

FIELD CRAFT

All about applied bird topography

BTO Training Officer Jenny Donelan takes a deep dive into bird topography.

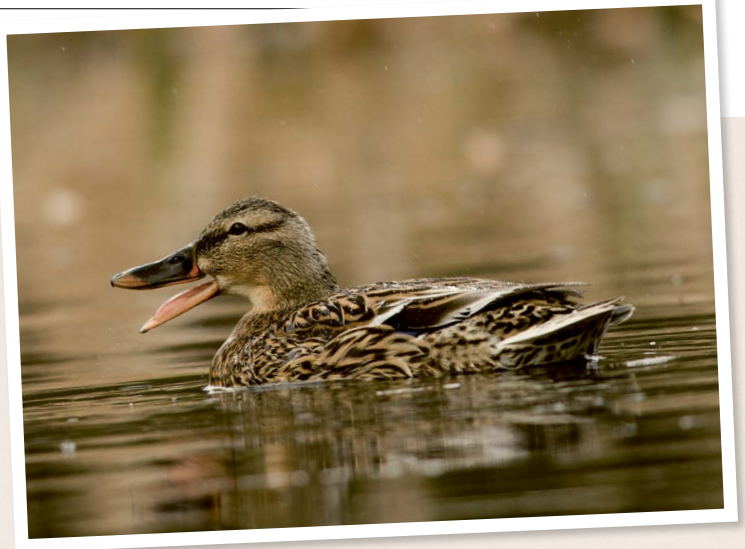
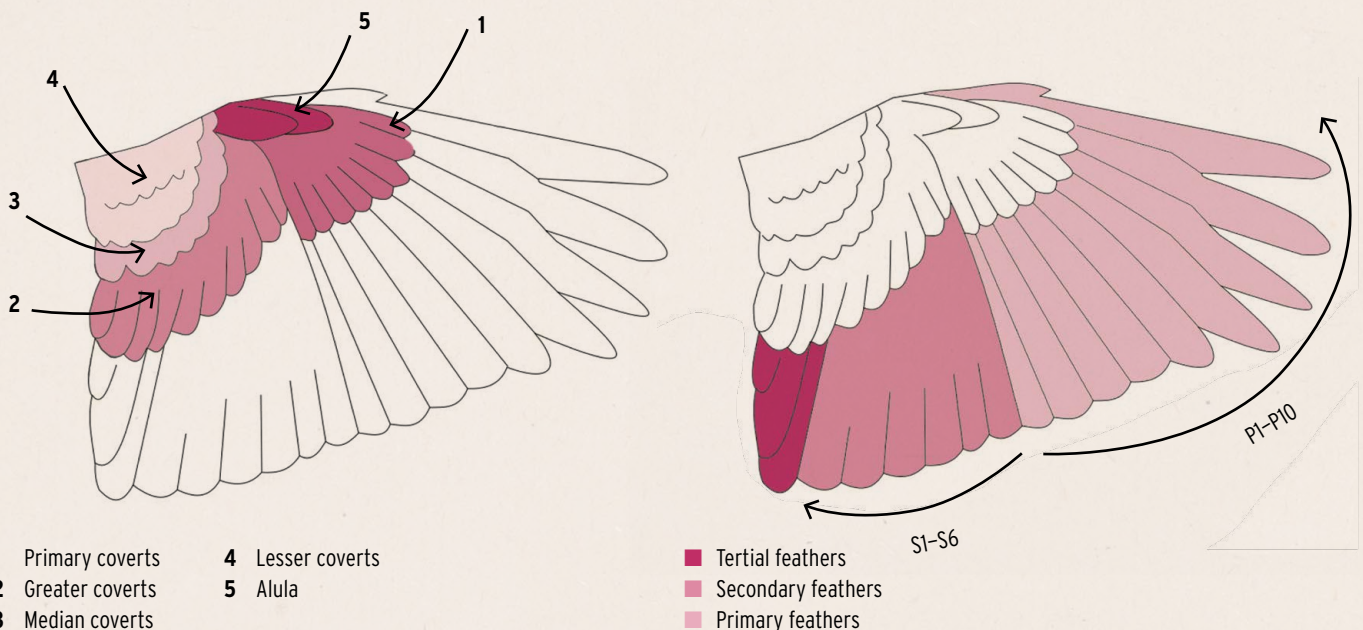
Learning bird topography will greatly enhance the way you look at birds, describe them to others, and, ultimately, identify them. Once you have mastered where the basic feather tracts are you will have a framework to describe the colours and patterns you see, and a great understanding of both structure and perspective. In spring 2023 (*BTO News* 346), we covered basic bird topography. Now we're going to take this a step further and apply more advanced topographical knowledge to birds in the field and understand how focusing in on groups of feathers can be key in identifying some species or groups.

Knowing the arrangement of the flight feathers in a bird's wing will greatly help you understand what you see when birds are both at rest and in flight. Primaries are the longest flight feathers, growing from the outer part of the wing (the 'hand'). They form the lower part of the folded (closed) wing. Secondary feathers grow from the inner part of the wing (the 'forearm') and the

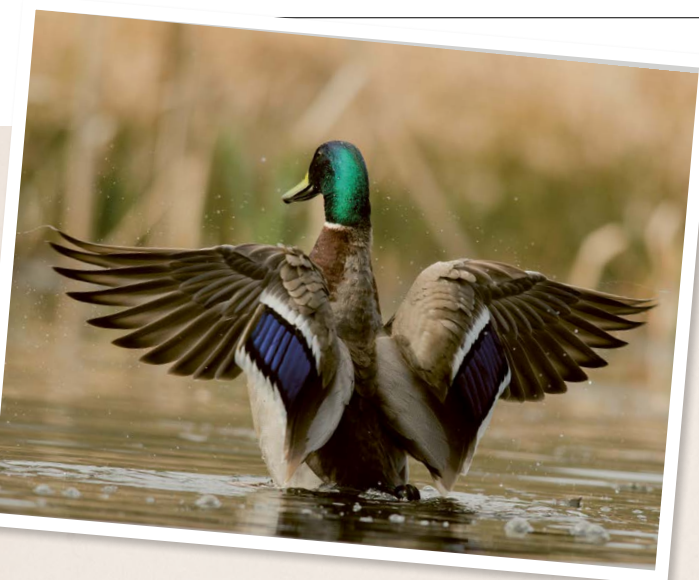
outermost secondary borders the innermost primary. The bases of the primary and secondary feathers are protected by feathers called the primary coverts and greater coverts. In some species, such as Blue Tit, the greater coverts have paler tips that form a lower wing bar. Covering the base of the secondaries are the median coverts, which can also have pale-coloured tips. If present, these pale tips create the upper wing bars in some birds, such as Chaffinch. Certain feather tracts are often less visible when a bird has its wings closed. For example, the lesser coverts and alula feathers are usually concealed by the body feathers and scapulars when a bird is at rest.

Knowing the arrangement of the flight feathers in a bird's wing will greatly help you understand what you see when birds are both at rest and in flight

Main feather tracts: wing



FEMALE & MALE MALLARDS: RICHARD JACKSON/BTO. GREAT BLACK-BACKED GULL: ANNE CARRINGTON-COTTON. HERRING GULL & LESSER BLACK-BACKED GULL: DAWN BALMER. MEADOW PIPIT (LEFT): LIZ CUTTING/BTO. MEADOW PIPIT (RIGHT): PHILIP CROFT/BTO. SKYLARK: PHILIP CROFT/BTO



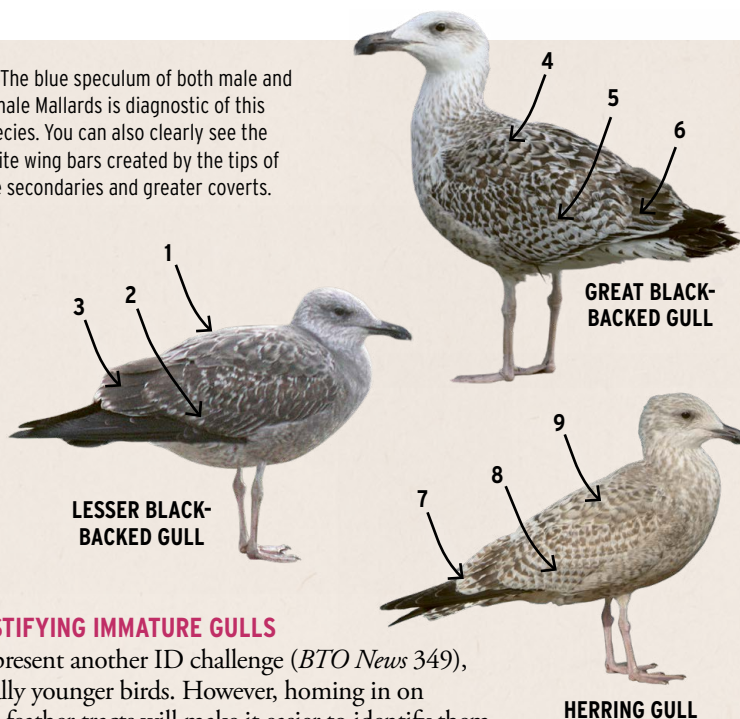
USING FEATHER TRACTS

Specific feather tracts can be particularly useful for identifying certain groups of birds. For example, duck speculums are often a diagnostic feature of a species and are especially important when identifying flying ducks. The speculum is formed from the colour pattern of the secondaries, which are bordered from above by the greater coverts. Although easy to see in a fully open wing, the speculum can look different (and is sometimes hidden) on the closed wing of a preening or resting bird. Knowing the location of the speculum, along with which species is associated with which colour, will stand you in good stead when looking at groups of ducks, especially at times of year when ducks can be hard to identify. In late summer, for example, the speculum can be one of the most reliable ID features for male ducks in their eclipse plumage (*BTO News 340*).

UNPICKING SIMILAR SPECIES

Pipits and larks are a good example of where knowing the placement of particular feather tracts will help you distinguish between these similarly plumaged families. In this case, the tertials are the group of feathers to concentrate on: pipits generally have extremely long tertials, which are equal to or almost equal to the length of the primary feathers, whereas larks have primary feathers which extend beyond the length of the tertials. The extent to which the primaries stick out beyond the tertials is known as a primary projection (*BTO News 339*).

◀ The blue speculum of both male and female Mallards is diagnostic of this species. You can also clearly see the white wing bars created by the tips of the secondaries and greater coverts.



DEMYSTIFYING IMMATURE GULLS

Gulls present another ID challenge (*BTO News 349*), especially younger birds. However, homing in on certain feather tracts will make it easier to identify them in the field. First-winter Lesser Black-backed, Great Black-backed and Herring Gulls are all generally a uniform grey/brown colour, but all three species have different patterns on the scapulars (feathers along the bird's back), greater coverts and secondaries, which make them distinguishable. Lesser Black-backed Gulls have dark brown scapulars (1), and the greater coverts (2) are overall rather dark and plain compared to the other two species. The white on the tertials (3) is largely restricted to the tips, and the overall impression of the plumage is dark. Great Black-backed Gulls have quite heavily patterned scapulars (4) and greater coverts (5) which give them a 'checkerboard' effect, in contrast to the tertials (6), which are rather plain. Herring Gulls have large white 'notches' along the entire length of their tertials (7) when fresh, and the greater coverts (8) are heavily patterned with uniform neat triangles. The scapulars (9) are a pale grey with varying intensities of broad stripes, but the overall impression is of a pale scapular area which is a key identification feature. ■

Find out more You can find all our previous Field Craft articles online and information on our BTO training courses at: www.bto.org/develop-your-skills

▶ In profile, the Meadow Pipit's long tertials compared to its primaries are particularly apparent.

◀◀ Meadow Pipit (left) has tertials almost equal to the length of the primaries compared to Skylark (right) where the primaries extend beyond the length of the tertials.

