mixed messages

HALIMA BEALE

Deciphering South Africa's first Crested Honey Buzzard

TEXT **CALLAN COHEN**

The inconvenient possibility that the Crested Honey Buzzard at Somerset West could be a hybrid throws a spotlight on the tricky identification of this species.

Around lunchtime on Saturday, 30 January 2021, I casually checked the Western Cape General Birding Chat Telegram group. There on my screen was a photograph from Kate Morris taken a few hours earlier in Somerset West near Cape Town and she was requesting identification assistance. I did a double take: the image was of a Crested Honey Buzzard *Pernis ptilorhynchus*, never before recorded in southern Africa but a species I have studied in detail because of its potential as a vagrant to South Africa.

above *South Africa's first Crested Honey Buzzard spent more than a month near Somerset West, near Cape Town.*

But there was a complication. Many of the Crested Honey Buzzards recorded in the Middle East (and thus potential vagrants to Africa) are thought to hybridise with the closely related European Honey Buzzard *P. apivorus* and some of the features visible in that initial photograph didn't exclude it being a hybrid. This Asian species is also widely known as the Oriental Honey Buzzard because a significant crest on the head is found only in southern subspecies, which are often split.

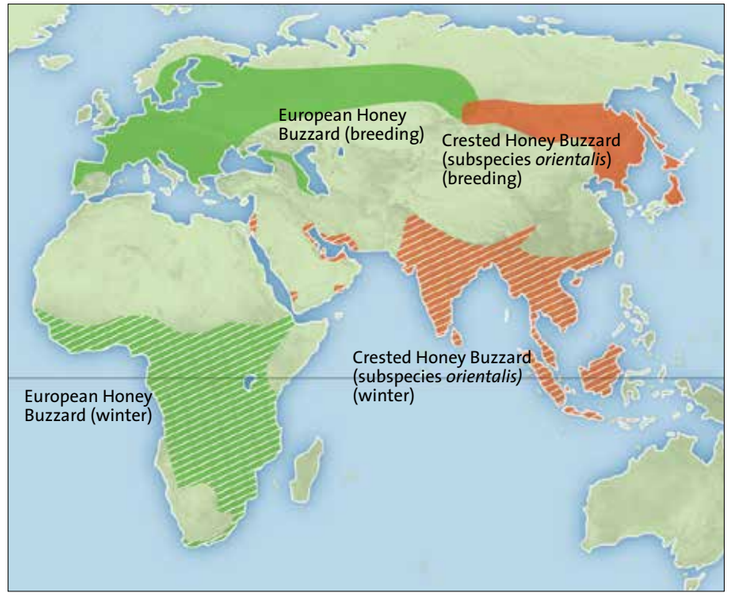
Birders rushed into action and the bird was soon relocated by Somerset West twitcher Bryn de Kocks at the now famous Spanish Farm raptor-watch point. For more than a month the bird taunted and delighted birders, appearing suddenly on random afternoons and disappearing just as quickly. Some birders visited the site on six occasions before seeing it.

But the excitement of seeing the bird soon turned to uncertainty: could it be a hybrid? Confusion reigned: some birders were extremely disappointed that it might not represent a new bird for their life-list if adjudged a hybrid, while others were uneasy about how to interpret what they had seen. A number of international experts on this species were consulted to give their opinion.

Was the Somerset West bird in fact a hybrid and how does one begin to evaluate all the discussion and opinions?

The process of hybridisation is likely to become more relevant to birders as changing climates and habitat modifications bring closely related species into contact. About 16 per cent of bird species are known to hybridise and while many are once-off 'freaks' that never breed successfully, others are fertile and proceed to breed. This can result in the formation of hybrid zones in the overlap between two closely related species. If the hybrid zone is relatively large and poorly defined, such as that between Common and Steppe buzzards in northern Europe, then taxonomists will often lump the forms as one species, as is the case with those buzzards. However, if the zones are narrow, well defined and if away from the zone the species involved are easily identifiable, then there is no need to lump the species. This is the case with Barlow's and Karoo larks, which hybridise in a narrow zone between Port Nolloth and Alexander Bay in the Northern Cape.

As a birder, how does one recognise a hybrid? Even without seeing mixed pairs or resorting to genetic analysis, one can use inference of plumage and structural features to imply a hybrid. When two parents hybridise, their offspring is usually a 50:50 mix of both parents. This is known as an F1 hybrid and can be possible to recognise depending on how distinct the features of each parent are. These F1 hybrids are characteristic of the middle of hybrid zones, such as with the Barlow's x Karoo Lark hybrid zone, but as one moves away from the centre, the hybrids interbreed with pure parents in either direction. They soon become 'diluted' at the edge of the zone until it is not easy or even possible to distinguish between pure birds and those with a minimal number of hybrid genes.



How does this relate to honey buzzards? Both species breed in the northern hemisphere and then migrate to the tropics (European to Africa and Crested to southern Asia). The Crested Honey Buzzard has a number of subspecies, but here we are referring to the migratory northern subspecies *orientalis*. The map shows how the more westerly-breeding European Honey Buzzard overlaps with the more easterly-breeding Crested Honey Buzzard in Siberia. Although this remote overlap zone has never been studied in detail, it has been discovered during recent decades that increasing numbers of Crested Honey Buzzards are visiting the Middle East (more to the west of their traditional range) and a significant number of these appear to show mixed characters between Crested and European honey buzzards.

These are particularly clearly detailed in Dick Forsman's excellent *Flight Identification of Raptors of Europe, North Africa and the Middle East* (Bloomsbury, 2016), a reference work I can highly recommend for those who would like to improve their knowledge of migrant raptors. Forsman estimates that more than half of the Crested Honey Buzzards in the Middle East might show hybrid characteristics; it would be useful for further longer-term studies to quantify this and the characters involved more accurately. Even though the total number of putative hybrids might be low overall, it would make sense that they are concentrated in this overlap zone between the European and Crested honey buzzards. Some of these birds might then continue further south into Africa, where Crested Honey Buzzard has been recorded only a handful of times, meaning that all honey buzzards in Africa should be checked carefully as potential hybrids.

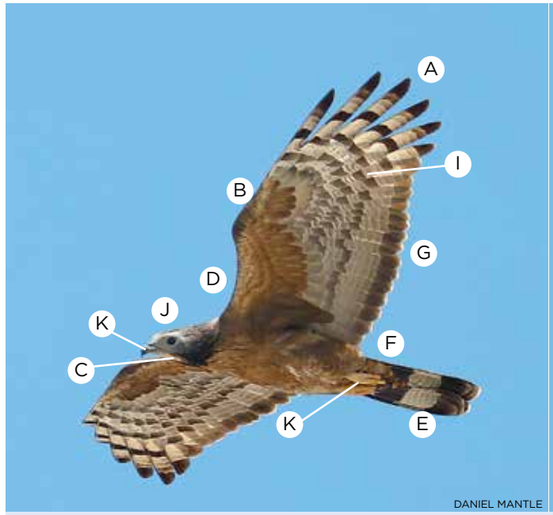
Even though both these honey buzzard are famously variable in plumage, certain characters seem to be consistent within species and these are summarised in the table and associated images overleaf. Assumed hybrids can be intermediate in these characters or tend more towards one parent, but with a clear indication of the other parent. >

HALIMA BEALE

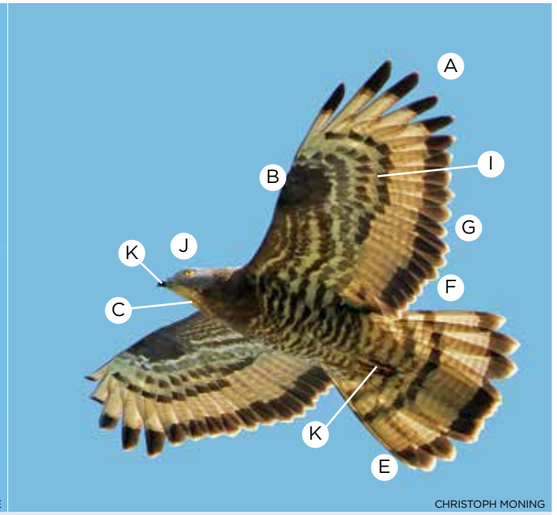
The dense barring on the flight feathers (A), which lack a bold trailing edge, and the yellow cere (B), age the Somerset West bird as juvenile. The very wide outer white band of the tail (C) tentatively sexes it as a male.

Does the Somerset West bird show any intermediate features? It is always useful to age and sex a honey buzzard to better interpret its features. The Somerset West bird shows the dense, extensive barring, lacking a bold trailing edge, on the wing feathers of a juvenile honey buzzard and a clear yellow cere, so it must be a juvenile. As honey buzzards fledge in about August in the northern hemisphere before migrating southwards and the bird was observed in February, it must be in its second calendar year and will only start to acquire its adult wing and tail feathers towards the end of 2021. This is important because once it grows adult tail feathers it can easily be sexed, but no reliable published characters are known to separate male and female juvenile tail patterns. However, unpublished research by Andrea Corso suggests that many juveniles can be sexed by the size of the gap between the terminal tail band and the next band. Often, in juvenile males, this gap is large and almost twice as large as the next gap, while in females all the gaps are a similar size. The Somerset West bird is then putatively identified as a male on this character. The pale eye is typical of juveniles of both sexes and need not indicate a female.

Based on the photographs of the Somerset West bird taken on the first day it was seen, six features have been suggested as possibly indicating a hybrid, although subsequently there has been further discussion and much better views and photographs of the bird. The dark tips to the greater primary coverts, forming a 'carpal crescent', on this bird have been considered a hybrid feature, but further investigation has shown that this feature can also be present in typical Crested Honey Buzzards from the eastern part of their range. The secondaries show four bars and while typical Crested often show five or six bars, some do show four. Better images also revealed that the bill was large enough for a



DANIEL MANTLE



CHRISTOPH MONING

CRESTED HONEY BUZZARD VS EUROPEAN HONEY BUZZARD

Most distinctive features:

A Long primaries in outer wing: '6 fingers in the hand' **vs** '5 fingers in the hand'

B No carpal patch **vs** distinctive dark carpal patch

C White throat surrounded by dark gorget **vs** no distinct gorget in European Honey Buzzard

D Often cinnamon/sandy-coloured underparts **vs** never in European Honey Buzzard

E On the tail, adult males, like both these birds, show a broad black subterminal band that is broader in Crested

Shape and size:

'Eagle-shaped' with squarer wing, broader hand and shorter tail **vs** curved wing edge, narrower hand and shorter tail

F Tail shorter than base of wing **vs** longer than base of wing

With a closer look:

G Dark secondary tips narrower **vs** wider

H 4–6 secondary bars in juvenile/female **vs** 3 bars (not visible on the adult males above)

I Barring on primary bases irregular **vs** neat

J Adult males with dark red iris (can appear dark) **vs** yellow iris

K Feet and bill larger **vs** smaller

Crested, the gorget was more complete than it first appeared, the tail was slightly shorter than the wing base (a feature less reliable on longer-tailed juveniles), and the wing shape matched that of the Crested. Thus, no clear European Honey Buzzard features can be seen on this bird. A migration route to Africa could also be considered a possibly hybrid feature, but the bird could equally be a vagrant Crested that had not intended to migrate here.

Can we be sure that the Somerset West bird does not contain hybrid genes? Although it is impossible to rule it out, I would argue that if we cannot see any direct evidence of mixed characters then it is reasonable to judge that the bird is not likely to be a hybrid. My current thinking is that it is reasonable to treat it as a pure bird. I look forward to discussing this further with my colleagues on the South African Rarities Committee, when we will take all available information into account, including any new information that might arise on Crested Honey Buzzard identification features, before coming to a final decision on this individual.

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