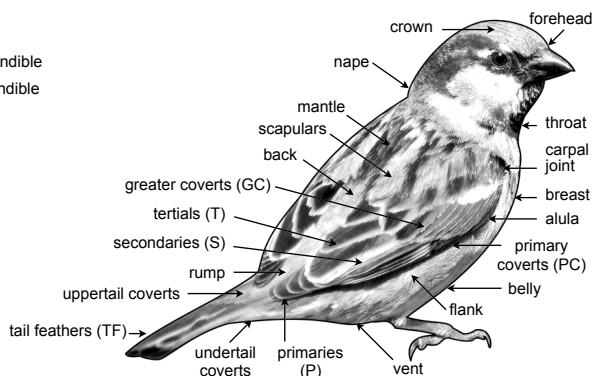
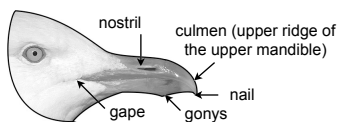
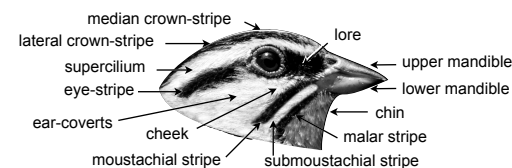
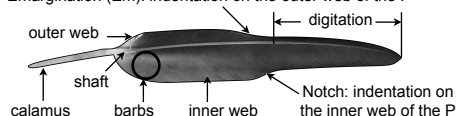


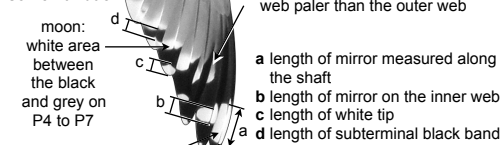
PLUMAGE AND TOPOGRAPHY



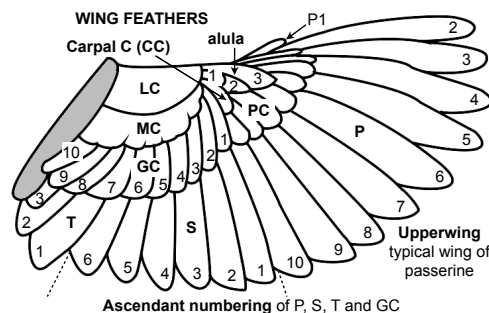
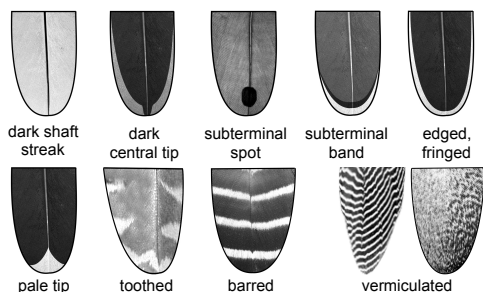
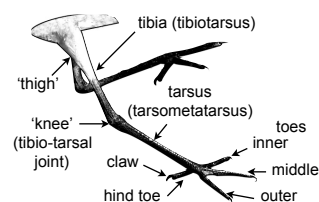
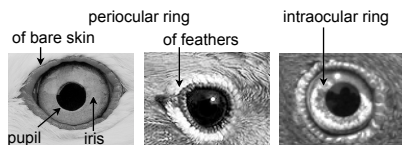
Emargination (Em): indentation on the outer web of the P



Outer P of some Laridae



mirror: white subterminal spot separated from the white tip by a dark line



WING FORMULA

How to use the figures

These figures are not intended to be an exact representation of the wing but are provided as a visual aid to the accompanying text.

• $P2 = 6/8 (= 6)$ [$1Y = 5/6$]

The point of P2 usually falls between the points of P6 and P8, or is sometimes equal to the point of P6; infrequently among 1Y birds it can fall between the points of P5 and P6.

• $S1 - WP = 16 - 20$

The distance between the point of S1 and the wing point is between 16 and 20 mm.

• $Notch\ P2 = 8/10 [= S]$

The proximal end of the notch of P2 falls between the points of P8 and P10 or infrequently can equal the point of S1.

• $Em : ad = 3\ 4\ 5 / 1Y = 3\ 4\ (5)$

P emarginated in both ad and 1Y birds. The emargination of P5 can be less common or less obvious for 1Y birds.

$P2 = 6/8 (= 6)$ [$1A = 5/6$]

$S1 - WP = 16 - 20$

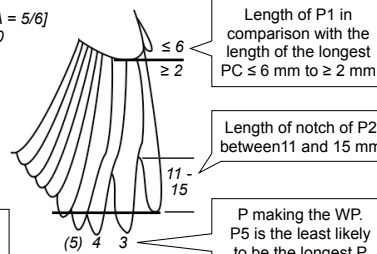
$Notch\ P2\ long,$

$= 8/10 [= S]$

$Em : ad = 3\ 4\ 5 /$

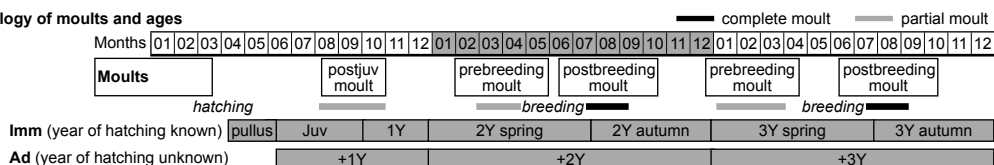
$1Y = 3\ 4\ (5)$

long primary projection
Important feature in this wing formula



The P, S, T, C and TF illustrated are those of the right wing or the right-hand side of the tail as it would appear to the observer when the bird is held in the left hand. The figures are numbered by species unless there is only one figure in a species' account. Figures in the 'Identification' section are numbered first in each species even if this section is not presented first. The figures are not necessarily all drawn to the same scale.

Terminology of moults and ages



EURING age codes – Simplified diagram for common cases (see definitions below)

Imm (year of hatching known)	1	1J	3J	3	5	7
Ad (year of hatching unknown)	4	6	8			
Codes	Definition - Year of hatching known	Codes	Definition - Year of hatching unknown			
1	Pullus	0	Age unknown – only to be used if data have been lost and the ringer has no idea if a bird was a nestling or full-grown			
1J	Passeriformes only – fledged, but flying so weakly that it is obviously incapable of having flown far from the nest	2	Fully grown, year of hatching quite unknown			
3	Definitely hatched during current calendar year	4	Hatched before current calendar year – exact year unknown (eg +1Y in autumn)			
3J	Passeriformes only – like 3 but still partly or completely in juvenile body plumage	6	Hatched before last calendar year – exact year unknown (eg +2Y in spring)			
5	Definitely hatched during previous calendar year (eg 2Y in early spring)	8	Hatched 3 or more years ago – exact year unknown			
7	Definitely hatched 2 years before the current calendar year					

ABBREVIATIONS AND SYMBOLS

In the absence of any contrary indication, a mention of the feathers of the wing refers only to the upper side of the wing. See the inside flap of the front cover.	Em	Emargination	sp, spp	Species (plural)
01, 02, ..., 12 month of the year (January, February, ..., December)	F	Female(s)	ssp, sspp	Subspecies (plural)
1Y, 2Y, ... first Year (calendar), second Year, ...	Fig	Figure(s)	Subad	Subadult(s)
+1Y, +2Y, ... more than 1 Year, more than 2 Years, ... (often similar to 'Ad')	g	Gramme(s)	T	Tertial(s)
A/N Author's note	GC	Greater Covert(s)	TF	Tail Feather(s)
Ad Adult(s)	ld	Idem; in a table and without other indication, refer to the data to the immediate left	W	West, western
avg Average	ie	That is to say	WP	Wing Point, in the wing formula
BP Brood Patch	Imm	Immature(s)	???	Should be checked or missing data
BTO British Trust for Ornithology	Ind	Individual(s)	<, ≤	Less than, less than or equal to
C Covert(s)	Juv	Juvenile(s)	>, ≥	Greater than, greater than or equal to
CC Carpul Covert	LC	Lesser Covert(s)	≈	Approximately, nearly
CP Cloacal Protuberance	M	Male(s)	≠	Different
cm Centimetre(s)	Max	Maximum	±	More or less
CRBPO Centre de Recherches par le Bagueage des Populations d'Oiseaux (Paris)	MC	Median Covert(s)	()	Usually, means less common cases; for the notch and the Em of P, means 'less common' or 'less obvious'
E East, eastern	Min	Minimum	[]	Usually, means exceptional cases; for the notch and the Em of P, means 'exceptional' or 'only slight'
eg For example	mm	Millimetre(s)		
	N	North, northern		
	P	Primary(ies)		
	PC	Primary Covert(s)		
	Postjuv	Postjuvenile(s)		
	S	Secondary(ies)		
	S	South, southern		

GLOSSARY

For the correct terminology relating to the topography and plumage of a bird, see the inside flap of the front cover. For those terms used in relation to moult see Chapter 4 of the Introduction.

Alloy: for rings, Magnesium – Aluminium Alloy

Apteria: areas between pterylae, usually naked or only covered with short semiplume feathers in ad

Axillary: relating to the axilla or 'arm-pit' of a bird and the feathers close to the body at the underside of the base of the wing

Body feather: feathers covering all of the body with the exception of the wings or tail

Breeding (plumages): plumage worn during all or part of the breeding season but sometimes acquired well before

Bristle: similar in appearance to whiskers in a mammal; a feather consisting largely of just the shaft with few or no barbs; often located around the mouth or the eyes

Cere: the fleshy covering of the upper part of upper mandible in certain spp, particularly raptors

Cline, clinal: a progressive variation in a feature, e.g. shade of a colour, associated with the geographic distribution of different populations of the same sp

Dimorphic: occurring in two forms or sizes, generally according to the sex

Distal: the end (of a limb, a feather...) furthest from the body

Filoplume: fine, hair-like feather associated with sensory perception in relation to position

Fingers: the distal ends of the P (emarginated/notched) often used when referring to diurnal raptors and other large soaring or gliding birds.

Flight feathers: P, S and TF

Intergradation: hybridization between sspp or different races of the same sp

Hand: P, PC and alula

Monotypic: those species that do not have recognized geographic variations (ssp) (opposite: polytypic)

Primary projection: distance between the tip of the longest T and P on the closed wing

Proximal: the end (of a limb, a feather...) nearest to the body

Pterylae: major feather tracts (cf Apteria)

Saddle: a neatly contrasting region in the upper body feathers, being either paler or darker than the rest of the body upperparts

Speculum: characteristic pattern of S and GC in some *Anatidae*, part of brightly colored S often with a metallic sheen

Syrinx: the organ that enables birds to sing, situated at the junction between the trachea and the bronchi

Tertiary coverts: in waders, those MC closest to the body near the T and can include the smallest GC

Underparts, upperparts: in the absence of a more precise description, means underparts or upperparts of the entire body

COLOURS

Describing colours is always difficult as visual perception can vary between one person and another. For a compound colour the 2nd colour mentioned will be considered to dominate the first, eg brown-grey is more grey than brown.

Amber: orange-yellow

Ash: medium grey

Buff: pale brown-yellow

Chestnut: dull brown-red, darker rather than reddish

Cinnamon: pale reddish-brown with a hint of yellow

Cream: very pale yellow-buff

Flesh: pale yellowish-pink

Ochre: orange-brown

Olive: dull grey-green, may have yellowish tint

Pearl: pale grey

Slate: dark grey

Tawny: pale reddish-yellow or yellowish-brown

Vinaceous: similar to a red wine stain on white clothing

Specifications of rings used by BTO – MA: Magnesium-Aluminium Alloy, SS: Stainless Steel

Diameter / height	Letter	Diameter / height	Letter	Diameter / height	Letter	Diameter / height	Letter
2.0 / 5.5	AA (MA)	3.3 / 5.5	B+	9.0 / 8.7	FC (incoloy)	19.0 / 12.0	L (SS)
2.3 / 5.5	A (MA)	3.5 / 5.5	CC (MA)	9.0 / 9.0	FV (incoloy)	26.0 / 8.7	M Inc (incoloy)
2.3 / 5.5	A2 (incoloy)	4.3 / 7.0	C (MA)	11.0 / 9.0	G (incoloy)	26.0 / 12.0	Eagle sp (SS)
2.5 – 4.0 / 4.0	SO (MA)	4.3 / 5.5	C2 (incoloy)	12.5 / 9.0	H (incoloy)	5 × 10 / 9.0	Raz (incoloy)
2.8 / 5.5	B (MA)	5.25 / 7.0	D2 (incoloy)	14.0 / 12.0	J (SS)	5 × 15 / 9.0	Guill (incoloy)
2.8 / 5.5	B2 (incoloy)	7.0 / 7.0	E sp (incoloy)	16.0 / 12.0	K (SS)		