

THE MOULTS OF THE BRITISH PASSERES,  
WITH NOTES ON THE SEQUENCE OF THEIR  
PLUMAGES.

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PART V.

(Continued from Vol. IX., page 316).

FAMILY MOTACILLIDÆ.

The members of this family, comprising the Pipits and Wagtails, all have very similar moults, differing only in details. The adults have a complete autumn moult and a spring moult involving the body-feathers, a varying number of wing-coverts, usually some of the innermost secondaries and the central pair of tail-feathers, occasionally the outer pair of tail-feathers and exceptionally all the tail-feathers. This moult varies in details in species and also individually in the same species.

The moult from the juvenile to the first winter is very much like that of the adult in spring, but usually more restricted with regard to the wing-coverts, innermost secondaries and tail, but the extent of this moult varies in different species. The first spring moult is usually like that of the adult.

In the Pipits there are sexual and seasonal differences in the adults of the Red-throated and Water-Pipits only. The juveniles do not differ very markedly from the adults and the first winter birds only in three species.

In the Wagtails, on the other hand, the adult male and female, the winter and summer plumages, the juvenile and the first winter and summer plumages all have differences.

RICHARD'S PIPIT (*Anthus r. richardi*).

ADULTS.—Complete moult in August or September. From March to May there is a moult involving the body-plumage, most of the wing-coverts (not primary-coverts), innermost secondaries, central pair of tail-feathers, and occasionally the outer pair. The extent of this moult varies individually. There is no sexual nor seasonal difference in the plumage.

JUVENILE.—The juvenile has the upper-parts, wing-coverts, innermost secondaries and central tail-feathers brown-black, evenly margined with buffish-white, giving it the appearance

of a juvenile Lark. The breast and sides of the throat are usually more streaked than in the adult.

FIRST WINTER.—The juvenile body-feathers and a few wing-coverts, but not any of the wing- or tail-feathers, are usually moulted from August to November, and the new feathers are like those of the adult, but frequently a number of the juvenile body-feathers are retained until the spring moult. FIRST SUMMER.—The moult is like that of the adult but rather more complete, the remaining juvenile wing-coverts (not primary-coverts), innermost secondaries and central tail-feathers being apparently always moulted. After this moult the bird is like the adult.

#### TAWNY-PIPIT (*Anthus campestris*).

ADULTS.—Complete moult in August to November. From March to April there is a moult much as in Richard's Pipit, but the innermost secondaries and central tail-feathers are only occasionally moulted, and I have not found any case in which the outer pair of tail-feathers were moulting. There is no sexual or seasonal difference in the plumage except that when much worn in summer the upper-parts become darker and less sandy-brown.

JUVENILE.—Except for its smaller tarsus and foot, the juvenile much resembles that of Richard's Pipit.

FIRST WINTER.—The juvenile body-feathers and a varying number of wing-coverts and innermost secondaries and sometimes the central pair of tail-feathers are moulted from July to November. The extent of this moult varies considerably individually. The new feathers are like those of the adult. FIRST SUMMER.—The moult is like that of the adult. The remaining juvenile median and lesser wing-coverts appear always to be moulted, but not necessarily the innermost secondaries and central tail-feathers, the edges of which become so worn as to make them indistinguishable from adults.

#### TREE-PIPIT (*Anthus t. trivialis*).

ADULTS.—Complete moult in August or September. From January to March there is a moult involving the body-feathers, wing-coverts (some outer, greater, and median occasionally do not moult and primary-coverts never do), innermost secondaries, central tail-feathers and exceptionally the outer tail-feathers or all the tail. There is no sexual or seasonal difference in the plumage, except that when worn in summer the dark markings of the upper- and under-parts become

more accentuated and the throat, breast and flanks become whiter and less buff.

**JUVENILE.**—Much like the adult, but the upper-parts more buff and not so greenish and more prominently streaked, and flanks with only very fine dark streaks.

**FIRST WINTER.**—The juvenile body-feathers are moulted in August or September, but not the wing- or tail-feathers, primary-coverts, greater or median wing-coverts. The new feathers are like those of the adult, but a certain number of juvenile body-feathers are sometimes retained until the bird reaches winter quarters. The spring moult is as in the adult.

#### MEADOW-PIBIT (*Anthus pratensis*).

**ADULTS.**—Complete moult in August to October. From January to March there is a moult similar to that of the Tree-Pipit. There is no sexual or seasonal difference in the plumage except that when much worn the upper-parts become very dark and the under-parts whiter and more boldly streaked, owing to the edges and tips of the feathers wearing away.

**JUVENILE.**—Like the adult but more boldly streaked on the upper-parts, the pale edgings to the feathers being narrower; usually tinged with yellow on the under-parts.

**FIRST WINTER.**—The juvenile body-plumage is moulted from July to October, but not the wing- or tail-feathers, primary-coverts or greater or median wing-coverts. The bird then becomes like the adult and the spring moult is the same as in the adult.

#### RED-THROATED PIPIT (*Anthus cervinus*).

**ADULTS.**—Complete moult in July or August. From January to April there is a moult similar to that in the Tree-Pipit. The adult male in winter has the lores, superciliary stripe, chin and throat pearly- to buffish-pink and the breast pale buff to pinkish-buff broadly streaked with brown-black; in summer the upper-breast varies individually, becoming uniform pink like the throat, or with a few narrow streaks, or as much streaked as in winter but more pink. The adult female in winter has the lores, eye-stripe, chin and throat buffish-white; in summer some examples are indistinguishable from males, but usually the breast is more streaked and not so pink and the chin and throat more buffish and less pink, while in late summer the chin and throat often become whitish.

**JUVENILE.**—Much like the adult winter female but with the chin buffish-white and the sides of the throat heavily streaked like the breast, the buff of the under-parts more yellowish.

**FIRST WINTER.**—The juvenile body-feathers are moulted in August, but not the wing- or tail-feathers, primary-coverts, or greater and median wing-coverts. The male is like the adult winter female, but the chin and throat are often tinged with buffish-pink. The female I cannot distinguish from the adult. **FIRST SUMMER.**—Moult as in the adult, after which they cannot be distinguished with certainty, but those males with much streaking on the breast and those females with little pink on the throat *may* be first summer birds.

**WATER-PIFIT** (*Anthus s. spinoletta*).

**ADULTS.**—Complete moult in August or September. In March or April there is a moult involving the body-plumage, usually some of the innermost secondaries and central tail-feathers and often some wing-coverts. In summer the upper-parts (especially the head) are greyer-brown than in winter, the eyestripe is broader and more distinct and is sometimes tinged with pink, the chin, throat and breast become pale buffish-pink usually unstreaked except for a few fine streaks on the flanks and an occasional unmoulted winter streaked feather on the breast. The sexes are alike but in summer unmoulted winter feathers seem more frequent in females which usually do not become so pink as the males.

**JUVENILE.**—Much like the adult winter but with the dark centres of the feathers of the upper-parts more prominent.

**FIRST WINTER.**—The juvenile body-plumage, lesser wing-coverts, and usually the median and some inner greater wing-coverts and some innermost secondaries are moulted in August, but not the rest of the wings nor the tail. The new plumage is like that of the adults and the spring moult and summer plumage are apparently the same as in the adults.

**ROCK-PIFIT** (*Anthus s. petrosus*).

**ADULTS.**—Complete moult August to October. From February to April there is a moult involving the body-plumage and occasionally lesser and median wing-coverts and some of the innermost secondaries; rarely all the tail-feathers but usually not any. The primary-coverts, greater coverts and the rest of the wing-feathers are not moulted.

The sexes are alike and there is very little difference in the winter and summer plumages, but in the summer plumage the upper-parts are very slightly less olive and the under-parts slightly more whitish.

**JUVENILE.**—Like the adult but the upper-parts slightly browner, the chin and throat speckled with blackish and the

sides of the throat darker than in the adult ; the streaks on the breast are rather darker and narrower.

FIRST WINTER.—The juvenile body-plumage, lesser wing-coverts and usually the median and some greater wing-coverts and some innermost secondaries are moulted in August and September, but not the tail- or wing-coverts. The new plumage is like that of the adults and the spring-moult and summer plumage are apparently the same as in the adults.

*Motacilla flava.*

The six subspecies of this species on the British List all have the same moults.

ADULTS.—Complete moult in August or September. There is a moult from January to April which involves the body-plumage, most of the lesser and median wing-coverts, many inner greater wing-coverts and usually the innermost secondaries and central tail-feathers, but not the primary-coverts nor the rest of the wing and tail-feathers, though exceptionally the whole tail moults. There is considerable variation in individuals in the extent of the moult, but it seems to be the rule that in *M. f. rayi* the central tail-feathers are not so frequently moulted as in the other forms of *M. flava*. As Dr. N. F. Ticehurst described in our first volume the differences in the various forms, I need not here discuss them.

JUVENILES.—The juveniles of *M. f. flava*, *thunbergi* and *rayi* are alike, and I have not been able to examine juveniles of the other subspecies. The upper-parts are earth-brown, with blackish markings forming dark lines on the sides of the crown ; the chin, centre of throat and lower breast are pale buff, the sides of the throat from the bases of the lower mandible to the breast and a band across the breast are brown-black, while the rest of the under-parts are pale yellowish-buff.

FIRST WINTER.—The juvenile body-feathers and most of the wing-coverts are moulted from July to September, but not the primary-coverts nor the wing- or tail-feathers. The various forms when in this plumage are *usually* indistinguishable except for the first winter male of *M. f. feldegg*, which always has some black or blackish feathers on the fore-head.

FIRST SUMMER.—Moult as in adult. The new plumage of the male is like that of the adult male, but the female differs from the adult female in being browner on the upper-parts and whitish-buff instead of yellow on the throat and upper-breast.

GREY WAGTAIL (*Motacilla c. cinerea*).

ADULTS.—Complete moult from July to September. In February and March there is a moult involving the body-feathers and usually the innermost secondaries and central tail-feathers, but not usually the rest of the wings and tail, though rarely the whole tail and a good many inner wing-coverts are moulted. In winter the sexes do not greatly differ, the female being only slightly more buffish on the upper-breast and slightly paler yellow on the belly. In summer the male acquires a black chin and throat with broad white malar stripes and the breast becomes yellow like the belly. The female is never so black on the chin and throat, which are usually a mixture of white, black, and dull yellow.

JUVENILE.—The crown and mantle are greyish-brown instead of slate-grey as in the adult, the eye-stripe, chin, throat and upper-breast are pale buff with a few greyish-black mottlings on the sides of the throat, the rest of the breast and belly are very pale yellow and the under tail-coverts brighter yellow, the fringes and tips of all the wing-coverts are buff.

FIRST WINTER.—The juvenile body-feathers, lesser and median wing-coverts and usually greater wing-coverts, innermost secondaries and central pair of tail-feathers are moulted from July to September, but not the primary-coverts nor the rest of the wing- and tail-feathers. The male and female in this plumage are more brownish on the upper-parts than the adult, and the upper-breast is more buff even than in the adult female, while the belly is very pale yellow and often whitish. FIRST SUMMER.—Moult as adult. The male becomes like the adult, but it is probable that those females with the chin and throat white or yellowish-white without any black are first summer birds.

PIED WAGTAIL (*Motacilla a. lugubris*).

ADULTS.—Complete moult from August to November. There is a moult from January to March which involves the body-plumage and often the lesser wing-coverts, some inner greater and median wing-coverts, some innermost secondaries and the central tail-feathers, but not the primary-coverts nor the rest of the wing- and tail-feathers. In winter the mantle of the adult male has some dark grey feathers mixed with the black, while the adult female usually has more grey than the male and also has less dark flanks, and the wing-feathers and wing-coverts are tinged with brownish and are not so pure black. In summer, while the male has

practically the whole upper-parts jet black with only a few dark grey feathers here and there, the female has more dark grey and also the black of the breast does not extend so far down.

**JUVENILE.**—There is a narrow dark or blackish line across the fore-head and down the sides of the crown, otherwise the crown, like the mantle and back, is grey tinged with buffish-brown, the rump is sooty brown-black, but the upper tail-coverts are more glossy black like the adult, the lores, line over eyes and ear-coverts are dull buffish-white, mottled with dark smoke, the chin and throat are also dull white, many of the feathers, especially on the sides, being tipped with sooty brown-black, the crescentic breast-band is also sooty brown-black and the breast and flanks are smoke-grey, while the rest of the under-parts are duller white than in adults.

**FIRST WINTER.**—The juvenile body-feathers, lesser wing-coverts, most median and inner greater coverts, and some innermost secondaries are moulted from August to October, but not the primary-coverts nor the rest of the wing- and tail-feathers. The male differs from the adult male in being tinged with yellowish on the fore-head, ear-coverts and sometimes the chin and throat; the fore-head is also usually mottled with black, the back of the crown often has some grey feathers amongst the black ones, the mantle is dark grey slightly tinged with olivaceous, and has less black in it than the adult *female* in winter, the wing-feathers and wing-coverts are browner and have duller white edges and tips. The first winter female is very difficult to distinguish satisfactorily from the first winter male, but the crown has usually more grey in it and the mantle often has no black at all. **FIRST SUMMER.**—Moult as in adults, but some innermost secondaries, a good many greater and median wing-coverts and the central tail-feathers are more regularly moulted than in the adults, while rarely the whole tail is moulted. The first summer male is indistinguishable from the adult *female* in summer, except that its wing-feathers and the unmoulted wing-coverts are much browner. The first summer female is very similar, but has a greyer mantle usually with very little black.

#### WHITE WAGTAIL (*M. a. alba*).

Moulted as in the Pied Wagtail.

**ADULT MALE. WINTER.**—Much like the *first winter* male Pied Wagtail, but the mantle and scapulars purer and paler grey and never with black, the sides of the breast and flanks

paler grey and the breast and belly purer white, the wing-feathers not so brown, more greyish-black (not so black as in the adult male Pied Wagtail), the tips of the wing-coverts usually not so pure white as in the adult male Pied Wagtail. SUMMER.—Like winter, but with the chin and throat entirely black.

ADULT FEMALE. WINTER.—Differs from *first winter* female Pied Wagtail in being grey on the fore-head with sometimes a little dusky-white showing, only the bases of the feathers being white; the crown is much greyer with less black and the mantle is paler and never with black. SUMMER.—The fore-head becomes white, slightly mottled with black, the crown black mixed with grey on the nape, the throat black and the chin a mixture of black and white.

JUVENILE.—Difficult to distinguish from that of the Pied Wagtail, but usually rather paler on the upper-parts and with no dark line across the fore-head.

FIRST WINTER MALE.—Like the adult winter *female*, but with rather more black on the crown. SUMMER.—Like the adult summer male, but with browner wing-feathers.

FIRST WINTER FEMALE.—Like the adult winter female but very rarely with any white showing on the fore-head and the crown grey with no black and usually tinged olivaceous. SUMMER.—Like the adult summer female but the fore-head less white and the chin with more white, the wing-feathers browner.

(*To be continued.*)