Contents

VOL. 25  2010

PREFACE: H.E. Dr Mohammed bin Ibrahim Al-Suwaiyel ................................................. IX

FOREWORD: Editors ........................................................................................................ XI

AUTHOR'S PREFACE ........................................................................................................ 1

INTRODUCTION ........................................................................................................... 4
  The Arabian Peninsula ................................................................................................. 4
  Collection of records .................................................................................................. 6
  Data sources ............................................................................................................... 8
    Observers and other contributors ........................................................................... 8
    ABBA surveys .......................................................................................................... 8
    Literature records ..................................................................................................... 9
    Museum and archive records .................................................................................... 10
    Regional bias in the collection of records .................................................................. 11
  Sharing information, “The Phoenix” and the future of ABBA ......................................... 12

ACKNOWLEDGEMENTS ................................................................................................. 14
  Contributors ............................................................................................................... 16
  Institutions ................................................................................................................ 18

CHAPTER 1: ASPECTS OF ARABIAN ORNITHOLOGY ......................................................... 19
  Endemism ................................................................................................................... 19
    Endemic land-birds of Arabia .................................................................................... 21
    Near-endemic species of the Arabian mainland ....................................................... 26
    Endemics of the Socotra Archipelago ...................................................................... 27
    Seabirds endemic to Arabian waters ....................................................................... 30
  Nomadism .................................................................................................................. 32
  Exotic birds in Arabia ................................................................................................ 37
    Exotics breeding ferally ........................................................................................... 39
    Exotics that may be confused with indigenous breeding birds .................................. 42
    Non-breeding escapes ............................................................................................ 43
    Reintroductions ........................................................................................................ 43
    Extermination campaigns ....................................................................................... 43

CHAPTER 2: FACTORS AFFECTING BIRD DISTRIBUTION IN ARABIA ................................ 45
  Climate and altitude ................................................................................................... 45
    Rainfall ...................................................................................................................... 45
    Temperature ............................................................................................................. 47
    Wind ......................................................................................................................... 47
    Altitude ..................................................................................................................... 48
    Birds’ strategies in coping with the Arabian climate .................................................. 50
  Climate change .......................................................................................................... 54
  Geology and topography ............................................................................................ 55
    Arabian landforms ................................................................................................. 56
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wadis</td>
<td>56</td>
</tr>
<tr>
<td>Sand-seas</td>
<td>58</td>
</tr>
<tr>
<td>Sabkhas</td>
<td>58</td>
</tr>
<tr>
<td>Harrats</td>
<td>58</td>
</tr>
<tr>
<td>Vegetation</td>
<td>59</td>
</tr>
<tr>
<td>Some plants important to birds</td>
<td>60</td>
</tr>
<tr>
<td>Acacia</td>
<td>60</td>
</tr>
<tr>
<td>Ghaf</td>
<td>60</td>
</tr>
<tr>
<td>Juniper</td>
<td>61</td>
</tr>
<tr>
<td>Mangrove</td>
<td>62</td>
</tr>
<tr>
<td>Date Palm</td>
<td>65</td>
</tr>
<tr>
<td>Reed beds</td>
<td>65</td>
</tr>
<tr>
<td>Doum Palm</td>
<td>65</td>
</tr>
<tr>
<td>Other important plants and some unimportant ones</td>
<td>65</td>
</tr>
<tr>
<td>Habitats and habitat change</td>
<td>66</td>
</tr>
<tr>
<td>Arable farms and breeding birds</td>
<td>66</td>
</tr>
<tr>
<td>Animal husbandry and effects on birds</td>
<td>71</td>
</tr>
<tr>
<td>Natural wetland habitats</td>
<td>72</td>
</tr>
<tr>
<td>Man-made wetlands</td>
<td>74</td>
</tr>
<tr>
<td>Traditional sites</td>
<td>74</td>
</tr>
<tr>
<td>Modern sewage sites</td>
<td>74</td>
</tr>
<tr>
<td>The Riyadh River</td>
<td>75</td>
</tr>
<tr>
<td>Other man-made wetland sites</td>
<td>76</td>
</tr>
<tr>
<td>Urban and suburban habitats</td>
<td>77</td>
</tr>
<tr>
<td>Development and government projects</td>
<td>77</td>
</tr>
<tr>
<td>Zoogeography</td>
<td>78</td>
</tr>
<tr>
<td>Palearctic birds</td>
<td>79</td>
</tr>
<tr>
<td>Afrotropical birds</td>
<td>80</td>
</tr>
<tr>
<td>Indo-Malayan birds</td>
<td>82</td>
</tr>
<tr>
<td>Species with mixed affinity to two or more realms</td>
<td>83</td>
</tr>
</tbody>
</table>

CHAPTER 3: REGIONAL BIRD COMMUNITIES AND HABITATS ................................ 84
| Northern Arabia                           | 84   |
| Central and southern Arabia               | 86   |
| Sand-seas and arid sand deserts           | 88   |
| The Tihama                                 | 90   |
| The south-west highlands                  | 92   |
| The Gulf coastal lowlands                 | 93   |
| Eastern Arabia                            | 94   |
| The Mahra Region                          | 96   |
| The Socotra Archipelago                   | 98   |
| Coasts and islands                        | 100  |

CHAPTER 4: CONSERVATION .............................................................. 104
<p>| Traditional human exploitation and conservation issues | 104 |
| The main conservation issues in Arabia        | 106 |
| Loss of habitat and habitat change.            | 107 |
| Pollution                                    | 109 |
| Rubbish and sewage disposal                   | 110 |
| Farming and agriculture                      | 110 |
| Oil pollution                               | 110 |
| Introduced alien bird species, predators and plants | 112 |
| Hunting                                     | 114 |
| Other human development issues               | 114 |
| Arabian species of global conservation concern | 116 |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threatened species and particular problems in Arabia</td>
<td>117</td>
</tr>
<tr>
<td>Conservation actions and needs</td>
<td>118</td>
</tr>
<tr>
<td>Action by each state to protect bird environments</td>
<td>118</td>
</tr>
<tr>
<td>Bahrain</td>
<td>118</td>
</tr>
<tr>
<td>Kuwait</td>
<td>119</td>
</tr>
<tr>
<td>Oman</td>
<td>119</td>
</tr>
<tr>
<td>Qatar</td>
<td>119</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>119</td>
</tr>
<tr>
<td>United Arab Emirates (UAE)</td>
<td>120</td>
</tr>
<tr>
<td>Yemen</td>
<td>120</td>
</tr>
<tr>
<td>Conservation activities by NGOs and individuals</td>
<td>121</td>
</tr>
<tr>
<td>CHAPTER 5: THE BREEDING BIRDS</td>
<td>122</td>
</tr>
<tr>
<td>Nomenclature and taxonomy</td>
<td>122</td>
</tr>
<tr>
<td>Breeding regimes and seasons</td>
<td>123</td>
</tr>
<tr>
<td>Remaining gaps in knowledge</td>
<td>123</td>
</tr>
<tr>
<td>The species accounts</td>
<td>124</td>
</tr>
<tr>
<td>Species account formats</td>
<td>124</td>
</tr>
<tr>
<td>Standard species account contents</td>
<td>125</td>
</tr>
<tr>
<td>Species (first paragraph block)</td>
<td>125</td>
</tr>
<tr>
<td>Status in Arabia (second paragraph block)</td>
<td>125</td>
</tr>
<tr>
<td>Habitat utilisation and ecological requirements (third paragraph block)</td>
<td>126</td>
</tr>
<tr>
<td>Breeding issues (fourth paragraph block)</td>
<td>126</td>
</tr>
<tr>
<td>Distribution maps</td>
<td>126</td>
</tr>
<tr>
<td>General literature consulted in the preparation of the species accounts</td>
<td>127</td>
</tr>
<tr>
<td>SPECIES ACCOUNTS</td>
<td>129</td>
</tr>
<tr>
<td>Struthionidae – Ostrich</td>
<td>129</td>
</tr>
<tr>
<td>Numididae – Guinea fowl</td>
<td>132</td>
</tr>
<tr>
<td>Phasianidae – Partridges and allies</td>
<td>135</td>
</tr>
<tr>
<td>Anatidae – Swans, geese and ducks</td>
<td>150</td>
</tr>
<tr>
<td>Procellariidae – Petrels and shearwaters</td>
<td>159</td>
</tr>
<tr>
<td>Podicipedidae – Grebes</td>
<td>164</td>
</tr>
<tr>
<td>Phoenicopteridae – Flamingos</td>
<td>169</td>
</tr>
<tr>
<td>Ciconiidae – Storks</td>
<td>172</td>
</tr>
<tr>
<td>Threskiornithidae – Ibises and spoonbills</td>
<td>175</td>
</tr>
<tr>
<td>Ardeidae – Herons and bitterns</td>
<td>180</td>
</tr>
<tr>
<td>Phaethontidae – Tropicbirds</td>
<td>201</td>
</tr>
<tr>
<td>Scopidae – Hamerkop</td>
<td>204</td>
</tr>
<tr>
<td>Pelecanidae – Pelicans</td>
<td>206</td>
</tr>
<tr>
<td>Sulidae – Boobies and gannets</td>
<td>210</td>
</tr>
<tr>
<td>Phalacrocoracidae – Cormorants</td>
<td>215</td>
</tr>
<tr>
<td>Falconidae – Falcons and allies</td>
<td>222</td>
</tr>
<tr>
<td>Accipitridae – Osprey, kites, vultures, hawks and eagles</td>
<td>236</td>
</tr>
<tr>
<td>Otidae – Bustards</td>
<td>274</td>
</tr>
<tr>
<td>Rallidae – Rails and coots</td>
<td>280</td>
</tr>
<tr>
<td>Gruidae – Cranes</td>
<td>292</td>
</tr>
<tr>
<td>Turnicidae – Buttonquails</td>
<td>293</td>
</tr>
<tr>
<td>Burhinidae – Thick-knees</td>
<td>295</td>
</tr>
<tr>
<td>Dromadidae – Crab Plover</td>
<td>300</td>
</tr>
<tr>
<td>Recurvirostridae – Stilts and avocets</td>
<td>304</td>
</tr>
<tr>
<td>Charadriidae – Plovers</td>
<td>309</td>
</tr>
<tr>
<td>Jacanidae – Jacanas</td>
<td>321</td>
</tr>
<tr>
<td>Glareolidae – Courser and pratincoles</td>
<td>323</td>
</tr>
<tr>
<td>Laridae – Gulls and terns</td>
<td>328</td>
</tr>
</tbody>
</table>
Pteroclidae – Sandgrouse ..............................................................  362
Columbidae – Pigeons and doves ............................................  372
Psittacidae – Parrots and cockatoos .......................................  396
Cuculidae – Cuckoos .................................................................  403
Tytonidae – Barn Owls ...............................................................  411
Strigidae – Typical Owls ...........................................................  413
Caprimulgidae – Nightjars .......................................................  427
Apodidae – Swifts ......................................................................  433
Coraciidae – Rollers .................................................................  443
Alcedinidae – Kingfishers .......................................................  449
Meropidae – Bee-eaters ...........................................................  457
Upupidae – Hoopoe .................................................................  466
Bucerotidae – Hornbills ..........................................................  469
Picidae – Woodpeckers ............................................................  471
Malaconotidae – Bush-shrikes and allies .................................  474
Laniidae – Shrikes ...................................................................  476
Oriolidae – Orioles .................................................................  485
Monarchidae – Paradise flycatchers and allies ......................  487
Corvidae – Crows ....................................................................  489
Hirundinidae – Martins and swallows .....................................  499
Alaudidae – Larks ....................................................................  504
Cisticolidae – Cisticolas and allies ...........................................  531
Pycnonotidae – Bulbuls ............................................................  541
Sylviidae – Old World warblers .............................................  549
Timaliidae – Babblers and allies .............................................  573
Zosteropidae – White-eyes .......................................................  578
Sturnidae – Starlings and allies ..............................................  582
Turdidae – Thrushes ...............................................................  601
Musciapidae – Chats and Old World flycatchers ....................  604
Nectariniidae – Sunbirds .........................................................  629
Passeridae – Old World sparrows ..........................................  639
Ploceidae – Weavers ...............................................................  655
Estrildidae – Waxbills, munias and allies ...............................  666
Prunellidae – Accentors ..........................................................  677
Motacillidae – Wagtails and pipits ........................................  679
Fringillidae – Finches .............................................................  685
Emberizidae – Buntings and allies .......................................  701

REFERENCES .............................................................................  709

APPENDIX 1: TABULATED DATA ON BREEDING BIRDS ....................  721

APPENDIX 2: GAZETTEER ..........................................................  728

INDEX ...................................................................................  738