

## Breeding shrike populations in Turkey: status in 1998–2003

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**Abstract:** The size of shrike populations in Turkey is still unknown with respect to the European Threat Status. All breeding species of shrikes in Turkey - the Red-Backed Shrike (*Lanius collurio*), Lesser Grey Shrike (*L. minor*), Woodchat Shrike (*L. senator*), and Masked Shrike (*L. nubicus*) - are subject to habitat loss in their European distribution. Habitat loss has not been evaluated in detail for these shrikes in Turkey. Results of this study show that all of Turkey's shrike species, except the Masked Shrike, are distributed throughout Turkey.

**Key words:** distribution, Laniidae, Mediterranean region, threat status

### INTRODUCTION

The birds of Turkey include 453 species, of which 151 are listed as vulnerable, threatened or endangered according to the European Threat Status (ETS) (TUCKER & HEATH 1994). The four species of Laniidae (*Lanius minor*, *L. collurio*, *L. senator*, and *L. nubicus*) that are listed there, regularly breed in Turkey (KIRWAN et al. 1998). All the Laniidae that breed in Turkey have been evaluated as “declining and vulnerable” according to European Threat Status in breeding sites for all of Europe (TUCKER & EVANS 1997). These species also show a severe decline and regional extinction in several countries in Europe (YOSEF 1994, YOSEF & LOHRER 1995, HAGEMEIJER & BLAIR 1997, MOSKAT & FUISZ 2002). However, the breeding population status of these bird species has not been thoroughly studied in Turkey recently.

The main purpose of this paper is to show the current breeding distribution of these four shrike species, basing on original observations and recent literature.

### METHODS

Data on distribution of breeding shrike populations in Turkey were taken from the literature (BEAMAN 1974, KIRWAN 1991, BRADSHAW & KIRWAN 1992, ROSELAAR

1995, PERKTAŞ 2002, OSME 2003) and additional data on distribution of these species were obtained during my breeding bird surveys in some regions of Turkey in 1998–2003. Special counting methods suggested by BIBBY et al. (1992) were applied for different passerine bird species.

Current breeding sites are listed in Tables 1, 2, 3, and 4. Data on shrike subspecies in Turkey were taken from ROSELAAR (1995).

Table 1. Observations of the Red-backed Shrike (1998–2003) in 6 regions of Turkey

<i>LANIUS COLLURIO</i> – Red-backed Shrike	
<b>Subspecies in Turkey:</b> Two different subspecies are found in Turkey: <i>L. c. collurio</i> L., 1758 and <i>L. c. kobylini</i> (Bturlin), 1906. Roselaar (1995) indicated that the difference between <i>collurio</i> and <i>kobylini</i> is slight and the variation is strongly clinal, thus the boundary between those subspecies is hard to draw.	
<b>Marmara Region</b>	Istıranca Mountains, >10 breeding pairs (June 1998).
<b>Aegean Region</b>	Troya, 2 breeding pairs (April–June 2001); Ayvalık, 6 breeding pairs (May 2001).
<b>Mediterranean Region</b>	Çukurova Region, >10 breeding pairs (1998); Hatay, 1 breeding pair (April 2001).
<b>Central Anatolian Region</b>	Sultan Marshes, 1 breeding pair (April 1998); Cappadocia, <10 breeding individuals (2000); Nallıhan Bird Paradise, 5 breeding pairs (2000–2001); Göreme, 1 breeding pair (May 2001); near Ankara and Tuz Lake, 14 breeding individuals (2001–2002).
<b>Black Sea Region</b>	Artvin, >10 breeding pairs (April–June 2003); Ordu, 1 breeding pair (June 2001).
<b>East Anatolian Region</b>	Erzincan, 3 breeding pairs (July 2002); Kars and Posof region, 4 breeding pairs (May 2003).

Table 2. Observations of the Woodchat Shrike (1998–2003) in 6 regions of Turkey

<i>LANIUS SENATOR</i> – Woodchat Shrike	
<b>Subspecies in Turkey:</b> Two different subspecies are found in Turkey: <i>L. s. senator</i> L., 1758 and <i>L. s. niloticus</i> (Bonaparte), 1853. Roselaar (1995) indicated that <i>L. s. senator</i> is distributed to Thrace from Western Anatolia or at least İzmir. Birds found east of Gaziantep and Birecik are <i>L. s. niloticus</i> . The species is rather scarce in Mediterranean and Central Anatolia Regions.	
<b>Marmara Region</b>	Istıranca Mountains, 1 breeding individual (June 1998); İstanbul, 1 breeding individual (2003).
<b>Aegean Region</b>	İzmir region, especially Gediz Delta, 3 breeding males and 1 female (2003); İzmir, Seferihisar, 1 breeding pair (April 2003).
<b>Mediterranean Region</b>	Çukurova Region, 3 breeding males (1998); Göksu, 1 breeding pair (April 2001).
<b>Central Anatolian Region</b>	Cappadocia, <10 breeding individuals (2000); Nallıhan Bird Paradise, 1 breeding pair (August 2001); Ankara region, possible breeding individuals (2001–2003).
<b>Black Sea Region</b>	No individuals recorded in 1998–2003, but probably breeds in suitable habitats in this region.
<b>East Anatolian Region</b>	Birecik, 1 breeding individual (2000); Kars and Posof region, 1 possible breeding male (2003).

Table 3. Observations of the Lesser Grey Shrike (in 1998–2003) in 6 regions of Turkey

<i>LANIUS MINOR</i> – Lesser Grey Shrike	
<b>Subspecies in Turkey:</b> monotypic	
<b>Marmara Region</b>	Istranca Mts, 5 breeding individuals (June 1998).
<b>Aegean Region</b>	Troya, 1 breeding pair (between April–June 2001); İzmir Region, 2 breeding pairs (2003).
<b>Mediterranean Region</b>	Çukurova Region, <10 breeding individuals (1998); Göksu, 2 breeding individuals (2001).
<b>Central Anatolian Region</b>	Sultan Marses, 1 breeding pairs (April 1998); Cappadocia, <10 breeding individuals (2000); near Ankara and Tuz Lake, 8 breeding individuals (2001–2002); Nallıhan Bird Paradise, 19 individuals – including juveniles (2000–2001).
<b>Black Sea Region</b>	Ordu, 2 breeding individuals (2003).
<b>East Anatolian Region</b>	Birecik, <10 breeding individuals (2000); Erzincan, 2 breeding individuals (2001) and 1 breeding individual (2002); Van, 1 breeding pair (May 2003).

Table 4. Observations of the Masked Shrike (1998–2003) in 6 regions of Turkey

<i>LANIUS NUBICUS</i> – Masked Shrike	
<b>Subspecies in Turkey:</b>	monotypic
<b>Marmara Region</b>	–
<b>Aegean Region</b>	Troya, 1 breeding pair (2001).
<b>Mediterranean Region</b>	–
<b>Central Anatolian Region</b>	Nallıhan Bird Paradise, 3 individuals (May–June 2001); Ankara, 3 breeding individuals (2001).
<b>Black Sea Region</b>	–
<b>East Anatolian Region</b>	–

## RESULTS AND DISCUSSION

Observations on breeding shrike populations showed that all the studied shrike species, except the Masked Shrike, were widespread in Turkey in 1998–2003. Habitat loss has been evaluated as one of the main threats for shrike species (TUCKER & HEATH 1994).

One way to approach the ecological and evolutionary organization of communities is through the analysis of the frequency distribution of the number of species in body size classes (MAURER & BROWN 1988, GREENWOOD et al. 1996, POLO & CARRASCAL 1999). A habitat may be viewed as a mosaic of different plant substrates

that shape the spatial niche of species depending upon ecomorphological restrictions of locomotion and prey food requirements (POLO & CARRASCAL 1999). If the organisms perceive the environment proportionally to their body size, then the structure of the habitat would be able to determine the shape of distribution of the number of species by body size classes. Results of investigations show that the structural complexity of the preferred habitats of the species is related to body size (GUNNARSON 1992, TELLERIA & CARASCAL 1994, DIXON et al. 1995, POLO & CARRASCAL 1999).

Although Turkey has not been studied in this regard, habitat loss is considered as one of the threats for many bird species. Therefore, ecological studies that include bird-habitat relationships are needed in Turkey.

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