

The breast feathers are basically gold, with a brown 'shaft triangle' (fig 4.)

The belly feathers are white edged brown.

I am confident that the above criteria will age Golden Plovers until the beginning of November with certainty, as they agree with all but two of the aged museum specimens, which for several reasons I believe to be wrongly aged. It seems though that most juveniles undergo a body moult from the beginning of November onwards which may encompass the under tail coverts, either wholly or partially. Three specimens in November, January and March exhibited both adult and juvenile under tail coverts, but three specimens, in November, January and April, exhibited only juvenile coverts. This, along with the drop in numbers of specimens from November onwards, which are ageable as juveniles, suggests that at least some juveniles undergo a complete tail covert moult, rendering them indistinguishable from adults. Abrasion or moult of the breast and belly feathers makes these two criteria unworkable from this time of year also.

The graph shows the numbers of juveniles and adults in each monthly sample, aged using the above characters. The tiny sample in November makes it impossible to say at present whether juveniles are all ageable or not in November.

Thus the safe thing to do at present would seem to be to apply the codes '3' or '5' to any birds showing the juvenile characters, but after October to apply the code '2', changing to '4' at the beginning of the new year, for any birds showing the adult plumage. The next step is to catch some Golden Plovers in November to test the validity of the character in that month.

On a slightly separate note, the character of the outer under tail coverts would seem to apply to both of the Lesser Golden Plover species, (P. dominica and P. fulvus), though I have done no more than glance at both of these species.

Finally, I would like to thank the B.M.N.H., Tring, Leicester and Sheffield Museums for allowing me access to their specimens.

WHEN DO WADERS DIE? - A REQUEST FOR HELP

M.W. Pienkowski

Despite the many recent studies on waders, we still have very little information on when the main periods of wader mortality occur - apart from the heavy mortality in very severe winters (see e.g. reports in Wildfowl Trust 15th Ann.Rep. 1962-63). One might expect relatively heavy mortality to take place during periods when energy requirements are high and/or food supplies low. Such periods may occur over winter, at migration times, or even in the breeding season amongst other times, but as yet we have little evidence as to which, if any, of these is important.

The one good type of evidence that birds are dying is the finding of corpses. In the past several studies have been made of times of mortality by the use of reports of ringed birds found dead. This has some disadvantages, in that:-

(i) the sample size available is reduced because not only does a dead bird have to be found, but this bird needs to have been ringed at some stage in its life. Therefore, the proportion of bodies found which are reported will approximate to the proportion of waders in the population which are ringed, this normally being very small, and

(ii) there is no information on the recoveries file as to what length of shore has been searched and also there is no indication of effort spent in relation to time of year.

The advantage is that some data are already available having been accumulated over the years in which waders have been ringed. This analysis is therefore also being undertaken.

However, as indicated above, this is not a satisfactory method for generating new data, especially at a time when there is an urgent need for knowledge of wader biology in view of current threats to estuaries. We therefore need a scheme of systematic searches of beaches for all bodies, not just those with rings.

Fortunately such an organisation already exists in the R.S.P.B./Seabird Group Beached Bird Survey, organised by Colin Bibby. The main aim of this is to estimate the natural and artificial (oiled, poisoned, etc.) mortality of seabirds. However, coverage has extended into parts of some large estuaries and nearly 2,000 waders have already been recorded. The organisers have kindly agreed to extend the survey and place more emphasis on waders and estuaries of all sizes. It is up to us to take advantage of this offer and to undertake to cover stretches of shore.

The requirements are simple. Helpers should 'adopt' a length of shore (the length that they can conveniently deal with) and walk it at regular intervals. The Beached Bird Survey holds simultaneous counts on weekends in September, November, January, February and March, but welcomes counts at other times. For the wader work it would be useful if one visit could be made each month and the day of the Birds of Estuaries Enquiry count might be a suitable occasion as many people are involved in both surveys. Before starting on a stretch of shore, helpers should contact the Beached Bird Survey, so as to avoid overlap and to obtain forms and full instructions. "Wader workers" should, of course, also record other groups of birds.

Would anyone prepared to help or requiring more information please write to me or directly to Mr. C.J. Bibby, RSPB Research Department, The Lodge, Sandy, Bedfordshire. Those enrolled in the scheme will receive a regular supply of forms and also reports of progress in the surveys.

M.W.P.'s address is in the change of address section of this Bulletin.