

# White-winged Terns *Chlidonias leucopterus* breeding at high elevation in eastern Anatolia, Turkey

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In Turkey, White-winged Tern *Chlidonias leucopterus* was considered by Kirwan *et al* (2008), "A fairly widespread and common passage migrant to wetlands and coastal areas, especially across the eastern two-thirds of the country, which is regularly recorded in summer and often assumed to breed... However, our detailed dissection of the literature, both published and unpublished, has revealed very few records that can be considered even strongly suggestive of breeding...and recommend that any definite future nesting records be thoroughly documented. Nonetheless, it does seem likely that breeding occurs in Turkey at least occasionally".

We report the discovery of three White-winged Tern breeding colonies in 2011/2012 in eastern Anatolia, Turkey, each at high elevation. Two of the three were along busy main highways, and once sites were occupied by conspicuous adults, it is hard to imagine their being unnoticed by passing birders or ornithologists, so perhaps they have been only recently established. The third colony was some distance from a main road and could have been easily overlooked.

The first colony was found by PAB *et al* on 30 June 2011 c575 km east of Caldiran, Van province, on the north side of highway E99 at 39° 09' 16.69" N, 43° 57' 59.93" E and 2039 m ASL. To avoid disturbance it was not entered, but adults were clearly incubating eggs/brooding young in a sedge wetland, as they rose up when disturbed and immediately settled back on their nests. Visible near the road were 150–200 adults in the air at once, and this was in perhaps only 25–33 % of the entire colony site. Only a handful of flying adults were visible in the site's further reaches c0.5–1 km away, but we obtained no additional estimates of total colony size. We saw no other larid or waterbird species present at the colony site.

The second colony was also found by PAB *et al*, on 1 July 2011 at 40° 30' 57.60" N, 43° 16' 15.90" E and 2185 m ASL by highway D070 at Borluk, c14.5 km southeast of Kars, Kars province. It was in two sections, the larger in a 0.5 km long sedge-reed marsh and freshwater pond complex set back 50 m from the south side of the road below five communication towers atop a nearby hill. A second, much smaller section occupied a flooded sedge marsh north of D070. To avoid disturbance neither was entered, but adults were clearly incubating eggs/brooding young and rose up when disturbed, immediately settling back on their nests.

The site on the south side of the road supported more than 30 White-winged Terns but being some distance from the road at the back of the ponds, most were not disturbed by our presence so we surely underestimated their numbers. Many other water birds, probably breeding, (notably a White-headed Duck *Oxyura leucocephala*) were present, several raptors were patrolling the wetlands and adjacent fields, and the smaller colony north of the road held at least another 80 White-winged Terns.

The third colony was found by Jens and Heidi Hering on 25 June 2012. Some 50 White-winged Terns were observed on a flooded meadow, several hectares in area, 2.5 km west of lake Balik, Ağrı province, at 39° 44' 52.31" N, 43° 29' 55.37" E and 2465 m ASL. An inspection of the shoreline led immediately to attacks from the air by at least 10 individuals. A subsequent check of two small islands, scarcely noticeable in the



**Plate 1.** White-winged Tern *Chlidonias leucopterus* nest with freshly-hatched chick and an egg, 2.5 km west of lake Balik, eastern Turkey, 25 June 2012. © Jens Hering



**Plate 2.** White-winged Tern *Chlidonias leucopterus* nest with two eggs, 2.5 km west of lake Balik, eastern Turkey, 25 June 2012. © Jens Hering

middle of the flooded depression, revealed two nests. The first nest contained a freshly-hatched chick and an egg (Plate 1). In the second nest (Plate 2) there were two eggs, one of which showed signs of shell chipping (shortly before hatching). The nests, built in low vegetation, consisted of both green and dry stalks. There were probably several other nests in the area. The search was discontinued so as not to disturb the birds. The dominant vegetation species in the breeding habitat were of the wetland herb alliance *Eleocharito palustris*-*Sagittarion sagittifoliae*, including large stands of Common Water-plantain *Alisma plantago-aquatica*. Approximately 20 Redshanks *Tringa totanus*, some of them alarm calling, were also present at the fringes of the wetland. It is questionable whether the broods of the birds nesting here were successful as there was also a large cattle herd grazing in the shallow water reaches of the flooded area. A further flock of c80 White-winged Terns was observed over the open water of lake Balik.

## DISCUSSION

These three 2011/2012 sites are within a 100-km-long strip at elevations of 2039–2465 m ASL in Van, Ağrı and Kars provinces and suggest that at present White-winged Tern breeding activity within Turkey is centred on the Armenian plateau in eastern Anatolia. It seems likely that other colony sites remain to be discovered in this general area, and late June–early July appears to be an optimal time for searches. Based on these observations, the authors wonder if the White-winged Tern might routinely breed at similar or higher elevations in suitable locations throughout its range.

Breeding sites at such high elevations were previously not known for this species, which occurs primarily in lowlands, although broods have allegedly occurred at an elevation of c2000 m in Armenia. A nest was described at an elevation of 2023 m in northwest Armenia at lake Arpi (Dahl 1954). In addition, the species bred at c1900 m in the lake Sevan basin at lake Gilli until about 1928 (Lyaister & Sosnin 1942). There is also a record from Georgia from lake Madatapa at 2108 m, where a large number of White-winged Terns with fledged young were observed in July 1934 (Lyaister & Sosnin 1942). Whether or not the terns actually bred at this elevation must remain an open question, as great heights are also not avoided on migration. In this respect records exist of sightings from over 3700 m from the Pamir region of central Asia (Ivanov 1969, Abdusaljamov 1971).

White-winged Terns can be observed regularly in Turkey in summer. Sightings during the breeding season in central and eastern Anatolia are not uncommon (Husband & Kasperek 1984, Kasperek 1992, Kirwan *et al* 2008). There is an older record from the border

area with Armenia, where in early May 1911 a large number of White-winged Terns were present near the village of Tash-burun between the Araks river and the foothills of the Ararat massif (Lyaister & Sosnin 1942). Finally there are records from the Black sea coast region. On 16 June 1983 two adults and a fledged young bird were observed at lake Yeniçağa (Kılıç & Kasperek 1987) and there was a sighting of young being fed in the Kızılırmak delta 17 July 1992 (Hustings & Van Dijk 1994).

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