

**D-23: Mass migration of bridled terns (*Sterna anaethetus* aves Laridae)
off Sri Lanka 1981 - 1994**

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A mass migration of Bridled Terns *Sterna anaethetus* takes place annually off the Western and Southern coasts of Sri Lanka mainly during the south-west monsoon period. This study attempts to monitor the migration and obtain the following information:

- (1) The variation in the intensity of migration throughout the migratory period.
- (2) Estimate the numbers of birds migrating each season.
- (3) Determine the migratory flight-path off the Sri Lanka coast.
- (4) Record other incidental information on the migration.

Shore-based 1 h counts (0630-0730 h) were carried out on a weekly basis. Shore-based 12 h counts (0630-1830 h) were carried out and related to the 1 h counts, by application of a coefficient determined empirically. This coefficient (7.1) was used to estimate a daytime mean (0630-1830 h) from the means of the counts during a specified season. Using the "daytime mean" and "duration of migration" it is possible to derive a "seasonal daytime total".

Observations carried out at a variety of coastal stations enabled the migratory flight-path off the Sri Lanka coast to be mapped out.

Equipment used included telescopes (Pentax 30 x 40, Kowa 20 x 77 and Swarovsky 20-60 x 80) several binoculars, tally counters and timing equipment.

NOTE: All data, observations and results relate to daylight hours (0630-1830 h) only.

The flight-path has been traced from Talawila southwards through Chilaw, Colombo, Kosgoda turning eastward through Dondra (Figure 1)

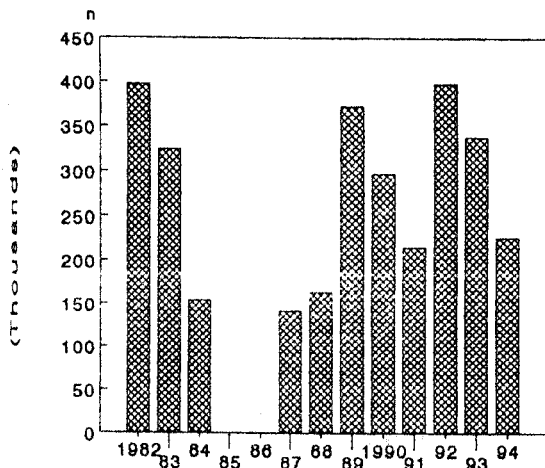
The intensity of migration varies considerably from year to year, reaching a maximum of nearly 400,000 birds in peak years and dropping to as low as c.150,000 at times. It is suspected that this may be due to breeding success or otherwise, but it is premature to reach any conclusions at this juncture.

It is intended that this study will continue for at least 10 years more and this should merely be considered to be in the nature of an interim report.

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ANNUAL MASS MIGRATION OF BRIDLED TERNS (*Sterna anaethetus*)

ESTIMATED SEASONAL TOTALS 1982 - 1994



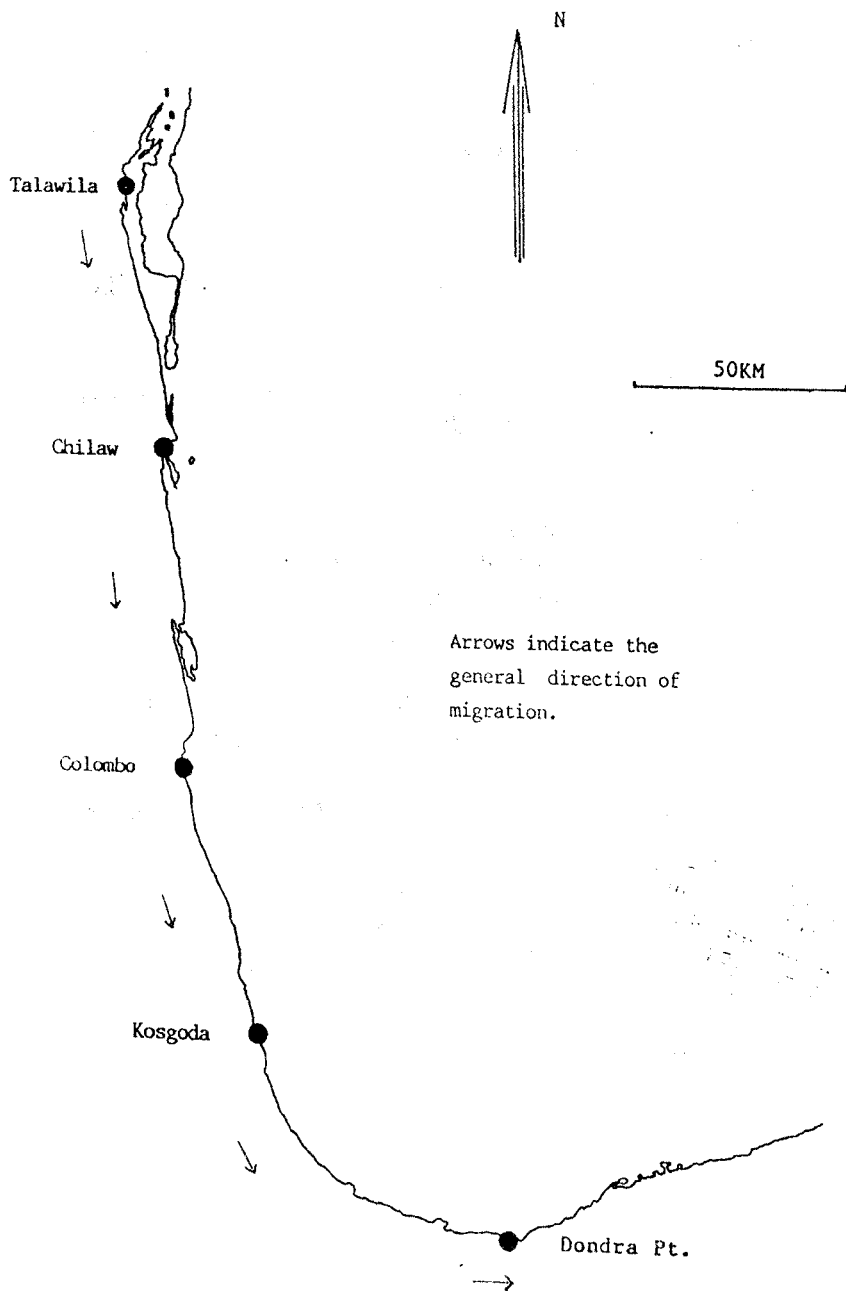


FIGURE I. Map shows the migratory flight-path and indicates the stations from which observations were made.