Flight identification of European raptors

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INTRODUCTION

Identification of birds of prey in flight will always be a problem. The best of us will never be able to feel completely confident about a group of species that shows such diversity of plumage, whose silhouettes vary in different circumstances and for which the challenge of identification is so often at considerable range. We four have been studying flight identification of raptors for at least seven years—mostly in Europe, but also in Asia and Africa. A chance meeting in autumn 1968 between B.P.N. and R.F.P. at the now legendary Camlica Hills of the Turkish Bosphorus brought the Danish and English teams together and it was agreed to co-operate in a series of papers covering all the European raptors. Shortly afterwards, the editors of British Birds asked us to consider publication in this journal and so the scheme was born. The series will be completed in eight parts:

PART 1

Buzzard Buteo buteo buteo
and Steppe Buzzard B. b. vulpinus
Long-legged Buzzard Buteo rufinus
Rough-legged Buzzard B. lagopus
Honey Buzzard Peris apivorus

PART 2

Booted Eagle Hieraaetus pennatus
Bonelli’s Eagle H. fasciatus
Short-toed Eagle Circaetus gallicus
Osprey Pandion haliaetus
Red Kite Milvus milvus
Black Kite Milvus migrans

PART 3

Spotted Eagle Aquila clanga
Lesser Spotted Eagle A. pomarina
Imperial Eagle A. heliaca
Steppe Eagle A. nipalensis
Golden Eagle A. chrysaetos
White-tailed Eagle Haliaeetus albicilla

PART 4

Hen Harrier Circus cyaneus
Pallid Harrier C. macrorurus
Montagu’s Harrier C. pygargus
Marsh Harrier C. aeruginosus
The groups are designed to bring together species which have some­what similar field characters and between which confusion can often arise. It is not our intention to dwell on the details of generic charac­ters: we respectfully suggest that anyone who does not know the differences between, say, buzzards and eagles should look at more basic identification guides before reading these papers.

This is certainly not intended to be the final word on raptor iden­tification. We should like the series to be regarded as working drafts on which we invite comments and constructive criticism so that when they are finally presented in book form, as is our intention, they can incorporate a far wider range of knowledge than we are able to provide. We are interested in receiving flight photographs of any of the European birds of prey, but are lacking good ones of the following for reproduction: Red Kite Milvus milvus, Goshawk Accipiter gentilis, Bonelli’s Eagle Hieraetus fasciatus, Steppe Eagle Aquila nipalensis, Spotted Eagle A. clanga, Golden Eagle A. chrysaetos, Montagu’s Harrier Circus pygargus, Gyr Falcon Falco rusticolus, Saker F. cherrug, Lanner F. biarmicus, Eleonora’s Falcon F. eleonorae and Red-footed Falcon F. vespertinus. We shall be particularly grateful for any of these to include in the series. Black-and-white prints are of course preferred, but it may be possible to make monochrome reproductions of a small number of outstanding colour transparencies. All photographs should be sent to R. F. Porter, The Royal Society for the Protection of Birds, The Lodge, Sandy, Bedfordshire, England.

Before considering the first group in detail, we must emphasise again that birds of prey are difficult to identify in flight (and even more so when perched). The only way is to get to know them in the field and to learn by mistakes. The novice should first familiarise himself with plumage characters, even though these are highly vari­able in some species. Only when he is competent in this respect can he hope to start identifying them on shape and structure and thus at greater and greater distances. Even then he must beware that shapes and wing positions can be misleading and highly variable, often a reflection of the weather conditions at the time. No-one should ever expect to identify every bird of prey. Anybody who travels widely in Europe and identifies 70% of all the raptors that he sees is doing extremely well. Trying to be too ambitious will lead only to mistakes and to inaccurate documentation that can take years to rectify.

All the sketches for the series are being drawn by Ian Willis. Although we shall be recording at the end our acknowledgement to the many people who have been helping us with these papers, we should particularly like to thank P. J. Hayman who was the first person to advise two of us (R.F.P. and I.W.) on the problems of the group and who has for many years been one of the acknowledged European experts on the identification of birds of prey.
Part I. Buzzards and Honey Buzzard

In this group we are concerned with three true buzzards (Buzzard *Buteo buteo*, Long-legged Buzzard *B. rufinus* and Rough-legged Buzzard *B. lagopus*), a distinctive subspecies of the first which is often confused with the second (Steppe Buzzard *Buteo buteo vulpinus*), and the only European member of another genus which is best considered at the same time (Honey Buzzard *Pernis apivorus*). These are perhaps the most difficult of all European raptors because of their considerable variation in plumage and rather similar structure. Fig. 2 on page 250 shows the main flight characters of each from underneath and particular points are commented on in the facing text on page 251 with brief outlines of the areas of Europe, the Middle East and north Africa in which the birds are likely to be seen. We have not dealt with distribution in detail, however, as space is limited if, as is our aim, we are to put the appropriate text opposite the drawings and, in any case, there are many books devoted to this subject. Nevertheless, provided one exercises caution, knowing what to expect can be a great help.

Figs. 3-12 on pages 253-265 illustrate the under-and uppersides of each bird in various plumages and with different wing positions (while plates 37-42 emphasise some of the points in the form of photographs). Not illustrated in detail, however, are head-on profiles. This is partly for reasons of space and, more important, because they are too variable to be diagnostic, depending greatly on the strength of the wind and other weather conditions. As a general rule, the true buzzards soar on raised wings and the Honey Buzzards on flat wings (fig. 1), but variations are discussed under the individual species.

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**Definitions**

*Hand*  Wing between carpal joint and tip (primaries)

*Arm*  Wing between body and carpal joint (wing coverts and secondaries)

*Soaring*  Circling flight often in a thermal of warm air

*Gliding*  Flight on a straight course without or between wing beats
Fig. 2. Typical undersides of four species and one subspecies in buzzard group
Flight identification of European raptors

A. Honey Buzzard *Pernis apivorus* (pages 264-266, plates 41-42). Slim body, small protruding head (reminiscent of Cuckoo *Cuculus canorus*), longish tail. This is normal barred type, but much confusing plumage variation (page 264). Form of bars on primaries and secondaries diagnostic and also three bands on tail; usually strongly marked carpal patches. Soars on flat wings, unlike true buzzards *Buteo* which invariably do so on raised wings. Anywhere in continental Europe, late April-September, except north Fenno-Scandia, much of Low Countries, parts of Iberia and south Italy; and on passage in Turkey, Middle East, Mediterranean area and north Africa, late April-May and August-September.

B. Buzzard *Buteo buteo buteo* (pages 252-255, plates 37-38, 41a). Compact and well-proportioned with broad head and thick-set neck; wings appear broader and tail shorter than Honey Buzzard. Plumage very variable from largely dark to largely white (pages 254-255). Soars on raised wings. Commonest of buzzard group: anywhere in Europe, except Iceland, Faeroes, Ireland, east Britain and Scandinavia north of 62°-65°N, east to Sweden, Poland, Romania and Turkey; in Scandinavia mainly March-October because, although many populations are largely sedentary, some migrate south to Mediterranean region and north-west Africa; replaced in east Europe by another subspecies, Steppe Buzzard (see below).

C. Steppe Buzzard *Buteo buteo vulpinus* (pages 256-257, plates 39a, b). Similar structure to Buzzard, but slightly longer-winged and longer-tailed. Usually rather light-coloured, but some variation (page 256), though much less than Buzzard. Some characters constant (page 257), but coverts vary from dark brown to cream and sometimes dark patch on breast and barely visible tail bars. Usually rufous-orange underparts and cinnamon-orange tail cause confusion with Long-legged. North-east and east Europe from Fenno-Scandia and Russia south to Ukraine and Caucasus, March-October; intermediates in area from Finland to Balkans; on passage east and south Europe, Middle East and north Africa.

D. Long-legged Buzzard *Buteo rufinus* (pages 258-260, plates 39c, d). Larger and more eagle-like than Steppe Buzzard to which similar in plumage. Whitish head and chestnut belly patch are often characteristic, but much variation (page 258). Tail usually whitish at base merging into reddish-brown tip, but sometimes wholly reddish-brown (very like Steppe), while immatures have bars near tip; also heavily barred melanistic phase (figs. 7d, 8c). Soars on less raised wings than Buzzard or Steppe; sluggish, often idling on telegraph poles or hummocks. In Europe only Greece and Turkey, where resident, and south Russia, where migratory, but also breeds south through Middle East and across north Africa to Morocco.

E. Rough-legged Buzzard *Buteo lagopus* (pages 261-263, plate 40). Size and structure closest to Long-legged, but head smaller. Typically shows combination of dark and white plumage with whitish underwings and white-based tail contrasting with black carpal patches, large dark area on belly and broad black terminal band on tail, but some variation, particularly in underwing-coverts (page 262). Soars on slightly raised wings; frequently hovers when hunting. North Fenno-Scandia and north Russia, April-September; winters farther south from east Britain (very scarce), Low Countries, Denmark and Germany east to Ukraine and Caucasus and south to north Italy and Balkans, October-April.
**Buzzard** *Buteo buteo buteo* (pages 252-255, plates 37-38)

**Silhouette** Compact, medium-sized raptor with relatively broad wings and fairly short but ample tail. As with all true buzzards, head short, round and comparatively broad. Tail about three-quarters of width of wing and with rather sharp corners, more so than in Honey Buzzard; usually evenly rounded, but sometimes central feathers slightly elongated, making whole appear a little wedge-shaped. In head-on profile when soaring, wings raised and further upcurved at tip; when gliding, wings flat or slightly upcurved.

**Flight** In soaring, wings raised (hand more than arm) and pressed forward; tail fanned so that sides may even reach trailing edge of wings. In gliding, wings held horizontally, arm pressed forward and hand directed clearly backwards; they then look very pointed, more so than Honey Buzzard's in corresponding position. In active flight, action a little stiff and wing beats not so deep as those of Honey, possibly due to relatively longer arm. In some parts of range, but not in all, frequently hovers when hunting.

**Identification** May be confused with many medium-sized raptors, owing to great variety of plumages, intermediate size and not very characteristic flight silhouette (though soaring on raised wings is good guide). Easily confused with Honey Buzzard (pages 264-266), but is noticeably broader-headed and shorter-tailed and appears broader-winged, while flight actions and head-on profiles (see above and fig. 1 on page 249) are different. Buzzard also lacks Honey's three tail bands (though these are visible only at close range or when tail spread) and distinct bars on underwing. Dark Buzzards may be confused with dark-phase Booted Eagles *Hieraaetus pennatus* (to be featured in part 2), but never show the latter's combination of all-black flight-feathers and lighter inner primaries. Dark individuals may also be confused at distance with Black Kites *Milvus migrans* (part 2) or female Marsh Harriers *Circus aeruginosus* (part 4), but Buzzard always has shorter tail. Pale Buzzards superficially resemble Rough-legged Buzzards (compare 4H with 9D on page 262) and some even have whitish upper tail-coverts (compare 3B with 10A on page 263), but see that species for distinctions. Other pale Buzzards look like Short-toed Eagles *Circaetus gallicus* (part 2), owing to combination of dark head, blackish wing tips and trailing edge and otherwise very light undersides (4C), but Short-toed much larger. Can also be confused with Steppe Buzzard (pages 256-257) and some eastern Buzzards are impossible to separate from western Steppe Buzzards, which is not surprising since they are conspecific and interbreed in eastern Europe. In general, Buzzard most safely identified by size, compact flight silhouette, comparatively short, dark and evenly barred tail, and broad wings raised when soaring.
Fig. 3. Four Buzzards *Buteo buteo buteo* from above. The upperparts vary less than the underparts (*cf.* pages 254-255), but some individuals have the rump and proximal part of the tail whitish (3B and, to a lesser extent, 3A and 3C) and even a pale patch on the back and a whitish head (3B again); a few are extremely dark above with virtually no relieving markings (3D). Very few show light areas on the primaries and these are possibly all from the eastern part of the range, since the distinct subspecies of Russia and western Siberia, known as the Steppe Buzzard, has such markings as a normal feature (pages 256-257)
Fig. 4. Eight Buzzards *Buteo buteo buteo* from below. This is probably the most variable of all the Palearctic birds of prey (though the Honey Buzzard and the Long-legged Buzzard both run it close). The variations are greatest in the north European populations, which may be any shade from almost white to blackish-brown beneath, with a complete range of streaked and blotched individuals in between. There is no apparent correlation between plumage and sex or age. The commonest type (4E) has head, body and underwing-coverts brown (which may vary from dark grey-brown to a lighter and warmer reddish-brown), often mixed with lighter spots or streaks; the greyish-white tail is barred with brown, but the bars are narrow and often indistinct; the primaries are whitish and the secondaries greyish, ex-
except for the tips in each case which are dark brown and form a dark end to the wing and a more or less conspicuous band on the trailing edge. A dark individual (4A) may be almost uniformly blackish-brown on the underwing-coverts and also have very dark flight-feathers with only the primaries paler, as well as a nearly uniform blackish-brown tail, but there are many minor variations even of this dark type (4B, 4C, 4D). The other birds illustrated here are a series of three light individuals (4F, 4G, 4H), whose general coloration is often isabelline or creamy, but it should be noted how, for example, the head may be dark and the body light in one case and quite the opposite in another. Even lighter ones than any of these (for instance, with completely white heads) are sometimes encountered.
Fig. 5. Four Steppe Buzzards *Buteo buteo vulpinus* from below. This subspecies is often rather pale and variation is less than in the western race (pages 254-255): whitish primaries, greyish-white secondaries, a blackish band along the trailing edge, and distinct carpal patches are normal (A, B, C). Much paler tail than Buzzard's—often rufous or cinnamon, sometimes whitish, and usually with only faint barring near the tip—causes confusion with Long-legged (pages 258-260). Wing-coverts and body feathers mahogany (A) to almost creamy; undertail-coverts may be darker than body (C) and sometimes dark breast patch (C again) produces resemblance to Rough-legged (pages 261-263). Intermediate populations of east Europe (D)—usually darker and with more prominent tail bars, sometimes also lacking the black trailing edge—are more like Buzzard.
Steppe Buzzard  

*Buteo buteo vulpinus* (pages 256-257, plates 39a, b)

**Silhouette**  
This eastern subspecies of the Buzzard averages a fraction smaller, but individual and sexual variation make size quite useless in the field. Wings slightly slenderer than those of Buzzard and, as a result, tail appears a little longer, the whole effect being to produce a shape not unlike that of some Honey Buzzards. Otherwise like Buzzard, including head-on profile.

**Flight**  
Identical with that of Buzzard (page 252).

**Identification**  
May be confused with Buzzard (pages 252-255) and intermediate populations in the region from Finland to the Balkans are certainly difficult to distinguish, but on the whole more easily identified than most subspecies of raptors. Typically, indeed, is more often misidentified as Long-legged Buzzard (pages 258-260), though smaller than that species, with much shorter wing span (compare 2c and 2d on page 250) and less deep wing beats. Long-legged also usually has whiter head and breast and much darker belly, as well as more contrast on upperside between rump and tail and between wing-coverts and flight-feathers; in addition, its tail often lacks any trace of barring, which is rarely the case with Steppe Buzzard. Pale Steppe with dark shield on breast may look superficially like Rough-legged (pages 261-263), but lacks the broad and conspicuous tail band of that species.

![Steppe Buzzards Buteo buteo vulpinus from above.](image)

Fig. 6. Three Steppe Buzzards *Buteo buteo vulpinus* from above. Again, upperparts vary less than the underparts, but the tail bars, notably the terminal one, are often more distinct (6a, 6c), but not always (6a). Flight-feathers are grey-brown, but some birds have pale areas on the primaries (6c), again recalling a Long-legged Buzzard. Edges of wing-coverts and body-feathers are often light or dark rufous, giving the upperparts a reddish tinge.
Fig. 7. Four Long-legged Buzzards *Buteo rufinus* from below. This species varies almost as much as the Buzzard (pages 252-255) and the Honey Buzzard (pages 264-266), but certain characters are more constant. From underneath, the typical Long-legged Buzzard (7A) usually has the head and upper breast pale creamy-white, and the belly and vent brownish-black and sharply demarcated; the underwing-coverts are reddish-brown to yellowish-brown, the primary coverts blackish, and the flight-feathers pure white or sometimes slightly barred with dark on the
European raptors: Long-legged Buzzard

secondaries, which in extreme cases then contrast with the primaries (7c); the primaries are always pure white and translucent, apart from the black outermost ones and the blackish tips which form a dark end to the wing and a conspicuous dark band along the trailing edge, continuing right across the secondaries. The underside of the tail is usually whitish and translucent (plate 39d); but immatures have dark bars near the tip (7c). Variations are largely confined to the wing-coverts and body: some individuals have uniformly reddish-brown underparts, somewhat darker on the belly and gradually paler towards the head (7c); others are almost uniformly pale reddish below, paler still on the upper breast and throat, and slightly darker towards the belly. In extremely pale individuals (7b and paler still) the whole underparts are pale whitish even to snow white apart from blackish carpal patches, outermost primaries and dark trailing edge and a small well-defined dark patch on the lower belly. Thus the underwing-coverts range in colour from dark reddish-brown to very pale whitish and the size and shape of the belly patch also vary; it should be added that the bar on the trailing edge of the wing can almost disappear through wear. Finally, there is a striking melanistic phase (7d) which is uniformly blackish-brown apart from very white primaries, dark grey-barred secondaries and a greyish-white tail with several well-marked dark bars.

Fig. 8. Three Long-legged Buzzards Buteo rufinus from above. Head and neck pale creamy-white. Mantle and wing-coverts are reddish-brown or yellowish-brown contrasting with the dark brown flight-feathers. A greyish-white patch is visible on the primaries between the primary-coverts and the tip of the wing (8b). The lower back is dark blackish-brown contrasting with the pale tail. The latter is whitish at the base merging into a buffish or red-brown tip; sometimes the whole tail is red-brown only slightly paler at the base; it is unbarred in adults (8b) and barred near the tip in immatures (8a). Apart from the tail, the upperparts show little variation: the contrast between the coverts and the flight-feathers is more conspicuous in some individuals than in others and the pale patch on the primaries varies in shape, size and distinctness (compare 8b with 8a); usually greyish-white and extending on to most of the primaries, however, it is normally detectable at some distance and is only rarely diffuse or faint. The melanistic phase (8c) is uniformly blackish-brown above apart from a pale patch still visible on the primaries and the whitish tail on which the dark bars are even more prominent than they are from below.
Long-legged Buzzard *Buteo rufinus* (pages 258-260, plates 39c, d)

**Silhouette** Size similar to Rough-legged Buzzard (compare 2D and 2E on page 250), but wing-span sometimes slightly larger. Head typical of true buzzards, being short, round and broad. Wider-winged and relatively still longer-winged and especially longer-armed than Buzzard and Steppe Buzzard; wings also often look almost rectangular, hand being only slightly narrower than arm. Ample tail comparatively long in relation to Buzzard and Steppe Buzzard, corresponding to greater width of wing; usually slightly rounded or tapering, but sometimes looking square-cut. In head-on profile when soaring, arms are slightly lifted and hands level; when gliding, wings normally flat.

**Flight** In soaring, wings are somewhat lifted and pressed slightly forward. When gliding slowly, in striking contrast to the soaring position, wings are normally carried flat and almost straight out from the body with a straight rear edge, a slightly angled leading edge and only the tips pointing backwards. Active flight involves elastic and consistent wing beats. Occasionally hovers when hunting, thus further resembling Rough-legged.

**Identification** Not difficult to distinguish from Buzzard and Honey Buzzard, but easily confused with Steppe Buzzard (pages 256-257) and Rough-legged Buzzard (pages 261-263). Long-legged must often be separated from Steppe by its outline, being somewhat larger and especially longer-winged with slower, more elastic and consistent wing beats and a different head-on profile when gliding (see above). If seen with Steppe Buzzard, identification on size is fairly easy, but plumages rather similar. Even so, contrast between dark belly and remaining pale underside is good field character of Long-legged, while head is much paler than that of Steppe and upperparts show greater contrast between coverts and flight-feathers. Size, flight silhouette and flight actions also very similar to those of Rough-legged Buzzard, though Long-legged sometimes looks slightly longer-winged. Pale unbarred tail of adult Long-legged is best identification mark in this case and even immatures with barred tails do not have the wide terminal band of Rough-legged. Upperparts rather similar in the two species, though there tends to be a somewhat greater contrast between flight-feathers and wing-coverts in Long-legged, especially in worn plumage. Patterns of underparts vary and, though typical reddish-brown individuals can easily be separated from Rough-legged, some Long-legged have such pale underwing-coverts that the only difference that is at all constant, apart from the tail, is the paler breast of this species: Rough-legged often has rather dark streaks on the breast, these separated from the still darker belly patch by a whitish U. Even this is not always clear, however, and sometimes the only safe distinction from Rough-legged is the unbanded tail.
Rough-legged Buzzard **Buteo lagopus** (pages 261-263, plate 40)

**Silhouette** Slightly larger and relatively longer-winged than Buzzard (compare 2b and 2e on page 250): difference in wing span often considerable, though not always evident. Head typical of true buzzards, being short, round and broad. Wings relatively narrow, rear edge slightly curved and hand little narrower than arm. Ample tail comparatively long, corresponding to width of wing or little longer; tip slightly tapering or rounded. In head-on profile when soaring, wings raised; when gliding, arms slightly raised and hands level.

**Flight** In soaring, wings lifted and pressed forward. In gliding, arms slightly raised while hands level; this bend sometimes also visible in soaring. In active flight, wing beats are elastic, but slow and consistent, somewhat like Hen Harrier *Circus cyaneus* (part 4) or Honey Buzzard. Frequently hovers when hunting.

**Identification** Often confused with Buzzard (pages 252-255) and Long-legged Buzzard (pages 258-260). Indeed, owing to long wings, large individuals may be mistaken for medium-sized eagles, though distinguished by short head and narrow, curved wings raised in soaring. Pale Buzzards and also Honey Buzzards may show white uppertail-coverts and basal tail-feathers, all white underwing with black carpal patch and even dark area on belly, but tail is never sharply black and white as in Rough-legged, white on base of rectrices normally being limited to area adjacent to uppertail-coverts and often to central tail-feathers only; in addition, Rough-legged does not show creamy-white patches on upperwing-coverts and shoulders, often seen in pale Buzzard and Honey. Few Buzzards have pale patch on primaries above, so often helpful when present in Rough-legged. Differences in silhouette, particularly in active flight, are useful. Elastic wing beats of Rough-legged quite unlike those of stiffer-winged Buzzard. Head-on profile often diagnostic: flat or slightly raised in Buzzard, arm raised and hand level in Rough-legged. Confusion possible with pale Steppe, which usually has whitish body and underwing with black carpal patch and trailing edge, often also dark area on breast and sometimes pale patch on primaries above: normally Rough-legged can be identified by its broad black tail band, but some Steppe have pinkish or whitish tail with dark terminal band as only visible barring. So advisable to look for other characters, notably size, head-on profile and active flight method; Rough-legged also has white leading edge to arm, sometimes conspicuous, while its dark patch below is on belly and that of Steppe more on breast. Apart from black on tail, Rough-legged difficult to tell from some Long-legged, mainly pale ones, particularly as differences in flight and outline are slight and inconstant; also, young Long-legged have tail barring normally confined to distal third, even forming a terminal band, though this is often
European raptors: Rough-legged Buzzard

comparatively inconspicuous. But Rough-legged with dark throat and whitish U on breast quite distinct from Long-legged. In general, the wide black tail band is by far the best identification feature.

Fig. 9 (opposite). Five Rough-legged Buzzards Buteo lagopus from below. Underparts are rather variable. Sometimes the throat and breast are heavily streaked with dark (9a) and the upper breast may even look brownish-black (9A). A greyish-white U separates the upper breast from a blackish belly: this is conspicuous in dark birds (9A, 9b), diffuse in paler ones and invisible in those with a lightly streaked or whitish throat and upper breast (9c, 9d, 9e). The dark belly patch varies in shape and size and is sometimes rather diffuse (9e). The underwing-coverts vary from greyish-brown or brown (9A, 9B, 9C) to greyish-white or white (9D, 9E). The flight-feathers are mainly white apart from dark tips and the primaries are translucent, though the secondaries are barred with dark, normally faintly (9D, 9E), sometimes more strongly (9A, 9C) and occasionally conspicuously (9B). The black tail band may be rather narrow and diffuse below, but is usually distinct enough. The well-developed 'trousers' from which the species gets its name are white more or less barred with brown.

Fig. 10. Two Rough-legged Buzzards Buteo lagopus from above. Head and nape are whitish with dark streaks. Back and upperwing-coverts are greyish-brown, or a little darker, sometimes with narrow and irregular white tips forming faint bars, notably on the greater coverts. Many have a whitish leading edge to the arm (not shown here). The wing tip is blackish; otherwise the flight-feathers are dark greyish-black, often with a pale patch on the primaries (10A) which varies in area and distinctness and is sometimes lacking (10A); a few have it so well-marked that they recall young Golden Eagles Aquila chrysaetos. The black terminal band on the white tail is normally very wide above, covering the distal third (10A) apart from a narrow white rear edge; sometimes there are a few black inner bars (10B).
Fig. 11 (opposite). Five Honey Buzzards *Pernis apivorus* from below. There is very great variation in this species. The typical pale type (11A) has a whitish body and underwing-coverts variably barred, and greyish-white flight-feathers with little barring often reduced to the secondaries only, leaving the outer half of the wing translucent; usually there is a dark trailing edge and dark patches on the primary coverts, but these features may be diffuse or lacking; the underside of the tail is greyish-white with three bars, all usually very noticeable, but the terminal one the most distinct. Dark individuals (11D, 11E) have a uniformly dark brown body, or the breast and belly may just be heavily barred with dark on a light ground, and a more or less dark underwing except for greyish-white primaries and sometimes also secondaries; the outer half of the wing is normally still translucent, but less so than in the pale type; the undertail is often slightly darker than in pale birds and then the three bars may be less visible. All kinds of intermediates occur (see 2A on page 250) and quite often also very pale cream-coloured or even white individuals (11B, 11C) which have a whitish head, body and underwing, a slightly streaked breast, and black carpal patches, wing tips and trailing edge. Some of these very pale birds may superficially resemble Rough-legged Buzzards or Short-toed Eagles *Circaetus gallicus*. Juveniles often have narrower and less distinct tail bars than do adults and these may be particularly difficult to detect in dark-phase birds (11D).

Fig. 12. Three Honey Buzzards *Pernis apivorus* from above. The upperparts of pale to medium birds are generally greyish-brown, the flight-feathers darker with blackish tips forming a dark band along the trailing edge, most evident on the slightly paler primaries (12C); the tail is dark greyish-brown with the three characteristic blackish bands, but these are much less distinct than on the underside (compare 12A with 11A). Many paler individuals also have a whitish head which stands out from the rest of the upperparts, as well as white patches on the wing-coverts, or even all white wing-coverts contrasting with darker flight-feathers, and a pale or white rump showing up against the tail (12C). Dark birds are usually more uniform than pale ones, the dark trailing edge to the wing often being indistinguishable, but even they may have a pale area at the base of the primaries (12B).
Honey Buzzard *Pernis apivorus* (pages 264-266, plates 41-42)

**Silhouette** Size similar to Buzzard, though wing span sometimes a little longer (compare 2A and 2B on page 250 and see plate 41a). Slender pigeon-like head protrudes markedly and appears almost to form right angle with wings. Wings proportionately narrower than Buzzard’s (though difference often insignificant) with tips rather pointed and rear edge both right-angled and often also characteristically pinched in at body. Tail comparatively long, corresponding to wing width or even longer, though some individuals, probably juveniles, have rather shorter tails; normally square at end, but corners slightly rounded. In head-on profile when soaring, wings flat or fractionally upcurved; when gliding, arm flat and hand lowered below level.

**Flight** In soaring, wings almost straight out from body and flat: edges usually nearly parallel (though some individuals, probably juveniles, have rather narrow hand and clearly curved trailing edge to arm). In gliding, wings angled with carpal joint distinctly pressed forward and long ample hand pointing backwards. In active flight, wing beats are soft, deep and elastic, probably due to comparatively short arm and long hand.

**Identification** May be confused with Booted Eagle *Hieraaetus pennatus* (part 2), Rough-legged Buzzard (pages 252-253) and especially Buzzard (pages 252-255), though first two easily distinguishable on plumage, let alone silhouette. For example, Booted has blackish flight-feathers apart from pale inner primaries. Distinctions from Rough-legged given under that species: in particular, tail of Honey is never sharply black and white and subsidiary bands at base are reasonably conspicuous. Turning to Buzzard, it is often possible, despite great variations in both species, to distinguish Honey on plumage, it usually being more strongly and regularly barred underneath with less subsidiary barring on flight-feathers and a more pronounced blackish band along trailing edge; none of these characters is fully reliable, however, and when visible, pattern of bars on Honey’s tail is best plumage feature. Often silhouette is more useful: Honey has more protruding head, comparatively narrow wings and longer tail. Active flight involves softer, more elastic and deeper wing beats, while Buzzard is stiffer-winged. In gliding, Honey keeps arm more right-angled to body and ample hand pressed more directly backwards, when head-on profile characteristic (see above); Buzzard glides on flat or curved wings and soars with them slightly raised. During strong winds, however, even these differences unreliable. Honey also usually has more rectangular wings and squarer ended tail with rounded corners, though some have slightly S-curved trailing edges and shorter and rounder tails. Thus Honey may be difficult to distinguish from Buzzard, particularly if conditions less than good.
PLATE 37. Buzzards *Buteo b. buteo*, Scotland, April (photo: John Marchington) and England, June (photo: C. Pearson Douglas), showing the thick-set neck and body, the unevenly blotched brown plumage, and the variations in the contrast between forewing and remiges and in the darkness of both carpal patch and trailing edge (see pages 252-255 in the discussion of buzzard identification on pages 247-266)
Plate 38. More shots of Buzzards *Buteo b. buteo* in different positions (see again pages 252-255). Above, low overhead, France, August (*photo: Pierre Petit*): this and plate 37b show well the fine barring on the primaries, secondaries and tail. Below left, gliding overhead, Turkey, September (*photo: M. J. Helps*): here the thick-set neck and body are seen well from directly underneath, and the body and wing markings may be compared with those on plate 37. Below right, soaring, Wales (*photo: Eric Hosking*): note position of the wings with primaries upturned.
PLATE 39. Above, Steppe Buzzards *Buteo b. vulpinus*, Turkey, September (photos: M. J. Helps, A. R. Kitson): note chestnut coverts and body, paler hind-wing and cinnamon tail (pages 256-257). Below, soaring Long-legged Buzzards *B. rufinus*, West Pakistan (photo: Eric Hosking) and Turkey, April (photo: R. F. Porter), showing eagle-like proportions and ample, unbarred tail; left, typical one with whitish-orange body and underwing, darker areas on coverts and belly, and dark carpal patches; right, dark bird photographed against the light (pages 258-260)
PLATE 40. Rough-legged Buzzard Buteo lagopus low overhead (photo: Emil Lutken and Carl Johan-Junge). The distribution of dark areas on the otherwise light plumage is well shown here: the white tail has a black terminal band and the black belly and carpal patches stand out against the generally whitish wings (pages 261-263)
Plate 41. Honey Buzzards *Pernis apivorus* compared, above right, with Buzzard *Buteo b. buteo*, France, August (photos: Pierre Petit). The Honey has a smaller, slimmer, rather Cuckoo-like head, characteristic barring underneath, and three clear bars on the tail which, as seen below left, is much longer (pages 264-266)
Plate 42. Three Honey Buzzards *Pernis apivorus*, Turkey, September (*photos: R. F. Porter*). Above, the two bars at the base of the tail may be obscured by the feet and undertail-coverts, notably in first-year birds and molting autumn adults. Below, compare soaring (left) with gliding, when the long tail is striking. Two of these show the 'tiger-striping' of the medium form, while the third is of the dark type: the bars on its primaries show well against the light (pages 264-266)