

CORRECT MEASUREMENT OF THE WING-LENGTH OF WADERS

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It has been drawn to my attention that there is some confusion as to the most reliable method of measuring the wing-length of waders, i.e. the method that minimizes differences in measurements obtained from the same bird by different workers on the same occasion, or by the same worker on different occasions (when the plumage of the bird is wetter or drier than usual; not, of course, when the wing is more or less abraded at the tip!). I considered various methods of measurement in a paper (Evans 1964) which may not be generally available to wader workers, and recommended the use of the flattened and straightened measure, in which both the camber along and across the wing and the natural curvature of the primaries are removed. This produces a maximum measurement and is the method recommended in the 3rd edition of the BTO "Ringer's Manual" (Spencer 1984), which may not be generally known to workers outside Britain. The description of the method in the Manual closely follows the text of my original description, and is as follows:

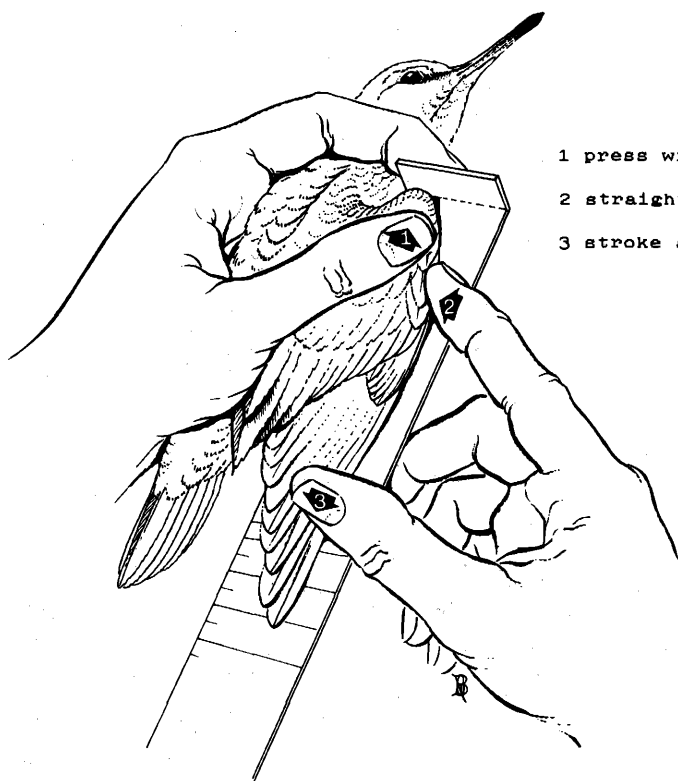
[The measurement is made] by sliding the wing forward along the rule until it meets the stop, straightening the bastard wing so that it falls into line (as far as possible) with the longest primary, and then straightening and extending the longest primary to its maximum length by

stroking the thumb of the free hand along the shafts of the primaries, from the base to tip, pressing firmly against the rule all the while. It must be emphasised that no attempt must be made to pull the wing straight from the tip; a firm stroking action is required. Small differences in measurement may result from variation in the degree of straightness achieved, but the method reduces errors due to alteration of the lateral curvature during trapping and handling, or occasioned by dampness. It is, however, essential to keep the wing closed, and parallel to the long axis of the bird's body.

The measurement method is illustrated in Figure 1. In particular I would emphasize the need to keep the wing close against the body to minimize inter-observer differences in measurement of the same bird. Holding the wing away from the body, or partly opened, will greatly reduce the accuracy of the method.

REFERENCES

- Evans, P.R. 1964. Wader measurements and wader migration. *Bird Study* 11: 23-38.
 Spencer, R. 1984. *The Ringer's Manual*. BTO, Tring.



- 1 press wing firmly against end-stop of wing-rule
- 2 straighten curve of wing
- 3 stroke along feathers to their end

Figure 1. The correct method of measuring wing-length in waders.