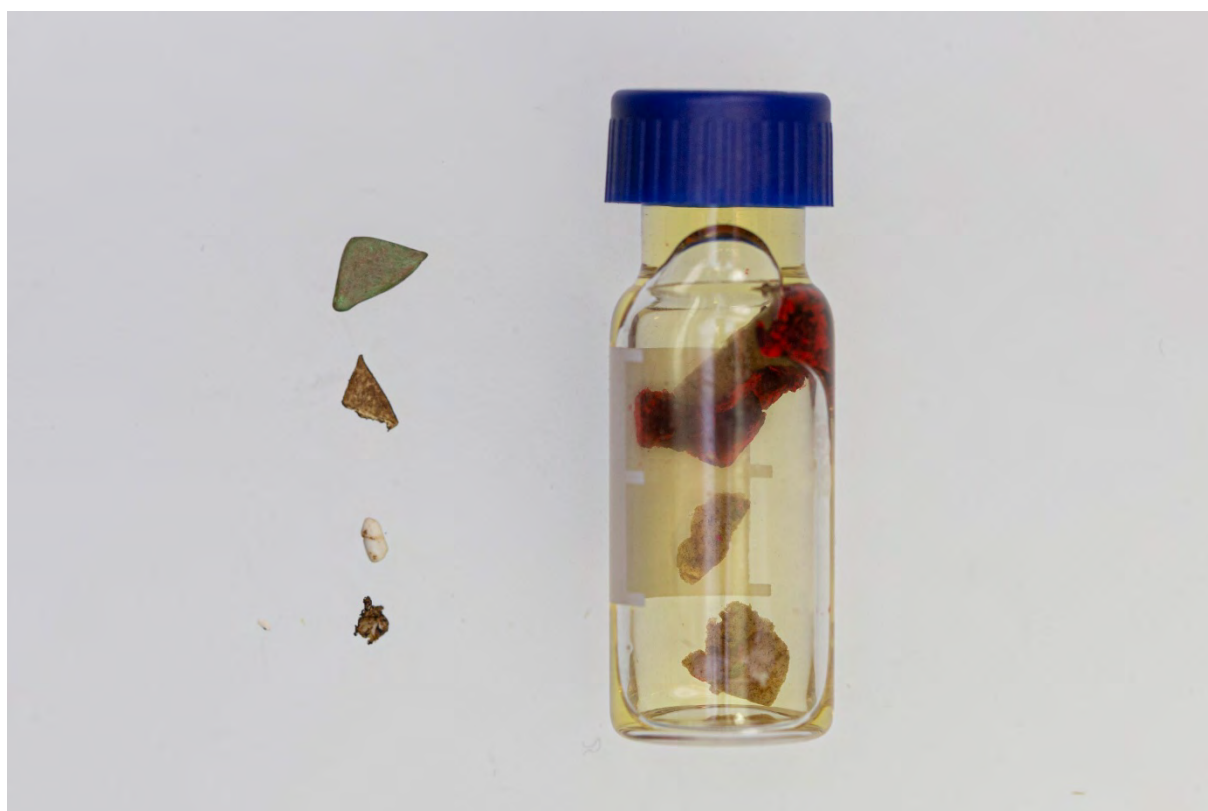
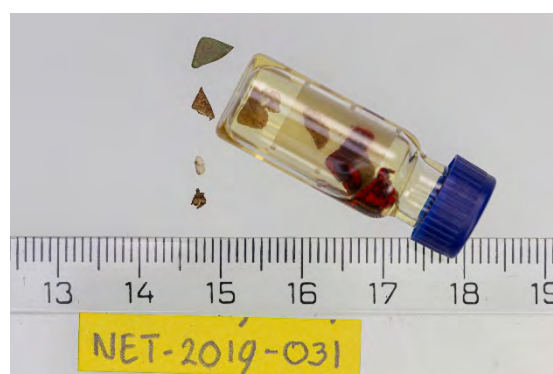
STOMACH CONTAINED NO PLASTICS



Nr: NET-2019-031

JAFCODE	NET-2019-031
Country	Netherlands
Location	Terschelling of 2 nr 2
Date	26-Mar-2019
Finder	Jacob de Vries
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	starved for unclear reasons
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	10
Total mass of plastic in stomach (g)	0.0641

In the glass jar, two types of rubber, latex like but source uncertain.



Nr: NET-2019-032

JAFCODE	NET-2019-032
Country	Netherlands
Location	alive but weak; liquid feeding led to REG incl. plastic; CO2euthanised 3hr
Date	27-May-2019
Finder	Ecomare Jasmijn Hulleman
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)	2
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	brought in alive; regurgitated some plastic at liquid admin; died within 3 hrs
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	84
Total mass of plastic in stomach (g)	0.231

This bird was dissected on camera with presenter Jonata Taal for the television program 'De Buitendienst' (...2019). The bird was a young female that was not up to harsh conditions in her first winter and was brought fully emaciated to the rehabilitation center of Ecomare on Texel. In an attempt to administer some liquid, the bird vomited some plastic items and died a few hours later. In total no less than 85 pieces of plastics were found weighing 0.2310 gram, which is a bit above the 2015-2019 Dutch average of 0.020 g. Maybe this was not a very strong example for the TV camera, but a proper reflection of reality! Note the clothing label tag.



Non-plastic litter (on right side of small inset above) was:

- fibrous paper remains
- horticulture clay-pellet

natural food remains found were: (small photo to the right)

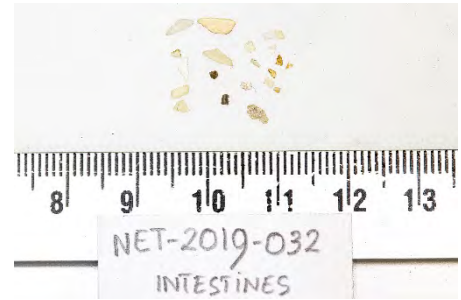
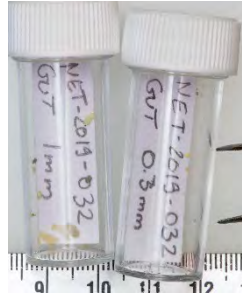
- left: bristle-worm jaws (Nereis)
- middle fish-eyelens and remains of a fish parasite
- right pieces of tracheal rings of a songbird

(many songbirds migrating over the North Sea die and become victim to gulls and fulmars)



NET-2019-032 intestinal plastics

In the intestines of NET-2019-032 not only 20 fragments of plastic were found on the 1.0mm sieve, but an additional 53 particles were retained on the 0.3mm sieve, including 2 microbeads, the only ones found in fulmars of 2019.



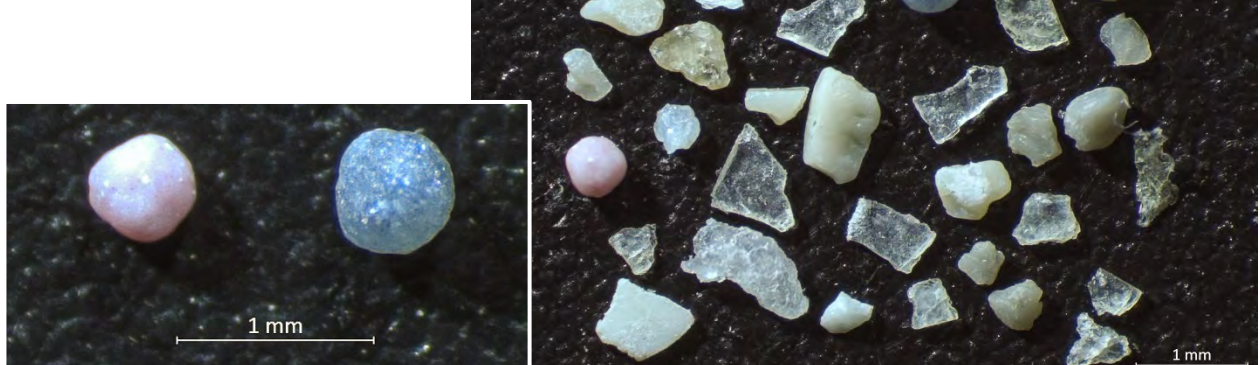
Special attention was paid to such small round particles, as the containership ZOE had lost about 11 tons of so called EPS granules (later to be inflated to polystyrene foam), which have such size and shape. Zoe granulate however was white, and the coloured ones encountered in this fulmar must have another source.

Plastics retained on the 1.0 mm sieve

(photos through Zeiss Microscope; mm scale bottom right)

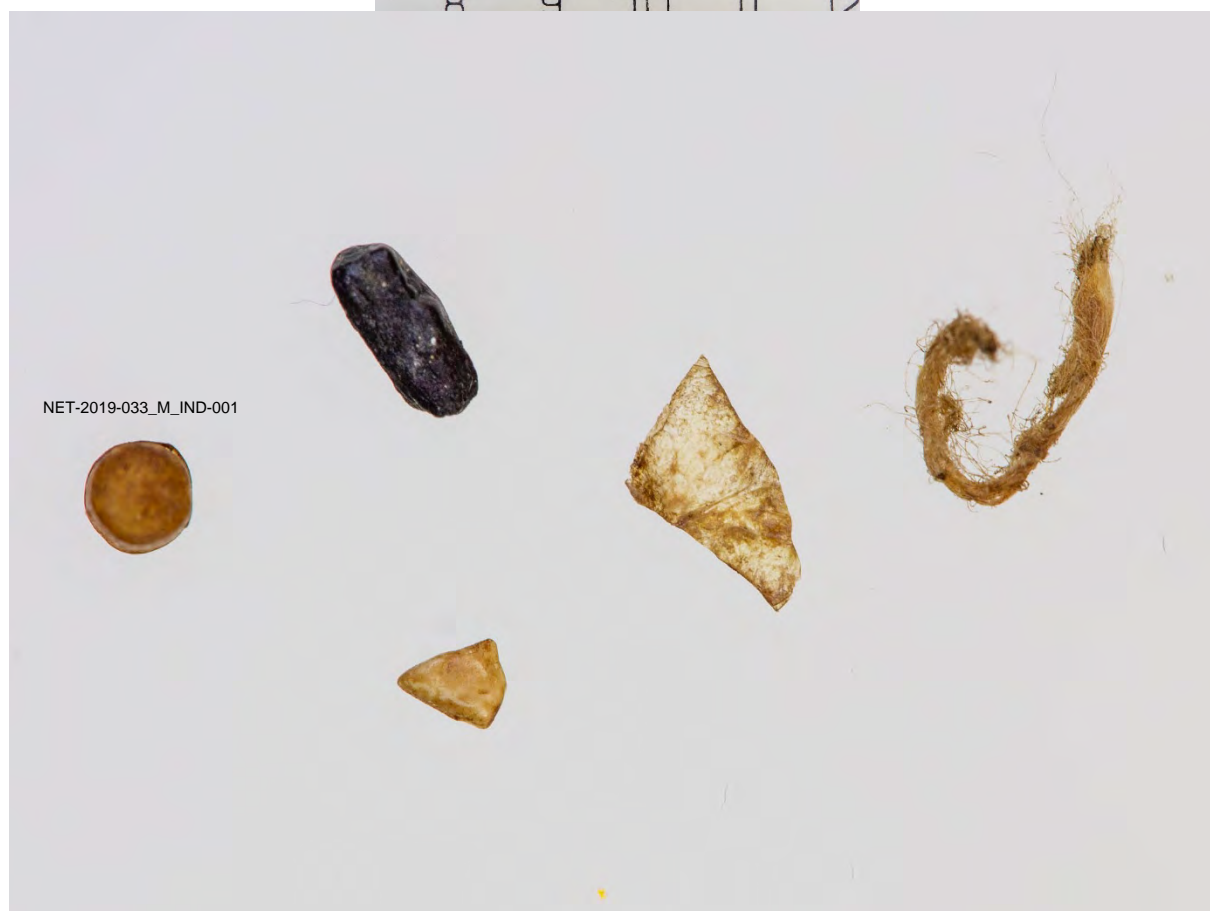


Part of the plastics retained on the 0.3 mm sieve, inset detail of coloured microbeads



Nr: NET-2019-033

JAFCODE	NET-2019-033
Country	Netherlands
Location	Texel paal 19
Date	8-Jul-2019
Finder	Maarten Brugge
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	CEM
Notes from dissection	cementcloaca 30x22mm
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	5
Total mass of plastic in stomach (g)	0.0266



Nr: NET-2019-034

Country	NET-2019-034
Location	Netherlands
Date	Scheveningen strand
Finder	5-May-2019
Sex (Male, Female or UNKnown)	Vogelasiel de Wulp Sharon Lexmond
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	F
Colourphase (LL, L, D, DD or UNKnown)	AD
Condition score (0=fully emaciated to 9=excellent condition)	LL
Likely cause of death (STA=starvation for unknown reason)	1
Notes from dissection	CEM
nr of industrial plastic pellets	cementcloaca 45x30mm; heavy breeding condition gave decision to early May find date
nr of consumer debris plastic particles	0
Total mass of plastic in stomach (g)	5



Nr: NET-2019-035

JAFCODE	NET-2019-035
Country	Netherlands
Location	Texel paal 9
Date	10-Nov-2019
Finder	Hans Verdaat
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	D
Condition score (0=fully emaciated to 9=excellent condition)	3
Likely cause of death (STA=starvation for emaciated with unknown reason)	DRO
Notes from dissection	burst veins on intestines and kidney; otherwise healthy moderately poor condition; drowned?
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	31
Total mass of plastic in stomach (g)	0.0637



Nr: NET-2019-036

JAFCODE	NET-2019-036
Country	Netherlands
Location	Texel De Hors Paal 5
Date	10-Nov-2019
Finder	Hans Verdaat
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)	5
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	burst veins on intestines and kidney; otherwise healthy reasonable condition; but died on beach so UNK death cause
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	2
Total mass of plastic in stomach (g)	0.0177



Nr: NET-2019-037

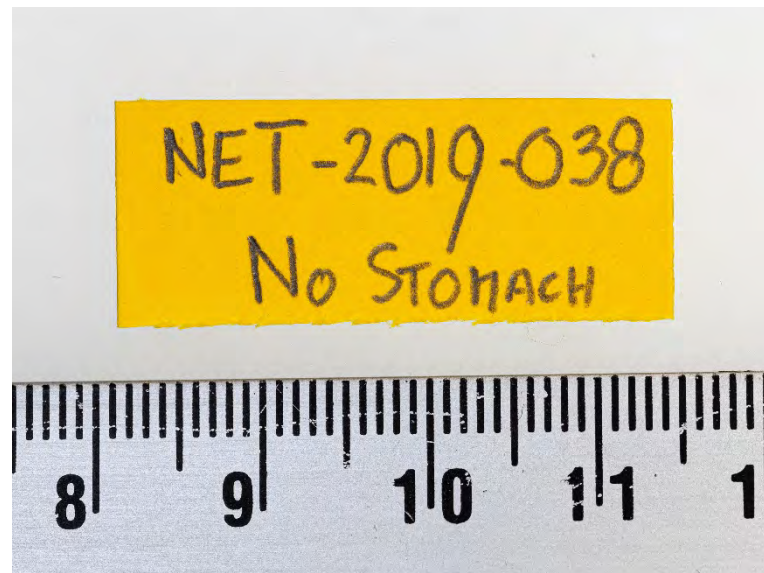
JAFCODE	NET-2019-037
Country	Netherlands
Location	Texel Paal 12
Date	14-Aug-2019
Finder	Kees Camphuysen
Sex (Male, Female or UNKnown)	M
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	2Y
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	CEM
Notes from dissection	cementcloaca not fully hard 40x25mm; legs bit glue victim like but may be mouse scavenging
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	3
Total mass of plastic in stomach (g)	0.0568



Nr: NET-2019-038

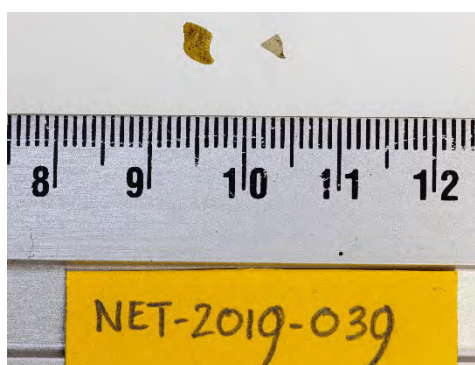
JAFCODE	NET-2019-038
Country	Netherlands
Location	Ameland location not specified
Date	5-Mar-2019
Finder	Johan Krol
Sex (Male, Female or UNKnown)	
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	UNK
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	unk
Likely cause of death (STA=starvation for 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)	

Scavenged, no stomach present



Nr: NET-2019-039

JAFCODE	NET-2019-039
Country	Netherlands
Location	Ameland paal 9
Date	20-May-2019
Finder	Johan Krol
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	stomach already opened; all internals removed many internal issues including sex and age impossible; uncertain contents
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	2
Total mass of plastic in stomach (g)	0.0074



Nr: NET-2019-040

JAFCODE	NET-2019-040
Country	Netherlands
Location	Ameland paal 8
Date	20-May-2019
Finder	Johan Krol
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	UNK
Notes from dissection	stomach already opened; all internals removed many internal issues including sex and age impossible; uncertain contents
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.1132



Nr: NET-2019-041

JAFCODE	NET-2019-041
Country	Netherlands
Location	Texel Hoornderslag
Date	5-Dec-2019
Finder	Dick.Schermer@texel.com ; Kees.Camphuysen@nioz.nl
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)	STA
Notes from dissection	Bloodfilled intestines
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	1
Total mass of plastic in stomach (g)	0.0001



Nr: NET-2019-042

JAFCODE	NET-2019-042
Country	Netherlands
Location	Ten zuiden van Egmond strandopgang binnen
Date	8-Dec-2019
Finder	Jorg Schagen; Cees Baart
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	2Y
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	Bloodfilled intestines
nr of industrial plastic pellets	1
nr of consumer debris plastic particles	16
Total mass of plastic in stomach (g)	0.2763

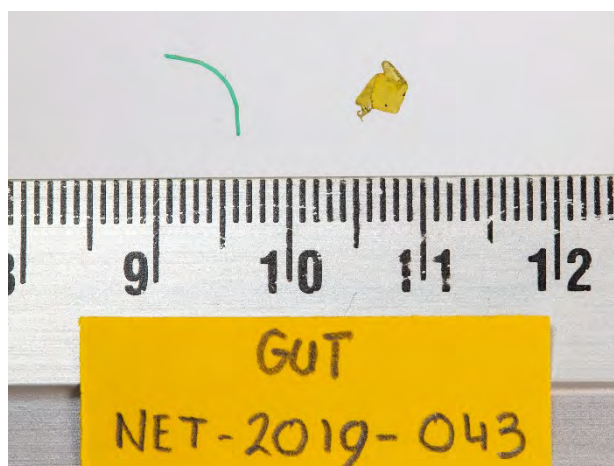


Nr: NET-2019-043

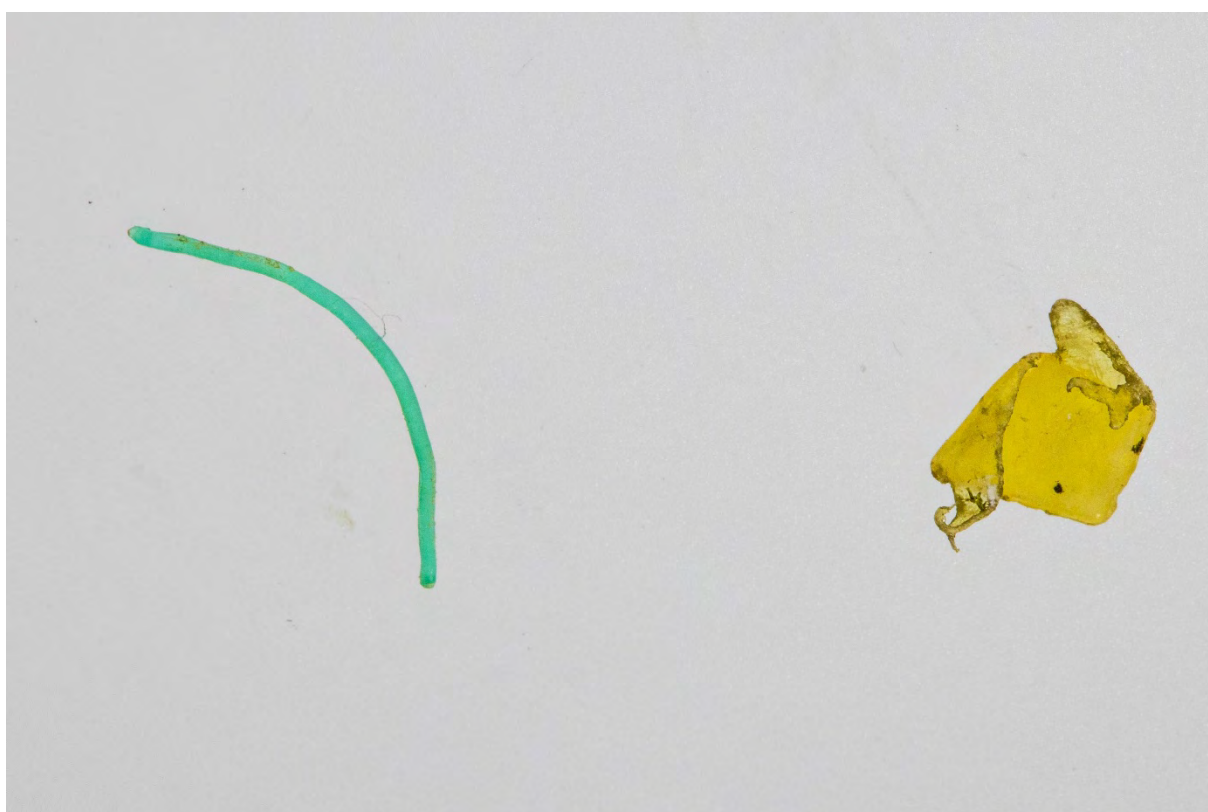
JAFCODE	NET-2019-043
Country	Netherlands
Location	Ameland Noordzeestrand thv Buren
Date	24-May-2019
Finder	Arjen Dijkstra & Elisa Bravo Rebolledo
Sex (Male, Female or UNKnown)	F
Age (JUvenile, 2 nd Year, IMmature, ADult, or UNK)	JU
Colourphase (LL, L, D, DD or UNKnown)	LL
Condition score (0=fully emaciated to 9=excellent condition)	0
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	one spot on kidneys
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	4
Total mass of plastic in stomach (g)	0.0255



NET-2019-043 intestinal plastics



Plastics from the intestines retained on 1mm sieve



Nr: NET-2019-044

JAFCODE	NET-2019-044
Country	Netherlands
Location	Vlieland Vliehors
Date	11-May-2019
Finder	Dirk Bruin Noordwester
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)	1
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	6
Total mass of plastic in stomach (g)	0.0606



Nr: NET-2019-045

JAFCODE	NET-2019-045
Country	Netherlands
Location	Vlieland Vliehors
Date	14-Jul-2019
Finder	Dirk Bruin Noordwester
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)	0
Likely cause of death (STA=starvation for emaciated with unknown reason)	PLU
Notes from dissection	poor down breast and incubation patch; bursa hard swollen with cementlike ball inside
nr of industrial plastic pellets	4
nr of consumer debris plastic particles	7
Total mass of plastic in stomach (g)	0.18



NET-2019-045 intestinal plastics



Plastics from the intestines retained on 1mm sieve



Nr: NET-2019-046

JAFCODE	NET-2019-046
Country	Netherlands
Location	Schiermonnikoog no detail
Date	12-May-2019
Finder	Teun Talsma via Pim Lollinga
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	COL
Notes from dissection	tail some broken/missing feathers; not moult; Old fracture right leg and most of foot gone; will have contributed to death
nr of industrial plastic pellets	0
nr of consumer debris plastic particles	2
Total mass of plastic in stomach (g)	0.0003



Nr: NET-2019-047

JAFCODE	NET-2019-047
Country	Netherlands
Location	Schiermonnikoog no detail
Date	12-May-2019
Finder	Teun Talsma via Pim Lollinga
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)	1
Likely cause of death (STA=starvation for emaciated with unknown reason)	STA
Notes from dissection	nrs 46 and 47 uncertain for date (see GLBB-2019-001)
nr of industrial plastic pellets	8
nr of consumer debris plastic particles	26
Total mass of plastic in stomach (g)	0.3352



Supplement individual details (acronyms)

Supplement individuele details (afkortingen)

Anhang individuelle Details (Abkürzungen)

The ruler in photo's shows mm and cm scaling

De lineaal bij de fotos toont mm en cm schaal

Das Lineal in den Fotos zeigt den Maßstab in mm und cm

CEM = cementcloaca - cementcloaca – Zementkloake

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.

Blockade des Enddarms durch eine harte, eiförmige Kugel, die durch eine schichtweise Aufhäufung von gehärtetem Kot und Harnstoff entsteht. Ab einem bestimmten Stadium verhindert diese vollständig die Darmentleerung, so dass sich die davor liegenden Darmbereiche mit Verdauungsresten füllen und anschwellen.

COL = collision – botsing – Kollision

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.

Kollision wird als Todesursache angesehen, wenn es Anzeichen für einen „mechanischen“ Tod, z.B. durch gebrochene Knochen oder starke innere Verletzungen gibt. Diese können durch Kollisionen mit Kabeln, Drähten, Lichtern von Schiffen oder Leuchttürmen, bei Unfällen in Steilklippen oder bei Verkehrsunfällen auftreten. Kollision kann sofort zum Tode oder langsam zum Verhungern führen, wenn sich die Tiere so sehr verletzt haben, dass sie sich nicht mehr mit Nahrung versorgen können.

DRO = drowning – verdrinking – Ertrinken

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).

Dies wird angewendet, wenn die Vögel gesund und in guter körperlicher Verfassung erscheinen und nur die Lungen durch das Platzen von Gefäßen mit Blut gefüllt sind. Dies deutet an, dass der Vogel in oberflächennahen Netzen oder auch an einer Langleine ertrunken ist, ohne jedoch offensichtliche Spuren einer Hakenverletzung zu zeigen (siehe unten).

LLV = long-line victim Lange-lijn slachtoffer – Langleinenopfer

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 verstricking 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.

Ein spezieller Fall von Ertrinken und Verstrickung, wenn es Anzeichen gibt, dass sich der Vogel in einer Langleine verhakt oder verfangen hat und dadurch unter Wasser gezogen wurde. Auch beim Fehlen von Haken und Schnur können hakentypische Verletzungen - häufig am Schnabel oder im Armflügel – ein Langleinenopfer anzeigen. Typisch sind dabei auch eine gute Körperkondition des Vogels mit Ausnahme der Lungen, die durch geplatze Gefäße mit frischem Blut gefüllt sind.

GUT = various internal problems

diverse inwendige problemen – diverse innere Probleme

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.

Diese Abkürzung wird für eine Reihe von Problemen verwendet, die während der Sektion im Vogelinneren festgestellt und als wahrscheinliche Todesursache angesehen werden. Dies umfasst schwere Entzündungen, z.B. im Eileiter der Weibchen oder ernste Nierenprobleme (granuläre Verschlüsse); Fehlbildungen etc. oder die Kombination solcher Befunde. Im Falle eines ernststen Krebsleidens wird die genauere Abkürzung CAN Cancer verwendet. Grundsätzlich werden einige Details unter den Sektionsnotizen angegeben.

PLU = plumage – veerkleed – Gefieder

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 honger dood. In andere gevallen kan de dons laag onder de dekveren slecht zijn of zelfs ontbreken.

In einigen Fällen zeigen Vögel Probleme bei der Mauser z.B. der Schwung-, Steuer- oder Körperfedern. Dies kann zu einem dermaßen schlechten Gefiederzustand führen, dass Flugfähigkeit und Wasserundurchlässigkeit so sehr beeinträchtigt sind, dass davon auszugehen ist, dass der Energiebedarf extrem ansteigt. In anderen Fällen scheinen die Vögel unter Problemen mit den Daunen zu leiden, die zur Isolation gebraucht werden. Manchmal fehlen die Daunen vollständig, so dass die Haut unter den Deckfedern frei liegt.

OIL = oiling – Olie – Verölung

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.

Mineralöl im Gefieder hat mutmaßlich den Tod verursacht durch die Zerstörung der Wasserundurchlässigkeit des Gefieders oder durch Vergiftung.

EXT = other external plumage fouling

andere uitwendige vervuiling – andere äußere Verschmutzung

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.

Andere Substanzen als Mineröle wie z.B. pflanzliche oder tierische Öle, Paraffine oder complexe chemische Stoffgemische können das Gefieder in ähnlicher Weise wie Mineralöl angreifen.

ING = ingestion – ingeslikte stoffen – Verschlucken

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.

Das Verschlucken von Materialien hat mutmaßlich den Tod des Vogels verursacht, z.B. im Fall von extremen Mengen von paraffin- oder palmfettartigen Substanzen oder von Plastik- oder anderem Müll.

STA = starvation – Verhongering – Verhungern

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.

Dies wird verwendet, wenn der Vogel vollständig abgemagert ist, die Ursache dafür jedoch unklar ist. Dies kann an andauerndem Nahrungsmangel oder an anderen nicht direkt ersichtlichen Krankheiten, Verletzungen, Vergiftungen etc. gelegen haben.

UNK = unknown – onbekend – Unbekannt

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.

Wird nur verwendet, wenn keine der obenstehenden Abkürzungen anwendbar ist, z.B. im Fall von extrem alten oder stark angefressenen Kadavern.