

FLIGHT DISPLAYS OF LEAST SANDPIPERS

by E.H. Miller

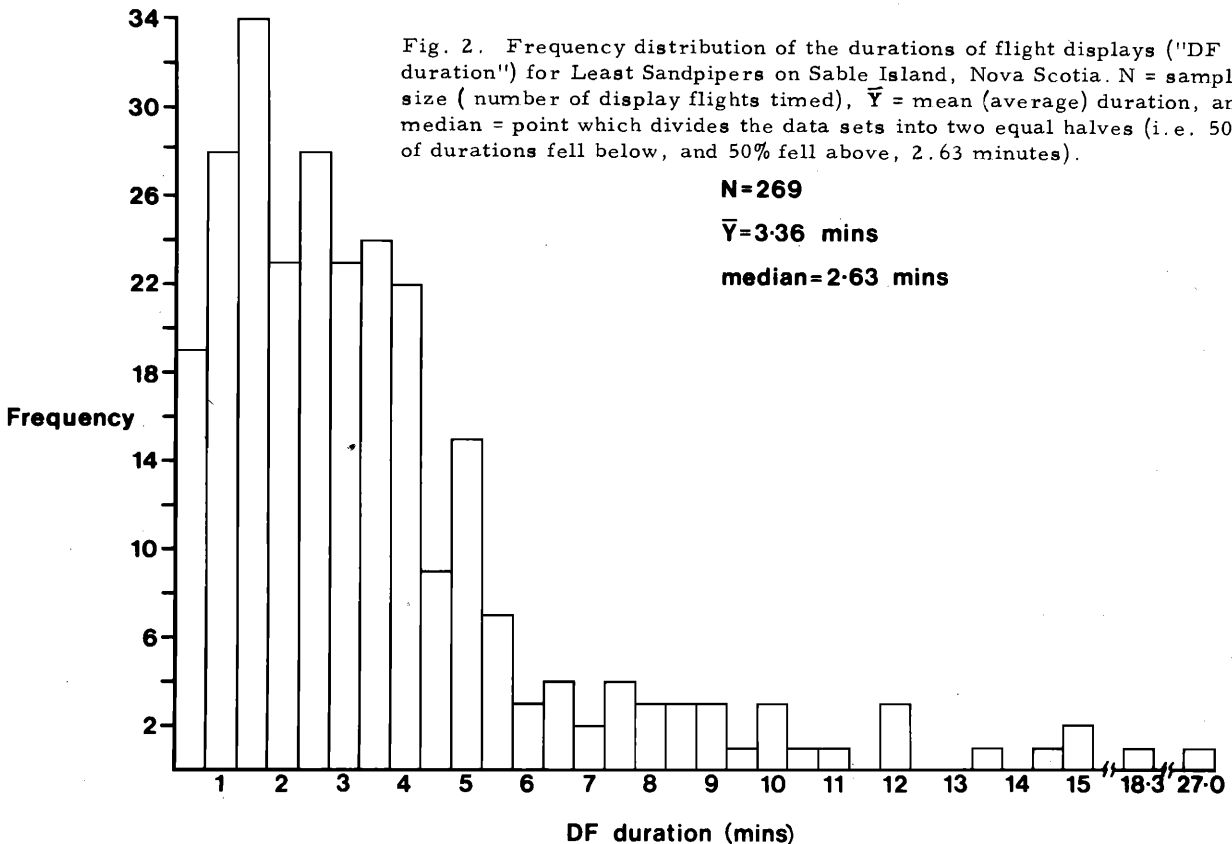
Many species of birds which nest in open country have conspicuous aerial displays. Most members of the Scolopacidae and Charadriidae have some kind of flight display in agreement with this trend. In the peeps and their relatives (sub-family Calidridinae within the Scolopacidae), flight displays are well developed and often show strong similarities across species. For example, many calidridine species have a form of flight display in which males rise to some height (the height varies greatly across species) then alternately flutter the wings and hold them motionless, while calling. These displays are given mostly by unmated males, and are remarkably monotonous to watch and hear. A male may hover calling in the manner described for minutes without break.

I studied display behaviour of Least Sandpipers on Sable Island, Nova Scotia, in the springs and summers of 1975 and 1976, and near Churchill, Manitoba, in the spring of 1978. Vocalisations of males in display are virtually indistinguishable in the two locations, and can be classified into three main categories (Figure 1): (1) monotonous, repeated, simple call (Figure 1, A-D). Most of the energy in this call lies in the second harmonic (the fundamental frequency is around 1500 cycles per second, and is extremely faint in the Figure). This call can be repeated rhythmically hundreds of times without pause. It is given throughout most of a flight display. (2) chattering call (Figure 1, E). Like the preceding call, most of the energy is in the second harmonic. It can be very loud and occurs when males have chased other males out of their territories, sometimes at man's approach near a nest. In a simple sense, this call is 'aggressive', though a soft version is given during courtship and copulation. (3) a complex sequence, "Song" (Figure 1, F). This beautiful series consists of several distinct elements which can be identified in repetitions by the same male, and in songs of other males. Males emit songs when they pursue females or males, and when they descend from flight displays. Both sexes may give songs (generally rather soft and simple) around the time their chicks leave the nest.

Flight displays on Sable Island last around three minutes (Figure 2), but may exceed 20 minutes on occasion. In northern Manitoba in 1978 they were significantly briefer, possibly because of the cold, late spring, with abbreviated and reduced levels of courtship.

I am studying these and other displays in Least Sandpipers and related species to assess species differences, geographic variation and individual variation. These broad goals subsume many smaller, more specific aims. For example, Least Sandpipers are the only nesting shorebird on Sable Island except for Spotted Sandpipers, but in northern Manitoba there are many other shorebird species. Theory suggests that Least Sandpiper populations in northern Manitoba should have strongly distinct (and complex?) long-range advertisements, which may be unnecessary on Sable Island where there are no species with which confusion could occur. I shall report on developments as analysis of tape recordings and movies proceeds. Part of the Sable Island data will be published in the Canadian Journal of Zoology (volume 57) in 1979.

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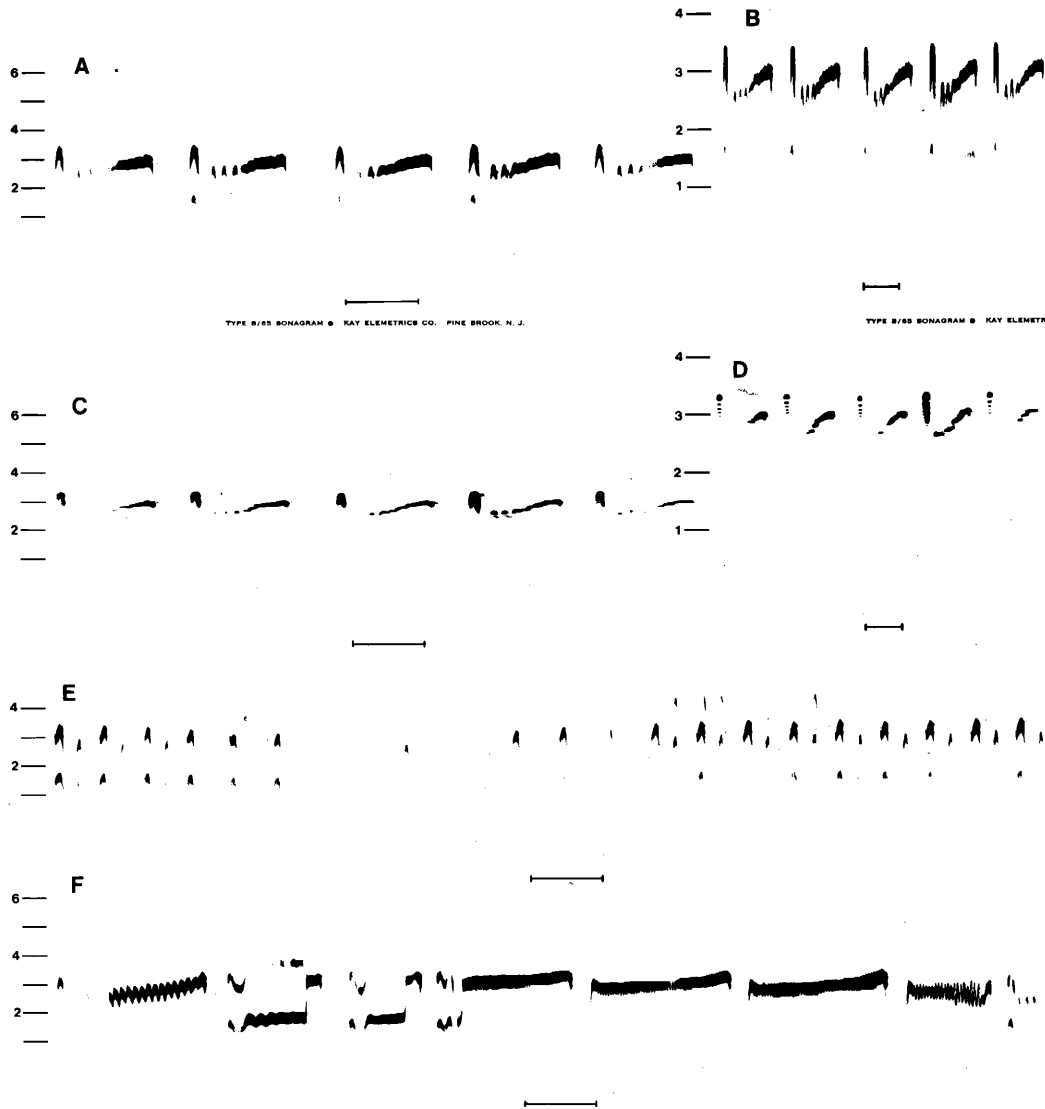


Fig. 1. A-D. Sound spectrograms of simple repeated calls which occur throughout flight displays of Least Sandpipers. The frequency of the calls is indicated on the vertical scale (in kilocycles per second); representations made with a narrow band filter (C and D) show frequency most accurately. Representations made with a wide band filter (A and B) show temporal characteristics most accurately. The time marker is 250 milliseconds. E. Sound spectrogram of loud chattering call of Least Sandpipers. F. Sound spectrogram of "song" of Least Sandpiper.

RED ALERT

by P.R. Evans

Not many British wader-ringers have had the opportunity to bake in early December sunshine (30°C) and watch 500 Red-necked Stints gather on a sandy promontory to roost. Mind you, an ample supply of mosquito repellent was advisable. (As one expatriate Welshman said to me "They don't bite - they carry you off in their jaws ..."). And so it was that with the aid of a 20 ft. (6 m) mist-net, a long length of very elastic nylon string and a 4 ft. (1.3m) length of gnarled tea-tree, the Westernport Bay (Victoria, Australia) clap-net was born, and promptly caught 50 stints in one "pull". (A repeat performance for the benefit of a visiting British television film producer was not nearly so successful!) The birds were dyed on the belly with red 'Rhodamine B', which faded within a few weeks, but not before one of the Stints had been seen (the day after dyeing) on the other side of Port Phillip Bay, west of Melbourne. A frenzied report came through of "a bird in full breeding plumage in mid-winter - well, it was red all over!". Others were seen at another roost site on Westernport Bay a few days later. And so I thought I had heard the last of the stints, until I received a few weeks ago, from a variety of sources, including the ex-chairman of the WSG, who is himself now in Melbourne (catching Red-necked Stints, of course*), the following details: Red-necked Stint 032-11759 ringed Stockyard Point, Westernport Bay, Victoria (38°25'S, 145°23'E) on 12 December 1974; shot on 10 September 1977 on Tareii Lake, Borzja, Chita, U.S.S.R. (50°19'N, 116°23'E), 9600 km away from the ringing site.

Which all goes to show that if you dye waders red, you have to accept the political consequences!

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* The totals of waders caught during the first months of Clive Minton's activities with Australian wader ringers are given on p. 13. - Eds.