

SEQUENCE OF PLUMAGES IN BRITISH BIRDS
 VI.—THE BRITISH LONG-TAILED, GREAT, COAL, MARSI
 AND BLUE TITMICE.

BY
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THE BRITISH LONG-TAILED TITMOUSE.

Acredula caudata rosea (Blyth).

MALE AND FEMALE.

DOWN-PLUMAGE. Not examined.

JUVENILE PLUMAGE. Acquired while in the nest, the Down-Plumage being completely moulted.

Feathers of the *crown* white, some being lightly tipped with brown, especially on the *forehead*; *lores*, *superciliary stripe*, *ear-coverts*, *hind-neck*, *mantle*, *back*, *rump* and *upper tail-coverts* dark chocolate-brown; *scapulars* the same, but tipped with white; *under-side* white, except some of the *flank-feathers*, which have a buff tinge, and the *vent* and *under tail-coverts*, which are pink; *axillaries* white; *tail-feathers* black, the outer pair with a white outer web, the next pair the same, except at the base, where the outer web is black, the next pair with faint white markings on the outer web near the tip; *wing-feathers* blackish-brown, the inner secondaries being emarginated with white; *primary-coverts* blackish-brown; all the *wing-coverts* dark brown, the inner *greater coverts* being emarginated with white like the inner secondaries.

FIRST WINTER-PLUMAGE. Acquired by a complete moult.

Forehead, *lores*, centre of *crown* and *hind-neck* dull white, marked here and there with black; *superciliary stripe* extending from a little in front of the eye to the *mantle*, black; *ear-coverts* grey, streaked with brown; *mantle* black; *back* black, with more or less pink; *scapulars* and *rump* pink, with the tips of some of the feathers white and some black; *upper tail-coverts* black; *chin* and *throat* white; an indistinct band on the *upper-breast* formed by small brown tips to some of the feathers; centre of *breast* and *belly* white, the *sides*, *flanks* and *under tail-coverts* pink, the feathers being tipped with white; *tail-feathers* black, the outer two pairs having white outer webs, with the white extending across the inner web in a slanting line towards the tip of the feathers, the next pair the same, but with the outer web at the base black and only fringed with white, the next pair with a little white on the outer web towards the tip; *axillaries* and *under wing-coverts* white; *wing-feathers* blackish-brown, the four innermost *secondaries* paler brown and margined with white or buffish-white, the next two with narrow white edgings to the outer webs; *wing-coverts* black, except the innermost *greater coverts*, which are brown, tipped with white, and margined with pink and white.

FIRST SUMMER-PLUMAGE. Acquired by abrasion. The plumage is like that of the First Winter, except that it is abraded, the tail especially becoming very ragged.

ADULT WINTER-PLUMAGE. Acquired by a complete moult. The plumage is like that of the First Winter.

EN.B.—I can detect no difference between males and females in any plumage, except that the males average rather larger: *wing-measurement* (average), male 61 mm.; female 59 mm.

BRITISH GREAT TITMOUSE.

Parus major newtoni, Prazák.

DOWN-PLUMAGE. Whitish-grey. *Distribution*—Inner supra-orbital, occipital, humeral and spinal (*vide* C. B. Ticehurst, Vol. II., p. 190).

JUVENILE PLUMAGE. Acquired while in the nest, the Down-Plumage being completely moulted.

MALE. *Forehead, lores, crown and nape* dull greyish-black; *nuchal spot* yellowish-white; *mantle, scapulars, and back* olive-green; *rump and upper tail-coverts* smoke-grey; *ear-coverts, cheeks and sides of neck* yellowish-white; *chin and throat*, greyish-black and a narrowing line of the same colour down the middle of the *breast and belly*; rest of *breast, belly and flanks* pale yellow; *under tail-coverts* white; *tail-feathers* (except the central pair, which are dull blue-grey with black shaft-streaks) brownish-black, the outer pair having the outer webs white and a varying portion of the inner webs from the tip in a wedge-shape white, the next two pairs having blue-grey outer webs and small white tips on the outer webs, the rest with blue-grey outer webs; *under wing-coverts* white; *axillaries* pale yellow; *primaries* brownish-black, with narrow blue-grey edges to the outer, and narrow white edges to the inner, webs; *secondaries* brownish-black, with broad yellowish-green edges to the outer, and white edges to the inner, webs, the two innermost *secondaries* with broader yellowish edges; *primary-coverts* like the primaries, but with the edges duller; *greater-coverts* smoke-grey, with greenish edges and pale yellow tips; *median and lesser-coverts* smoke-grey, with faint greenish edges.

FEMALE. Like the male, but with the *head and chin* browner black, and the *primary-coverts* browner and with greenish, not such blue-grey, edgings.

FIRST WINTER-PLUMAGE. Acquired by a complete moult, with the exception of the remiges (two and occasionally three of the innermost secondaries are moulted), primary-coverts, and rectrices, except the central pair which are moulted.

MALE. *Forehead, lores, crown and nape* glossy blue-black; *nuchal spot* white; *upper mantle* greenish-yellow; rest of *mantle, scapulars and back* yellowish-green; *rump and upper tail-coverts* blue-grey; *ear-coverts and cheeks* white; *sides of neck* blue-black (some of the feathers with green tips), extending backwards and forwards and joining the blue-black *nape and throat and upper breast*, which are also blue-black; *chin* black; *centre of breast and belly* black, becoming more extended on the belly; *sides of breast and flanks* deep yellow; *vent and under tail-coverts* black in centre, white at sides; *tail-feathers* as in the Juvenile, but the central pair a brighter blue-grey; *under wing-coverts* black and white; *axillaries* pale yellow; *primaries and secondaries* as

in the Juvenile, but the moulted inner secondaries black, not brownish-black; *primary-coverts* as in the Juvenile; *greater-coverts* black, with blue edges to the outer webs and white tips (the three or four innermost with yellowish tips); *median* and *lesser-coverts* blue.

FEMALE. Like the male, but duller, the black of the *head* being less glossy and less blue; the *throat* and *upper breast* brownish-black, not blue-black; the black on the *breast* and *belly* browner and lesser extensive; the *primary-coverts* browner; the *greater-coverts* tinged with green; central *tail-feathers* not so bright.

FIRST SUMMER-PLUMAGE. Acquired by abrasion and fading.

There is no marked difference between this plumage and that of the First Winter. The *head* and *throat* are not so glossy; the blue-black on the *sides of the neck* is wider, through the wearing off of some of the green tips to the lower feathers; the tips of the *greater coverts* are smaller and whiter; the *remiges* and *primary-coverts* are browner and their edgings narrower.

ADULT WINTER-PLUMAGE. Acquired by a complete moult.

MALE. Like that of the First Winter, but the *remiges* are blacker, with brighter blue edgings to the *primaries* and *primary-coverts*, and blue, not green, edges to the *secondaries*, except the innermost, which are like those in the First Winter.

FEMALE. Like that of the First Winter, but the same changes as in the male.

ADULT SUMMER-PLUMAGE. Acquired in the same manner as the First Summer-Plumage and differs from the adult Winter-Plumage in the same way.

THE BRITISH COAL-TITMOUSE.

Parus ater britannicus, Sharpe and Dresser.

MALE AND FEMALE.

DOWN-PLUMAGE. Greyish. *Distribution* — Inner supra-orbital, occipital, humeral and spinal (*vide* C. B. Ticehurst, Vol. II., p. 190).

JUVENILE PLUMAGE. Acquired while in the nest, the Down-Plumage being completely moulted.

Forehead, lores, crown and *sides of hind-neck* sooty-black; *middle of hind-neck*, extending on to the mantle, yellowish-white; *mantle, scapulars, back, rump* and *upper tail-coverts* dull olive-green; *ear-coverts, cheeks* and *sides of neck* yellow; *chin* and *upper-throat* sooty-black; *breast* and *belly* pale yellow; *flanks* and *under tail-coverts* yellowish-buff; *tail-feathers* brownish-black, with olive-green edges to the outer webs; *under wing-coverts* and *axillaries* white; *primaries* and *secondaries* brownish-black, with olive-green edges to the outer webs and white edges to the inner webs, the two innermost *secondaries* with the inner webs pale and with broad pale tips, the next three with narrow pale tips; *primary-coverts* like the primaries; *greater* and *median coverts* brownish-black, with broad olive-green edges and yellowish-white tips; *lesser-coverts* brownish-black, tinged with olive-green.

FIRST WINTER-PLUMAGE. Acquired by a complete moult, with the exception of the remiges, primary-coverts and rectrices.

Forehead, lores and crown glossy blue-black; *sides of hind-neck*, extending on to the *mantle*, jet-black; *middle of hind-neck*, extending on to the *mantle*, white; *scapulars* and *back* grey, washed with olive-buff; *rump* and *upper tail-coverts* olive-buff; *ear-coverts, cheeks* and *sides of neck* white; *chin, throat* and *upper-breast* black, with white tips to a few of the feathers; *breast* and *centre of belly* white; *sides of belly, flanks* and *under tail-coverts* buff; *under wing-coverts* and *axillaries* white tinged with buff; *tail-feathers, primaries* and *secondaries* and *primary-coverts* as in the Juvenile; *greater and median coverts* brownish-black, with narrow blue-grey edges and white tips; *lesser coverts* brownish-black, with long blue-grey fringes and occasionally tipped with buff.

N.B.—The tips to the innermost *median wing-coverts* are often buff or tinged with buff, and the intensity of the buff colour on the back and flanks varies individually.

FIRST SUMMER-PLUMAGE. Acquired by abrasion and fading.

The black of the *head* becomes duller and less glossy; the *back* becomes blue-grey and the *rump* more greenish; the *throat* and *upper-breast* become blacker through the abrasion of the white tips; the *flanks* become paler; the white tips of the *secondaries* become worn off and those of the *wing-coverts* become much reduced in size.

N.B.—The differences between this plumage and the First Winter-Plumage are most marked in much-worn specimens, which often closely resemble *Parus ater ater* in the colour of the back.

ADULT WINTER-PLUMAGE. Acquired by a complete moult, and cannot be distinguished from the First Winter-Plumage.

ADULT SUMMER-PLUMAGE. Acquired in the same manner as the First Summer-Plumage, and cannot be distinguished from it.

N.B.—Females differ from males in all plumages by the black on the throat being narrower and not extending so far down the upper-breast. Wings of females average 58·3 mm.; of males 60·3 mm.

THE BRITISH MARSH-TITMOUSE.

Parus palustris dresseri, Stejneger.

MALE AND FEMALE.

DOWN-PLUMAGE. Grey. *Distribution*—Inner supra-orbital, occipital, humeral and spinal (*vide* C. B. Ticehurst, Vol. II., p. 190).

JUVENILE PLUMAGE. Acquired while in the nest, the Down-Plumage being completely moulted.

Forehead, lores, crown and *nape* dull, sooty-black, extending on to the *mantle*; *mantle, scapulars, back, rump* and *upper tail-coverts* greyish-brown; *ear-coverts, cheeks* and *sides of neck* white; *chin* and *throat* brownish-black, the feathers of the throat being tipped with white;

breast and *belly* yellowish-white; *flanks* and *under tail-coverts* pale buff; *tail-feathers* dark brown, with olive-brown edges to the outer webs; *under wing-coverts* white; *axillaries* pale buff; *primaries* and *secondaries* dark brown, edged on the outer webs with olive-brown, and on the inner webs with white, the innermost secondaries pale brown; *primary-coverts* dark brown, edged with olive-brown; all the *wing-coverts* olive-brown.

FIRST WINTER-PLUMAGE. Acquired by a complete moult, with the exception of the remiges, primary-coverts and rectrices.

Much like that of the Juvenile, but the whole of the top of the *head* and *nape* glossy black; the rest of the upper-parts darker brown; *chin* and *throat* black; *flanks* deeper buff.

FIRST SUMMER-PLUMAGE. Acquired by abrasion.

The black on the *throat* is a little more intense through the wearing off of some of the white tips to the feathers, but otherwise no difference can be detected between Summer- and Winter-Plumage.

ADULT WINTER-PLUMAGE. Acquired by a complete moult, and cannot be distinguished from the First Winter-Plumage.

ADULT SUMMER-PLUMAGE. Acquired in the same manner as the First Summer-Plumage, and cannot be distinguished from it.

N.B.—I can detect no difference between male and female in any plumage, nor is there any appreciable difference in wing-measurement.

BRITISH BLUE TITMOUSE.

Parus cæruleus obscurus, Prazák.

DOWN-PLUMAGE. White. *Distribution* — Inner supra-orbital, occipital, and humeral (*vide* C. B. Ticehurst, Vol. II., p. 190).

JUVENILE PLUMAGE. Acquired while in the nest, the Down-Plumage being completely moulted.

MALE. *Forehead* yellow; *crown* dull greenish-brown, a black line running from the base of the bill to and behind the eye; *superciliary stripe* white over the eye, extending backwards in a yellow stripe, which continues round the *nape*; *hind-neck* like the crown; *nuchal spot* pale yellow; *mantle*, *scapulars*, *back*, *rump* and *upper tail-coverts* dull olive-green; *ear-coverts*, *cheeks* (a small patch immediately below the eye is white), *sides of throat*, *breast*, *belly*, *flanks* and *under tail-coverts* yellow; a narrow line of dull greenish-brown in the centre of the *throat* passes backwards below the ear-coverts and joins the hind-neck (this line is ill-defined on the throat); *tail-feathers* blue, tinged with greenish, the outer pair with a narrow white edge to the outer webs; *under wing-coverts* yellowish-white; *axillaries* yellow; *primaries* and *secondaries* brown, with blue-green edges to the outer webs, the innermost four *secondaries* greyish-brown, with green fringes to the outer webs and dull white tips, larger on the two innermost; *primary-coverts* bluish-green,

with brownish-black shaft-stripes; *greater-coverts* grey, with yellowish-white tips and narrow blue-green edgings to the outer ones; *median* and *lesser coverts* French grey.

FEMALE. Similar to the male, but with the *tail-feathers* more dull coloured; the outer webs of the *primaries* and *secondaries* greener and duller, not so blue, and the *primary-coverts* browner.

FIRST WINTER-PLUMAGE. Acquired by a complete moult, with the exception of the remiges (two, and occasionally three, of the innermost secondaries are moulted), *primary-coverts* and *rectrices*.

MALE. *Forehead* white; *crown* bright blue, a black line running from the base of the bill to and behind the eye; *superciliary stripe* white and continued round the *nape* in a narrow white band; *hind-neck* and *sides of neck* dark blue; *nuchal spot* greyish-white; *mantle*, *scapulars* and *back* yellowish-green; *rump* yellow green; *upper tail-coverts* blue; *ear-coverts*, *cheeks* and *sides of throat* white; a black line in the centre of the *throat* (the feathers tipped with white), widening at the base of the throat and passing backwards under the *ear-coverts* and joining the blue of the sides of the neck; *breast*, *flanks* and *under tail-coverts* yellow; middle of *lower-breast* and *belly* white, with a patch of blackish-blue in the centre; *tail-feathers* as in the Juvenile; *under wing-coverts* white; *axillaries* pale yellow; *primaries* and *secondaries* as in the Juvenile, but the innermost secondaries tinged with blue and with larger white tips; *primary-coverts* as in the Juvenile; *greater-coverts* blue, tipped with white; *median* and *lesser-coverts* blue.

FEMALE. Considerably duller in coloration, especially in the blue of the *head*, *tail*, *primaries* and *wing-coverts*, the *secondaries* greener on the outer webs, the *primary-coverts* browner.

FIRST SUMMER-PLUMAGE. Acquired by abrasion.

MALE. The blue of the *crown* becomes brighter and the black of the *throat* wider and more intense; the *tail-feathers*, *primaries*, *secondaries* and *wing-coverts* become bluer owing to the wearing off of the narrow green fringes; the white tips to the *greater coverts* become smaller.

FEMALE. The blue of the *crown* and *tail* becomes brighter and the black of the *throat* wider and more intense; *wing-feathers* and *primary-coverts* become browner; the white tips to the *greater coverts* become smaller.

ADULT WINTER-PLUMAGE. Acquired by a complete moult.

MALE. Like that of the First Winter, but brighter, especially in the blue of the *crown*, *tail* and *wings*; the *primary-coverts* are bright blue, and the outer webs of *primaries* and *secondaries* are much bluer, the innermost secondaries are of a brighter blue.

FEMALE. Brighter and bluer than the First Winter, but not so bright as the adult male, and the *primary-coverts* and outer webs of the *secondaries* more greenish-blue than the adult male.

ADULT SUMMER-PLUMAGE. Acquired by abrasion.

MALE AND FEMALE. The blue of the *crown*, *wings* and *tail* becomes brighter and the black of the *throat* wider.