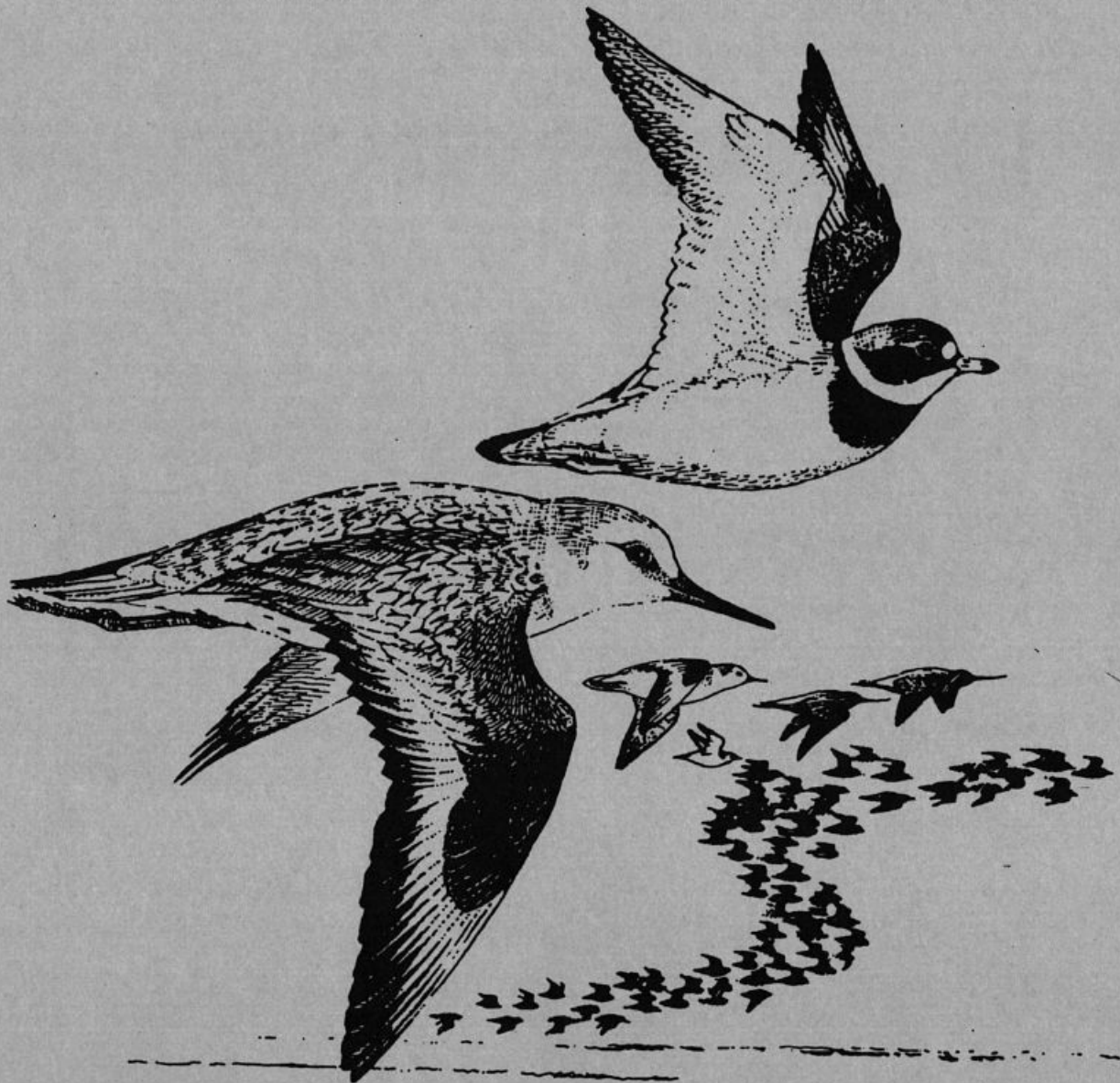


WADER STUDY GROUP



BULLETIN

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Except for that concerning *Wader Study Group Bulletin*, all correspondence, including matters and proposals concerning colour-marking schemes, should be sent to the Group's official address; *Wader Study Group, PO Box 247, Tring, Hertfordshire, HP23 5SN, UK*. All general enquiries should be sent to the General Secretary.

Membership

All applications for membership, initial subscriptions and renewals, changes of address, matters relating to the circulation of the *Bulletin* etc. should be sent to the Membership Secretary.

Payments and Subscriptions

See details on inside back cover.

Projects

Matters and proposals concerning co-operative research projects and objectives should be sent to the Co-ordinator.

Colour-marking Register

Proposals and sightings concerning colour-marking schemes should be sent to the Colour-marking Register at the official address given above.

Bulletin

Correspondence concerning the *Wader Study Group Bulletin* should be sent to the Editor: D A Stroud, *Wader Study Group Bulletin*, c/o UK Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough PE1 1JY, U.K.

Deadlines

1 January for the April issue
1 May for the August issue
1 September for the December issue

If correspondence between editor and author(s) is likely to be needed, material must be received well before these dates if material is to be included in the next issue.



Table 1. Relative masses of primary wing feathers of waders.

Species	Primary number										Source
	1	2	3	4	5	6	7	8	9	10	
Grey Plover <i>Charadrius squatarola</i>	3.1	4.0	5.1	6.8	8.4	10.5	12.7	14.6	16.3	18.5	
Bar-tailed Godwit <i>Limosa lapponica</i>	4.1	4.9	6.0	7.7	9.4	11.0	12.1	13.5	14.8	16.5	
Whimbrel <i>Numenius phaeopus</i>	3.8	5.0	6.3	7.5	8.8	10.7	12.2	13.9	15.3	16.5	
Bristle-thighed Curlew <i>N. tahitiensis</i>	4.0	5.0	6.1	7.6	9.2	10.9	12.2	13.5	15.1	16.4	(a)
Redshank <i>Tringa totanus</i>	5.0	5.7	6.7	7.7	9.1	10.6	11.8	13.1	14.2	16.1	(b)
Greenshank <i>T. nebularia</i>	4.4	5.1	6.0	7.3	8.8	10.4	12.1	13.7	15.3	16.9	
Turnstone <i>Arenaria interpres</i>	4.2	4.7	5.9	7.2	8.7	10.4	12.0	13.7	15.4	17.9	(c)
Knot <i>Calidris canutus</i>	3.9	4.5	5.5	7.1	8.6	10.6	12.3	14.0	15.7	17.8	(d)
Sanderling <i>C. alba</i>	3.9	4.6	5.4	6.8	8.3	10.2	12.0	14.2	16.0	18.7	(e)
Little Stint <i>C. minuta</i>	4.4	5.2	6.1	7.3	8.6	10.3	12.0	13.7	15.4	17.1	
Purple Sandpiper <i>C. maritima</i>	4.4	5.0	6.0	7.0	8.6	10.2	11.6	13.2	15.5	18.5	
Dunlin <i>C. alpina</i>	4.0	4.9	5.7	6.9	8.5	10.2	11.8	13.7	15.8	18.4	(f)
Curlew Sandpiper <i>C. ferruginea</i>	4.0	4.7	6.0	7.3	8.8	10.3	12.2	13.9	15.3	17.6	
Average m_i	4.1	4.9	5.9	7.3	8.8	10.5	12.0	13.7	15.4	17.4	

Sources: (a) Marks in prep.; (b) Summers *et al.* (1983); (c) Summers *et al.* (1989); (d) WCWSG unpubl.data; (e) Underhill & Zucchini (1988); (f) Kania (1990), *in litt.*

Table 2. Recommended factors for converting moult scores for individual feathers to proportion of feather mass grown. The motivation for these values is given in Underhill & Zucchini (1988).

Score s	Proportion grown $p(s)$
0	0
1	0.125
2	0.375
3	0.625
4	0.875
5	1

Table 3. Worked example of the procedure for transforming a moult score recorded as 5554310000 to PFMG.

Primary i	Relative mass $m(i)$	Score s_i	Proportion grown $p(s_i)$	$m_i \times p(s_i)$
1	4.1	5	1	4.1
2	4.9	5	1	4.9
3	5.9	5	1	5.9
4	7.3	4	0.875	6.4
5	8.8	3	0.625	5.5
6	10.5	1	0.125	1.3
7	12.0	0	0	0.0
8	13.7	0	0	0.0
9	15.4	0	0	0.0
10	17.4	0	0	0.0

$$\text{PFMG} = \sum_{i=1}^{10} m_i p(s_i) = 28.1\%$$