THE DREADED CO-ORDINATE

Once upon a time there was a Schedule 1 on which no provision was made for the insertion of co-ordinates. All the ringer had to do was to insert the name of the locality at which the bird or birds was or were ringed. However, when a recovery was reported, the Ringing Unit staff had to determine the co-ordinates for both ringing and finding localities so that the computer could compute the distance between the two points. It was (and still is) often just as difficult to locate the place of ringing as to find the recovery point from the imprecise details supplied. However, as the ringer presumably knew where he had caught the bird, it seemed sensible to let him insert his own co-ordinates for the ringing locality and thus to halve (???) the task of the Ringing Organiser. Columns were accordingly provided on Schedule 1 for co-ordinates, and from then on, the rot set in!

There are eight different ways to project a colour transparency, seven of which are wrong. When it comes to writing down the eight digits for degrees and minutes of latitude and longitude of any locality, there are as many as forty thousand three hundred and nineteen ways of getting the RIGHT figures in the wrong order if you happen to be thinking of something else! Those readers with good heads for figures may feel this is gross exaggeration, on the grounds that although it is possible to arrange a sequence of eight different digits in 40 320 different ways, we are actually considering two sets of four digits, each of which can be written in only 24 different ways, hence there are no more than 46 ways of getting the co-ordinates for any one locality wrong.

Don't bother to work this last bit of arithmetic out because such a claim is regrettably not supported by the facts.

By convention, co-ordinates for latitude always precede those for longitude, and the commonest way of perpetrating an error is to transpose the two sets. This can have quite startling consequences. For example, the co-ordinates for Banket, in northern Zimbabwe, are 1725 3018. Written as 3018 1725 the locality is moved some 2 000 km to a point east of Hondeklip Bay on the Namaqualand coast. Another common error is to swop the second two digits of each set. This results in far less distance error, but it is still wrong. For example, a balchatri enthusiast might catch a Greater Kestrel on a farm road in the Lindley District, determine the co-ordinates as 2804 2756, but write them in the schedule as 2856 2704, thus indicating that he had been 130km away from the actual capture point and had caught his bird in Excelsior!

Examples can be found of virtually every transposition possible, so if we represent the eight digits as abcd efgh, one can encounter efcd abgh, abcd ghef, ebcd afgh, and so on, (let alone combinations such as abcd exyz!)

The ringer only has to transcribe co-ordinates for his ringing locality onto the schedule. But the staff at SAFRING have to transcribe two lots onto data cards, and since transcription error is not host-specific, it is reasonable to expect that twice as many errors will have been perpetrated. Furthermore, to compound confusion, the confounded co-ordinates have to be transcribed

twice before they get into the computer's digestive system. Any claim that the recovery co-ordinates contain fewer errors than the ringing co-ordinates can be dealt a mortal blow by looking at the data bank. It would appear, for example, that ornithologists in Zimbabwe could add the Cape Gannet to their list of visiting birds from the Cape west coast as several of these seabirds are shown to have been recovered there!

Alas, the dreaded co-ordinate has even greater peril lying in wait for unwary staff of ringing organizations. It's all in the news you know. NEWS is an acronym for north east west south. (Don't ask why we don't have swenpapers or wenspapers). But when our migrant birds move out of the country we have to qualify our latitudes as N or S and our longitudes as E or W. This means that each of the 40 320 arrangements of digits can be qualified in four ways, so we have, in fact, a choice of 161 279 ways of getting the locality wrong. However, if we take the trouble to check our figures each time we transcribe them, we usually manage to achieve the one and only right combination!

So cheer up folks! It could be worse. Think of the Australians. They have an extra digit in their longitude and, consequently, can write their co-ordinates in 1 451 519 error forms!

SAGGITARIUS