

FIELD CRAFT

The importance of structure in bird identification

After an office chat about a Willow Warbler caused a colleague to say “I’m with you on tertials but lost you at primary projection”, Breeding Bird Survey National Organiser Sarah Harris started to think about how important structural features are in bird ID, and how to break down the jargon used to describe them.

While the tone of olive on a warbler or the grey on a gull’s mantle can contribute to their identification, colour and pattern are open to interpretation and can be affected by light conditions, viewing angle or time of year. Structural elements, however, like bill length and depth, can be visually assessed in the field by ‘measuring’ against other parts of the bird itself, or against the equivalent parts of any other nearby species. In fact, structure is often key to making a positive identification.

The concept of ‘projection’ – or how far one group of feathers sticks out beyond another – underpins many structural differences. For example, primary projection is probably one of the most referred-to features in warbler ID. This term refers to the length of the exposed primary wing feathers in relation to the length of the shorter tertial wing feathers. When separating Chiffchaff from Willow Warbler, for example, it’s worth remembering that Willow Warblers are long-distance migrants and hence have longer wings than Chiffchaffs, which migrate over a shorter distance each

year. A Chiffchaff therefore has shorter primary feathers in relation to the length of the tertials. The primary projection can help distinguish between other confusion species too, such as Whinchat (longer) and Stonechat (shorter), Icterine Warbler (longer) and Melodious Warbler (shorter), Dunlin (short to non-existent) and White-rumped Sandpiper (longer). Indeed, if you ever come across an unusual-looking vagrant pipit in the UK with obvious primary projection, you could well be looking at a Pechora Pipit from northern Siberia, as none of our other resident or expected vagrant pipits have much of a primary projection at all!

BEYOND THE PRIMARY PROJECTION

Wing projection is another useful structural feature. This describes the length by which the wing extends beyond the tail for a bird in profile, and is well worth paying attention to when looking at gulls, terns and waders in particular. For example, Lesser Black-backed Gull has a much longer wing projection than Great Black-backed Gull, and the same

difference can be used to separate Iceland Gull, in which the wings extend well beyond the tail, from Glaucous Gull, in which the wings barely reach beyond the tail at all. Conversely, a tail extending beyond the wing tips (tail projection) is a key difference between Arctic Tern and Common Tern. Tail projection can also help with distant or upending swans (Mute Swans having a longer tail projection than Whooper or Bewick’s).

Other structural features can also be useful in ID. Have you ever been told that there is a Spotted Redshank at a winter roost of hundreds of Redshanks, and been daunted by the prospect of sifting through the crowds? If the legs are visible, it could be worth scanning to see if any have obviously longer tibia (the section above the ‘knee’) than the neighbouring birds. The tibia are longer in Spotted Redshank than in Redshank.

Now imagine the Redshanks are awake and showing their bills, and that you can remove the bill and hold it horizontally beside the head. On a Redshank, the bill will be slightly longer than the head is

On a Redshank, the bill will be slightly longer than the head is deep while, on the Spotted Redshank, it will be twice the length of the head depth!



▲ Understanding the structure of a bird can help identify birds on their own.



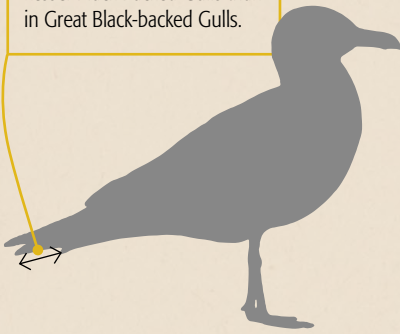
Understanding differences in structure

LESSER BLACK-BACKED GULL

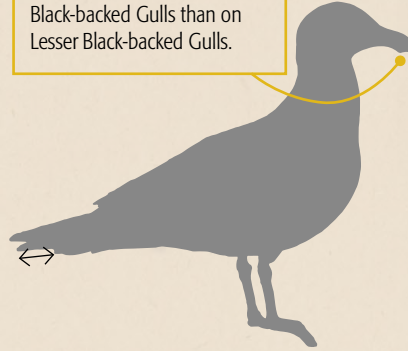
VS

GREAT BLACK-BACKED GULL

The **wing projection** extends further beyond the tail tip in Lesser Black-backed Gulls than in Great Black-backed Gulls.



Gonydeal angle (gonys) is more pronounced on Great Black-backed Gulls than on Lesser Black-backed Gulls.



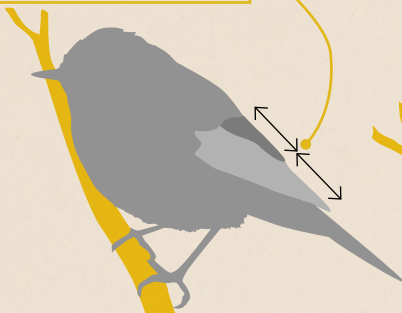
▲ With practice, foot projection (the extension of the legs and feet beyond the tail in flight) can be useful for distinguishing Guillemots (beyond the tail) and Razorbills (short of the tail) at sea.

WILLOW WARBLER

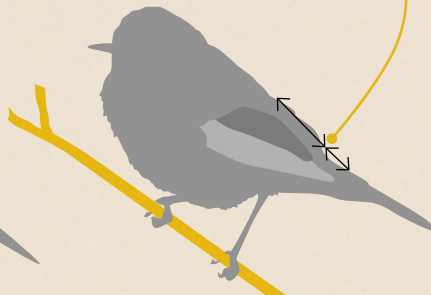
VS

CHIFFCHAFF

The **primary projection** in relation to the length of the tertials can help identify a Chiffchaff from a Willow Warbler without a direct comparison between species.



The **visible tertials** on a Willow Warbler are about the same length as the primary projection. On a Chiffchaff, the primary projection is about half that of the tertial length.

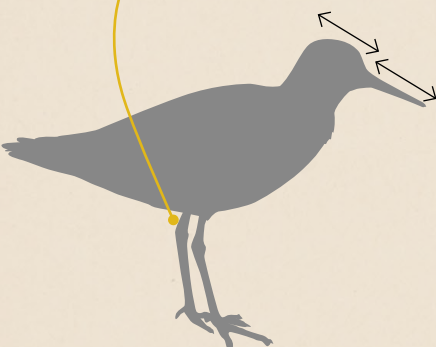


REDSHANK

VS

SPOTTED REDSHANK

The **tibia length** on a Redshank is shorter than that of Spotted Redshank. This is a useful feature to look for in a flock of roosting redshanks.



The **bill length** on a Spotted Redshank is twice the length of the head depth, unlike the shorter-billed Redshank.



deep while, on the Spotted Redshank, it will be twice the length of the head depth! Another fun example is Iceland and Glaucous Gull – Iceland has a ‘half a head-depth’ bill, making it look quite ‘cute’, while the bill of a Glaucous is almost equal in length to head depth, making it look quite scary!

FINER STRUCTURAL FEATURES

Once you get into structure, you can start focusing on less obvious features. For example, foot projection (the extension of the legs and feet beyond the tail in flight) can be useful for distinguishing Little and Great White Egrets, or indeed Guillemots and Razorbills, while the length and shape of the hind claw can help with the ID of Meadow and Tree Pipits. The angle of the lower mandible (the ‘gonys’) is also important to separating some larger gull species.

With practice, you might well find that you wonder how you ever identified birds without using structure, or even realise that you subconsciously had been all along! You could also find yourself wondering why you ever spent ages waiting for a bird to position itself so you could see its leg colour or wing pattern, when in fact a quick look at its profile would have solved the conundrum. ■

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