

Fulmar *Fulmarus glacialis* analysis performed at the Dove Marine Laboratory (Newcastle University), 10-11 June 2013

Summary by Daniel M Turner

Fulmar analysis was performed by Dr Jan Andries van Franeker of IMARES and the Univ. of Wageningen (The Netherlands) assisted by Daniel M Turner

Stomachs were extracted for future contents analysis by Dr Franeker and his research students / staff in The Netherlands.

Suitable specimens provided tissue samples (breast muscle, liver and head) for future ecotoxicology analysis by Alice Trevail (Univ. of Southampton).

During the two days, Monday and Tuesday 10-11 June, 22 Fulmars in total were analysed: 18 on Monday and 4 on Tuesday.

Of the 22 birds: 9 were from NE England, 2 from Orkney and 11 from Shetland – all were collected dead.

Many data were recorded during the necropsies of these 22 Fulmars, brief results are shown in the following three tables.

Table 1 NE England Fulmars

Reference	Finding date	Location	Finder	Age	Sex	Cond.	Death cause	Samples taken
NEE-2013-001	10-MAR-2013	Lindisfarne, N/land	GDRM	Adult	M	0	Starvation	Stomach
NEE-2013-002	12-MAR-2013	Blyth S beach, N/land	MHe	Juvenile	M	3	Starvation	Stomach, liver, muscle, head
NEE-2013-003	12-MAR-2013	Redcar, Co. Cleveland	MAB	Juvenile	M	2	Plumage	Stomach, liver, muscle, head
NEE-2013-004	24-MAR-2013	Whitburn-Roker, T&W	PC	Adult	F	1	Starvation	Stomach, liver, muscle, head
NEE-2013-005	30-MAR-2013	Seaham, Co. Durham	B&JR	Juvenile	F	1	Gut	Stomach
NEE-2013-006	09-APR-2013	Marske-Redcar, Co. Cle	MAB	Adult	F	1	Starvation	Stomach, liver, muscle, head
NEE-2013-007	09-APR-2013	Marske-Redcar, Co. Cle	MAB	Juvenile	F	1	Starvation	Stomach, liver, muscle.
NEE-2013-008	27-MAR-2013	S of Bridlington, E York.	KAB	Juvenile	M	6	Drowning	Stomach
NEE-2013-009	27-MAR-2013	S of Bridlington. E York.	KAB	Juvenile	M	2	Starvation	Stomach, liver, muscle, head

**Column header abbreviations**

Cond. Overall Condition i.e. sum of condition values for breast muscle, subcutaneous fat and intestinal fat.

**Finders** Keith A Barrow (KAB), Martin A Blick (MAB), Peter Collins (PC), Maurice Hepple (MHe), George D R Moody (GDRM), Barry & Jean Robinson (B&JR)

Table 2 Orkney Fulmars

Reference	Finding date	Location	Finder	Age	Sex	Cond.	Death cause	Samples taken
ORK-2012-002	07-MAR-2012	Ottersgill, Stenness	EM	2Y	M	4	Drowning	Stomach, liver, muscle, head
ORK-2012-003	28-MAR-2012	Scapa beach	CJC	Adult	F	1	Plumage	Stomach

**Finders** C J Corse (CJC) and Eric Meek (EM)

Table 3 Shetland Fulmars

Reference	Finding date	Location	Finder	Age	Sex	Cond.	Death cause	Samples taken / Notes
SHE-2009-018	01-APR-2009	West Sandwick, Yell	MH	Adult	M	1	Starvation	Stomach
SHE-2009-019	29-APR-2009	Hoswick, Shetland	JB	Imm.	M	1	Starvation	Stomach
SHE-2009-020	05-May-2009	Sand, Shetland	MH	Adult	M	7	Drowning	Stomach
SHE-2009-021	30-May-2009	Rerwick, Shetland	RR	Adult	F	9	Shot	Stomach, liver, muscle, head. Not breeding this year.
SHE-2009-022	02-JUL-2009	Cuningsburgh, Shetland	MH	Adult	M	8	Collision	Stomach. Found dead on road. With incubation patch.
SHE-2010-007	03-MAR-2010	West Yell, Shetland	MH	Adult	M	2	Oil	Stomach
SHE-2012-007	05-SEP-2012	Sumburgh, Shetland	MH	Pullus	M	7	Collision	Stomach. Road kill.
SHE-2013-001	31-JAN-2013	Fair Isle	DP	Adult	F	9	Collision	Stomach
SHE-2013-002	23-FEB-2013	Sandwick, Shetland	JB	Adult	F	0	Starvation	Stomach
SHE-2013-003	30-May-2013	Hoswick, Shetland	JB	Adult	F	1	Starvation	Stomach, liver, muscle, head. With incubation patch and fully formed egg inside.
SHE-2013-004	07-JUN-2013	Cuningsburgh, Shetland	MH	Adult	F	6	Collision	Stomach, liver, muscle, head. Road kill. Incubation patch.

**Finders** Juan Brown (JB), Martin Heubeck (MH), David Parnaby (DP), Roger Riddington (RR)

A three-man BBC film crew was present on Tuesday 11 June from 09:30 – 13:00 filming for a programme (on marine debris) – scheduled for transmission in the early autumn during a new series of *Inside Out*. Dr Franeker was extensively interviewed and explained about the ‘Save the North Sea’ Fulmar project and the impact of marine litter on various seabirds. The presenter, Paul Rose, participated during on camera analysis of Fulmars NEE-2013-006, NEE-2013-007 and the stomach from bird ORK-2012-002.

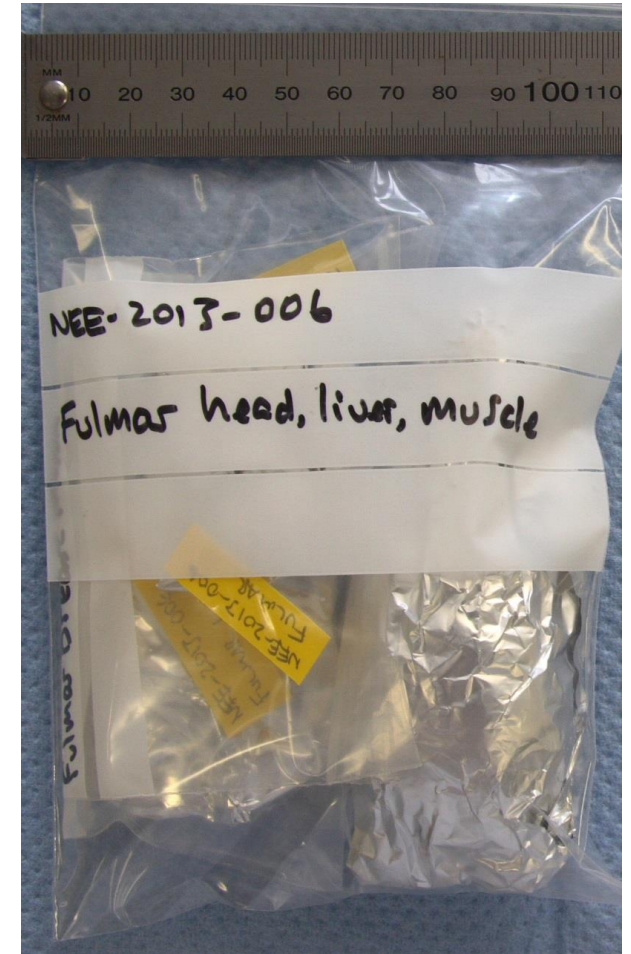
With many thanks to the staff and research students at the Dove Marine Laboratory, Cullercoats (Newcastle University), who made our visit possible, helped in various ways and allowed use of their extensive facilities. Thanks also to the many beached bird surveyors who scour our beaches



Northeast England Fulmar found by Martin Blick at Redcar on 12 March 2013. This was a dark phase juvenile male that died from plumage problems.



Dr Jan Andries van Franeker (in blue lab coat) being interviewed by BBC presenter Paul Rose during Fulmar analysis in the Dove Marine Laboratory (Newcastle University). Watching is producer Paul Greenan as cameraman Phil Spencer records the event. The recording will be shown as part of the new series of current affairs programme Inside Out scheduled for transmission in early autumn 2013.



As well as the extraction of stomachs from 22 Fulmars, for contents analysis, additional samples were taken (as depicted in the photo above) for future chemical analysis.

Photos by D M Turner