

ABSTRACTS FOR ISSUE 103(1) FEBRUARY 2001

FEATURE ARTICLES

REPERTOIRE, STRUCTURE, AND INDIVIDUAL DISTINCTIVENESS OF THICK-BILLED MURRE CALLS¹

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Abstract. We describe the vocal repertoires of Thick-billed Murre (*Uria lomvia*) adults and chicks during the breeding season. Using recordings from throughout the chick-rearing period, we identified four distinct calls of chicks and six of adults. We present sonograms and quantitative descriptions of each call and summarize the behavioral context in which they were used. Chick calls are mostly flute-like sounds at approximately the same pitch that tend to develop from a simple peep during hatching through a rapidly frequency-modulated departure call, given shortly before, during, and after they leave the colony at fledging. Departure calls appear to facilitate interactions between the chick and the attending male parent during this risky period for the chick. Adult calls are lower pitched and sound more gruff, with different call types having significantly different pitch, duration, and number of syllables. Among-individual variation in the crow calls of adults accounts for 44% of the measured variation in this call and indicates the potential for individual recognition, such as the recognition of parents' calls by their chicks, that we have previously documented. Temporal features may form the basis of recognition of adult calls in this species, given that they accounted for twice as much variation as frequency features among individual adults.

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