

# Identification of juvenile Lesser Kestrel: keys to differentiate from juvenile Common Kestrel





**LESSER KESTREL.** Juvenile plumage 1CY July, Spain. © Marta Romero.

**Figure 1.** Comparison between male and female LK, juvenile plumage. © Photo: Marta Romero. © Id features: Alex Ollé & Joan Goy.

Juveniles Lesser Kestrel *Falco naumanni* (LK) often fly off the nest at the beginning of July and leave the area a few days later. From late September to mid-October, they start their migration journey to Africa. However, many juveniles disperse northwards before migration, up to ca 200km (in average) away from where they hatched. Some of them may even fly further, reaching to unusual locations. Identifying juvenile and female LK, especially when they are out of their usual range, can be quite tricky. In this paper, we describe the main characters we think will help you to identify juvenile LK, sex them and tell them apart from adult females.

### Juvenile plumage and difference between sexes.

The juvenile plumage is acquired in the nest in just a few days and it is not until the first winter when the birds start moulting part of the body plumage (partial

moult). Despite there is variation among individuals, this moult is always much more extensive in LK than in Common kestrel (CK). Thus, in 2cy spring LK can already have moulted a high (but variable) percentage of non-flight feathers (body, facial, mantle, coverts...) and often, the central pair of rectrices (sometimes more). But never remiges (primaries and secondaries). Remiges will start being replaced at the end of spring, when the birds will finish moulting all the remaining body feathers. They are now in transitional plumage. This stage of transition ends in autumn 2cy, when the birds will display the definitive adult plumage.

Summarizing, the "new" juvenile plumage is the one from when the birds fly off the nest, until they reach to the winter quarters (October - November). During the first winter, they replace some non-flight feathers, which, especially on males, make them look different already from the females (with grey feathers) when they come back to Europe.





**Photo 2.** LK. Juvenile plumage 1cy female. July. Spain. © Fran Trabalón. Females have bolder stripes in chest and flanks, which give them a more 'dirty' appearance. The moustache can be very obvious (although this is variable among individuals), and the base of the primaries is often quite barred, like the CK. Notice the dark margin on the remiges, diagnostic for LK.



**Photo 3.** LK. Juvenile plumage 1cy male. August. Spain. © Víctor Estrada. The plumage of young males looks clean, with thinner stripes, paler face and brown crown with just a few streaks. Similarly, the base of the inner primaries is pale (with very few bars).



**Photo 4.** LK. Juvenile plumage 1cy male. August. Spain. © Víctor Estrada. Notice the remiges are uniformly fresh and with no moult limits, which indicates that this is a juvenile bird (adult and immatures would be moulting by now). The pale face and the subtle moustache together with the thin spots on the upperwing coverts identify this bird as a male. Primary coverts are plain, with no spots (although some juvenile CK can show that character as well). The tail with thin bands and grey outer rectrices is typical of males (and in this individual, similar to adult females). The bulky cere and the fact that the lower mandible is so yellow in a juvenile individual, is a clear character of LK.

Juveniles LK are relatively easy to sex. However, not all individuals are obvious and in those cases, good photos from both sides of the bird are required.

On the other side, to sex juveniles of CK is not easy and only can be done in some cases.

Juvenile females of LK have a dirty facial look due to the intense stripping along the throat, neck, cheeks and crown, as well as a more or less obvious moustache. They have barred backs, with wide dark bars across the mantle, scapulars and coverts. The uppertail coverts are usually greyish (which is not observed in juvenile females of CK) while the base of the rectrices, brownish. Chest and flanks display bold stripes, which differs from adult females and some juvenile males. From underneath, the base of the primaries show usually more bars than in males LK

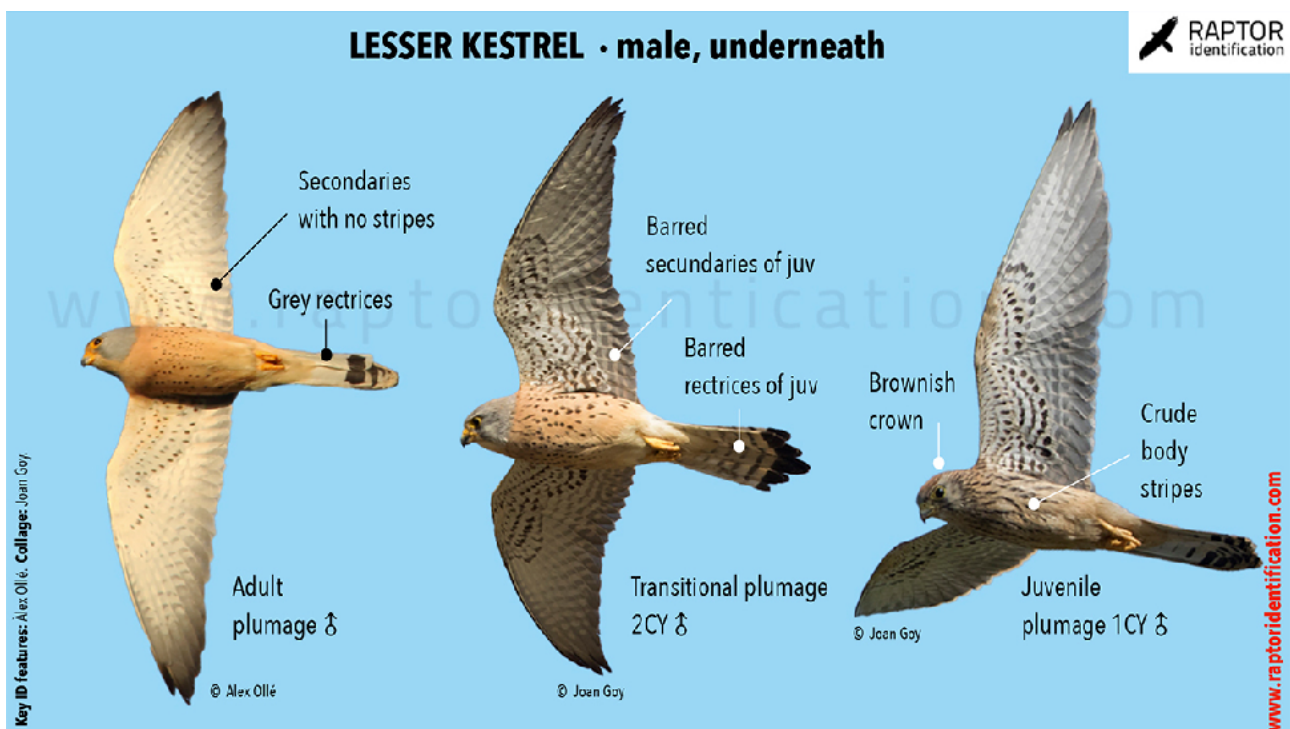
(similar to males CK but less than juvenile females CK).

Juvenile males of LK are very plain on the back, especially lesser coverts, but also (usually) median and greater coverts. They have a clean facial look, with pale cheeks and thin moustache (often diffuse). The crown is light brown, with just a few stripes. Uppertail coverts are plain grey and the tail ranges from partly to completely grey. The body stripes from chest and flanks are thinner than in juvenile females (however, this differs among individuals). From underneath, the base of the primaries have just a few bars which give a much paler appearance (to the base of the primaries) than in any other plumage of LK and CK.





**Figure 2, 3.** Female and male plumages of LK at different stages.

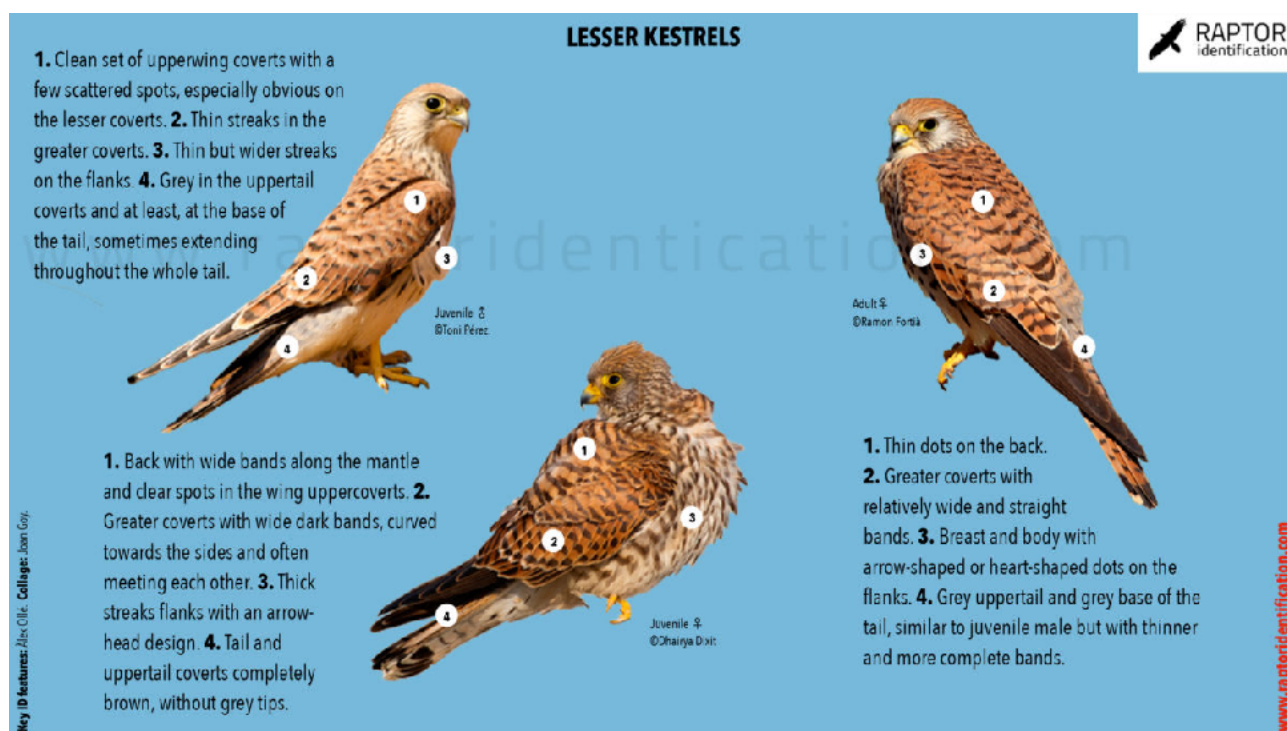


## Differences between juvenile and adult female plumages.

Juvenile birds can be told apart from adult females by looking at the body pattern of the streaks and stripes and dots from chest and flanks; the pattern of the bars and dots of the mantle, scapulars and greater coverts; and the colour of the uppertail feathers and rectrices.

Adult females have drop-shaped dots along the chest and the flanks. V-shaped (chevron-like) thin bars across the mantle, scapulars and upper coverts (lesser coverts and in some cases, reaching to median coverts

too). Greater coverts have dark straight bars (thinner than in juvenile females and more like the ones that we can find on juvenile males). The uppertail coverts are grey, as well as the base of the rectrices (sometimes also their margins). The tail on adult females is completely barred with thin bands. Adult females have also two lines of brown spots on the inner part of the primary coverts and one line of spots on the outer part. Juveniles on the other side, have no spots. The moult is another key factor. From May – June to October, adults are moulting the flight feathers while the juveniles keep a uniformly fresh plumage (no moult).



**Figure 4.** Comparison between juveniles (male and female) and adult female LK.





**Photo 5.** LK. Adult female. March. Catalonia. © Alex Ollé. In this case, we cannot use the length of p10 because the tips are lifted. However, are other factors pointing out towards LK. The gentle face (due to the characteristic thick cere), yellow base of the beak, pale cheeks, diffuse moustache and upperwing coverts with just a few and thin arrow-shaped spots and stripes on the mantle, are typical of adult female, as well as grey uppertail coverts and grey base on the rectrices. Moreover, the base of the primaries is very pale. Adult females show brown spots on the primary coverts (which differ from juveniles). In this sense, adult females CK have even more spots.



**Photo 6.** LK. Adult female. March. Israel. © Alex Ollé. The drop-shaped dots on the flanks are characteristic of adult birds. The pale claws and the gentle facial pattern discard CK.



**Photo 7.** Family group of LK. June. Spain © Toni Pérez. Juvenile female on the left, fresh plumage. Adult female in the middle. Notice the thinner V-shape (chevron like) bars on mantle, scapulars and upper coverts. Adult male on the right. Notice the ivory colour claws in all three individuals.

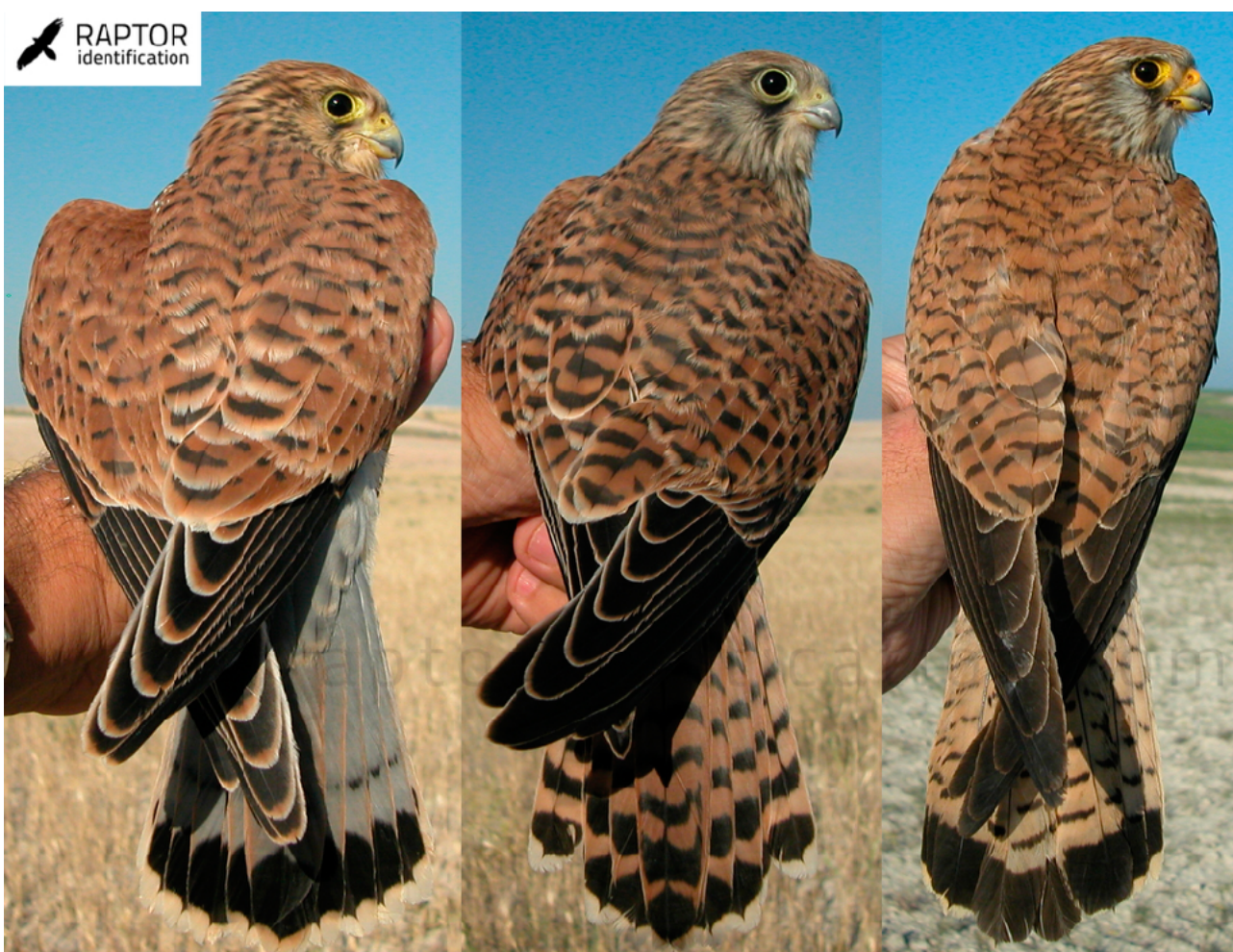


**Photos 8,9,10.** LK. Juvenile plumage 1cy male (left), juvenile plumage 1cy female (centre), and adult female (right). © Javier Blasco-Zumeta. The juvenile female is the one that looks darker due to the wider bars on the back (mantel, scapulars and upper coverts) as well as on the tail. The juvenile male looks very clean and overall, plain, with thin triangular bars and grey tail. The adult female shows the characteristic back with V-shape (or chevron like) bars across the mantle, scapulars and upper covers and thin bars on the tail.





**Photos 11, 12, 13.** LK. Juvenile plumage 1cy male (left), juvenile plumage 1cy female (centre), and adult female (right). © Javier Blasco-Zumeta. The stripes along the chest on juvenile birds is overall bolder than in adults, especially the one of juvenile females. Notice the creamy background colour on the chest of juvenile males and their plain brownish crown (in comparison with the females). The adult female is somehow more similar to the juvenile males but with a more obvious moustache, a much more stripy crown and bright yellow on the non-feathered parts of the bird.



**Photos 14, 15, 16.** LK. Juvenile plumage 1cy male (left), juvenile plumage 1cy female (centre), and adult female (right). © Javier Blasco-Zumeta. The back of the juvenile female differs from the rest as it shows thicker dark bars on both mantle and tail. The back of the juvenile male and the adult female are more alike. However, while the bars on mantle and scapulars of the juvenile male have a triangular shape, in adult females have a V-shape (or chevron like). The colour and bars of the tail are also very different between the two.





**Photos 17, 18, 19.** LK. Juvenile plumage 1cy male (left), juvenile plumage 1cy female (centre) and adult female (right). © Javier Blasco-Zumeta. The tail of this juvenile male is completely grey. However, this just represents a percentage of the juvenile males. Some other individuals show only grey on the base of the tail, with a few incomplete and very thin bars or none. On the other side, some juvenile females may show grey on the uppertail coverts but on this individual, they are completely brown. Finally, this adult female shows a typical tail pattern, with grey upper tail coverts, grey base of the rectrices and well-defined dark bands across it.

## **Main characters to ID LK and the differences with CK.**

**Flight and gregariousness.** LK is a social species, not only during breeding season but also on their wintering grounds where they congregate on the roosting sites. This behaviour does not exclude CK, who can breed in the middle of a colony of LK, migrate in flocks and hunt close to other individuals. In any case, if we can ID an adult LK on a flock should be a clue to look for other (less obvious) LK. Nonetheless, we can also find solitary individuals of LK some

kilometres away from their breeding areas and out of their usual range. This is the case of vagrant birds and photos need to be examined in detail. Overall, LK and CK do not differ on how they fly. However, if they are together we may be able to appreciate that LK hovers for a shorter time but more energetically. In addition, LK is somehow a bit more compact, shorter tail and more rounded wings (however, this last character is not significant). LK feeds in a very similar way to Red-footed Falcon or Eurasian Hobby, i.e. eating the insects while flying, holding them in one of the claws. Notice though that CK may sometimes do so as well.





**Photo 20.** LK. July. Catalonia. © Alex Ollé. This is a very common image at any time of the year, due to the gregarious behaviour of this species.

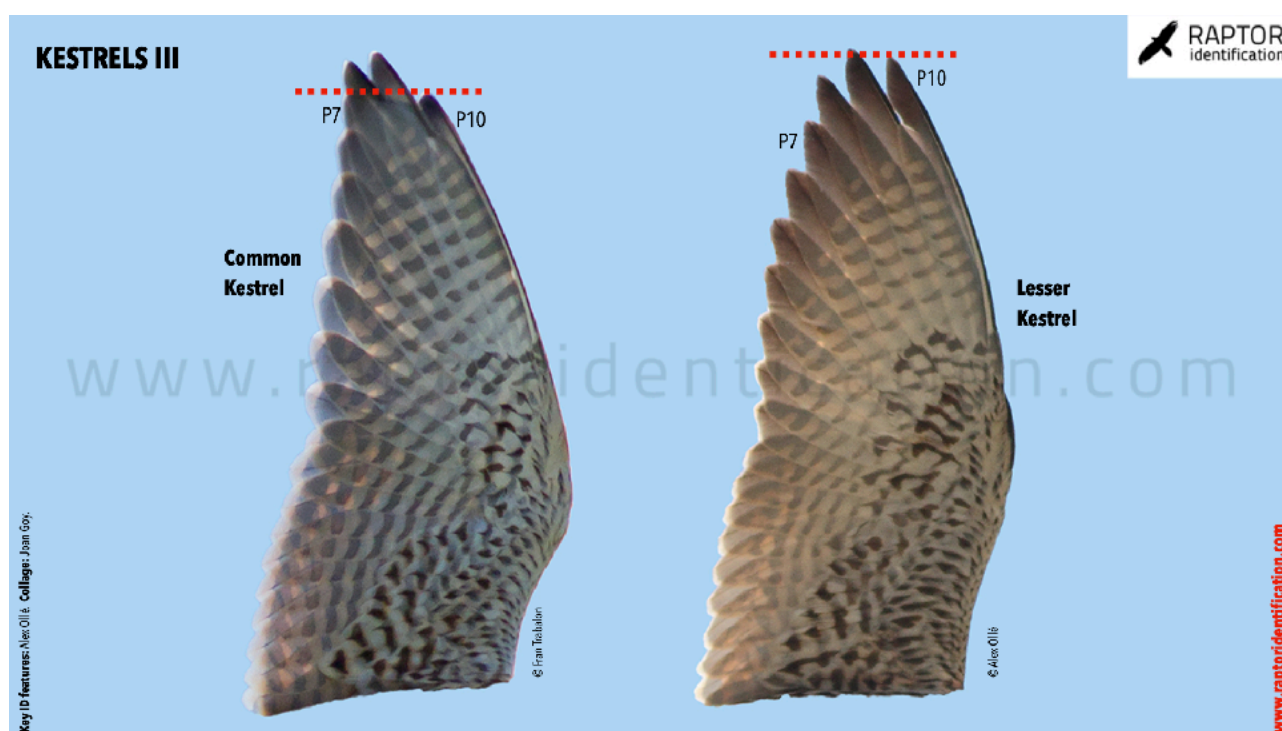


**Photo 21.** LK. Juvenile plumage 1cy female. July. Spain. © Fran Trabalón. LK usually eat insects while they are flying, like Red-footed Falcon or Eurasian Hobby. The ivory colour of the claws is typical of this species.

**Call.** LK are very talkative on their breeding colonies and very silent out of them. Nevertheless, LK have two different kind of calls: one similar to the call of CK (<https://www.xeno-canto.org/388648>) and the other one, distinctive and diagnose of the species. Young birds do the one similar to CK while adult birds, alternate both on their breeding colonies (<https://www.xeno-canto.org/579422>).

**Wing formula.** The length of p10 (the outermost primary) is the more commonly used criteria to separate CK and LK. LK has a long p10, almost as long as p9 (the longest primary) and it always falls above (or past) p7. On the other side, CK has a shorter p10

and its tip falls at the same length as p7. This is a key character for most of the birds. However, not always can be determined correctly. Moreover, other factors such as the moult, the feathers all worn off and the position of the bird (or of the feather itself) when the photo was taken, can lead to confusion and misinterpretation. In addition, juvenile birds may not have grown p10 completely when they leave the nest, because this is the last primary to grow and at that time, in many birds, it has only grown  $\frac{3}{4}$ . For that reason, one must be careful using this character between July and August because the wing formula can be identical to CK.



**Figure 5.** In LK, the P10 is clearly longer than in CK and reaches to almost the length of the P9, giving the wing an overall rounded look. Notice as well in LK, the dark margin along the outer edge of the remiges. Recall that the pale base of the innermost primaries is obvious in males LK, but cannot be used as character diagnosis because males CK may reassemble both male and females LK. Another character to consider is the thickness of the dark bars of the secondaries which, in general, are wider in CK.





**Photo 22.** LK. Juvenile plumage 1cy male. July. Catalonia. © Joan Goy. One must be careful with the wing formula when it involves juvenile birds in July and August. This is because some birds have not yet fully grown p10 (the outermost primary) and in this case, the tip of the p10 and the tip of the p7 fall in exactly the same position (see the left wing on the photo), which would identify the individual as CK. Luckily, we can look at other characteristics like the pale claws and the dark edge along the underwing.



**Photo 23.** LK. Juvenile plumage 1cy male. July. Catalonia. © Alex Ollé. It is very common for kestrels to bend up the p10 when they fly. When this happens, p10 looks shorter than it actually is, which can make the ID a bit more complicated. We therefore need to look at other characters: clean facial appearance; plain upperwing coverts; grey uppertail coverts and grey base of the tail; no spots on primary coverts; and pale base of the primaries due to the lack (or very few) stripes. All these characters point out towards 1cy male LK. We could confuse this bird with an adult female. However, an adult female would have spots on the primary coverts and at this time of the year, the central primaries would be actively moulting.



**Photo 24.** LK. Juvenile plumage 1cy female. July. Spain. © Fran Trabalon. This juvenile can be easily identified having a look at the wing formula. Notice the length of the p10. It is very long. In addition, the dark edge of the wing is very wide, more than it would be in any CK. Notice as well the ivory colour of her claws. All of that point towards LK. Moreover, the stripes and dots over all her body are wide and bold; the base of the primaries is extremely barred and the uppertail coverts are brown, identifying this individual as a female.



**Photo 25.** CK. Juvenile plumage 1cy male. August. Catalonia. © Fran Trabalon. The pointy wing is typical of CK. The short p10 together with the thin dark edge along the outer part of the wing and the dark claws indicate CK. On the other side, the plumage looks new and uniformly fresh (we can even notice the pale edge along the remiges and rectrices, which usually wear off very fast) and the bold stripes along the chest and flanks indicate 1cy. To sex this bird is a bit more complicated. However, the overall delicate structure of the bird and the pale base of the primaries would suggest a male.





**Photo 26.** CK. Juvenile plumage 1cy bird, presumed female. September. Catalonia. © Alex Ollé. We can identify that one as a 1cy bird using the same characters and explanation as in the previous photo. However, because of its stronger structure and the fact of being intensively barred, this seems to be a female. The p10 is short and the claws are dark which means CK. The dark edge along the wing is quite wide although in LK, should be even wider.

**Claws' coloration.** The claws of LK and CK differ on colour. In CK they are dark (black colour). In LK, pale (like creamy-ivory colour) or slightly grey. We can use this character to tell the two species apart. CK hatch with pale claws but they turn black in just a few days (when they are still in the nest). Some CK though can show some pale claws but never all of them (see e.g. [https://www.dutchbirding.nl/journal/pdf/DB\\_2001\\_23\\_2.pdf#page=23](https://www.dutchbirding.nl/journal/pdf/DB_2001_23_2.pdf#page=23) or [https://](https://www.researchgate.net/publication/317692135_Common_Kestrel_Falco_tinnunculus_with_unusual_symmetrically_pale_claws)

[www.researchgate.net/publication/317692135\\_Common\\_Kestrel\\_Falco\\_tinnunculus\\_with\\_unusual\\_symmetrically\\_pale\\_claws](https://www.researchgate.net/publication/317692135_Common_Kestrel_Falco_tinnunculus_with_unusual_symmetrically_pale_claws)). In the same way, a small percentage of LK can have some or all dark claws (grey colour). Be careful with LK photographed in flight as some individuals with grey claws and under certain conditions of light, these claws may seem very dark, identically of CK (see photo 30).



**Figure 6.** Comparison between claws of CK and LK.



**Photo 27.** LK. Adult female. April. Catalonia. © Joan Goy. It is often difficult to assess the colour of the claws on kestrels, especially if they are LK with grey claws (as they can be confused to be dark claws under certain light conditions). In this case, we can see that a wide dark edge along the wing and the long p10, both diagnostic of LK. In April, adult birds still do not moult. However, at this time of the year there are no 1cy birds around yet. We only can find 2cy and adults. The drop-shaped dots and the thin stripes across the chest and flanks indicate that this is an adult bird.





**Photo 28.** LK. Adult female. May. Catalonia. © Joaquim Martínez. This is another example of how dark the claws of LK may look like when the bird is flying, even in good photos. This bird is an adult female. We can tell that by the pattern of the body stripes, with thin bars across the mantle, scapulars and upper wing coverts (lesser and median coverts) chevron-like, and thin straight bars across the greater coverts. Notice the small spots on the primary coverts (which differs from the majority of adult females CK) and the broken p10 on the right wing.



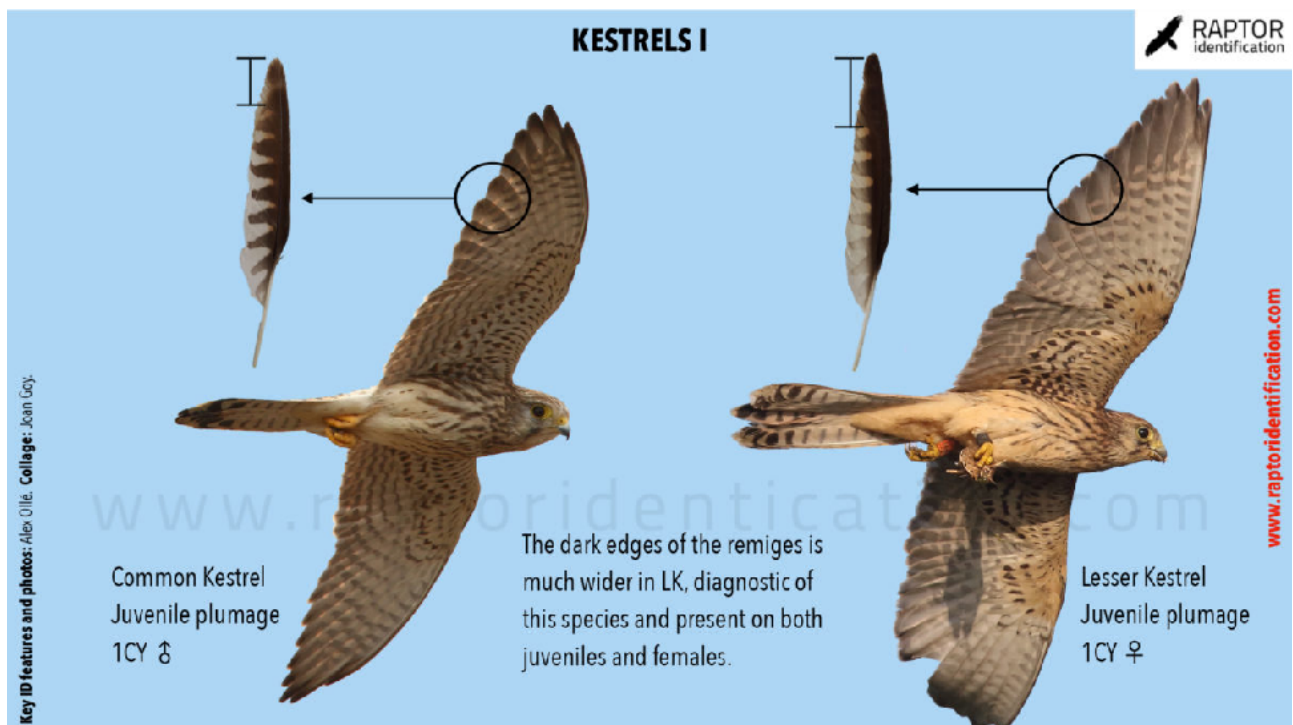
**Photo 29.** CK. Adult female. May. © Alex Ollé. The drop-shaped dots across the flanks and chest and the triangular bars across the scapulars and upperwing coverts (lesser and median coverts) denote an adult bird. The overall brown coloration of the bird identifies this individual as a female. The dark black claws points to CK as well as the facial appearance of the bird, not as gentle as LK, with a less prominent cere and the hook of the beak more notorious.



**Photo 30.** LK. Adult male. September. © Alex Ollé. Some LK can have all claws coloured dark. In these cases, the claws are never black like in CK, but dark grey. However in distance, they may be confused by CK claws.

**Dark edge along the wing tips.** All kestrels have dark tips on primaries and secondaries, drawing a 'line' along the edge of the wing. This dark line is wider towards the outer primaries and overall, wider in

LK than in CK up to the point that can be considered a diagnostic character to separate both species, especially for juvenile plumages.



**Figure 7.** Comparison of dark wing-edges between CK and LK.





**Photo 31.** CK. Juvenile plumage 1cy female. July. © Joan Goy. Juvenile females of CK are more stripped than the males, with an overall darker appearance. In some occasions, the dark tips of the primaries can be quite wide, similar to LK. Notice the short p10, dark claws and wide bars on the tail (wider than LK) determining CK and the densely stripped chest, characteristic of juveniles CK.



**Photo 32.** LK. Juvenile plumage 1cy presumed female. August. Catalonia. © Fran Trbalon. At this time of the year, the uniformly fresh plumage with no moult limits indicates a juvenile bird. Notice the bold stripes on chest and flanks. The p10 is long in comparison with the p7, suggesting LK. Notice the wide tips of the primaries (especially on the outer ones) also diagnostic for LK. To sex this bird from this photo is difficult. However, the overall chunkier structure, dense stripes along the chest and flanks, and the bars on the tail suggest a female. Notice that for a female, the bars on the tail are relatively thin which indicates LK.

**Tail and uppertail coverts.** Males and females have different coloration and pattern. Photos 33 and 34 illustrate typical individuals. Juvenile males have a grey tail with irregular thin bars across it. All uppertail coverts are grey, with a brownish edge that can be appreciated at short distance. On the other hand, some juvenile females are completely brown, with bars on

the tail and spots on the uppertail coverts; while others, have some grey uppertail coverts (sometimes with subtle dark stripes). In any case, females' tail is always brown with plain dark and complete bars across it. Keep in mind though that there exist differences among individuals, and intermediate birds can be a bit tricky.



**Photo 33.** LK. Juvenile plumage 1cy male. July. Catalonia. © Alex Ollé. Some males of LK have already full grey tail since they get the juvenile plumage while still on the nest. This never happens with CK. The greater and primary coverts have a pale edge that quickly disappears (it wears off). Juvenile LK have always plain primary coverts (with no brown spots) which differs from most of CK (but not all of them). Notice the plain lesser coverts, with no obvious spots, and the p10 on the left wing, which looks shorter than it is because is curved up.





**Photo 34.** LK. Juvenile plumage 1cy female. July. Catalonia. © Alex Ollé. Juvenile females have regular bars across the -brown- tail. Nevertheless, some females can show some grey uppertail coverts. The greater coverts have also dark straight bars (typical of the females). Notice the long p10 and the primary coverts with no spots on them.



**Photo 35.** LK. Juvenile plumage 1cy male. September. Catalonia. © Alex Ollé. Another example of the amount of extension of the grey coloration of the tail, very typical of males LK. Unmistakable! Greater coverts with very thin dark bars and primary coverts with no spots.



**Photo 36.** LK. Juvenile plumage 1cy presumed female. September. Catalonia. © Alex Ollé. Barred tail indicates a female. Notice the grey uppertail coverts. Also typical from females, greater coverts with dark and straight wide bars. Be aware that this pattern can be found as well in some juvenile males CK. However, the long p10 reveals LK.

**The pattern on greater and primary coverts.** In general, the pattern of greater coverts is a good character to sex juvenile plumages of LK. The majority of males have very thin bars on the greater coverts. However, some of them may have wider brown bars, as juvenile females do (see photo 41). Overall, the brown and black bars on female birds have similar width (but not on males). In this matter, male and female CK are similar to female LK, with the exception of some CK males that may show thinner darker bars. The darker bars on the greater coverts get thicker towards the outer part of the wing. Moreover, on LK these bars are often curved, especially on females, connecting between them (see photo 43). This pattern is quite exclusive of LK. On CK the bars may be thick and connect between them as well, but they are

always straight, never curved. As for the pattern on primary coverts (seeing from above), LK have no brown spots, despite some individuals, often females, may have. CK on the other side, usually do have brown spots of different size on the primary coverts, despite some individuals, often males, may not.

Hence, the pattern of greater and primary coverts can be used as diagnosis for identification among juvenile birds. A bird with no brown spots on primary coverts and with curved dark bars on greater coverts would almost certainly be a LK. A bird with big brown spots on greater coverts would almost certainly be a CK. Be careful aging individuals correctly though. Adult females of LK show brown spots on greater coverts (see photo 28).





**Photo 37.** CK. Juvenile plumage 1cy male. July. Catalonia. © Guillem Arrufat. Juvenile males CK can be very similar to juvenile females LK. In comparison to the juvenile females CK, juvenile males CK have much thinner triangular spots on median and lesser upper wing coverts, as well as thinner bar on the innermost greater coverts. Unlike juvenile males LK, juvenile males CK have brown tail and uppertail coverts.

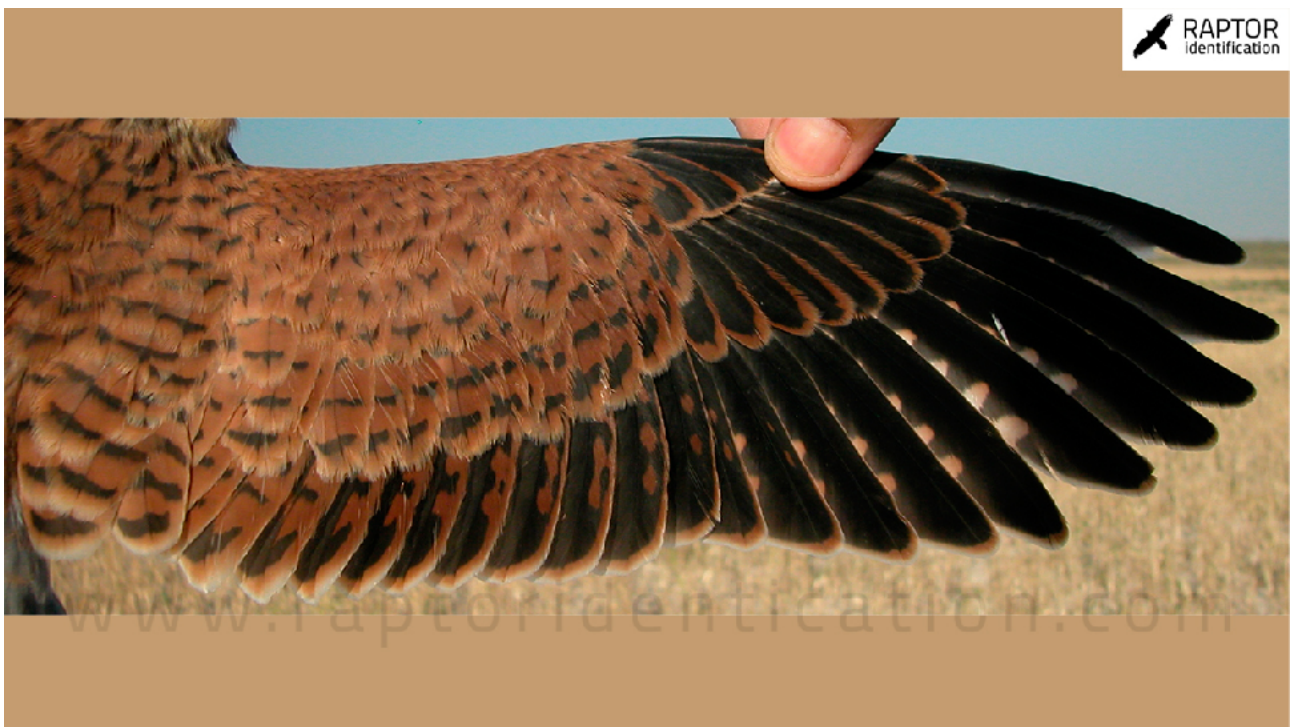


**Photo 38.** CK. Juvenile plumage 1cy female. September. Sweden. © Marc Illa. Typical juvenile female CK with all uppertail coverts brown and dark bars overall. Notice the big brown spots on the primary coverts, which we do not find in juvenile LK.





**Photo 39.** CK. Juvenile plumage 1cy female. July. Catalonia. © Guillem Arrufat. Another typical juvenile female CK. P10 is still growing. Notice the thickness of the triangular spots on median and lesser coverts as well as the wide dark bars on greater coverts.



**Photo 40.** LK. Juvenile plumage 1cy male. June. Spain. © Javier Blasco-Zumeta. The majority of juvenile males LK show this pattern on the greater coverts. With thin dark bars across them. Primary coverts with no spots.





**Photo 41.** LK. Juvenile plumage 1cy male. June. Spain. © Toni Pérez. Some juvenile males of LK can have wider bars across the greater coverts. Notice however, the thin stripes across the chest and flanks, the gentle appearance with a clean and pale face and no obvious moustache (this is very subtle), and grey uppertail coverts, all indicating a male. Notice the curve of the bars across the greater coverts, especially on the outer ones, and the looking like parrot shape of the face (due to the typical bulky cere of LK).



**Photo 42.** LK. Juvenile plumage 1cy female. June. Spain. © Javier Blasco-Zumeta. In comparison with 1cy males LK, juvenile females have wider dark bars across the greater coverts, with obvious curvature. Primary coverts with no spots.





**Photo 43.** LK. Juvenile plumage 1cy female. July. Catalonia. © Cristian Jensen. Very similar to the bird on the previous photo. Notice again the curve on the dark bars across the greater coverts. They even connect to each other on the outermost feathers. Occasionally, some females LK may have some spots on the inner primary coverts but in any case, they are not as extensive as in CK.



**Photo 44.** CK. Juvenile plumage 1cy male. July. Spain. © Javier Blasco-Zumeta. In this case, notice the primary coverts have much less brown spots (but they are not lacking, like happens in LK). Notice the pattern of the outermost greater coverts, with very wide bars connecting one to another. Also notice that, while in LK the bars connect (when this happens) like if they were melting into each other; here, in CK, they connect due to the wideness of the bars.





**Photo 45.** CK. Juvenile plumage 1cy female. July. Spain. © Javier Blasco-Zumeta. This is a pattern very similar to some juvenile males CK and juvenile females LK. Nevertheless, notice here the big brown spots on the primary coverts (that LK would not have) and the dark straight bar on greater coverts (no curved).



**Photos 46, 47, 48, 49, 50, 51.** Comparison of different facial characteristics of LK (first row) versus CK (second row). Juvenile 1cy male (left), juvenile 1cy female (centre), adult female (right). Overall, LK have a cere and orbital ring more bulky and the base of the beak more yellow which give this species a slight different look (more parrot-like face) than CK. Actually, 1cy males are the only ones that we can ID with certain guarantees using only the face appearance. Their appearance is overall gentle, clean and tidy, the crown is brown and with very few stripes, pale cheeks with few and thin stripes, no obvious dark eye-line and a very subtle moustache (thin and/or irregular). The high variability among all other plumages makes non-viable ID CK and LK just by looking at the facial characteristics. Some females of LK may have a very tidy appearance (like the 1cy males) but is not something characteristic of all females. In addition, some 1cy males of CK can be very similar to some 1cy females LK.

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**Cover photo:** Photo 1. LK. Juvenile plumage 1cy male. July. Spain. © Fran Trabalon. The photo was taken in July. Notice that the plumage is uniformly fresh. No moult. Bold stripes and body bars, without spots on the shape of a drop. The p10 is short, but notice that this photo is taken in July and is a juvenile bird. So, this individual has just fly out the nest and the feathers are still growing. Also, notice the dark edge along the wing, characteristic of LK. Notice that the cere and the orbital ring are bulky and wide, and the overall lower mandible, yellow which indicate LK. We cannot see the tail but some uppertail coverts, which are grey. The sexing not possible to determine with only this photo. The body stripes, however thick, are well defined and somehow rounded like in Lanner Falcon and the background has an overall creamy colour. Moreover, the lower mandible is yellow and the fewer uppertail coverts that we can see are all grey. We therefore need to see the bird from above to be able to determine correctly whereas is a male or a female. Other photos of the same individual seen at the top, clearly show that he is a male (!).

**Bibliographic recommendation:** Ollé A., Montràs-Janer T. & Goy J. 2020. Identification of juvenile Lesser Kestrel: keys to differentiate from juvenile Common Kestrel. [www.raptoridentification.com](http://www.raptoridentification.com)



1CY (june-october)	LK Juv female	LK Juv male	LK Ad female	CK Juv female	CK Juv male	CK Ad female
Nails	Ivory/grey ivory	Ivory/grey ivory	Ivory/grey ivory	Dark grey/black	Dark grey/black	Dark grey/black
Length p10 in relation to p7	Long	Long	Long	Similar	Similar	Similar
Dark margin of underwing primaries	Very wide	Very wide	Very/quite wide	Very/quite wide	Quite wide	Quite wide
Bars in the back (mantle and scapulars)	Wide bars	Thin triangular bars or spots	Thin triangular bars usually "chevron-like" design	Wide bars	Very variable, triangular wide or thin stripes	Triangular wide stripes
Spots in the lesser and median upper coverts	Dense triangular spots or bars	Usually very thin triangular or V-shaped spots. Often spots in lesser coverts very little or unmarked	Thin triangular spots, usually "chevron-like" design. Often spots in lesser coverts very little	Dense triangular spots or bars	Thin triangular spots	Triangular spots
Bars in the greater upper coverts	Black bars, wide and with equal amount of brown and black	Dark bars variable in width with: black bars thinner and overall, very thinner in the innermost and wider in the outermost greater coverts	Black bars thinner than the browns and overall, both thinner in the innermost and wider in the outermost greater coverts	Black bars, wide and with equal amount of brown and black	Black bars thinner than the browns and overall, both thinner in the innermost and wider in the outermost greater coverts	Both thin and wide bars. More brown than black
Design of outermost greater upper coverts	Very wide black bars, often strongly curved at the ends and usually, connected to each other	More or equal brown than black. Not curved at the ends	Usually more or equal amount of brown than black	Very wide black bars, usually connected to each other due to their thickness	Wide and straight, sometimes connecting to each other due to their thickness	Wide and straight
Spots in primary upper coverts	Usually no spots sometimes on innermost feathers (1 band)	No spots	Low density of spots (1-2 bands)	Spots (1-3 bands)	Variable, with or without small spots (0-2 bands)	Spots (usually 2-3 bands)
Upper tail coverts	Brown to greyish, with variable dark bands	All grey. Sometimes with subtle dark marks	Greyish. Usually with subtle fine lists	Brown with dark bands	Brown to greyish with dark bands	Grey or greyish with variable thin black spots or wide bands
Tail	Brown with wide complete bands	Variable amount of grey (sometimes, all tail can be grey) and from fine complete bands (very often incomplete) to no bands at all	Grey-brown with thin bands (usually incomplete)	Brown with wide complete bands	Variable: brown with thin or wide bands (sometimes incomplete)	Grey-brown with thin bands (usually incomplete)
Facial design	Striped head. Moustache, variable among individuals (from subtle to obvious). Broad cere.	Pale cheeks. Few stripes in hood. Ocular list, non-visible. Usually, subtle moustache (but variable). Broad cere with broad yellow base in lower mandible	Pale cheeks. Ocular list, poorly visible. Usually, subtle moustache (but variable). Bright yellow orbital ring and cere. Thick cere and thick yellow base of the beak	Striped head, with obvious moustache	Few stripes. Moustache, variable among individuals (from subtle to obvious). Broad cere.	Pale cheeks. Moustache and ocular list both well-defined. Bright yellow orbital ring and cere
Body design	Rough stripes, faded on chest and flanks	Often drop-shaped stripes across the body, similar to adult female, especially on flanks, and with creamy background coloration	Small well-defined drop-shaped stripes, especially on flanks	Rough stripes, faded on chest and flanks	Variable wide or thin lists	Well-defined drop-shaped stripes, especially on flanks
Base of primary underwing	Variable. Barred or slightly pale base, with full to semi-complete bands	Usually with incomplete and thin dark bands, showing a visible pallid base. Sometimes, very pale base	Pallid base with thin and uncomplete dark bands	Dark base with wide complete bands	Variable. Usually with complete and wide dark bands	Pale base with thin complete dark bands