Recent status and occurrence of Crested Honey Buzzards *Pernis ptilorhynchus* in the Arabian peninsula, with emphasis on Saudi Arabia and the United Arab Emirates

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The status and occurrence of Crested Honey Buzzard *Pernis ptilorhynchus* in the Middle East and particularly the Arabian peninsula is not well documented and has changed markedly in recent years. The region's latest field guide (Porter & Aspinall 2010) indicates it is rare in winter and on passage to the United Arab Emirates, Kuwait and southern Iran and a vagrant elsewhere. Orta & Marks (2014) make no mention of its occurrence in the Arabian peninsula whilst a paper concerning distribution and movements in the westernmost part of its range (Faveyts *et al* 2011) only gives three records for Saudi Arabia (although status in the UAE is correctly reported). Here we clarify the changing status of Crested Honey Buzzard (CHB) in the Arabian peninsula, primarily using recent data from Saudi Arabia and the UAE.

Orta & Marks (2014) recognised six subspecies of CHB, although noted that all may approach the threshold for specific status. *P. p. orientalis*, breeding from southern Siberia east to Sakhalin, Russian Federation, and south to northern Mongolia, northeast China, North Korea and Japan is the only migratory subspecies, although caution is needed in assigning sub-specific names to birds in the OSME region as a wintering bird in Israel was mooted as potentially not representing *P. p. orientalis* (Kloos *et al* 2008) and Oman records are believed to be *P. p. ruficollis* from the Indian subcontinent (Eriksen & Victor 2013). In autumn, northern populations of *P. p. orientalis* migrate south to winter on the Indian subcontinent, in southeast Asia, Indonesia and the Philippines (Orta & Marks 2014) with passage through Chumphon, Thailand, peaking late September–early October (DeCandido *et al* 2015). There is, however, a western migration route passing through Central Asia (as defined by Ayé *et al* 2012, aka Middle Asia), mainly Kazakhstan (Wassink & Oreel 2007) and Uzbekistan that possibly involves several hundred birds (Faveyts *et al* 2011) and could be a consequence of an unrecorded westward breeding-range expansion, or part of a migration route utilised to avoid the Himalayas (Schweizer & Mitropolskiy 2008). Birds migrating through Central Asia (and possibly Batumi, Georgia) are likely to be responsible for the increasing number of sightings in the Arabian peninsula. CHB is currently a much commoner species than European Honey Buzzard *Pernis apivorus* in much of the Arabian peninsula (in particular eastern Saudi Arabia, UAE and Oman). Further, it is increasingly over-wintering and even locally over-summering.

THE PROBLEM OF HYBRIDS

A very important identification issue is the problem of hybridization between CHB and European Honey Buzzard. Respective breeding ranges overlap in southern Siberia (Stepanyan 1983) and there have been a number of records of apparent hybrids in Oman, Kazakhstan, Georgia, Israel and Egypt (Faveyts *et al* 2011, Jansen 2013, Jiguet *et al* 2014) from as long ago as 1993 (Forsman 1994). Until western breeding populations of CHB are fully studied, the limits of plumage variation (extensive in both species) remain little known, so making genuine hybrids, especially in non-adult male plumages, very difficult to identify with certainty. Apparent hybrids are likely to be commoner than currently documented and some records incorporated in the analysis that follows presumably refer

to hybrids. Even so, the main conclusion on the changing status of CHB in the Arabian peninsula is not affected. A full evaluation of hybrid characters is beyond the scope of the present paper. Faveyts *et al* (2011) discussed birds showing intermediate characteristics from Kazakhstan and Israel, whilst Scuderi & Corso (2011) discussed the variability of certain plumage features within both species. Plates 1–7 in the current paper document classic CHBs photographed in Saudi Arabia and the UAE, followed by two individuals (Plates 8 & 9), from Kuwait and the UAE, that show characteristics more suggestive of

Plate 1. Second calendar year female Crested Honey Buzzard *Pernis ptilorhynchus* with Fan-tailed Raven *Corvus rhipidurus*, Tanoumah park, Asir province, Saudi Arabia, 5 July 2013. © *Jem Babbington.* Note this bird is moulting its inner primaries, which are new, whilst the sixth primary (counting inwards) is missing or growing, so one of the 'fingers' is absent, giving the bird a wing formula as European Honey Buzzard *Pernis apivorus*. Aged as a second calendar year due to pale cere, diffusely dark 'fingers' and thinly barred tail pattern and as a female due to moulted primary pattern and pale iris (visible in field but not in this image). Rather uniformly dark birds like this lack the distinctive pale carpals and pale-centred, dark-edged throat that are important separation criteria from *P. apivorus.* Structure and flight are important identification characters for such birds.

Plate 2 (left). Adult male Crested Honey Buzzard *Pernis ptilorhynchus*, Hamraniyah fields, United Arab Emirates, 13 June 2008. © *Ahmed al Ali.* Adult males like this are straightforward to identify, but form a minority of birds observed in Arabia.

Plate 3 (right). Adult male Crested Honey Buzzard *Pernis ptilorhynchus* Dhahran Hills residential area, Dhahran, Eastern province, Saudi Arabia 6 May 2011. © *Jem Babbington.* In this plate, as Plate 2, note grey head, dark eye, prominent and very well defined dark trailing edge to the wing, lack of dark carpal patches, two thick tail bands and thick barring on the underwing.

Plate 4 (left). Second calendar year Crested Honey Buzzard *Pernis ptilorhynchus* Sila'a, United Arab Emirates, 8 January 2010. © *Oscar Campbell.* Plumage broadly similar to the bird in Plate 1, but being some seven months younger, the plumage is much less abraded. Extensively (but rather diffusely) dark primary fingers, pale base to bill, and rather uniform, fairly fresh remiges and tail indicate a second calendar year. Note the obvious six primary tips and rather strong, broad tail barring: this averages weaker on all but adult male Eurasian Honey Buzzards *P. apivorus*. Despite the bird being a dark morph, some hint of the paler throat with dark fringing gorget is retained. The dark iris and the strength of the tail band suggest this bird is a male.

Plate 5 (right). Juvenile Crested Honey Buzzard *Pernis ptilorhynchus* Mushreef palace gardens, United Arab Emirates 20 December 2013. © *Mike Barth.* Broad wings with large hands and six obvious primary tips are important structural clues. Further, the lack of carpal patches, narrow but definite gorget framing pale throat and rather strong tail banding all indicate Crested rather than European Honey Buzzard *P. apivorus*. Up to five Crested Honey Buzzards have occurred at this site on Abu Dhabi island each winter in recent years, where they roost in large, secluded eucalypt and ghaf trees and disperse out each morning to smaller wooded areas elsewhere on the island. Although often shy and retiring whilst perching, birds sometimes perch in surprisingly open situations (including on street lights near busy roads) especially in the early mornings.

hybrids. Good prolonged views (and ideally photos) allowing evaluation of the age, sex, structure, under-wing details and tail pattern are required to be certain of pure parentage or hybridisation. A growing gallery of images, documenting many dozens of individuals from virtually all months of the year in the UAE is available at www.uaebirding.com/photos-birds.html with recent images from Saudi Arabia at www.birdsofsaudiarabia.com/search/label/Crested%20Honey-Buzzard. There is still much to learn concerning the

Plate 6 (left). Juvenile Crested Honey Buzzard *Pernis ptilorhynchus* Dhahran Hills residential area, Dhahran, Eastern province, Saudi Arabia 30 November 2013. © *Philip Roberts.* Note pale yellowish base to bill with multiple relatively thin tail-bands and very fresh plumage indicating a juvenile. Bulky, broad winged appearance with six primary fingers, lack of carpal patches, pale throat bordered by dark gorget and numerous, rather evenly spaced secondary bars reaching all the way to the body are all classic features of the species and important in separation from *P. apivorus*. Another photo of the same bird is featured on the cover of *Sandgrouse* 36 (2) 2014.

Plate 7 (below). Juvenile Crested Honey Buzzard *Pernis ptilorhynchus* Sila'a, United Arab Emirates, 23 November 2013. © *Oscar Campbell*. A very weakly marked juvenile. In this angle, the outer primaries are closed but the sixth primary is clearly protruding. Note lack of dark carpal patches and hint of a dusky gorget. Although this individual looks rather long winged here, other images of it indicate it was obviously bulky and broad winged.

Plate 8. Hybrid adult male European Honey Buzzard *Pernis apivorus* × Crested Honey Buzzard *P. ptilorhynchus* Sulaibiya pivot fields, Kuwait, 20 September 2011. © *Mohammed Korshed*. This bird appears to be a classic male hybrid *P. apivorus* × *P. ptilorhynchus*. Features suggestive of *P. apivorus* include pale eye, dark carpal patches, tail barring being not very thick and rather long thin wing shape. Features suggestive of *P. ptilorhynchus* include broad trailing edge to the wing (although some *P. apivorus* come quite close to this), six primary fingers and a hint of a dark gorget/pale throat (which seems rather unusual on an adult male *P. apivorus*).

migration and distribution of CHB in the western part of its range as well as the extent of the overlap zone with European Honey Buzzard and the extent of their hybridization.

STATUS IN SAUDI ARABIA

In Saudi Arabia published records of CHB are few, and recent references refer to it as a vagrant. There has, however, been a steady increase in records since 2000, and particularly since 2009. Birds have now been recorded in every month of the year (save August) and records peak during the winter months (January–March). Smaller peaks also occur in April and October–November, dates that fit well with the CHB's migration period in Kazakhstan (where birds occur late April–mid June and late August–mid October, peaking September; Wassink & Oreel 2007). The current status of CHB in Saudi Arabia is a scarce passage migrant and winter visitor that also occurs rarely in summer. Most records are from the Eastern province in winter and spring with additional records in the west of the country in autumn, winter and spring.

The first confirmed record of CHB for Saudi Arabia was in Asir province 11 October 1994, with another bird 5–10 km south on the same day (Symens *et al* 1996). The only other records prior to 2000 were in Riyadh (October 1997) and on 6 January and 25 February 1999 in Jubail, eastern Saudi Arabia (Brian Meadows pers comm). Since 2009, records of CHB have become much more frequent (Figure 1). A male at Jeddah, from mid October 2009, was observed on 13 November in active wing moult and over-wintered, the first CHB to do so in Saudi Arabia. Since then birds have wintered annually. European Honey Buzzard is less common than CHB in the Eastern province, where it is regarded as a rare passage

Plate 9. Possible female European Honey Buzzard *Pernis apivorus* × Crested Honey Buzzard *P. ptilorhynchus* Ain al-Fayda, United Arab Emirates, 23 February 2012. © *Huw Roberts.* Note this bird appears to be either a poorly marked female *P. apivorus*, or possibly a hybrid. Sexing as a female is straightforward due to the rather diffusely dark primary tips. Features suggestive of *P. apivorus* include the lack of a complete gorget surrounded by dark markings and a not very prominent sixth primary. In addition, the pattern on the underside of the secondaries, with only two dark bars, both cloaked by the under wing coverts (so not reaching the body) and the distal bar lying obviously closer to the coverts rather than the secondary tips are also indicative of *P. apivorus*. Features more suggestive of Crested Honey Buzzard include a lack of an obviously dark carpal patch (although this can very rarely occur in adult female *P. apivorus*) and, perhaps, the rather prominent tail banding (more akin to a male *P. apivorus* than a female). The wing shape appears intermediate between European Honey Buzzard and Crested Honey Buzzard.

migrant, but further west in the country the situation changes; there, European Honey Buzzard is regarded as a scarce passage migrant and is more numerous than CHB.

To date, there are three summer records of CHB from Saudi Arabia: an adult male at Dhahran, Eastern province, 30 July 2011 (Babbington 2012), a second calendar year female at Tanumah, Asir province, 5 July 2013 (Babbington 2014, Plate 1) and a male and female (both second calendar years) at Dhahran 8 June–5 July 2014 (JB pers obs). It is not yet clear if some individual CHBs spend the entire year in Saudi Arabia but the 2014 Dhahran record was from the same site as three wintering individuals (including two juveniles) present 30 November 2013–8 March 2014 (Plate 6) and it is likely that the juveniles remained all summer. Juvenile European Honey Buzzards predominately remain on the wintering grounds in their first summer (Forsman 1999) and second calendar years are exceptionally rare in Europe (Corso 2012). An adult male CHB in the Arabian peninsula in July is less expected but Wouter Faveyts (*in litt*) suggested that European Honey Buzzard may skip a breeding cycle in some years and remain on their wintering grounds; the same might be true for CHB. These summer records also support the notion that CHBs may have only recently started wintering in the region with the first wintering record (as opposed

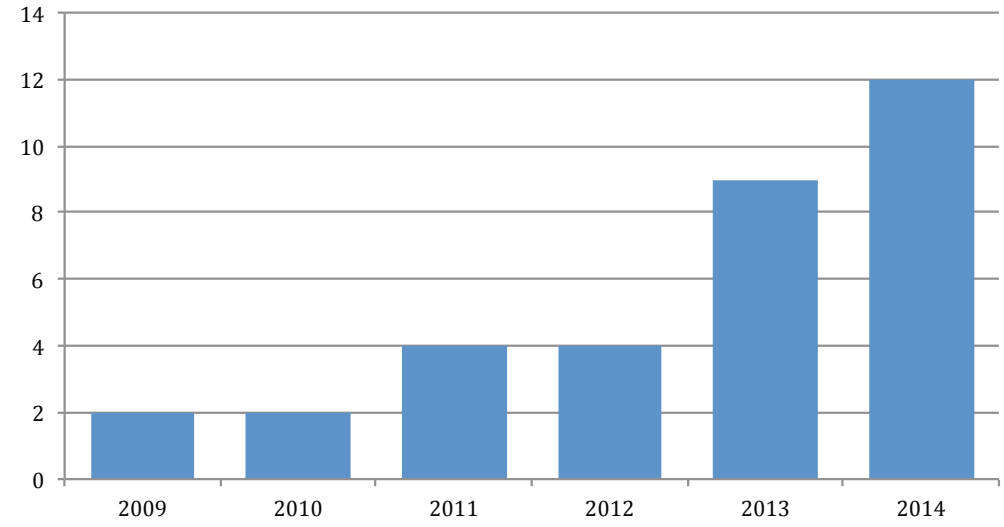

Figure 1. Number of Crested Honey Buzzard individuals recorded in Saudi Arabia 2009–2014. Some individuals remained for extended periods of time but have only been counted once (in the year of original occurrence).

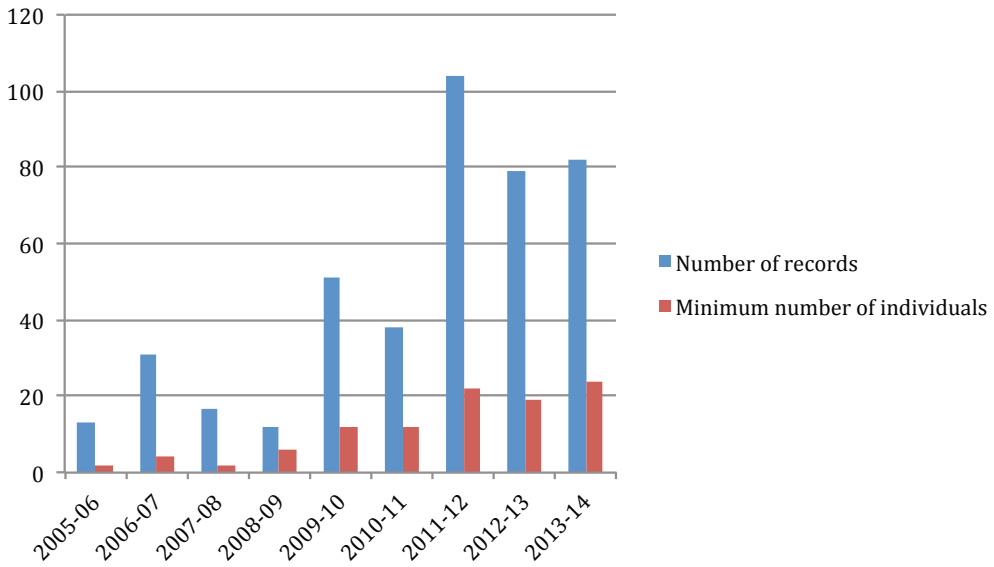

Figure 2. Number of records of Crested Honey Buzzard from the UAE and minimum number of individuals involved September–April (2005/2006–2013/2014).

to migrant) for Israel in 2008 (Kloos *et al* 2008), Saudi Arabia in 2009 and Kuwait in 2010, although mid winter records have been annual in the UAE since 1996.

STATUS IN THE UNITED ARAB EMIRATES

CHB was first recorded in the UAE in 1992 and is now regularly present October (September records are very few)–mid May, with, since 2007, an increasing number of summer (June–August) records. Numbers have increased steadily, with an especially marked increase

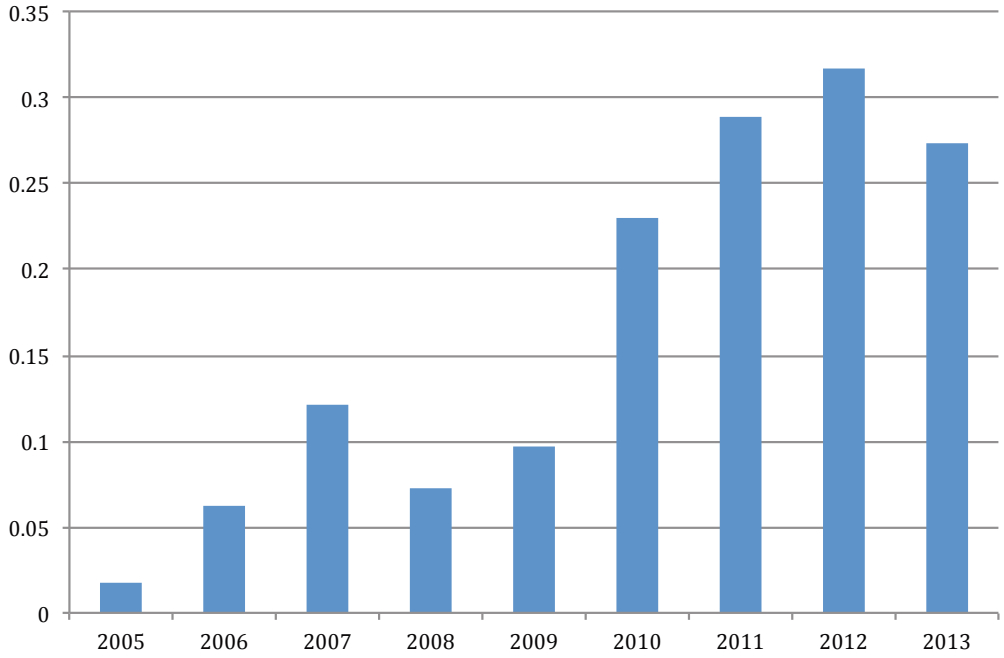

Figure 3. Number of bird-days Crested Honey Buzzard was recorded in the UAE, expressed as a percentage of the total number of records of all species in the UAE bird database, 2005–2013. Bird-days are used rather than number of individual birds as the latter is difficult to determine precisely, due to the prolonged stay and mobile nature of many individuals.

since winter 2009/2010. CHB is now recorded so frequently that it is difficult to state an exact number of individuals recorded each winter but inspection of the UAE bird database gives minimum totals of individuals recorded each 'winter' (defined as September–April inclusive) since 2005 (Figure 2). However, the number of observers (and hence number of records of all species submitted to the UAE bird database) has also increased markedly during the same period. In an attempt to correct for this overall increase in observer effort, Figure 3 illustrates the total number of bird-days recorded for the species annually from 2005 (data for all species for previous years has not yet been fully computerised) to 2013, expressed as percentage of all records in the UAE bird database. Figure 3 confirms that the marked increase in records of CHB in the UAE since 2005 appears genuine and is not an artefact of observer activity.

As well as increasing markedly in numbers, CHB is now widely recorded across the UAE. Whilst Abu Dhabi island was traditionally a favoured site, birds now regularly over-winter from Sila'a in the far west to Al Ain in the east, and north to the greater Dubai area. Records of two or three individuals together are frequent, with up to five recorded simultaneously at several sites and, twice, seven (Dubai, 23 April 2012; Abu Dhabi, 21 March 2015). Spring migrants temporarily associating with lingering over-wintering birds may account for such maxima. Adult (or near adult) male CHBs represent 30% of *c*63 individuals photographed 2007–2014 (archived at www.uaebirding.com/photos-birds.html). Individuals linger annually in the UAE until mid May but the first definite summer record for CHB was on 13 July 2007 (although one seen 30 May 1999 could conceivably have over-summered). Another summer record was 13 June 2008 and subsequent June records (often multiple records in a month) have followed 2011–2015. Since 2012, there have

been regular July/August records at a number of sites across the country. Traditionally, observer effort in the UAE is very low in summer and the species is presumably occurring more frequently in mid summer than these records alone suggest. Most summer records have involved singles but up to four were present in Abu Dhabi city in June 2013. Summer records have included adult males (Plate 2).

STATUS ELSEWHERE IN THE MIDDLE EAST

CHBs have also been occurring more frequently in other Middle Eastern countries, particularly since 2000. In Oman, there have been 124 records to September 2013 (compared to 51 records for European Honey Buzzard). A large majority are November–January, with few in spring (February–May) and no records June–August (Eriksen & Victor 2013). Mirroring the situation in the UAE, there is only one September record. The temporal distribution of records no doubt partly reflects observer activity in Oman, but the species is clearly increasing there, and the wintering population in green areas of the Dhofar region may exceed 30 individuals.

The first country record of CHB for Kuwait was 21 September 2001 and there have been 23 further records, mainly singles, to 31 May 2014 (M Pope and A Al-Sirhan *in litt*). Interestingly, almost 50% of records have occurred mid–late September, in marked contrast to Saudi Arabian, UAE and Omani records but fitting well with data from migration watch-points in Kazakhstan and Georgia where passage peaks in September (Wassink & Oreel 2007, Forsman 1994, Jansen 2013). With only five records November–March, it seems that CHBs do not regularly winter in Kuwait, again contra its status further east in the Arabian peninsula. There are only two records of CHB from Yemen: one between Al Dhahi and Al-Kadana, northern Yemen (17 January 1997, Jon Hornbuckle pers comm) and another on Socotra (28 February 2009). The true status of CHB is difficult to ascertain on mainland Yemen due to chronic under recording with a serious decline in effort since the late 1990s.

CHB is now seen annually on autumn and (especially) spring passage in Israel, where first recorded in 1994 (*eg* Faveyts *et al* 2011). Interestingly, status in Israel is rather different from that on the Arabian peninsula. In Israel, the surge in records began rather earlier and 15–20 are now recorded annually on spring passage, mainly May. Five–twelve have been recorded each autumn, mainly mid September although over-wintering is uncommon and was first documented in 2008 (Kloos *et al* 2008). In Egypt, CHB was first recorded in May 1996 (EORC undated) although it remains a national rarity with currently less than 10 accepted records. However, given the situation in Israel and that the species has been recorded as far west as Italy during spring passage (Scuderi & Corso 2011) this is presumably due to lack of observers. At Batumi, southwest Georgia, records have also increased markedly (annual in autumn since 2010 and in steadily increasing numbers including at least 47 in 2013; see Jansen 2013, Anon 2013). In Iran, CHB was first recorded as recently as 1999 but the total number of records had reached 23 by December 2010, mainly from the relatively well-watched Hormozgan province (Khaleghizadeh *et al* 2011). Other recent first country records come from Cyprus (21 October 2012), Bahrain (13 September 2013) and Qatar (12 May 2014, Morris 2014). This phenomenon of increasing records is likely to be due to increased observer awareness as well as a general westward and southward spread of the species' non-breeding range.

HOW MANY CRESTED HONEY BUZZARDS OCCUR IN THE ARABIAN PENINSULA ANNUALLY?

Combining estimates of 30 birds wintering in Oman (Eriksen & Victor 2013), with minima of 20 birds in the United Arab Emirates and five in Saudi Arabia gives an Arabian over-

wintering population of over 50 CHBs. In reality, factoring in the lack of observer coverage across the region (except the UAE) the total wintering population could be as high as 75–100 birds. Such numbers are broadly comparable to those observed on migration through watch-points in countries such as Kazakhstan. As in Israel, a small number of passage birds (especially in western Arabia) are presumably bound for Africa, although the species is unrecorded there outside Egypt. Birds seen in the west of Saudi Arabia have been recorded mainly in the southwest (Asir mountains and adjacent lowlands), on a known migration route for a number of raptor species (Welch & Welch 1988, Meadows 2001) including European Honey Buzzard (contra Cramp & Simmons 1980 who stated that little raptor passage occurs east of the western Red sea). In autumn, small numbers of European Honey Buzzards pass along the east side of the Red sea (the majority in September) and there is evidence that some birds occasionally attempt direct crossings (Meadows 2001) whilst others use the Bab el-Mandeb strait to cross into Africa. Welch & Welch (1989) suggested this is an important autumn route for European Honey Buzzards, although spring passage is much sparser (M Jennings *in litt*).

A POSSIBLE REASON FOR THE CHANGING STATUS IN THE ARABIAN PENINSULA

Whilst speculative, one reason for the dramatic increase in records of CHB is the recent availability of suitable habitat. Most records in the Arabian peninsula are from anthropogenic sites with extensive shade such as farmed areas, suburban parks, golf courses and plantations of mature watered trees (mainly ghaf *Prosopis cinerea*, but tall gum *Eucalyptus* plantations are also utilised). An investigation in Saudi Arabia found that hymenopteran nests are present every month of the year in the Eastern province, with searches revealing two to six nests each calendar month (B Meadows pers comm). As CHBs specialize in feeding on the larvae and honey of social bees and wasps (Orta & Marks 2014) potential food sources are clearly available year round. Such habitats (and densities of food sources simply did not exist in the Arabian peninsula until the early 1990s and have been created at an accelerating rate since (Jennings 2010).

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