



▲ Starling murmurations can be daunting to count, but simple tricks, like using blocks, help.

FIELD CRAFT

Accurately counting winter flocks

Being able to secure an accurate estimate (or an exact count) of the number of birds seen is an important skill and, as Nick Moran explains, one that forms the backbone of conservation work.

You can play a vital role in the production of population estimates and trends by counting individual birds. The Wetland Bird Survey (WeBS) makes direct use of waterbird counts from wetland sites across the UK to assess changes in the numbers and distribution of waterbirds, particularly in winter. WeBS volunteers count at coordinated times so that totals can be generated for larger sites, such as estuaries and large inland waters, and an accurate estimate of the number of birds using each site can be made. The results are used to recognise important sites for waterbirds, to identify and evaluate the effects of proposed developments, and to monitor Special Protection Areas and Sites of Special Scientific Interest. During winter 2018/19 there is also an opportunity to take part in the English Winter Bird Survey, which will investigate how birds (and Brown Hare)

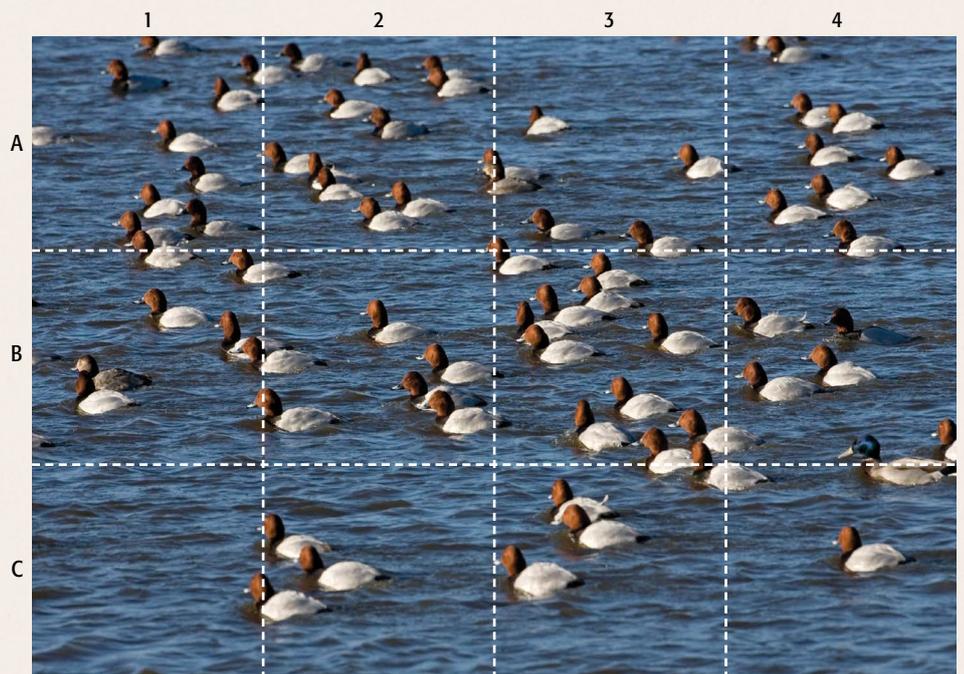
are benefited by agri-environment scheme measures in winter – a major gap in our understanding.

So counting certainly counts, but how do you go about it?

TAKE NOTE!

It is all too easy to lose track of running totals if you only keep them in your head: so first and foremost note it down!

For species you are likely to encounter in relatively small numbers, up to about 30 or 40 per visit, and usually singly or in small groups, a tally system works well. For more numerous species, and those that tend to occur in larger groups, writing down the number in each group is more practical. For example, Cormorants passing a coastal watchpoint: 5, 14, 8, 4, 27, 9, 6, 12, 5, 23. In each case, totals can be calculated once the recording period is over. Both of these notebook-based options are also catered for in the BirdTrack app. The '+' button on the species row can be used to increase counts by one at a time. Alternatively, sizeable counts for a previously-logged species can be added by re-entering the



THESE ARE 75 PARTIAL OR COMPLETE POCHARDS, AND SQUARE B2 IS THE MOST REPRESENTATIVE.

► Using the block technique, estimate how many Pochards are in this photo. Which square are you using as the best representation? Answers below.

The effect of perspective usually means that the birds furthest from the observer will appear more tightly packed than the nearer ones

species with the additional count then pressing 'Add', which automatically cumulates the counts as you go along.

BLOCK IT OUT

Counting small groups of birds, particularly of the same species, can be straightforward. Larger groups and mixed-species flocks are more challenging to count, though there are strategies that can help. One useful tip is to mentally divide large flocks into similar-sized blocks, count the individuals in one block then multiply by number of blocks to produce a total count. This technique can be applied to stationary flocks and, with practice, birds in flight. When using this approach, count a block where the density of birds is a good representation of the density throughout the flock. Bear in mind that there may be clusters within the flock, and that the effect of perspective usually means that the birds furthest from the observer will appear more tightly packed than the nearer ones.

Mixed-species flocks can also be counted in blocks; to do this, count the number of each species within the block before extrapolating. It is easiest to start with the rarest species within the flock, working up to the most abundant. Keying in to particular identification features can speed up the process – for example, if counting finches flying in and out of a stubble field in winter, start by homing in on the elongate white rumps of Bramblings.

CALIBRATE YOUR COUNTS

Naturally, counting improves with practice. A handy tip for checking progress is to count a flock in the field,

Double counting

Recording the same individual twice (or more!) leads to over-inflated totals. There are no hard and fast rules to avoid double counting but common-sense principles apply. If a roving flock of passerines moving through a linear habitat feature, such as a hedgerow, overtakes you, you may well encounter the same group later on. In this scenario, only log additional individuals or new species. This is straightforward if you are keeping tally in a notebook or using the BirdTrack app. For example, if you noted five Blue Tits, four Great Tits and a Chiffchaff the first time you saw a flock, then seven Blue Tits, three Great Tits, a Coal Tit and a Treecreeper when you met them again, your totals would be seven Blue Tits, four Great Tits and singles of Coal Tit, Chiffchaff and Treecreeper. If in doubt, be conservative. It also helps to know something about the behavioural ecology of the species in question: what is the normal range of group sizes for each species, and what proportion of

each does a flock usually comprise?

Similarly, if you are counting waterbirds that are feeding or otherwise active, be mindful of the fact that some individuals will move more quickly than others and may pass through the flock faster than your scanning speed. It is worth making an initial quick scan of the whole flock to assess the overall extent of the flock and amount of movement so that you can take these factors into account. If some individuals do move through your field view during your 'counting scan', these can be ignored, providing that there are roughly equal numbers moving in both directions. Unless you are a very experienced counter or there is no alternative, it is best to avoid counting birds in highly dynamic, 'rolling' situations, such as seabirds following a fishing boat or waders on an incoming tide. In these cases, individuals in the flock will repeatedly overlap one another so it is best to wait until the birds are more settled before trying to count them.



▲ Flocking birds in dynamic situations, like gulls following a plough, are difficult to count.

take a photograph, then count the birds in the image once back at home. Checking counts in this way from time to time gives an indication of your margin of error, which will hopefully come down over time. Many people find that they undercount at first so don't be disheartened if an early attempt at counting a large flock proves to be an underestimate. ■

Get involved

Perfect your flock counting skills this winter while taking part in our surveys! Sign up for WeBS at www.bto.org/webs and the English Winter Bird Survey at www.bto.org/ewbs.

Learn more about counting techniques on a WeBS training course:

www.bto.org/training