

Fig. S1. Examples of stereotyped calls and categorical vocalizations in the Icelandic-origin dialect. Those indicated with an “SD” code are discrete, stereotyped calls. The remainder are the unsterotyped, categorized vocalizations, adult variable [VAR], whistle, and low-frequency pop trains [LFP].

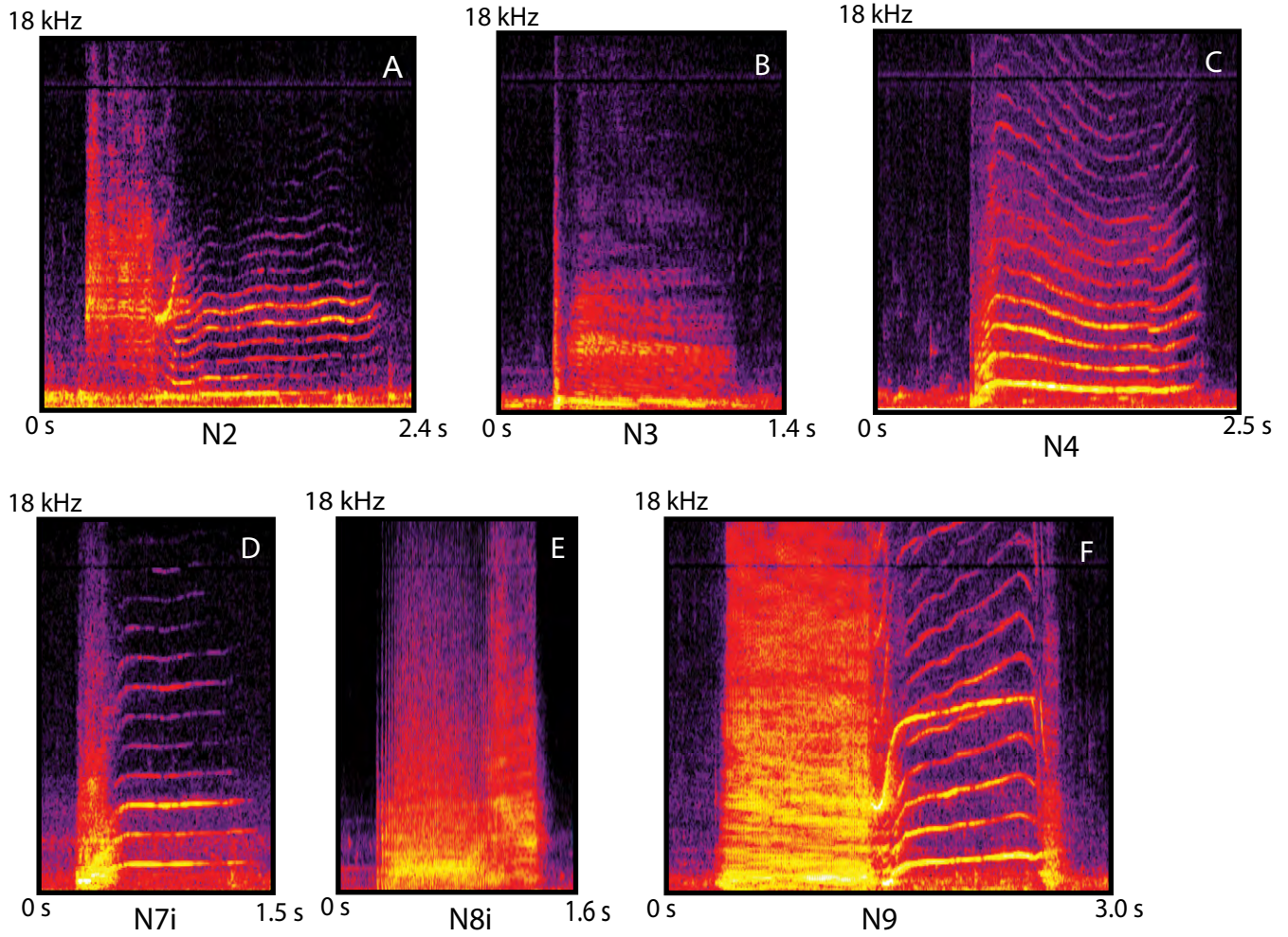
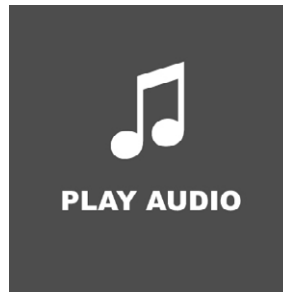
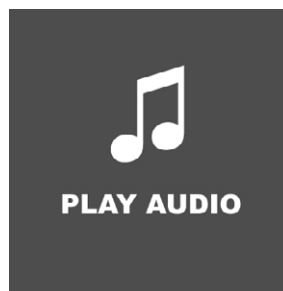


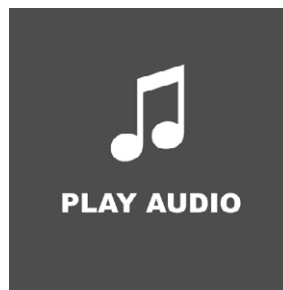
Fig. S2. Spectrograms of discrete, stereotyped call types produced by F1. (A) N2, (B) N3 (resting call), (C) N4, (D) N7i, (E) N8i, (F) N9. Call type codes correspond to published designations (Ford, 1984; 1987).



Audio 1. U3(DEBC[R]) calls produced by M8 and M4. Spectrograms of the calls in Fig. 3A,B. M8's call is followed immediately by a second call type, U4(FG). The soundfile was manipulated by low-pass filtering at 18 kHz with a 10-pole Butterworth filter in Adobe Audition and smoothing the amplitude envelopes of each clip.



Audio 2. U4(F[G]) calls produced by M8 and M6. The sounds correspond to spectrograms in Fig. 3C,D. The soundfile was manipulated by converting to a common sample rate (22 kHz) and smoothing the amplitude envelopes of each clip.



Audio 3. SD5-2 calls produced by M8 and M6. The sounds correspond to images in Fig. 4A, C. The soundfile was manipulated by low-pass filtering at 18 kHz with a 10-pole Butterworth filter in Adobe Audition and smoothing the amplitude envelopes of each clip.

Table S1. Counts of the stereotyped call types in the Icelandic-origin dialect.

Categorized vocalizations are also given by whale. Period indicated (01-03 for 2001-2003; 05-06 for 2005-2006). Column headings indicate the subject and period. Rank order of the five most common call types or categories indicated by shading (dark = most, light = least). Shading ordered across Table S1-S3. Non-zero cells are bolded.

Call/ Category	F3		F4		M4		M6		M8	
	01-03	05-06	01-03	05-06	01-03	05-06	01-03	05-06	01-03	05-06
<i>Stereotyped pulsed calls</i>										
SD1-1a	12	9	15	8	3	27	33	3	0	0
SD1-1b	10	3	12	2	6	42	18	10	0	0
SD1-2a	1	0	0	0	0	6	0	0	0	0
SD1-2b	0	0	0	1	1	16	0	9	0	0
SD1-3	0	0	0	28	0	2	0	0	0	0
SD1-4	0	0	0	0	0	9	0	0	0	0
SD1-5a	1	0	1	0	0	0	0	0	0	0
SD1-5b	1	0	0	0	0	2	1	2	0	0
SD2-1	2	0	2	2	1	1	4	0	0	0
SD2-2	0	1	0	14	0	1	2	0	0	0
SD3-1	6	0	3	5	18	42	27	13	0	0
SD4-1	6	0	2	1	14	13	30	9	0	0
SD5-1a	0	0	0	0	0	4	0	0	0	0
SD5-1b	1	0	0	0	6	15	4	2	0	0
SD5-2	0	0	0	0	3	17	22	8	0	4
SD6-1	0	0	2	0	0	0	0	1	0	0
SD7-1	0	0	1	0	0	1	0	0	0	0
SD8-1	2	0	0	1	0	2	2	3	0	0
SD8-2	1	0	0	2	0	6	8	7	0	0
SD9-1	0	0	0	0	2	0	7	8	0	0
SD10-1	1	0	0	0	0	4	0	1	0	0
SD-RST	37	12	51	43	1	6	4	0	0	0
<i>Categorized vocalizations*</i>										
VAR	4	0	2	0	0	25	19	22	4	6
LFP	0	0	0	0	0	8	0	0	56	1
Whistle	1	0	0	0	0	0	1	0	21	0
Total	86	25	91	106	58	249	182	98	81	11[§]

Notes: * VAR –Variable pulsed calls; LFP – low-frequency pulse trains. [§]Counts of calls in Icelandic-origin repertoire and categorized vocalizations. Stereotyped pulsed calls in M8's repertoire are given in Table S3.

Table S2. Counts of the most common stereotyped calls produced by F1. Categorized vocalizations are also given. Period indicated (01-03 for 2001-2003; 05-06 for 2005-2006). Rank order of the five most common call types or categories indicated by shading (dark = most, light = least). Shading ordered across Table S1-S3. Non-zero cells are bolded.

Call/Category	F1	
	(01-03)	(05-06)
<i>Stereotyped pulsed calls</i>		
N9	5	3
N2	2	5
N8i	15	27
N7i	17	41
N4	4	6
N3 (Resting Call)	19	64
<i>Categorized vocalizations*</i>		
VAR	10	7
LFP	0	10
Whistle	0	0
TOTAL	72	163

Notes: * VAR –Variable pulsed calls; LFP – low-frequency pulse trains.

Table S3. Counts of the most common stereotyped calls produced by M8, with matched calls produced by M4 and M6 in 2005-2006. Categorized vocalization counts are given in Table S1; the sums in this table refer only to calls in M8's dialect. Repeated components encoded with an [R], e.g., U4(F[R]). Period indicated by whale (01-03 for 2001-2003; 05-06 for 2005-2006). Rank order of the five most common call types or categories indicated by shading (dark = most, light = least), with shading ordered across Table S1-S3. Non-zero cells are bolded.

Call Type	M8		M4		M6	
	(01-03)	(05-06)	(01-03)	(05-06)	(01-03)	(05-06)
<i>Stereotyped pulsed calls</i>						
U1(AB)	0	4	0	3	0	13
U1(ABC)	73	22	0	1	0	0
U1(ABC[R])	65	5	0	2	0	0
U1(ABC[RM])	19	1	0	0	0	0
U1(AC[R])	4	0	0	0	0	0
U1(C[R])	3	1	0	0	0	0
U2[R]*	55	0	0	0	0	0
U3(DEB)	0	1	0	1	0	0
U3(DEBC)*	6	0	0	0	0	0
U3(DEBC[R])*	19	0	0	0	0	0
U3(DEBC[RM])*	7	0	0	1	0	0
U3(D[R])*	9	0	0	0	0	0
U4(F[R])	5	14	0	0	0	14
U4(FG)	14	17	0	1	0	51
U4(FG[R])	8	2	0	0	0	0
U4(FG[RM])*	14	0	0	0	0	0
U Resting Call	5	9	0	0	0	0
TOTAL	306	76	0	9	0	78

Notes: * Indicates call types detected on a single day, 6/25/02.