

Status of Sociable Plover *Chettusia gregaria* and White-tailed Plover *C. leucura* in Turkey and the Middle East

MAX KASPAREK

Summary The status of Sociable Plover *Chettusia gregaria* and White-tailed Plover *C. leucura* in the Middle East is reviewed, with all Turkish records given. Sociable Plover is a rare passage migrant in Turkey (21 known records since 1900), though formerly it was probably more common. It occurs particularly in the east, mainly April and September–October. It is an uncommon migrant through the east Mediterranean and western Arabia, and large wintering flocks are now known only in the western Negev (Israel) and in Eritrea (Ethiopia); wintering does not seem to be regular in Mesopotamia or Egypt, despite assertions in some literature. White-tailed Plover *C. leucura* was first found breeding in Turkey in the 1970s, at five proven or probable sites, but there have been fewer records since, despite increased observer activity. It breeds in Mesopotamia and parts of Iran and is an uncommon migrant and scarce winter visitor over much of the Middle East, but the Turkish population is too small and breeding too irregular to account for the migrants seen in Jordan, Israel, and Egypt, so perhaps some Iraqi birds undertake a westward migration. Some published records, of both species, may have involved confusion between them, and observers are advised to pay more attention to their distinction in the field.

SOCIABLE PLOVER *Chettusia gregaria* and White-tailed Plover *C. leucura* are two closely related, monotypic species of the subfamily Vanellinae. White-tailed Plover breeds in the west from the lowlands of the Euphrates and Tigris eastwards to the lowlands of the Syr-Dar'ya in central Kazakhstan (Tomkovich 1992). Sociable Plover breeds north of the White-tailed Plover's range, with its westernmost sites along the lower reaches of the Volga north of the Caspian, its easternmost in the lowlands of Lake Zaysan in eastern Kazakhstan. White-tailed Plover has been found breeding in Turkey, well outside its normal range, and Sociable Plover is known as a migrant in the country. This paper reviews the Turkish records of both species, giving precise information on their status which is compared with that in other Middle Eastern countries.

Unfortunately, identification of the two species in Turkey seems not always to have been beyond doubt, and there may have been some cases of confusion between them in the records given here. There are, for example, two Turkish July records of Sociable Plover, one of them in a potential breeding area of White-tailed Plover. Flock size can also sometimes suggest that confusion may have occurred: White-tailed Plovers usually migrate alone or in groups of less than five, whereas Sociable Plovers often migrate in flocks comprising some tens of birds (see below, and Glutz von Blotzheim *et al.* 1975). Thus, two flocks with a total of 38 White-tailed Plovers recorded in September near Van Gölü fit well into the migration season and route of Sociable Plover. Birdwatchers are therefore advised not to treat identification of these species too casually, and the confusion which attends a few

records demonstrates the continuing need for an established procedure to assess records of rare birds in Turkey (e.g. Kasperek 1990).

SOCIABLE PLOVER

Turkish records

The first records in Turkey were more than 150 years ago, by Dickson and Ross (1839), who repeatedly observed flocks in the surroundings of Erzurum between mid-September and mid-October and collected a specimen on 17 September. Curzon (1854), apparently on the basis of additional records, subsequently included '*Vanellus keptuschka*' (an old synonym of *C. gregaria*) in his list of the birds of Erzurum. All other Turkish records are shown in Table 1, demonstrating two clear migration periods: late March to late April and mid-September to late October, with one mid-November record. Most observations are in the eastern half of the country (Figure 1) and of up to five individuals, though larger groups of up to 30 have been seen, in both spring and autumn.

Table 1. Twentieth century records of Sociable Plover *Chettusia gregaria* in Turkey.

	No. of birds	Site	Source
24 Apr 1911	3	SE Urfa ¹	Weigold (1913)
17 Nov 1931	1 male	Eregli	von Jordans and Steinbacher (1948)
23 Sep 1934	1 male, 3 females	Niksar ²	von Jordans and Steinbacher (1948)
15 Jul 1937	1	Ergani ³	Vasvári, in Keve (1971)
22 Sep 1967	1	Çildir ⁴	Vielliard (1968)
17 Apr 1968	1	Agri	OST (1972)
late Mar 1969	>30 ⁵	Ceylanpınar	OST (1972)
23 Mar 1973	2	Urfa–Viransehir	OST (1975)
14 Sep 1973	5	Ardahan	OST (1975)
26 Apr 1974	1	Kocaçay delta	N. Koch and W. Fuchs
13 Sep 1979	1	Arhavi	Beaman (1986)
18 Sep 1979	11	Ardanuç	Beaman (1986)
2 Oct 1980	1	Trabzon	Beaman (1986)
3–7 Oct 1981	28	Sultan marshes	Kasperek (1985)
18 Sep 1982	2 imm.	Bafa Gölü	Kasperek (1988a)
23 Sep 1985	1	Erzurum plain	C. Bräuning
22–24 Oct 1985	1	Sultan marshes	van den Berk <i>et al.</i> (1986)
3 Apr 1988	2	Eber Gölü	van Winden <i>et al.</i> (1989)
5 Apr 1990	1	Çukurova	WIWO (1990)
25–30 Apr 1992	1	Kizilirmak delta	WIWO/OSME/DHKD

¹ En route to Urfa from Djullab (=Güllab, a creek SE of Urfa passing Harran).

² The locality was called 'Sebatos', apparently identical with Sebaste (=Niksar).

³ Near Elazig. Vasvári (1938) called the site 'Targami'.

⁴ Vielliard (1968) used the name 'Gölebert', an old name for Çildir.

⁵ A flock of 30 and several others.

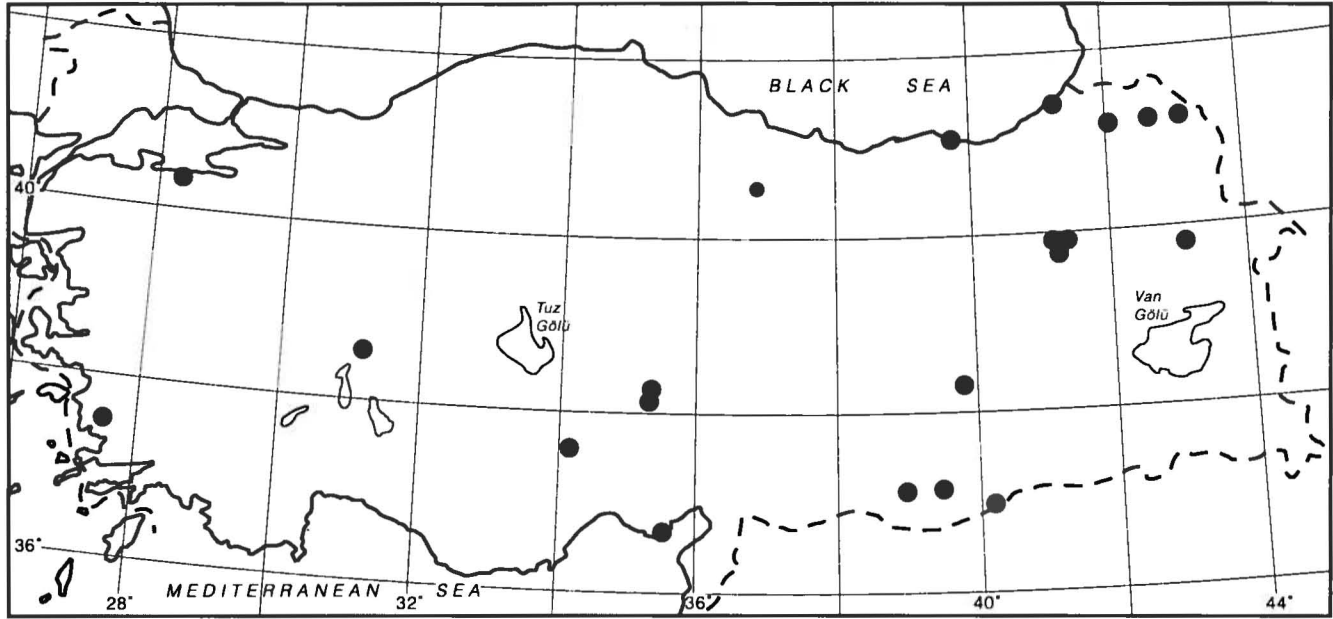


Figure 1. All records of Sociable Plover *Chettusia gregaria* known from Turkey. Each dot represents a record.

Status in the Middle East and Africa

The Sociable Plover is considered globally threatened (Collar and Andrew 1988; IUCN 1990) and has suffered considerably from the cultivation of its original steppe habitats, as it is scarcely capable of adapting to cultivated fields (Glutz von Blotzheim *et al.* 1975), contrasting in this respect with (e.g.) Lapwing *Vanellus vanellus*. Its range in Europe has therefore shrunk considerably within the last 150 years, and breeding areas in the south-east Ukraine and Crimea, for example, have been abandoned (Glutz von Blotzheim *et al.* 1975). The decline is also reflected by the numbers in the winter quarters: in Sudan Sociable Plover was formerly an uncommon winter visitor but has become rare (Nikolaus 1987). Wintering is known now to occur in north-west India and Pakistan, occasionally in the Arabian peninsula, and in Israel, north-east Ethiopia, and Sudan, rarely also in Iraq and Egypt (e.g. Glutz von Blotzheim *et al.* 1975, and see below). Cramp and Simmons (1983) reported occasional wintering in Transcaucasia.

Allouse (1953) and Meinertzhagen (1954) called the Sociable Plover a fairly common winter visitor to Iraq, an assessment repeated by many handbooks, though the only source for the statement is Ticehurst *et al.* (1922) who cited just two observers. One recorded Sociable Plovers 'in large flocks' from October to February and the other met the species in late February; two birds were collected in December. Ticehurst *et al.* (1926) added 'recorded from Feluja, Aqqar Quf and Sheik Said; earliest September 25', thus not specifying or emphasizing wintering. More recent field activities have not confirmed wintering: Chapman and McGeoch (1956) did not see the species in two winters, 1952–4, and Marchant (1963) did not mention it from the Baghdad area during 1959–62, although he discussed the winter status of 19 other wader species. Ctyroký (1987) doubted wintering in Iraq as he did not observe Sociable Plover during a four-year stay in the country, and Scott and Carp (1982) did not encounter it during four winter waterfowl counts between 1968 and 1979. It seems safe to assume, therefore, that Iraq never has been an important wintering area for Sociable Plover. Ticehurst's statement is based on only a few real winter observations, and most of his records may refer to late autumn or early spring migrants. In Armenia to the north, Ajrumjan (1987) classed the Sociable Plover as a migrant with records from the Araxes (Aras) valley and the Gegamski mountains.

There have been hardly any winter records in Egypt since 1930 (Goodman and Meininger 1989: Table 2), so it seems doubtful whether it was ever a 'not uncom-

Table 2. Seasonal distribution of records of Sociable Plover *Chettusia gregaria* in some Middle East countries. There are no January–February records for these countries. Egyptian records do not include any from before 1930.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Source
Turkey	2	4			1		8	3	1		This study
Cyprus	1										Flint and Stewart (1992)
Syria							2	4	2		Kumerioeve (1968), Baumgart and Stephan (1986)
Lebanon								1			Kumerioeve (1962)
Egypt	2						2	3	6	2	Goodman and Meininger (1989)

mon' winter visitor there as Meinertzhagen (1930) described it, and this statement may just have been a generalization from some late autumn migrants and a few winter records. Recent observations in Israel, on the other hand, indicate that Sociable Plovers winter regularly in the western Negev in relatively large numbers: there are observations of 270 birds on 28 January 1979 (Hovel 1987) and 100–105 in winter 1984–5 (Andersen 1987), though Shirihai (in press) puts the number wintering annually at this site at 19–54.

On the Arabian peninsula, Sociable Plover seems to be a rare passage migrant which occasionally also winters. There appear to have been no records along the Gulf coast until the 1980s, and only a few since then, in eastern Saudi Arabia (Bundy *et al.* 1989), Bahrain (Nightingale and Overy 1987; Hirschfeld 1991), and the United Arab Emirates (Richardson 1990). In the western regions of Saudi Arabia it is an uncommon migrant and possibly a winter visitor (Jennings 1981). Around Riyadh it is rare and occurs only irregularly, mainly in March and November–December (Jennings 1981; Stagg 1987), and in the region of Al Jawf in the north-west of Saudi Arabia Green (1984) reported it to be an uncommon migrant from February to May and in August–September. In Oman it is a scarce winter visitor occurring November to February (OBRC 1990).

As a winter visitor to Sudan it was said by Hogg *et al.* (1984) to be fairly common inland but uncommon on the coast, though in fact there seem to be no records post-1950 (Nikolaus and Hamed 1984); Nikolaus (1987), however, was still prepared to describe it as 'formerly uncommon, now rare'. In Eritrea, numbers vary greatly, and birds are completely absent in some years, though the largest flock observed comprised 150 birds (Urban *et al.* 1986). There is a single old record from Somalia, in November in the north (Ash and Miskell 1983).

Sociable Plover is thus an uncommon migrant in the Middle East from the east Mediterranean to about 48°E and occurs only irregularly on the Arabian peninsula to the east of this longitude. Large wintering flocks have been seen only in the Negev and in Eritrea.

Turkish records are of single individuals and small flocks of up to 30 birds, and a similar situation is found in other Middle East countries, though Jennings *et al.* (1988) saw a remarkable group of 45 in extreme northern Saudi Arabia in March. Other maximum group sizes of migrants are 12 in Syria (Kumerloeve 1968), 24 in Egypt (Goodman and Meininger 1989), 12 in Bahrain (Hirschfeld 1991), and no more than ten in other Middle East countries. This accords with observations in other parts of the species' range (Glutz von Blotzheim *et al.* 1975) and emphasizes that the larger numbers observed in the western Negev indicate genuine wintering.

Former breeding in the Ukraine would explain the apparent frequency of nineteenth century records in Turkey (see above) and the subsequent decline, but despite this loss of its westernmost breeding areas the Sociable Plover is still occurring as a migrant in the country, and wintering numbers in the Negev suggest that many more must pass through Turkey on migration than are actually seen. If not due simply to overflying, this might be explained by the fact that on migration the species prefers sandy plains covered with short grass, dry meadows, fallow land,

and cultivated fields (Voous 1960), habitats which are extensive and thus not well covered by birdwatchers. Furthermore, most birds migrate through the eastern part of the country which is rarely visited by birdwatchers during the Sociable Plover's migration periods. A similar situation exists with the Demoiselle Crane *Anthropoides virgo*, which prefers similar habitats and which is only rarely seen on migration, although it must pass in large numbers (Kasperek 1988b). Observers are therefore urged to survey these habitats in the migration seasons more carefully.

WHITE-TAILED PLOVER

Turkish records

The White-tailed Plover reaches the western limit of its breeding range in Turkey, where it is isolated from the nearest main breeding area, in Mesopotamia (Figures 2–3). Breeding in Turkey has been proved in the Göksu delta and in the former Yarma wetlands, and the behaviour of birds in the Hotamis marshes and the Çukurova deltas (agitated behaviour, defence of territories, etc.) indicates probable breeding there. The presence of birds in suitable nesting habitat during the breeding season in the Eregli marshes suggests a fifth breeding locality, and presence during the breeding season at the Kizilirmak delta, at Amik Gölü and Van Gölü, at Birecik, and in the Aras (Araxes) lowlands (Aralik area) may be taken as a slight indication of further breeding localities.

The following compilation of all known records lists them area by area, from west to east (see also Figure 2).



Plate 1. White-tailed Plover *Chettusia leucura*, Eilat (Israel), April 1980. (Peter H. Barthel)

Manyas Gölü. One was photographed on 20 October 1982 (F. de Roder pers. comm.; the date was erroneously given as 21–22 October in Martins 1989).

Kizilirmak delta. Three at Liman Gölü at the northern tip of the delta on 11 May 1977 (Dijksen and Kasperek 1985).

Hotamis marshes. Harbard *et al.* (1976, and OST 1978) observed two individuals on 26 August 1974 and three the following day. In the following year, R. R. Lovegrove, R. F. Porter, and I. Willis (OST 1978 and unpubl. rep.) found a pair and another single bird in suitable nesting habitat near Sazlipinar on the northern shore of the marshes on 3 June; one bird was agitated at the observers' presence, and next day only one was seen. Single birds were observed on 10 May 1977 (Beaman 1986) and 21 May 1984 (Martins 1989). In 1985, 13 were seen on 14 June (Martins 1989), two on 24–25 June (P. Bison, P. Gnodde, and J. van der Laan), and three on 6 July (S. Skov and K. L. Hansen); breeding was assumed due to the fact that the birds were giving alarm-calls. At Küçük Aslama (25 km south-west of Hotamis) a

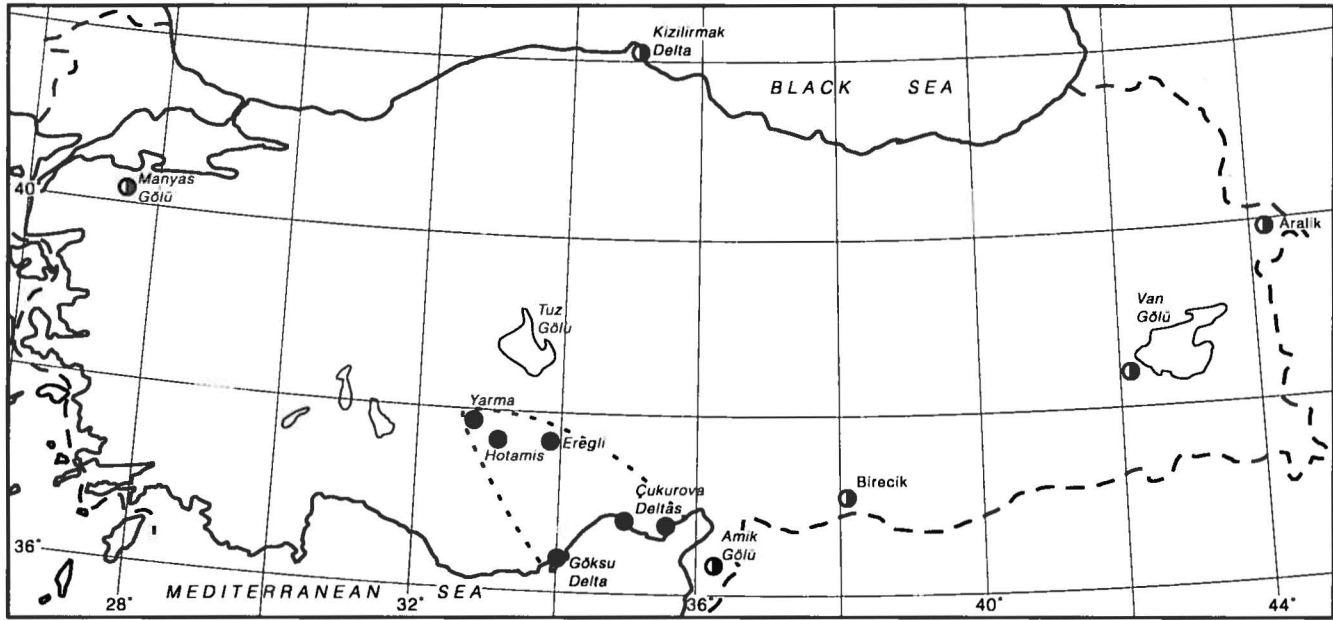


Figure 2. Distribution of White-tailed Plover *Chettusia leucura* in Turkey (from Kasperek 1992). Dots are proven or presumed breeding localities; half-filled dots are sites of possible breeding or of obvious passage records.

calling bird flew over on 30 May 1986 (Martins 1989; R. Schenk unpubl. rep.).

Yarma wetlands. Three pairs (one seen mating) and a single very agitated bird were recorded on 3 June 1971 (Lehmann 1971). The area was described as steppe on the edges of a freshwater lake north-east of Konya (also in Kumerloeve 1971), but as there is no lake north-east of Konya, I am convinced that the records refer to the Yarma wetlands south-east of Konya. This would also fit well with the records by K. Warncke a few days later: on 9 June he observed 5–6 pairs in the Yarma wetlands and found two nests which contained two and four eggs (Warncke c. 1972; OST 1975); on 11 June he noted at least nine pairs, and the nest formerly with two eggs was found to contain three; by 23 July the site had dried out and the birds were scattered around the area.

Eregli marshes. E. Hable, E. Bezzel, N. Koch *et al.* (Weber 1981 and unpubl. rep.) observed at least six individuals (up to four together) on 8 May 1979 and four on 11 May. An observation by M. van Beirs and D. Colin (unpubl. rep.) which was attributed by them to Sociable Plover (two on 17 July 1982) apparently refers to White-tailed Plover. R. Jürgens *et al.* (unpubl. rep.) saw one in inundated fields lying between Düden village and Karaman on 2 May 1983.

Göksu delta. White-tailed Plover was first observed in the delta in 1970, when four adults were seen on 30 April (OST 1975). In the following year Lehmann (1971) discovered a pair with a clutch of three eggs on 27 May; two days later he found another nest, and on 27 July a pair with a recently fledged juvenile was observed (OST 1975). In 1973, G. Easy *et al.* (OST 1975 and unpubl. rep.) saw 15 birds on 20 September, six on 22nd, and one on 24th. Birds were seen in the delta several times subsequently, although no indication of breeding was found: two on 21–22 May 1975 (OST 1978), at least three on 8–9 May (S. Gysel, N.

Koch, *et al.* unpubl. rep.), two on 11 May 1978 (D. Holman unpubl. rep.), and singles on 7 April 1982 (Hüni 1982), 7 April 1985 (H. Langbehn, R. Kellner, H. Pieper, *et al.* unpubl. rep.), and 18 April 1985 (Martins 1989). There were apparently no observations from 1988 to 1991 despite an extremely high level of observer activity (pers. data and V. van den Berk pers. comm.).

Çukurova deltas. On 3 May 1970 a pair which was thought to be breeding was seen near Agyatan Gölü (Kumerloeve 1971). One pair and three singles, which behaved as if breeding, were observed in inundated areas of the Tarsus (Berdan) river on 1 June 1971 (Lehmann 1971). U. von Wicht and G. Knötzsch (unpubl. rep.) observed two pairs near Tuzla on 22 April 1973, and van der Have *et al.* (1988) noted two birds in the salt marshes west of Agyatan Gölü on 16 May 1987.

Amik Gölü. A pair was found in a Jerusalem bird collection (Dalman collection) which had been shot by Aharoni at Amik Gölü on 17 June 1910 (Kumerloeve 1966; Kumerlöwe 1969). This represents the first Turkish record.

Euphrates near Birecik. Eight individuals were seen between Birecik and Halfeti on 5–7 April



Plate 2. White-tailed Plover *Chettusia leucura*, Eilat (Israel), April 1980. (Peter H. Barthel)

1973 (OST 1975), and G. Kirwan (pers. comm.) saw an adult in display-flight at Birecik on 18 May 1992.

Van Gölü. Two were seen near Van on 13 May 1973 (OST 1975). 38 individuals were reported flying south over Nemrut mountain near Tatvan in two flocks on 27 September 1986 (Mycock 1987; Martins 1989); there is some possibility that this record represents confusion with Sociable Plover (see above).

Aralik area. R. Jürgens (unpubl. rep.) recorded two between Iğdir and Aralik on 16 June 1986.

Thus, most of the Turkish observations of White-tailed Plover have been at proved or possible breeding places. Only the April observation on the Euphrates and the October observation from Manyas Gölü clearly refer to migrants. The earliest spring date in Turkey is 5 April, and other observations have been made later in that month, though most birds arrive in early May.

Breeding in Turkey has been recorded only irregularly but it is appropriate to consider whether this simply reflects irregular birdwatching activity. Observer activity in the Mediterranean river deltas has increased considerably in recent years, but despite this there are only a very few records of White-tailed Plover from that period, although breeding had been proved (Göksu delta) or assumed (Çukurova) in the 1970s when these areas were visited much less than today. White-tailed Plover was not seen in the Ereğli marshes during a survey of the area in 1987–9 (Kiliç and Kasperek 1990), and the wetlands at Yarma have now been drained and the area put to agricultural use. There might still be suitable breeding habitat around the Hotamis marshes, but the lake has largely dried up due to the use of its waters for irrigation, and no White-tailed Plovers were found during a survey in late April and mid-May 1991 (G. Kirwan pers. comm.). The substantial increase in birdwatching in Turkey during the last 15 years thus has not brought about a corresponding increase in the number of records of White-tailed Plover, nor has any new breeding locality been discovered.

A westward expansion of the breeding range was suggested by Glutz von Blotzheim *et al.* (1975), Dean *et al.* (1977), and others, but the Turkish situation indicates that a continuing spread cannot be confirmed. Localities which were occupied in Turkey in the 1970s were abandoned in the 1980s, even though many apparently excellent potential breeding areas remain, and any change taking place

Table 3. Records of White-tailed Plover *Chettusia leucura* in Turkey by area and by year (a record at Van in 1986 is excluded: see text). There is only one pre-1970 record (Amik Gölü: see text). Records for Cyprus (C. Bennett *in litt.*) are given for comparison. Figures are minimum numbers of birds.

	1970	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
Hotamis					3	3		1							1	13	1						
Yarma		18																					
Ereğli										6			2	1									
Göksu	4	5	15			2			3				1			1							
Çukurova	2	5		4														2					
Other			10					3					1				4						1
Cyprus	3									2					2				4	1	6	1	

thus seems to consist of long-term fluctuations at the edge of the breeding range rather than a steady westward expansion. Although there have been observations of birds in many years since 1970, no one area is known to have had a continuous presence (Table 3). There were only two years with no records in the 1970s, but four in the 1980s, and only a single bird has been seen since 1987. There is scant indication of any periodic influx.

Status in the Middle East and Africa

Breeding in Iraq is confined to the lower Euphrates and Tigris basin (Figure 3), where birds have been seen on territory from mid-March (Ctyroký 1992). The data presented in Figure 3 include previously unpublished records as follows. During 19 March to 2 April 1965 E. Herrlinger, M. von Tschirnhaus, *et al.* (unpubl. rep.) found 15 White-tailed Plovers west of Falluya, 40 near Salman Pak (Ctesifon), six between Ali al-Garbi and Qalat Salih, one north of Qurna, seven south of Nasiriya, two south of Diwaniya, four between Diwaniya and Hilla, and 15 north of Bahriz

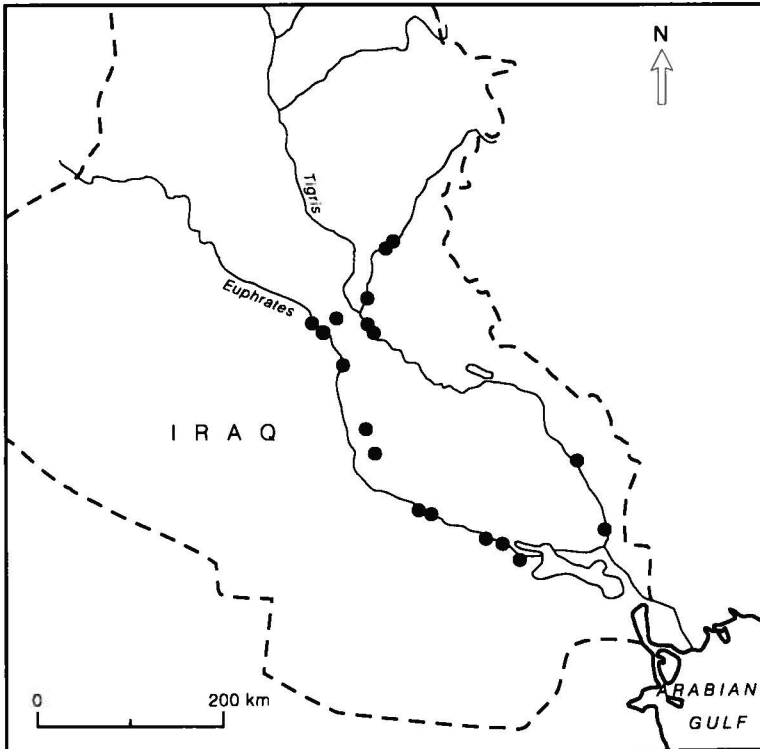


Figure 3. Distribution of White-tailed Plover *Chettusia leucura* in Iraq; all sites of apparent breeding are shown. Data from E. Herrlinger, M. von Tschirnhaus, and T. Stadlander (see text), Ticehurst *et al.* (1922), Allouse (1957), Sage (1960), and Ctyroký (1987).

in the environs of Baquba. While on a boat tour down the Euphrates on 19–28 March 1989 T. Stadlander (unpubl. rep.) observed one pair below Al Falluya barrage no. 1, five pairs above Al Falluya barrage no. 5 and c. 20 pairs below it near Mishkhab, c. 30 pairs below Jarab near As Samawah, c. 20 pairs below As Samawah, c. 8 pairs above Al Batha, c. 50 pairs at a bridge west of An Nasiriyah, and c. 30 pairs between An Nasiriyah and Suq ash Shuyukh.

The distribution in Iran extends, according to Scott *et al.* (1975), along the Arabian Gulf and South Caspian lowlands, and also includes the swamps of Bafq in the interior and Seistan in the east. On the eastern side of the Caspian Sea the species is described as common (e.g. Grekov 1960), whereas it is only a local breeder on the western shore, as in the Kura lowlands of Azerbaijan (see Vinogradov 1963). There is a single breeding record, in 1992, from the Arabian peninsula, involving two pairs at Al Khobar on the Gulf coast of Saudi Arabia (G. Ramsay, *Orn. Soc. Middle East Bull.* 29: 43). At Azraq in Jordan, White-tailed Plovers have been seen on several occasions and the observations have included family parties and birds giving alarm-calls—though breeding still needs confirmation (Andrews 1991).

The main wintering area extends from north-west India across Pakistan to south-east Iraq, but a small number of birds migrate as far as Africa where Sudan is an important wintering area (Glutz von Blotzheim *et al.* 1975). It was recently described from Sudan as uncommon from September or October to March, occurring in parties of up to 25 birds (Hogg *et al.* 1984; Nikolaus 1987). Wintering in Egypt is only occasional, and birds are rare there on passage, occurring mainly from early September to early November and from late February to late March (Goodman and Meininger 1989). Also in Israel it is a quite rare passage migrant and rare winterer, with seasonal maxima at Eilat of 20 in spring and 30 in autumn (Shirihai *in press*). The White-tailed Plover occurs in all parts of the Arabian peninsula as a rare to uncommon migrant and scarce winterer. Jennings (1981), for example, reported it to be an uncommon passage migrant in all parts of Saudi Arabia, and it is an irregular spring and autumn migrant in the Riyadh region (Stagg 1987) and a scarce visitor in all months (though chiefly a migrant) from late August to May in the Gulf states (Bundy *et al.* 1989; Richardson 1990).

Thus White-tailed Plovers evidently cross Arabia on a broad front, but the origin of migrants in Israel and Egypt is unclear, with breeding in Turkey being plainly too infrequent and too irregular for this population to be the source of all such birds. They may thus stem from Iraq, where the population is partially migratory (Ctyroký 1992), but such birds would have to leave Iraq on a westerly heading and subsequently change direction to the south on leaving Israel or Egypt in order to reach the winter quarters in Sudan. The adaptive value of this behaviour would be unclear, as the Arabian records show that deserts are no barrier for migrants, so it may be that the birds' true origin in fact lies to the north of the eastern Mediterranean in some undiscovered or larger-than-presently-known population.

ACKNOWLEDGEMENTS

I wish to thank all those individuals who provided me with their observations of both species in the Middle East: V. van den Berk, Dr E. Bezzel, D. Colin, P. Bison, W. Fuchs, Dr E.

Herrlinger, D. Holman, R. Jürgens, R. Kellner, G. Kirwan, G. Knötzsch, Dr N. Koch, H. Pieper, F. de Roder, R. Schenk, S. Skov, and T. Stadtlander. C. Bennett compiled a list of all records from Cyprus, Dr K. Liedel made translations from the Russian, P. Ctyroký provided an unpublished manuscript on the occurrence of the White-tailed Plover in Iraq, and H. Shirihai allowed the use of data from his forthcoming *Birds of Israel*.

REFERENCES

- AJRUMJAN, K. A. (1987) *Krasnaja Kniga Armjanskoj SSR*. Zivotug, Yerevan.
- ALLOUSE, B. E. (1953) The avifauna of Iraq. *Iraq Nat. Hist. Mus. Publ.* 3.
- ALLOUSE, B. E. (1957) On a recent ornithological excursion in Iraq made by Dr. Makatsch (May 28–June 9, 1957). *Iraq Nat. Hist. Mus. Publ.* 13: 17–21.
- ANDERSEN, L. N. (1987) *Birdwatching in Israel and Adjacent Areas, 1982–85*. Andersen, Copenhagen.
- ANDREWS, I. (1991) Is Azraq still an oasis? *Orn. Soc. Middle East Bull.* 27: 13–19.
- ASH, J. S. AND MISKELL, J. E. (1983) Birds of Somalia: their habitat, status and distribution. *Scopus Spec. Suppl.* 1.
- BAUMGART, W. AND STEPHAN, B. (1986) Ergebnisse ornithologischer Beobachtungen in der Syrischen Arabischen Republik: Teil 1 Non-Passeriformes. *Mitt. Zool. Mus. Berlin* 62 *Suppl. Ann. Orn.* 10: 69–110.
- BEAMAN, M. (1986) Turkey: Bird Report 1976–1981. *Sandgrouse* 8: 1–41.
- BUNDY, G., CONNOR, R. J., AND HARRISON, C. J. O. (1989) *Birds of the Eastern Province of Saudi Arabia*. Witherby, London.
- CHAPMAN, E. A. AND MCGEOCH, J. A. (1956) Recent field observations from Iraq. *Ibis* 98: 577–94.
- COLLAR, N. J. AND ANDREW, P. (1988) Birds to watch: the ICBP world checklist of threatened birds. *ICBP Tech. Publ.* 8. Cambridge.
- CRAMP, S. AND SIMMONS, K. E. L. (eds) (1983) *The Birds of the Western Palearctic* Vol. 3. Oxford University Press.
- CTYROKÝ, P. (1987) Ornithological observations in Iraq. *Beitr. Vogelkunde* 33: 141–204.
- CTYROKÝ, P. (1992) Der Weißschwanzsteppenkiebitz (*Chettusia leucura* Lichtenstein)—ein endemischer Kiebitz Südwestasiens. *Beitr. Vogelkunde* 38: 92–8.
- CURZON, R. (1854) *Armenia: a year at Erzeroom, and on the frontiers of Russia, Turkey and Persia* (pp. 150–4: List of the Birds of Erzeroom, compiled by Calvert). London.
- DEAN, A. R., FORTEY, J. E., AND PHILLIPS, E. G. (1977) White-tailed Plover: new to Britain and Ireland. *Brit. Birds* 70: 465–71.
- DICKSON, E. D. AND ROSS, H. J. (1839) A collection of bird-skins, from the neighbourhood of Erzeroom. *Proc. Zool. Soc. Lond.* 1839: 119–23.
- DIJKSEN, L. J. AND KASPAREK, M. (1985) The birds of the Kizilirmak delta. *Birds of Turkey* 4. Kasperek, Heidelberg.
- FLINT, P. R. AND STEWART, P. F. (1992) The birds of Cyprus: an annotated check-list 2nd edn. *Brit. Orn. Union Check-list* 6. Tring.
- GLUTZ VON BLOTZHEIM, U. N., BAUER, K. M., AND BEZZEL, E. (eds) (1975) *Handbuch der Vögel Mitteleuropas*. Vol. 6 (1). Akademische, Wiesbaden.
- GOODMAN, S. M. AND MEININGER, P. L. (eds) (1989) *The Birds of Egypt*. Oxford University Press.
- GREEN, A. A. (1984) The avifauna of the Al Jawf, northwest Saudi Arabia. *Sandgrouse* 6: 48–58.
- GREKOV, V. S. (1960) On the birds of the south-west coastal area of the Caspian Sea. [in Russian]. *Ornitologiya* 3: 441–3.
- HARBARD, C. A., WALSH, T. A., AND FISHER, D. J. (1976) *The report of an ornithological expedition to Turkey 8 July–1 October 1974*. Unpubl.
- HIRSCHFELD, E. (1991) Rare birds in Bahrain 1989 and 1990. *Orn. Soc. Middle East Bull.* 26: 20–5.
- HOGG, P., DARE, P. J., AND RINTOUL, J. V. (1984) Palaeartic migrants in central Sudan. *Ibis* 126: 307–31.

- HOVEL, H. (1987) *Check-list of the Birds of Israel*. SPNI, Tel Aviv.
- HÜNI, H. (1982) Exkursion der Ala in die Südosttürkei 3–17 April 1982. *Orn. Beob.* 79: 221–3.
- IUCN (INTERNATIONAL UNION FOR CONSERVATION OF NATURE) (1990) *1990 IUCN Red List of Threatened Animals*. IUCN, Gland.
- JENNINGS, M. C. (1981) *The Birds of Saudi Arabia: a check-list*. Jennings, Whittlesford.
- JENNINGS, M. C., AL TOUM, M. O., AND AL ISSA, A. A. A. (1988) Atlas of the Breeding Birds of Arabia survey no. 5: results of an ornithological survey of northern Saudi Arabia 27 February–26 March 1988. *NCWCD Tech Rep.* 10. Riyadh.
- KASPAREK, M. (1985) *Die Sultanssümpfe: Naturgeschichte eines Vogelparadieses in Anatolien*. Kasperek, Heidelberg.
- KASPAREK, M. (1988a) Der Bafasee: Natur und Geschichte in der türkischen Ägäis. Kasperek, Heidelberg.
- KASPAREK, M. (1988b) The Demoiselle Crane, *Anthropoides virgo*, in Turkey: distribution and population of a highly endangered species. *Zool. Middle East* 2: 31–8.
- KASPAREK, M. (1990) Zum Vorkommen einiger in der Türkei seltenen Vogelarten. *Bonner Zool. Beitr.* 41: 181–202.
- KASPAREK, M. (1992) *Die Vögel der Türkei: eine Übersicht*. Kasperek, Heidelberg.
- KEVE, A. (1971) Aus den Notizen der Forscherfahrt Dr. N. Vasváris in Kleinasien. *Vertebr. Hung.* 12: 51–67.
- KILIÇ, A. AND KASPAREK, M. (1990) *The Eregli Marshes: assessment of their biological importance and recommendations for conservation*. Rep. to WWF and ICBP.
- KUMERLOEVE, H. (1962) Notes on the birds of the Lebanese Republic. *Iraq Nat. Hist. Mus. Publ.* 20: 1–78.
- KUMERLOEVE, H. (1966) Ergänzungen zur Avifauna Kleinasiens. *Bonner Zool. Beitr.* 17: 257–9.
- KUMERLOEVE, H. (1968) Recherches sur l'avifaune de la République Arabe Syrienne essai d'un aperçu. *Alauda* 36: 243–65.
- KUMERLOEVE, H. (1971) Le statut du Vanneau à queue blanche *Vanellus (Chettusia) leucurus* au Proche-Orient. *Alauda* 39: 252–3.
- KUMMERLÖWE, H. (1969) Remarques sur les collections d'oiseaux de Palestine. *Alauda* 37: 164–7.
- LEHMANN, H. (1971) Der Weißschwanz-Steppenkiebitz, *Chettusia leucura* (Lichtenstein) in der Türkei. *Jahrb. Naturwiss. Vereins Wuppertal* 24: 133–4.
- MARCHANT, S. (1963) Notes on the winter status of certain species in Iraq. *Ardea* 51: 237–43.
- MARTINS, R. P. (1989) Turkey Bird Report 1982–6. *Sandgrouse* 11: 1–41.
- MEINERTZHAGEN, R. (1930) *Nicoll's Birds of Egypt*. Rees, London.
- MEINERTZHAGEN, R. (1954) *Birds of Arabia*. Oliver and Boyd, Edinburgh.
- MYCOCK, J. (1987) Some autumn observations in Turkey. *Orn. Soc. Middle East Bull.* 18: 1–3.
- NIGHTINGALE, T. AND OVERY, M. (eds) (1987) *Wildlife in Bahrain* 4.
- NIKOLAUS, G. (1987) Distribution atlas of Sudan's birds with notes on habitat and status. *Bonner Zool. Monogr.* 25.
- NIKOLAUS, G. AND HAMED, D. M. (1984) Distinct status changes of certain Palaearctic migrants in Sudan. *Scopus* 8: 36–8.
- OBRC (OMAN BIRD RECORDS COMMITTEE) (1990) *Oman Bird List* 3rd edn. OBRC, Muscat.
- OST (ORNITHOLOGICAL SOCIETY OF TURKEY) (1972, 1975, 1978) *Bird Report 1968–1969, 1970–1973, 1974–1975*. OST, Sandy.
- RICHARDSON, C. (1990) *The Birds of the United Arab Emirates*. Hobby, Warrington.
- SAGE, B. L. (1960) Field notes on some birds of eastern Iraq. *Ardea* 48: 160–78.
- SCOTT, D. A. AND CARP, E. (1982) A midwinter survey of wetlands in Mesopotamia, Iraq: 1979. *Sandgrouse* 4: 60–76.
- SCOTT, D. A., HAMADANI, H. M., AND MIRHOSSEYNI, A. A. (1975) *The Birds of Iran*. Dept. of Environment, Tehran.
- SHIRIHAI, H. (in press) *Birds of Israel*.
- STAGG, A. (1987) *Birds of the Riyadh Region*. Stagg, Riyadh.

- TICEHURST, C. B., BUXTON, P. A., AND CHEESMAN, R. E. (1922) The birds of Mesopotamia. *J. Bombay Nat. Hist. Soc.* 28: 210–50, 381–427, 650–74, 937–56.
- TICEHURST, C. B., COX, P. Z., AND CHEESMAN, R. E. (1926) Additional notes on the avifauna of Iraq. *J. Bombay Nat. Hist. Soc.* 31: 91–119.
- TOMKOVICH, P. S. (1992) Breeding-range and population changes of waders in the former Soviet Union. *Brit. Birds* 85: 344–65.
- URBAN, E. K., FRY, C. H., AND KEITH, S. (eds) (1986) *The Birds of Africa* Vol. 2. Academic, London.
- VAN DEN BERK, V., VAN DORP, D., VAN HOORN, O., AND VOS, R. (1986) Cranes and waterfowl counts of some Turkish wetlands October–November 1985. *WIWO Rep.* 10. Zeist.
- VAN DER HAVE, T. M., VAN DEN BERK, V. M., CRONAU, J. P., AND LANGEVELD, M. J. (eds) (1988) South Turkey project. *WIWO Rep.* 22.
- VAN WINDEN, A., MOSTERT, K., RUITERS, P., SIKI, M., AND DE WAARD, H. (1989) Waders and waterfowl in spring 1988 at Eber Gölü, Turkey. *WIWO Rep.* 28. Zeist.
- VASVÁRI, N. (1938) Skizzen aus der Biocoenose der Vogelwelt Kleinasiens. *Compt. Rend. IX Congr. Internat. Rouen 1938*, 409–14.
- VIELLIARD, J. (1968) Résultats Ornithologiques d'une mission à travers la Turquie. *Istanbul Üniv. Fen Fak. Mecmuası (B)* 33: 67–170.
- VINOGRADOV, V. V. (1963) Nesting of *Chettusia leucura* in Transcaucasia [in Russian]. *Ornitologiya* 6: 303–5.
- VON JORDANS, A. AND STEINBACHER, J. (1948) Zur Avifauna Kleinasiens. *Senckenbergiana* 28: 159–86.
- VOOUS, K. H. (1960) *Die Vogelwelt Europas und ihre Verbreitung*. Parey, Hamburg.
- WARNCKE, K. (c. 1972) *Über die Häufigkeit einiger Brutoögel Zentralanatoliens*. Unpubl.
- WEBER, A. (1981) Ornithologische Exkursion in Anatolien, Frühjahr 1979. *Gefiederte Welt* 105: 224–6, 244–8.
- WEIGOLD, H. (1913) Ein Monat Ornithologie in den Wüsten und Kulturoasen Nordwest-mesopotamiens und Innersyriens. *J. Orn.* 61: 1–40.
- WIWO (1990) *The Eastern Mediterranean Wader Project: South Turkey Project 1990*. Zeist.

Max Kasperek, Bleichstr. 1, 6900 Heidelberg, Germany.