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COORDINATED WATERBIRD COUNTS (CWAC)

INFORMATION SHEET No. 3

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Basic aims and protocol

As with the bird atlas project, CWAC techniques are not difficult or complex but they are important. Please take careful note of the points made here and be sure to communicate those that are relevant to your situation to your counters.

Aims: The basic aims of CWAC are the following:

- 1) to compile a database on the country's wetlands, especially with regard to waterbirds;
- 2) to estimate population sizes for species;
- 3) to detect changes in populations between seasons;
- 4) to monitor changes from year to year and describe long term trends;
- 5) to analyze the data and report the results as an aid to research and conservation.

If CWAC is to be respected as a reliable source of scientific information it must ensure that its methods are sound.

Dates: It has been decided that CWAC counts will take place twice a year, in January and July, so that seasonal changes can be described. A preferred date and date limits will be specified for each count. Waterbirds are known to move about a lot. The importance of these dates lies in the need to minimize the chances of counting the same birds twice at different sites and in making comparisons between years as valid as possible. The ideal is for all counts to be performed on the same day each year. In practice this is never possible so limits are set. These limits will always include three weekends and all counts must take place within the limits.

Regularity: It is very important that all sites be counted regularly every January and July. Breaks in the series of counts make it difficult to analyze the data statistically and detect patterns of change through time.

Consistency and standardization: Analyses of the data will involve comparisons between sites and between seasons and between years. If these comparisons are to be valid and informative they must be based on data which were collected consistently for the same geographical areas, using the same methods of data collection. These two issues require separate consideration:

Site definition: What constitutes an appropriate CWAC site is discussed in Information Sheet No.1. Once a site has been selected, its boundaries must be clearly defined and marked on a map (1:50 000 or smaller scale). A copy of this map must be supplied to the National Coordinator. The importance of this exercise lies in (a) knowing the spatial limits within which counts are to be done and (b) ensuring that the whole area is covered during each count. It is not acceptable to change these boundaries from count to count because of temporary conditions or organizational circumstances. Factors such as water level will necessitate some changes in approach but nevertheless, every effort should be made to collect data from the whole defined area and only from that area.

Method definition: The details of counting techniques will be discussed in a separate information sheet but I wish to establish the principle that methods need to be defined and used consistently. It is easy to imagine how drastic changes in counting methods could affect results and thereby make comparisons between counts invalid. The aspects of the method for counting a particular site which should be standardized are the following:

(a) number of counters: The number of counters should be fixed such that the job can be done in a reasonable amount of time but without excessive disturbance of the birds.

(b) routes followed: The routes which the counters follow should be fixed and marked on the site map. The route should be laid out to afford the best possible coverage of the area without repetition. Routes should always be followed in the same direction.

(c) time of day: Counts should always be conducted during the same hours of the day, except in the case of estuaries.

(d) tide: In the case of estuaries, the tidal phase is more important than the time of day. Counts should always be done at high tide when the waders are concentrated above the high water mark.

(e) viewing technique: An appropriate viewing technique should be chosen and used consistently, e.g. stationary from a hide, mobile on foot, mobile from a vehicle, mobile from a boat, aerial survey or some combination of these.

(f) viewing aids: Appropriate aids should be chosen and used consistently, e.g. binoculars and telescopes of particular magnification, photography from particular vantage points, aerial photography. It is important not to use inadequate equipment, e.g. binoculars across long stretches of open water or shore where telescopes are essential for proper identification of species.

(g) personnel: If possible counters should be experienced in identifying waterbirds. If necessary, training should be provided, particularly in identifying waders. Counts will benefit from repeated use of the same counters who know the area, know the techniques and know the birds.

(h) counting techniques: The manner in which the actual counting is done and recorded should be standardized as far as possible. Again this may require some training and will benefit from personal experience. This will be the subject of a separate information sheet.

Factors which cannot be standardized, such as weather conditions and water levels, should be recorded and reported so that account can be taken of their effects.

Compilers may need the experience of one or two counts before they are able to decide on which methods to use but these decisions must be made and when they are they should be written down, indicated on maps, copies made and provided to the National Coordinator and to the relevant counters. This probably seems like a lot of work but in most cases it will be very straightforward and will need to be done only once. The subsequent benefits in the form of smoothly run counts will make it well worthwhile.

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