Acknowledgments
I would like to thank Tansu Gurpinar for making available the draft Red List of Threatened Animals in Turkey; Gernant Magnin and his colleagues in the Turkish Wildlife Protection Society (DHKD) for encouragement to prepare this discussion paper; Ian Hepburn for his valuable criticism and helpful comments and Yvonne Brown for assistance in preparing this paper.

References

Richard Porter, RSPB, The Lodge, Sandy, Bedfordshire, SG19 2DL, UK

Towards a Turkish Atlas?

Max Kasparek

In the mid-1970s, the Ornithological Society of Turkey decided to prepare an atlas of the breeding birds of Turkey. Initially, the whole country was to be worked in 10km x 10km squares, as with most of the European countries. But because of the high number of squares - some 12,000 - and the lack of suitable maps (maps with a 10km x 10km UTM grid are still not available for Turkey), it was decided to reduce the scheme to half-degree squares (Porter and Beaman, OST Bull 15: 4-5). The number of squares thus decreased to less than 500.
Two years after the initial announcement, Simon Albrecht encouraged OSME members to submit their records and to make atlassing field trips (OSME Bull 2: 6-8). Atlas record sheets, with detailed instructions for completing them, were produced, but no information on the progress of the work was subsequently published. It seems that the project was cancelled because few, if any, record sheets were sent in. In addition, most of the Turkish bird records which were collated by OST/OSME since 1966 as the basis for the Turkish Bird Reports were lost, including all the material on the more common species, which was neither evaluated nor published.

This attempt at producing an atlas of the breeding birds of Turkey failed because an insufficient number of field workers were involved. As there are very few birdwatchers resident in Turkey, Turkish ornithology is still carried out primarily by foreign tourists. Birdwatching activity is thus strongly related to the tourist development. It reached a peak in the early 1970s, decreased later in the 1970s, and increased again during the 1980s. During the past two to three years, it has been at an all-time high, but an absolute minimum can be predicted in 1991 because of the Gulf war.

Most of the birdwatchers spending their holidays in Turkey try to see as many species as possible. Although this is understandable from a personal point of view, it is disastrous for any atlas work: whereas hotspots such as Bafa Gölü, the Eregli Marshes, the Sultan Marshes, the Göksu Delta and Birecik are visited by many birdwatchers each year, it is almost impossible to get data from more remote or lesser known sites. Several attempts to direct birdwatchers to such areas have so far been unsuccessful.

There are even a number of bird areas which are known or thought to be of international importance, but for which hardly any information is available. For example:

<table>
<thead>
<tr>
<th>Turkey</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyuk Cekmece</td>
<td>Istanbul province</td>
</tr>
<tr>
<td>Terkos Gölü</td>
<td>Istanbul Province</td>
</tr>
<tr>
<td>Iznik Gölü</td>
<td>Bursa Province</td>
</tr>
<tr>
<td>Bay of Saroz</td>
<td>Canakkale Province</td>
</tr>
<tr>
<td>Ilgaz Mountains</td>
<td>(Cankiri and Kastamonu provinces)</td>
</tr>
<tr>
<td>Yesilirmak Delta</td>
<td>(Samsun Province)</td>
</tr>
<tr>
<td>Gölbek Gölü</td>
<td>(Ankara province)</td>
</tr>
<tr>
<td>Beynam Forest</td>
<td>Ankara province</td>
</tr>
<tr>
<td>Cavuscu Gölü</td>
<td>Konya province</td>
</tr>
<tr>
<td>Todurge Gölü</td>
<td>Sivas province</td>
</tr>
<tr>
<td>Karataş Gölü</td>
<td>Burdur province</td>
</tr>
<tr>
<td>Nazik Gölü</td>
<td>Bitlis province</td>
</tr>
<tr>
<td>Hacli Gölü</td>
<td>Mus province</td>
</tr>
<tr>
<td>Cildir Gölü</td>
<td>Kars province</td>
</tr>
</tbody>
</table>

It is striking that even large wetland areas near cities like Istanbul and Ankara are among the less-known sites. It is very important that these areas are visited. I would be pleased to give hints and further information to anyone who intends to visit these or other areas.

For conservation, a survey of these areas has a high priority and is more important than covering the whole country with an atlas project over
many years. An atlas project would bind forces which are urgently required elsewhere. Turkish ornithology is thus at a stage in which not even basic data for a number of urgent conservation issues are available. It seems, then, reasonable to concentrate all efforts on surveying and protecting particular areas and particular species. With limited resources, this is the more effective way than an overall atlas project.

On the other hand, it is often difficult to judge the frequency of a bird species in Turkey and to find out what is 'unusual' and what is 'normal': neither an up-to-date avifauna, a checklist of the birds of Turkey, nor a reliable Red Data Book of Turkish birds are available. There is, however, much information available through publications and unpublished reports, and considerable contributions can be made by using these sources. A thorough compilation, review and evaluation of these sources may prove more useful than active fieldwork at present.

During the last five years, a number of species accounts have been published by the author and others. Detailed information on distribution, frequency, population, phenology and migration is contained in these papers, and they may be used as the basis for protection measures and for directed intensive field surveys. These studies include the following:

- **Greater Flamingo*** Phoenicopterus ruber* A. Kilic, Zoology in the Middle East 2, 1988: 41-42. The observation that the Flamingo made a breeding attempt in the Eregli Marshes gave rise to a review of all Turkish breeding records. A map with all localities is included.

- **White Stork*** Ciconia ciconia* H. Kumerloeve, Bonn. zool. Beitr. 27, 1976: 172-217; A. Kilic and M. Kasparek, p161-174 and 197-306, in G. Rheinwald, J. Ogden and H. Schultz (eds) Proceedings of the First International Stork Symposium, Schriftenreihe des Dachverbandes Deutscher Avifaunisten (no 10). 472 pp. All known Turkish breeding sites of the White Stork were listed. The distribution pattern is shown with a map of half-degree squares and the pattern explained. The absence of White Storks from certain areas is discussed in relation to habitat requirements. A decrease in the Turkish breeding population was found. The seasonal migration pattern at main observation points was shown with histograms, and the migration route is given with maps based on ringing recoveries.

- **Bittern*** Botaurus stellaris* M. Kasparek, Zoology in the Middle East 1, 1986: 33-41. Lists all Turkish records and shows them on a map. Breeding was never proved for Turkey, but is assumed for eight localities, resulting in a breeding population of less than 20 pairs.

- **Demoiselle Crane*** Anthropoides virgo* M. Kasparek, Zoology in the Middle East 2, 1988: 31-38. The Turkish breeding population numbers less than 30 pairs at only a few localities. This paper includes also records of migrants.

- **Whimbrel*** Numenius phaeopus* M. Kasparek, Zoology in the Middle East 4, 1990: 25-32. The migration pattern in Turkey is described with the aid of a histogram
of the seasonal distribution which includes all Turkish records. A map of records is included.

White-tailed Plover *Charadrius leucura* M. Kasparek, Sandgrouse 13 1991 (in press) All Turkish records were mapped, with different symbols for confirmed breeding, presumed breeding and migrants.

Sociable Plover *Charadrius gregaria* M. Kasparek, Sandgrouse 13 (in press) The Sociable Plover is a migrant in both seasons. All available records are shown on a map and the migration periods are described and discussed in relation to other Middle Eastern countries.

Turnstone *Arenaria interpres* M. Kasparek, Beitr. Vogelkde. (in press) All Turkish records were evaluated. A map shows the distribution of migrants. The size of the symbols shows the number of records. The phenology in Turkey is shown with a histogram of all records.

Pheasant *Phasianus colchicus* M. Kasparek, Verh. orn. Ges. Bayern 24 (6), 1988: 725-735. Maps show the distribution during the last century, the present distribution and indicate those localities where Pheasants occur after introduction by man. The gene pool of the natural population is being lost.

Osprey *Pandion haliaetus* M. Kasparek, Limicola 3, 1989:251-255. All Turkish records were mapped with different symbols for breeding records, passage records and winter records. There is no recent Turkish breeding record and the population is believed to be less than 10 pairs. The phenology of migrants is shown in a histogram.

Eleonora's Falcon *Falco eleonorae* M. Kasparek and D. Ristow, Zoology in the Middle East 1, 1986:60-69. A table and map of all Turkish records is presented and the seasonal appearance of Eleonora's Falcons along the Turkish coasts is discussed. The only known breeding site is not shown for reasons of site security.

Palm Dove *Streptopelia senegalensis* M. Kasparek, Verh. orn. Ges. Bayern (in press). All localities where Palm Doves were recorded are shown on a map with different symbols for breeding or possible breeding sites. Another map shows the present distribution in the Levant countries up to Egypt. Although the Palm Dove colonised new localities in Turkey, the overall breeding area has not grown significantly during recent decades.

Purple Gallinule *Porphyrio porphyrio* M. Kasparek, C. C. Bilgin and A. Akin, Zoology in the Middle East 3, 1989: 19-30. All breeding sites in the eastern Mediterranean are mapped. Former breeding localities are shown with the approximate year of extinction. The Göksu Delta proved to be the last breeding site of *P. p. seistanicus* in the eastern Mediterranean. Its population is thought to be less than 30 pairs.

Little Bustard *Tetrax tetrix* M. Kasparek, Bustard Studies 4, 1989: 80-113. All Turkish records are mapped. Different symbols indicate records from the breeding season. The Little Bustard was a local breeding bird in all of Turkey, but has apparently disappeared recently. No record from the last decade was available.
Great Bustard *Otis tarda* M. Kasparek, Bustard Studies 4, 1989: 80-113. All records mapped with different symbols for breeding season records, non-breeding season records, and records without date. Other maps show the present distribution (since 1974) and the winter distribution in relation to climate.

Striated Scops Owl *Otus brucei* A. B. van den Berg, M. Kasparek and P. Bison, Dutch Birding 10(4), 1988 161-166. Up-to-date information on all three known Turkish sites.

Barn Owl *Tyto alba* M. Kasparek, Zoology in the Middle East 1, 1986: 44-51. H. Kumerlooeve, Alauda 54, 1986: 263-267. All Turkish records are summarised and shown on a map. Two subspecies overlap and intergrade in Turkey.

Wryneck *Jynx torquilla* M. Kasparek, Ecology of Birds 11, 1889: 251-256. All records were mapped with different symbols for migrant and (presumed) breeding birds. Although breeding has been proved only twice in Turkey, the distribution pattern is clearly demonstrated by breeding season records. The migration pattern is shown by histogram.

White-breasted Kingfisher *Halcyon smyrnensis* V. van den Berk and M. Kasparek, Zoology in the Middle East 2, 1988: 19-25. A dot map of breeding and possible breeding sites is given; main breeding areas are shown by larger symbols. 75% of the Turkish population is concentrated in five localities that makes the species vulnerable. Different symbols are used to show non-breeding records.

Grey-headed Woodpecker *Picus canus* A. B. van den Berg, Zoology in the Middle East 2, 1988: 12-15. List and map of all Turkish records since the last century.

Citrine Wagtail *Motacilla citreola* M. Kasparek, Limicola (in press). All records mapped with different symbols for migrants and breeders and possible breeders.

Red-tailed Wheatear *Oenanthe xanthopyrma* H. Kumerlooeve, M. Kasparek and K-O. Nagel, Bonn. zool. Beitr. 35, 1984: 97-101. M. Kasparek, Zoology in the Middle East 1, 1986: 51-54. All Turkish records were mapped with different symbols for presumed migrants and presumed breeders. The Turkish population belongs to the rare nominate subspecies.

Blackcap *Sylvia atricapilla* M. Kasparek, Vogelwarte 35, 1990: 169-176. A distribution map is based on all available breeding season records. The distribution pattern is described in relation to climate and discussed in relation to evolution. The route taken by migrants is shown by another map and the seasonal migration pattern is shown by a histogram.

Rook *Corvus frugilegus* M. Kasparek, Sandgrouse 11, 1989: 89-95. All known breeding colonies of the Rook in Turkey are enumerated. A map of the breeding localities also shows the areas which were originally covered by natural steppes. A clear relationship can be seen.

*Max Kasparek, Bleichstr. 1, 6900 Heidelberg, Germany*