Results from the International Waterbird Census in the Western Palearctic and Southwest Asia 1995 and 1996

Simon Delany, Cecilia Reyes, Edith Hubert, Stefan Pihl,
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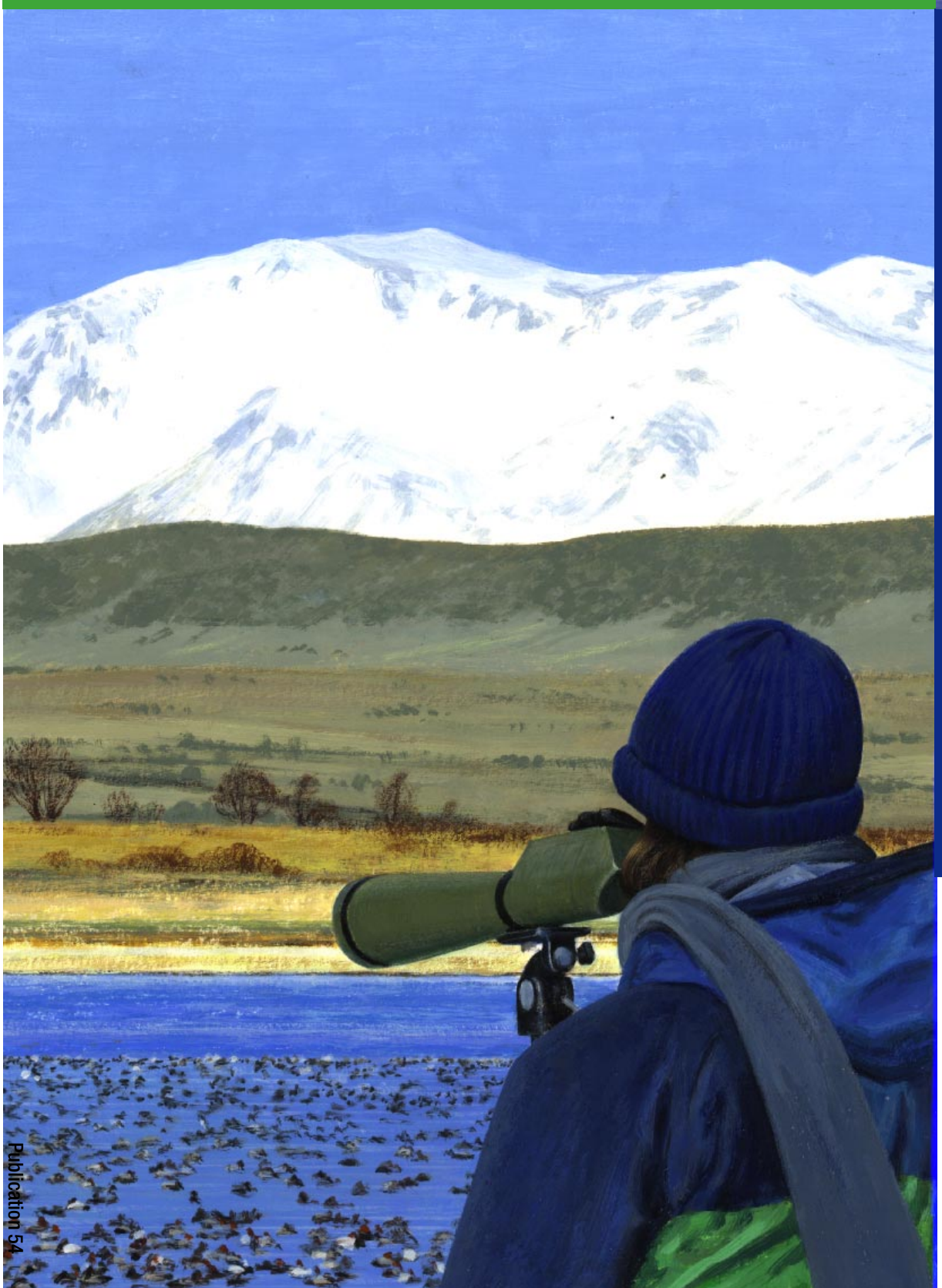

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Results from the International Waterbird Census in the Western Palearctic and Southwest Asia 1995 and 1996

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Dedicated to the memory of Prof. Dr. Erich Rutschke (1926–1999) who coordinated waterbird counting in eastern Germany from 1967 until his death.

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The International Waterbird Census (IWC) Western Palearctic and Southwest Asia

Organised by:
- Wetlands International, Droevendaalsesteeg 3A, PO Box 7002, 6700CA Wageningen, The Netherlands

Undertaken by:
- National waterbird monitoring schemes organised in over 50 countries with the participation of more than eleven thousand professional and voluntary co-ordinators and observers

Funded by:
- The Joint Nature Conservation Committee (JNCC), United Kingdom
- Directorate for Nature Management, Ministry of Agriculture, Nature Management and Fisheries, The Netherlands
- National Environmental Research Institute, Kalø, Denmark
- Inistituut voor Bos en Natuuronderzoek (IBN-DLO), Wageningen, The Netherlands.

Staffed by:
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Western Palearctic and Southwest Asia:
1988–97: Paul Rose
1997 onward: Simon Delany

IWC Database Manager:
1996 onward: Cecilia Reyes

IWC Technical Assistant:
1988–96: Valerie Taylor
1997 onward: Edith Hubert

Goose Database Managers:
1989–97: Gill Cracknell, Jan Komdeur and Stefan Pihl
1998 onward: Lieuwe Haanstra

Seaduck Database Managers:
1989 onward: Gill Cracknell, Jan Komdeur and Stefan Pihl

Wader Database Manager:
1980s–96: Cor Smit
1996–97: Bart Ebbinge and Barbara Ganther
1997 onward: Lieuwe Haanstra

Guided by:
Wetlands International Waterbird Monitoring Programme Steering Committee (Western Palearctic and Southwest Asia)

Committee Members:
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Wetlands International staff members on the Committee:
Nick Davidson, Simon Delany (1998 onward), Edith Hubert, Cecilia Reyes, Paul Rose (until 1997), Janine van Vessem

Contents

Foreword

One can change the name of an organisation from IWRB to Wetlands International and change the infrastructure of offices and staffing. One can even change some of the organisation's long-term goals, but important activities with valued and useful outputs will always endure. The International Waterbird Census (IWC) is such a fundamental and basic programme of the organisation that it should not need an introduction at all.

Since 1967, about sixty countries in the Western Palearctic and Southwest Asia have submitted information to the IWC through their national waterbird monitoring schemes. In 1998, the number of observers involved in gathering this information was more than eleven thousand, and the programme is one of the longest running and most extensive biodiversity monitoring programmes in the world.

Worldwide the IWC is valued as one of the very few programmes providing long-term international monitoring of a group of animals, and its data are used for a wide variety of purposes. Indeed, it has recently been endorsed by the Ramsar Convention on Wetlands as the key source of information for the identification of wetlands of international importance for waterbirds. The regular publication of these data by Wetlands International in a series of regional international reports (see, for example, the recently published series of reports on Africa and Asia) is a vital activity. The reports, as reliable, independent data sources, are used by a wide audience of scientists, conservationists and others to inform conservation decision making.

This report, containing the results of recent census work in the Western Palearctic and Southwest Asia, reflects well the growing contacts with the Central and Eastern European countries and the republics of Central Asia. The important data from these areas are urgently needed to generate better waterbird population estimates, to identify priority areas for conservation in these regions and to provide an international context for national activities for waterbirds and their wetland habitats. These data are also important because many of these countries are Parties to the Ramsar Convention and are involved in active discussions concerning membership of the Bonn Convention and its African Eurasian Migratory Waterbirds Agreement. For all of them, summary data such as those presented here are important to develop national strategies for wetlands and waterbird conservation.

The importance of these countries for wetland and waterbird conservation, a situation poorly known in the countries further away, is greatly emphasised by these data. This report should thus stimulate support from donor countries for conservation activities that are urgently needed given the rapid development of industrial activities, including large-scale oil and gas exploitation in (for example) the Caspian Sea Region, an extremely important area for wintering waterbirds. There are now many opportunities to collect data in these regions and to enable the small but dedicated groups of ornithologists in these countries to continue and expand their important activities.

Wetlands International through its staff of compilers and editors of this report is to be congratulated for their painstaking work and fine publication. We hope it has the desired effect, so often seen, of stimulating others to start counting waterbirds in places rarely visited by birdwatchers. This often leads, as we both know from our own field experiences, to interesting discoveries, and thus in the long term to further improvements in the IWC.

Dr Gerard C Boere
Division for International
Nature Management
The Netherlands

David Stroud
Joint Nature
Conservation Committee
United Kingdom

Acknowledgements

The International Waterbird Census (IWC) in the Western Palearctic and Southwest Asia would be impossible without the coordinators of national waterbird monitoring schemes whose names appear below in Table 1. These national coordinators organise census work by more than 11,000 voluntary and professional observers whom it is impossible to list here. Whether acting professionally or voluntarily, as individuals or for Governmental and Non-Governmental Organisations, the quality of information collected by these observers is outstanding. Wetlands International thanks all these organisers and counters warmly and profusely for their dedication, enthusiasm and expertise.

Funding for IWC in the Western Palearctic and Southwest Asia is provided by the Directorate for Nature Management, Ministry of Agriculture, Nature Management and Fisheries, The Netherlands and the Joint Nature Conservation Committee (JNCC), United Kingdom. Additional support, particularly for the decentralised, seaduck, goose and wader databases, is provided by the National Environmental Research Institute, Kalø, Denmark, the Inistituut voor Bos en Natuuronderzoek (IBN-DLO), Wageningen, The Netherlands, Deutscher Jagdschutz-Verband e.V., Germany, and Jachtfonds, the Netherlands. Funding agencies, supporting organisations, Steering Committee members and Wetlands International staff without whom IWC in the Western Palearctic could not exist in its present form are listed on page iii.

The production of this report was greatly assisted by Janine van Vessem whose experience and judgement contributed to every stage. The text was improved by comments and other assistance from Cor Berrevoets, Joost Brouwer, Kendrew Colhoun, Peter Cranswick, Nick Davidson, Olafur Einarsson, Tim Jones, Jeff Kirby, Kees Koffijberg, Bjarke Laubeck, Gernant Magnin, Marc van Roomen, Derek Scott, David Stroud, Saulius Svazas and Janine van Vessem.

Table 1. IWC National Coordinators: Western Palearctic and Southwest Asia 1995–1996.

- Names in brackets refer to contact points in countries lacking nationally coordinated waterbird monitoring schemes in 1995–96.
- Names in italics refer to national coordinators who have become active since 1996.
- In countries lacking centralised national organisation in 1995–96 (Germany, Spain, Ukraine), not all coordinators are listed.

Country	All waterbird groups	Geese	Seaducks	Waders	Ducks, Swans, other groups
Albania	(N. Peja)				
Algeria	Djahida Boukhalfa				
Andorra	No national coordinator				
Armenia	No national coordinator				
Austria		Gerald Dick			Gerhard Aubrecht
Azerbaijan	Elchin Sultanov				
Bahrain	(Saeed Mohamed)				
Belarus	*Alexander Kozulin*				
Belgium		Patrick Meire	H. Offringa	Koen Devos	Koen Devos, Jean Paul Jacob
Bosnia Hercegovina	Ilhan Dervovic				
Bulgaria	Ljubomir Profirov Tanyo Michev				
Croatia	Joszef and Tibor Mikuska				
Cyprus	Jeff Gordon				
Czech Republic	Jitka Pellantova	Lukas Simek			
Denmark		Stefan Pihl, Jesper Madsen	Stefan Pihl	Lars Maltha Rasmussen	Stefan Pihl
Egypt	(Sherif Baha El Din)				
Estonia	Andres Kuresoo	Aivar Leito			
Finland	(Esa Lammi)	M. Hario	M. Hario		
France		Roger Maheo Christian Riols	Olivier Girard	Roger Maheo Alan Johnson (Flamingos)	Bernard Deceuninck Carol Fouque
Georgia	No national coordinator				
Germany	Klaus Günther Michael Harengard Hans-Ulrich Rösner Erich Rutschke † Peter Sudbeck Christoph Sudfelt	Johan Mooij	Hans Wolfgang Nehls W. Knief		
Greece	George Handrinos				
Hungary	Georgy Szimuly Gabor Magyar	Sandor Farago			

Table 1 continued. IWC National Coordinators: Western Palearctic and Southwest Asia 1995–1996.

Country	All waterbird groups	Geese	Seaducks	Waders	Ducks, Swans, other groups
Iceland	(Arnor Sigfusson)				
Iran	Behrouz Behrouzi Rad Jamshid Mansoori				
Iraq	(Khalaf Al Robaae)				
Ireland	Simon Delany *Kendrew Colhoun*				
Israel	Eyal Shy				
Italy	Nicola Baccetti				
Jordan	(Mohammed Yousef)				
Kazakhstan	(S.N. Erochov)				
Kuwait	(Charles Pilcher)				
Kyrgyzstan	A.N. Ostarcheko				
Latvia	Antra Stipniece	Janis Viksne, G. Vaverins			
Lebanon	No national coordinator				
Libya	No national coordinator				
Liechtenstien	No national coordinator				
Lithuania	Saulius Svazas				
Luxembourg	No national coordinator	J.C. Heidt			
Macedonia	(Branko Micevski)				
Malta	(Joe Sultana)				
Moldova	No national coordinator	Prof M. Losan			
Morocco	Mohamed Dakki				
Netherlands	Marc van Roomen	Kees Koffijberg			
Norway	Svein- Haakon Lorentsen	Arne Follestad		John Atle Kalas	
Oman	Matt Cummins, Manie Grobler				
Poland	K. Dobrowolski	A. Staszewski	Wlodek Meissner	Wlodek Meissner	
Portugal		Raul Serra Guedes	Rui Rufino	Rui Rufino	Luis Costa
Qatar	R & H Nation, Andrew Hooper				
Romania	Dan Munteanu		M. Marinov		
Russia	(Gennady Grishanov)	A. Andreev			
Russia (Murmansk)	*A.S. Koryakin*				
Saudi Arabia	Yousef al Wataid Stephen Newton Peter Symens				
Slovakia	Alzbeta Darolova				
Slovenia	Borut Stumberger Andrej Bibic	Milan Vogrin			
Spain	(Ramon Marti) Antoni Muñoz Jordi Sargatal Vicens		J.J. Chans		
Sweden		Leif Nilsson	Leif Nilsson		Leif Nilsson
Switzerland	Luc Schifferli *Verena Keller*		Werner Suter		
Syria	Ibrahim Hanna				
Tajikistan	No national coordinator				
Tunisia	Abdelhamid Karem				
Turkey	Murat Yarar Gernant Magnin *Guven Eken*	Sunay Demircan	Sunay Demircan		
Turkmenistan	Eldar Rustamov				
UAE	Colin Richardson				
Ukraine	*V. Popenko* Ivan Rusev Valintin Serebryakov A.Kochelev A. Korsjukov	Michael Zhmud	T.B. Ardamatskaya		
UK	Peter Cranswick			Ray Waters	
Uzbekistan	Elena Mukhina				
Western Sahara	No national coordinator				
Yemen	(David Stanton)				
Yugoslavia	Vojislav Vasic				

The addresses of these national co-ordinators, who form the basis of the IWC network, are available to interested parties. Please contact Wetlands International in Wageningen (address inside front cover of this report).

The following organisations support waterbird monitoring in the Western Palearctic and Southwest Asia.

The list is as complete as possible, but please notify Wetlands International of any additions:

Algeria
National Agency for Nature Conservation, Ministry of Agriculture and Fisheries

Austria
BirdLife Austria
Biology Centre, Linz
WWF Austria

Azerbaijan
Azerbaijan Ornithological Society
Azerbaijan Acadamy of Sciences
State Ecology Committee

Bahrain
National Committee for Wildlife Protection

Belgium
Institute of Nature Conservation

Bosnia Hercegovina
VIDRA

Bulgaria
Institute of Ecology
Ministry of Environment and Waters
Central Laboratory for General Ecology
Bulgarian Society for the Protection of Birds
Green Balkan Federation
Bulgarian-Swiss Biodiversity Conservation Program
Bulgarian Ornithological Society

Croatia
Osijek University

Cyprus
Cyprus Ornithological Society

Czech Republic
Czech Ornithological Society
Agency for Nature and Landscape Conservation

Denmark
National Environmental Research Institute (NERI)

Estonia
Estonian Ornithological Society
Institute of Zoology and Botany
National Monitoring Programme
State Nature Reserves
Estonian Fund for Nature

Finland
University of Helsinki

France
LPO – BirdLife France
Office National de la Chasse
Fédération des Chasseurs
Université de Rennes
Ministère de l'Environnement

Germany
Forschungsstelle für Ökologie der Wasservögel und Feuchtgebiete
Institut für Ökologie und Naturschutz Universität Potsdam
NABU Naturschutzbund Deutschland
Ministry of Environment of Schleswig Holstein
Wesel Biological Station
WWF Germany
Zoological Gardens Rostock

Greece
Ministry of Agriculture
Hellenic Bird Ringing Center
Hellenic Ornithological Society
Hellenic Society for the Protection of Nature

Hungary
BirdLife Hungary

Iran
Department of the Environment

Iraq
University of Basrah Natural History Museum

Ireland
BirdWatch Ireland
National Parks and Wildlife Service
The Wildfowl and Wetlands Trust

Israel
Nature and National Parks Protection Authority

Italy
Istituto Nazionale per la Fauna Selvatica

Jordan
Royal Society for the Conservation of Nature

Latvia
Institute of Biology
Latvian Ornithological Society

Lithuania
Institute of Ecology
Museum of Zoology
Vilnius University

Malta
BirdLife Malta Research Group

Morocco
Centre d'Etudes des Migrations d'Oiseaux

The Netherlands
SOVON
RIKZ
RIZA
Rijkswaterstaat

Norway
NINA – Norwegian Institute for Nature Research

Oman
Oman Bird Group
Ministry of Environment

Poland
Department of Vertebrate Ecology and Zoology
Institute of Ecology PAN Dziekanow Lesny
National Council for Nature Conservation
University of Gdansk
Waterbird Research Group KULING

Portugal
ICN – Instituto da Conservaçao da Natureza
Ministerio do Ambiente e dos Recursos Naturais

Romania
ROS – Romanian Ornithological Society

Russia
Kandalaksha State Nature Reserve
Kaliningrad University

Saudi Arabia
National Commission for Wildlife Conservation and Development
Wildlife Sanctuary for the Gulf Region
National Wildlife Research Center

Slovakia
Slovak Academy of Sciences
Comenius University
Institute of Zoology
Protected Landscape Areas
SOVS

Slovenia
DOPPS – BirdLife Slovenia

Spain
GOB – Grup Balear d'Ornitologia i Defensa de la Naturalesa
Natural Parks

Sweden
Ecological Institute
Lund University
Swedish Environmental Protection Agency

Switzerland
Swiss Ornithological Institute

Syria
Al Baath University Faculty of Agriculture

Tunisia
Ministère de l'Agriculture – Direction Générale des Forêts

Turkey
DHKD –, The Society for the Protection of Nature

Turkmenistan
Turkmenistan State University

Ukraine
National Heritage Fund
Ornithological Station Black/Azov Sea
Schevchenko University
Wetlands International sub-regional office, Kiev

United Arab Emirates
Emirates Bird Group

UK
The Wildfowl and Wetlands Trust
British Trust for Ornithology
Royal Society for the Protection of Birds
Joint Nature Conservation Committee on behalf of the Country Agencies

Yemen
Yemen Ornithological Society

Yugoslavia
Natural History Museum, Belgrade

Summary

The International Waterbird Census is a long-term site-based monitoring scheme for waterbirds in the non-breeding season. It has been organised annually in January since 1967 by Wetlands International (formerly IWRB, the International Waterfowl and Wetlands Research Bureau).

This report summarises the counts carried out in January 1995 and January 1996 in 47 countries of the Western Palearctic and Southwest Asia. The total numbers of each species counted in each country are presented in tables. Estimation of population trends over the 23 year period 1974–1996 has been possible for 24 species (Anatidae and Common Coot *Fulica atra*) which are represented on the database by the longest and most consistent time series of information. These trends are presented on graphs and tables, and populations which are apparently changing are highlighted. Sites where counts of Anatidae and Common Coot *Fulica atra* exceeded thresholds for international importance in January 1995 and 1996 are also listed.

Summaries of counts of three waterbird groups, geese, seaducks and waders are presented separately because data on these species are stored and managed in separate, decentralised databases. Information from the database covering Anatidae other than geese and seaducks, and all other waterbird species, appear in two further sections.

Weather patterns have a strong influence on waterbird distribution in winter, and the different conditions in January 1995 (relatively mild and wet in the north and east of the region) and 1996 (very cold in these areas) produced evidence of cold weather movements by a majority of Anatidae species, and also many waders, grebes, cormorants, herons and gulls.

Altogether, 23.6 million waterbirds were counted in January 1995 and 19.4 million in January 1996. The difference between the number of birds counted in the two seasons was partly caused by a reduced counting effort in some countries in 1996, and different weather conditions also played a part. For eight species, over a million birds were counted:
Common Coot *Fulica atra* (2,765,523 in 1996),
Mallard *Anas platyrhynchos* (2,413,578 in 1995),
Eurasian Wigeon *Anas penelope* (1,764,190 in 1995),
Dunlin *Calidris alpina* (1,283,211 in 1995),
Greater White-fronted Goose *Anser albifrons* (1,279,122 in 1995),
Black-headed Gull *Larus ridibundus* (1,060,948 in 1995),
Tufted Duck *Aythya fuligula* (1,047,935 in 1995) and
Northern Lapwing *Vanellus vanellus* (1,041,256 in 1995).

Geese
Numbers of many populations of geese were at their highest level yet recorded, and 3.2 million geese were counted in the region in 1995. There is cause for concern for two populations: the entire population of the globally threatened Lesser White-fronted Goose *Anser erythropus*, and the Icelandic breeding population of the Greylag Goose *Anser anser*. There is evidence that formerly increasing populations of Scandinavian/Russian Bean Geese *Anser f. fabalis,* Russian White-fronted Geese *Anser a. albifrons,* and Dark-bellied Brent Geese *Branta b. bernicla* are now rather stable, and that numbers of the globally threatened Red-breasted Goose *Branta ruficollis* may be recovering.

Seaducks
1995 and 1996 were good seasons for seaduck counting, and the overall total of more than 1.5 million seaducks counted in 1995 was the highest yet recorded. Newly presented information from 1994 brings the number of Scaup *Aythya marila* counted to the highest level yet recorded. A welcome development is affecting the globally threatened Steller's Eider *Polysticta stelleri*, which continues the expansion of its wintering range into the Baltic. An interesting series of counts from the Adriatic Sea suggest that it may be important for Common and Velvet Scoters *Melanitta nigra* and *M. fusca*, as well as Goldeneye *Bucephala clangula* and Red-breasted Merganser *Mergus serrator*.

Swans
The three swan species in the region are very well monitored, and 1995 coincided with comprehensive international censuses of Bewick's Swan *Cygnus columbianus bewickii* and Whooper Swan *Cygnus cygnus,* allowing very detailed accounts of numbers, distribution and population trends to be presented. Numbers of these two species have stabilised, or even declined a little since big increases in the 1970s and 1980s. Most populations of Mute Swan *Cygnus olor* appear to be increasing.

Dabbling ducks, diving ducks and Common Coot
Numbers, distribution and population trends of dabbling ducks, diving ducks and Common Coot are treated in a fourth section of results, reflecting the detailed, long-term datasets held on species in this group. Altogether 11.4 million individuals in this group were counted in 1995, and 9.8 million in 1996.

Trend analyses revealed that several well-established trends of increase such as those shown by Common Shelduck *Tadorna tadorna*, Eurasian Wigeon *Anas penelope* and Gadwall *Anas strepera* continued in Baltic/Nordic, Northwest and Central Europe into the 1990s. Continuing increases in numbers of Eurasian Wigeon *Anas penelope* in Northern Europe resulted in a January 1995 count total for this population which was 14% higher than the current population estimate. There is evidence that past increases shown by Common Teal *Anas crecca* are levelling off in these areas.

There is cause for concern about recent trends in numbers of Mallard *Anas platyrhynchos*, the region's most widespread and numerous waterbird species: between 1987 and 1996, declining trends were diagnosed in five out of nine areas for which trend analyses for Mallard were undertaken. Northern Pintail *Anas acuta* now also appears

to be in decline over much of its European range, which is worrying in view of the fact that a high proportion winter in the heavily threatened Sahel wetlands of West Africa.

Diving duck populations mostly appear to be healthy, but Common Pochard *Aythya ferina* is in long-term decline in the West Mediterranean. The increase in numbers of Red-crested Pochard *Netta rufina* in Central Europe was the most rapid increase recorded by any species between 1987–1996, and a series of February counts in Southwest Asia, combined with the January survey, produced a total which was 21% higher than the current estimate for this population.

The comparatively recent development of the census in Southwest Asia does not yet permit trend analyses to be carried out, and in the Black Sea/East Mediterranean area, it was only possible to perform analyses over the more recent ten year period 1987–96. There is evidence that over the ten year period 1987–1996, a majority of dabbling ducks, diving ducks and Common Coot were in decline in the West Mediterranean and Black Sea/East Mediterranean areas, and wetlands in these areas appear to be under particularly heavy pressure. Improvements in coverage and the accumulation of more years' of data will allow more comprehensive trend analyses to be conducted in these areas in future.

Waders

It has been possible for the first time to present counts of waders at international level by country, and it may be possible to present trend analyses for this group in future reports. Almost 5 million waders were counted in the region in 1995 and 4.1 million in 1996. Counts of two populations, Ringed Plover *Charadrius hiaticula* and Red Knot *Calidris canutus islandica* were higher than existing population estimates, by 8% and 7% respectively. The cold weather in 1996 compared with 1995 may have affected the relative distribution of as many as 14 species of wader, and cold weather movements by Eurasian Curlew *Numenius arquata* were particularly apparent.

Other waterbird species

A summary of counts of species in the following groups is included in a fifth section of results titled "Other waterbird Species": divers, grebes, pelicans, cormorants, egrets, herons, bitterns, storks, ibises, spoonbills, flamingos, cranes, rails, gulls and terns. These species have been routinely included in IWC counts in most countries since the late 1980s, and it may soon be possible to present trend analyses for many species. Counts of one species, Pygmy Cormorant *Phalacrocorax pygmeus* in Azerbaijan produced a total that was more than double the existing population estimate for the whole of Southwest Asia, and the first reliable estimate of numbers of this species in that country increases the Southwest Asia population estimate from 5,000 to the high tens of thousands. Many other interesting baseline counts in this section include small numbers of Lesser Flamingos *Phoenicopterus minor* in Oman and Saudi Arabia suggesting a link between populations in the East African Rift Valley and the Rann of Kutch in India.

Threatened species

Counts covered 16 threatened or near-threatened species listed in the most recent Red List of Threatened Animals by IUCN, and included the critically endangered Northern Bald Ibis *Geronticus eremita* and Slender-billed Curlew *Numenius tenuirostris*. In addition to Lesser White-fronted Goose, Red-breasted Goose and Steller's Eider mentioned above, counts of three threatened species of duck, Marbled Teal *Marmaronetta angustirostris*, Ferruginous duck *Aythya nyroca* and White-headed Duck *Oxyura leucocephala* confirmed their generally precarious and declining status. Whilst IWC produces information which is valuable in the conservation of these species, additional efforts are needed to monitor threatened waterbird species in every country where they occur.

Introduced species

Records of an increasing number of non-native species are appearing in the IWC database. The Canada Goose *Branta canadensis* and Egyptian Goose *Alopochen aegyptiacus* have rapidly expanding populations in northern and western Europe. The North American Ruddy Duck *Oxyura jamaicensis* continues its expansion in the UK and remains a growing threat to the globally endangered White-headed Duck *Oxyura leucocephala.* The small French population of the Sacred Ibis *Threskiornis aethiopicus* is also expanding rapidly. These species are a potential threat to native biodiversity, and their numbers should be monitored closely.

The January 1995 and January 1996 IWC counts in the Western Palearctic and Southwest Asia achieved excellent coverage which allowed detailed analysis of the midwinter status and distribution of a majority of the waterbird species in the region in the mid 1990s. Estimates of population trends over the 23 years 1974–1996 were also calculated for 24 species, and as future coverage improves and greater standardisation is introduced into IWC methodology, trend analyses will become possible for more species over a wider area. The IWC is developing into the powerful and sensitive monitoring tool required by countries which are signatories to the African-Eurasian Waterbird Agreement and the Ramsar Convention on Wetlands to meet their international obligations to waterbird conservation.

Introduction

Waterbirds are readily counted because many species congregate conspicuously. No other group of birds has been so comprehensively and frequently surveyed. There is a strong tradition in Europe, and a growing tradition in other parts of the world, of using long-term waterbird census data as a basis for estimating the sizes and trends of waterbird populations. The International Waterbird Census (IWC) is one of the longest running and most extensive harmonised biodiversity monitoring programmes in the world. The information obtained from such monitoring has considerable scientific and conservation value.

1. The aims of IWC

The International Waterbird Census uses information collected by four regional censuses over the long term:

- to estimate population sizes of waterbird species
- to describe changes in numbers and distribution of these populations.

Secondary aims are:

- to assess the importance of individual sites for waterbirds during the non-breeding season
- to contribute significantly to international efforts to conserve waterbirds and their wetland habitats.

The rationale behind the census was summarised eloquently by Matthews (1967) at the time when international coordination of waterbird counting was beginning: "... while man is recklessly unleashing new insults on his environment, background monitoring of populations is essential to detect the threats as they develop and before they become catastrophes apparent to all".

Standardised monitoring of Arctic breeding species, and of species dependent on inter-tidal habitats is even more important in the light of human induced climate change, the reality of which is now generally accepted (IPCC 1996). Global warming is expected to have especially pronounced effects on tundra and other Arctic environments, and, through sea level rise, on inter-tidal habitats (Ens *et al.* 1996, Boyd and Madsen 1997). IWC will play a significant future role in monitoring the effects of these changes on the millions of waterbirds which depend upon these environments.

2. Organisation of IWC

2.1 Global Organisation

The International Waterbird Census (IWC) is a site-based counting scheme for monitoring waterbird numbers, organised by Wetlands International, formerly the International Waterfowl and Wetlands Research Bureau (IWRB). The Census operates at a global level, but as four separate surveys:

- The counts in the Western Palearctic and Southwest Asia, which are the subject of this report, are

Table 2. National Reports on midwinter counts, 1994–95 and 1995–96 seasons.
If no report has appeared for these seasons, the reference to the nearest winter, or most recent relevant reference is given.

Country	References	Country	References
Albania	Hagemeijer 1994; Kayser *et al.* 1995; Bino *et al.* 1996	Libya	Meininger *et al.* 1994
Austria	Aubrecht and Winkler 1997	Lithuania	Svazas 1996; Svazas *et al.* 1997
Azerbaijan	Patrekeev, 1993; Paynter *et al.* 1996	Morocco	El Agbani 1996; Reino and Soares 1996
Belgium	Devos *et al.* 1997; Jacob and Loly 1996	Netherlands	Boele *et al.* 1996; Meininger *et al.* 1996; Meininger *et al.* 1997; Voslamber *et al.* 1997a; SOVON Ganzen-en zwanenwerkgroep 1996; SOVON Ganzen-en zwanenwerkgroep 1997
Bulgaria	Annual reports in Bulletins of BSPB (Bulgarian Society for the Protection of Birds)		
Cyprus	Cyprus Ornithological Society (57) annual reports in February each year	Norway	Nygard 1994
Czech Republic	Pellantová 1996; Pellantová 1997	Oman	Cummins 1996; Grobler 1998
Denmark	Laursen *et al.* 1997; Pihl *et al.* 1996	Poland	Meissner 1994
Egypt	Meininger and Atta 1994	Portugal	Costa and Guedes 1996; Costa and Rufino 1996
Estonia	Kuresoo *et al.* 1994; Leito 1996	Romania	Munteanu 1996
France	Deceuninck *et al.* 1996; Deceuninck *et al. 1997*	Russia	Krivenko 1996
Germany	Harengard *et al.* 1990; Rutschke and Liebherr 1995, Rösner and Gunther 1996,	Slovenia	Stumberger 1997
		Spain	GOB 1996; GOB 1997; Martí and Ruiz 1994
Greece	Analyses of geese, swans cormorants and flamingos have been published	Sweden	Nilsson 1996a; Nilsson 1996b; Nilsson 1997
		Switzerland	Schifferli 1992; Schifferli and Kestenholz 1995
Hungary	Farago 1995	Tunisia	Van der Have *et al.* 1997
Iran	Behrouzi Rad 1996	Turkey	D.H.K.D. 1996
Iraq	Al Robaae 1996	United Arab Emirates	Emirates Bird Reports nos 18 (1994),19 (1995)
Ireland	Delany 1996; Delany 1997	Ukraine	Rusev *et al.* 1996
Israel	Shy 1996; Annual results in NANPPA Bulletin	UK	Waters *et al.* 1996; Cranswick *et al.* 1997
Italy	Serra *et al.* 1997	Wadden Sea:	
Latvia	Annual waterbird count newsletter	Netherlands	Meltofte *et al.* 1994; Rösner *et al.* 1994, Poot *et al.* 1996
		Germany, Denmark	

compiled by the Africa, Europe and Middle East Office of Wetlands International in Wageningen, The Netherlands (e.g. Rose 1995)
- The African Waterbird Census is co-ordinated from a sub-regional office in Dakar, Senegal, which began operating in 1998 (e.g. Dodman *et al.* 1997)
- The Asian Waterbird Census, which includes Australasia and Oceania, is co-ordinated from Wetlands International's Asia Pacific office in Kuala Lumpur, Malaysia (e.g. Lopez and Mundkur 1997)
- In the Americas, the Neotropical Waterbird Census is co-ordinated from the Americas office of Wetlands International in Buenos Aires, Argentina (e.g. Blanco and Canevari 1996).

2.2 Organisation in the Western Palearctic and Southwest Asia

In the Western Palearctic and Southwest Asia, the emphasis is on counts of birds in the non-breeding season, and the IWC database is compiled from January counts submitted voluntarily by a network of national co-ordinators. These coordinators organise their own surveys at national level, and many countries publish the results of their censuses in more detail than the periodic international overviews compiled by Wetlands International. At the Wadden Sea, which is the largest continuous nature reserve in western Europe, covering 8,000 square kilometres offshore of The Netherlands (30% of the reserve area), Germany (60%) and Denmark (10%), counts are co-ordinated by a highly successful trilateral international secretariat (Meltofte *et al.* 1994, Rösner *et al.* 1994, Poot *et al.* 1996). A summary of publications resulting from national waterbird monitoring schemes which have appeared recently in the region appears as Table 2.

3. The development of IWC in the Western Palearctic and Southwest Asia

3.1 General development

Following its inception in 1967, the IWC developed rapidly in Europe and parts of Southwest Asia, and this development was stimulated by the signing of the Ramsar Convention on Wetlands in 1971. Early analyses described the numerical distribution and most important sites for ducks, swans and Common Coot *Fulica atra* (Atkinson-Willes 1976) seaducks (Atkinson-Willes 1978) and swans (Atkinson-Willes 1981). An analysis of numbers and trends of 19 species of Anatidae and Common Coot *Fulica atra* in the Western Palearctic was published in the mid 1980s (Ruger *et al.* 1986) and a further analysis of numbers, trends and site importance for 23 species in the Western Palearctic was published three years later (Monval and Pirot 1989).

The Asian Waterbird Census expanded rapidly from the late 1980s onward, stimulated by the rapid production of annual reports (van der Ven 1987,1988, Scott and Rose 1989, Perennou *et al.* 1990, Perennou and Mundkur 1991, 1992, Mundkur and Taylor 1993, Lopez and Mundkur 1997). The African Waterbird Census also experienced rapid growth in the 1990s (Perennou 1991, 1992, Taylor 1993, Taylor and Rose 1994, Dodman and Taylor 1995, 1996, Dodman *et al.* 1997).

Similar, rapidly produced annual reports were published for the 1992 census in the Western Palearctic (Rose 1992a), and for the 1993 and 1994 censuses in the Western Palearctic and Southwest Asia (Rose and Taylor 1993, Rose 1995). The data held by Wetlands International on waterbirds in the Western Palearctic are more comprehensive than for other parts of the world, and take considerably longer to acquire, process, analyse and interpret. It was therefore decided after production of the first three annual reports and after consultation with census co-ordinators at national level, that it would be preferable to produce more comprehensive international overview reports covering the Western Palearctic and Southwest Asia at longer intervals.

The move of Wetlands International from the UK to The Netherlands, followed a year later by the departure of the long-term coordinator of IWC from the organisation delayed production of this report, which represents a catching-up exercise, produced rapidly by a new team. In order to prevent unacceptable further delay, the format of the report on IWC in the Western Palearctic and Southwest Asia for 1994 has been followed quite closely. It is planned to produce future reports on IWC in the Western Palearctic and Southwest Asia at three-yearly intervals and the first of these triennial reports will cover counts undertaken in January 1997, 1998 and 1999 and will be published in 2001.

The 1990s have been a period of growth in waterbird monitoring activity in many western European countries. There are many reasons for this, among them increases in the numbers of birdwatchers in many countries, better organisation, great improvements in the capabilities and availability of computers, and increasing recognition by government agencies of their obligations under international laws and directives. In Eastern Europe, North Africa and Southwest Asia, these developments have occurred to a lesser extent. In these areas, the census has maintained momentum in many, but not all countries, and waterbird monitoring activity has not generally increased in the period.

3.2 Decentralised databases

In the 1980s, data for waders, geese and seaducks were separated from the main IWC database and decentralised to institutes in Europe with particular expertise and data holdings relating to the taxa involved. The wader database moved to the Institute of Forest and Nature Research (IBN-DLO) in The Netherlands, where a high level of expertise on wader numbers and distribution culminated in publication of the status report which remains the standard source for population estimates for waders on the East Atlantic Flyway (Smit and Piersma 1989). The data for geese and for seaducks were transferred in 1989 to the National Environment Research Institute (NERI) at Kalø in Denmark, whose expertise was to prove invaluable in developments in counting these groups over the following decade. The move of Wetlands International's Africa-Europe-Middle East headquarters into offices shared with IBN-DLO in The Netherlands in 1998 brought

the wader database back under the same roof as that for Anatidae. In the summer of 1998, the responsibility for the goose data was also transferred to IBN-DLO from NERI. From 1999 onward, it will become feasible to link the decentralised wader and goose databases with the central IWC database, although the management of these datasets will remain separate. The database for seaducks will remain the responsibility of Stefan Pihl at NERI in Kalø, Denmark.

3.3 The role of Wetlands International's Specialist Groups

An important element of Wetlands International's networks of experts are the 21 Specialist Groups. Mostly initiated in the 1980s, when they were known as Research Groups, those with strong links to the IWC are the Swan, Goose, Duck, Seaduck, Wader and Threatened Waterfowl Specialist Groups. The Wader Study Group is the largest and longest established of the Specialist Groups, whose *Bulletin* appears three times per year and has had 86 issues published between 1970 and August 1998. The decentralisation of the goose and seaduck data to NERI described above was an important element in the growth of these two Specialist Groups, and from 1990 onward, annual publication of the *Goose Specialist Group Bulletin* and *Seaduck Specialist Group Bulletin* have provided a clear focus for these groups' activities. The Swan, Duck and Threatened Waterfowl Specialist Groups also produce high quality bulletins at regular intervals. Most of these bulletins are also available on the internet.

4. Applications of IWC

4.1 Conservation of waterbirds and wetlands

Waterbirds are one of the most important attributes of the biodiversity of many wetlands, and waterbird counts form one of several elements which are used to identify important wetlands. It is widely accepted that the number of waterbirds using a wetland site is a good indicator of that site's biological importance (e.g. Scott 1980) and waterbird counts have been especially influential in the identification of important wetlands. Bird counts can also provide vital evidence for the protection of wetlands should they become threatened. Kushlan (1993) assessed the value of waterbirds as bioindicators of wetland change, and one of his conclusions was that "population level data show special promise as sentinel bioindicators".

4.2 The African-Eurasian Waterbird Agreement

A crucial international instrument which will rely heavily on information provided by the IWC is the African-Eurasian Waterbird Agreement (AEWA) (Interim Secretariat for the African-Eurasian Waterbird Agreement, 1997; http://www2.wcmc.org.uk/aewa/). This is an Agreement under the Convention on the Conservation of Migratory Species of Wild Animals, commonly referred to as the Bonn Convention. The final act of the AEWA was agreed by 120 range states in 1995, and will come into force in 1999. The Agreement will cover the whole of Africa and Europe,

Bewick's Swans, England.

Mark Hulme.

much of West Asia, and Arctic islands in extreme Northeast Canada. AEWA will form the basis for conservation and management policy in the 120 Range States for the 170 migratory waterbird species included.

The Agreement will be effected by means of an Action Plan, which specifies actions to be taken by Parties in relation to priority species and issues under five headings. The Action Plan will be completed in 1999, and is being updated and revised in order to include all 170 species. Other crucial documents in support of AEWA which will be produced in 1999 are a review of the present conservation status of all waterbird species covered by the Agreement (Scott 1999), and nine sets of Conservation Guidelines to assist the Parties in the implementation of the Action Plan. These documents will be presented to the first Meeting of the Parties to the agreement in late 1999.

4.3 The Ramsar Convention

The criteria used for identifying wetlands of international importance are defined in the Ramsar Convention (Convention on Wetlands of International Importance, especially as Waterfowl Habitat) (e.g. Ramsar Convention Bureau 1984; http://www.ramsar.org/).

Before May 1999, there were eleven criteria by which wetlands were identified as being of international importance, at least one of which must be met for a wetland to be admissible to the Ramsar list of wetlands of international importance. The three specific criteria based on waterbird numbers were drafted as follows:

"A wetland should be considered internationally important if:

(3a) it regularly supports 20,000 or more waterbirds;
(3b) it regularly supports substantial numbers of individuals from particular groups of waterbirds, indicative of wetland values, productivity or diversity;
(3c) where data on populations are available, it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird."

At the seventh Conference of the parties to the Ramsar Convention in May 1999 in Costa Rica, the criteria were revised and the waterbird criteria were retained as an element of new "biodiversity criteria". The previous criterion 3a is now criterion 5, and the previous 3c is now criterion 6. The previous criterion 3b is included in a newly drafted Criterion 2, worded as follows:

"A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities."

The Ramsar Convention is growing, with new countries becoming contracting parties and new wetlands being added to the list each year. Contracting parties are required "to recognise and conserve any internationally important wetlands", by designating them as Ramsar sites. On 31 December 1998, 113 countries were signatories to the Ramsar Convention, and the Ramsar list of wetlands of international importance comprised 957 sites worldwide covering more than 70.5 million hectares, an area roughly equivalent to the combined territories of Poland, Germany, Belgium and Luxembourg (Frazier 1999).

The Ramsar Convention encourages the regular monitoring of waterbirds by its Contracting Parties as the basis for the identification of many wetlands of international importance. Indeed, at its 1996 Conference, the Contracting Parties passed a specific resolution (Res. C.6.4.) urging Wetlands International to continue to develop the IWC and to enhance its global coverage as an important basis for the application of the relevant waterbird criteria (Ramsar Convention Bureau 1996). The Ramsar Contracting Parties further sought from Wetlands International regular updates of the best available population estimates at each of their triennial conferences, and every nine years, revision of the 1% thresholds for each waterbird population.

4.4 Publications using waterbird monitoring data in support of international conventions

The position of waterbird monitoring as a key element in support of The African-Eurasian Waterbird Agreement and the Ramsar Convention on Wetlands, was strengthened by three publications produced by Wetlands International (formerly IWRB) between 1994 and 1997. The first edition of *Waterfowl Population Estimates* (Rose and Scott 1994) summarised knowledge of waterbird numbers and distribution at a global level, and presented 1% thresholds for identifying wetlands of international importance under the Ramsar Convention. The second edition (Rose and Scott 1997) updated the first, and identified 1,924 distinct biogeographical populations of waterbirds from 840 species worldwide. This publication will be updated in line with the triennial cycle of meetings of Contracting Parties to the Ramsar Convention (Rose and Stroud 1994). It also provides information which will be fundamental to the conservation of migratory species for the African-Eurasian Migratory Waterbird Agreement under the Bonn Convention. One of the first projects within the framework of this agreement was the publication of the *Atlas of Anatidae Populations in Africa and Western Eurasia* (Scott and Rose 1996). This publication delineated units of population for each species of duck, goose and swan in the region on detailed maps, and also presented population estimates and tables of key sites for each population. The publication of *Goose populations of the Western Palearctic: a review of status and distribution* (Madsen *et al.* 1999) provided comprehensive information on geese, and similar atlases are planned for other waterbird taxa. A high priority is to produce a flyway atlas for waders in Africa and western Eurasia.

4.5 Globally threatened waterbirds

The detailed, long-term monitoring of waterbirds at wetlands, one of the world's most damaged and vulnerable groups of habitats, has already provided the basis for much important work by conservation practitioners at local, national and international levels. One of the most important (and perhaps the most urgent) targets of conservation action are species in danger of extinction. Globally threatened species were listed by Collar *et al.* (1994) and

new criteria agreed by IUCN were attributed to each species. Waterbird species in the Western Palearctic and Southwest Asia that feature in Collar *et al.* (1994) and that were listed in the most recent IUCN Red List of Threatened Animals (IUCN 1996) are listed below, together with their threat status and the extinction probability related to each category. Midwinter counts submitted to Wetlands International under IWC form an important element in the database maintained by the Threatened Waterfowl Specialist Group which coordinates conservation efforts for many of these species.

Threat Status: Critically Endangered
(50% chance of going extinct in 5 years)
1. Waldrapp (Northern Bald Ibis) *Geronticus eremita*
2. Slender-billed Curlew *Numenius tenuirostris*

Threat Status: Endangered
(20% chance of going extinct in 20 years)
1. Siberian Crane *Grus leucogeranus*

Threat Status: Vulnerable
(10% chance of going extinct in 100 years)
1. Dalmatian Pelican *Pelecanus crispus*
2. White-headed Duck *Oxyura leucocephala*
3. Lesser White-fronted Goose *Anser erythropus*
4. Red-breasted Goose *Branta ruficollis*
5. Marbled Teal *Marmaronetta angustirostris*
6. Ferruginous Duck *Aythya nyroca*
7. Steller's Eider *Polysticta stelleri*
8. Sociable Lapwing *Vanellus gregarius*
9. White-eyed Gull *Larus leucophthalmus*

Threat Status: Conservation Dependent
1. Audouin's Gull *Larus audouinii*

Threat Status: Near Threatened
1. Pygmy Cormorant *Phalacrocorax pygmeus*
2. Socotra Cormorant *Phalacrocorax nigrogularis*
3. Lesser Flamingo *Phoenicopterus minor*
4. Great Snipe *Gallinago media*
5. Black-winged Pratincole *Glareola nordmanni*

In 1996, a series of Action Plans for Europe's 26 most threatened bird species was published (Heredia *et al.* 1996). This publication was a joint project carried out by BirdLife International, in collaboration with Wetlands International, with the intention of forming the basis of conservation planning for these species at the international level, and providing a framework for detailed conservation planning at national level. At the time when this publication was produced, the globally threatened status of Ferruginous Duck *Aythya nyroca* and Steller's Eider *Polysticta stelleri* was not recognised, but a separate publication (RSPB 1997) summarises actions necessary for international conservation of Ferruginous Duck, and conservation of the Steller's Eider is covered in the same publication (Pihl 1997).

Whilst IWC is able to provide information that is useful to the conservation of these threatened species, its main aim is to monitor the fortunes of more numerous and widespread species for which changes in status and distribution would otherwise go unnoticed.

4.6 Species of Conservation Concern (SPECs) and Important Bird Areas (IBAs)

Many waterbird species are readily counted, but this is not the case for most other groups of birds, and methods additional to counting are required to assess the conservation status of many bird species. Tucker and Heath (1994) identified species of regional conservation concern in Europe. They assessed population trends of species breeding in each European country using a questionnaire sent to species and national experts, whose responses were compiled into a five point scoring system representing increase, stability or decline. Information on wintering waterbird numbers was compiled for this publication from national waterbird count coordinators and from the IWC database. Criteria were developed to identify Species of Conservation Concern (SPECs) according to their global and European status, and to the proportion of their total population that occurs in Europe. This methodology remains the best approach available for international analyses of populations of a majority of bird species, although national and international bird distribution atlases (e.g. Hagemeijer and Blair 1997) are increasingly providing a more quantitative basis for population assessment.

Tucker and Heath (1994) examined the number of Species of European Conservation Concern with an Unfavourable Conservation Status that use seven types of habitat at some point in their life cycle. The habitat holding the highest number of these species was lowland farmland, but second on the list, with 75 species, was wetland. Tucker and Heath also examined threats to Species of European Conservation Concern which have substantially declining populations, and their analysis revealed that out of 29 types of threat identified, wetland drainage and land claim affected the third highest proportion of these declining species. Only agricultural intensification and hunting and persecution affected higher numbers of declining species.

The cornerstone of site-based international bird conservation is the network of Important Bird Areas (IBAs) identified and inventoried by BirdLife International. Site-based conservation is very appropriate for waterbirds, and IWC count data have been used as a basis for the establishment of a great many wetland IBAs in Europe, Africa and the Middle East. Inventories of these IBAs are available (e.g. Grimmett and Jones 1989, Evans 1994) and an increasing number of national IBA inventories are also being published (e.g. Magnin and Yarar 1997, Kostadinova 1997). Kershaw *et al.* (1996) used IWC data to investigate site-specific changes in waterbird numbers at a selection of European IBAs in relation to the overall numbers of the species over their wider wintering ranges.

4.7 Relating waterbird count information to other ecological parameters

An increasing amount of work is being done on the causes of change in waterbird numbers. A number of conferences and workshops held in the 1990s included papers which sought to relate information obtained from waterbird monitoring to ecological change and habitat loss.

For example, a conference held in Grado, Italy in 1991 (Finlayson *et al.* 1992) examined the effects of wetland loss in the Mediterranean region, and many papers related wetland loss to changes in numbers of waterbirds (e.g. van Vessem *et al.* 1992, Handrinos 1992). A workshop held in Linz, Austria in 1993 with the title *Monitoring Ecological Change in Wetlands of Middle Europe* (Aubrecht *et al.* 1994) included papers which examined the effects of habitat changes on waterbird numbers in Central Europe (e.g. Winkler *et al.* 1994, Pellantová and Martisko 1994). The tenth International Waterfowl Ecology Symposium was held in Aveiro, Portugal in 1995. This important meeting, titled "Effect of habitat loss and change on waterbirds" explored approaches to predicting the effects of habitat loss and change on populations of waterbirds, and to detecting when populations have been affected (Goss-Custard *et al.*1997).

Further examples of recent research which has related waterbird numbers to causal factors include papers by Suter (1994) who explored the relationship between winter waterbird abundance and diversity and trophic status and morphology on the Swiss Lakes, and Fox *et al.* (1994) who examined the effects of food supply and recreational disturbance on the abundance and distribution of Common Pochard at one of the most important wintering sites in Britain, the Cotswold Water Park. The same site provided the basis for an analysis of wintering waterbird community structure and the characteristics of gravel pit lakes (Bell *et al.* 1997). Schekkerman *et al.* (1994) described how waterbird populations on the Oosterschelde (in the Southwest Netherlands) changed in response to large scale coastal engineering works. Goss-Custard *et al.* (1995) used a modelling approach to estimate population consequences of habitat loss and change on wintering waterbirds.

Methods

1. The species covered

Counts were confined for many years to Anatidae (swans, geese, ducks) and Common Coot *Fulica atra*. These are the taxa for which a long time-series of data exist and for which analyses of population trends are possible. Data on site importance are also most reliable for these species at present. Improvements in organisation, in the number and competence of observers, and possibly in the quality of optical equipment, caused widespread increases in the counting of waders from the 1970s onward. This was stimulated by the formation of the Wader Study Group in 1970 and by publications such as Prater (1981) and Hayman *et al.* (1986). Counts of waders have only been routinely included in the IWC database since 1989. Rapid development of the decentralised wader database began in 1997, and exciting developments in the analysis of count data for waders will take place in the next few years.

The species accounts are most comprehensive for those species which have been counted by IWC for the longest – swans, sheldgeese, dabbling ducks, diving ducks, stifftails, and Common Coot *Fulica atra*. Summarised information from the decentralised Goose, Seaduck and Wader Databases is also presented in species accounts in additional sections. Since 1989, IWC counts in the Western Palearctic and Southwest Asia have included divers, grebes, pelicans, cormorants, egrets, herons, bitterns, storks, ibises, spoonbills, flamingos, cranes, rails, gulls and terns. A summary of counts of species in these groups is included in a fifth section of species accounts titled “Other waterbird species”. It is planned to establish links between the various waterbird databases which will allow a more integrated approach to presentation of results in future reports.

The sequence of species adopted in this report is that presented by Voous (1973). This traditional and widely used sequence (e.g. Cramp and Simmons 1977 *et seq*.) is used within families, except that one species, Common Coot *Fulica atra*, is treated together with the ducks. It has also been necessary in places to present families out of sequence, as detailed above.

2. The time period covered

This report presents count information collected in January 1995 and 1996, and some additional information from the 1993–94 season is provided for geese and seaducks. For rare or threatened species, some information from more recent years is included, but for a majority of species, analysis of more recent data will be presented in the next report, which is planned to cover January 1997, 1998 and 1999. The trend analyses include information for the 23 year period 1974–1996 for the 24 species where the quality of data permit, and shorter term population trends (usually for the ten year period 1987–1996) are also presented for these species, to compare trends in recent years with the long-term picture.

Observing waterbirds at Atanasovsko Lake, Bulgaria.

Tanyo Michev.

3. Geographical areas used in analyses

In the presentation of results, the word "region" is used to refer to the entire region covered by the counts, i.e. the Western Palearctic and Southwest Asia. The word "area" is used to distinguish the six geographical units into which the region was divided for the purpose of summarising numbers, distribution and trends. Results are therefore presented for the following geographical units: 1) 47 countries, representing the level of organisation of the counts, and 2) six areas, into which countries are grouped for the purposes of wider scale analysis. These areas, which are mapped on Figures 4 to 15, are similar to those used by Ruger *et al.* 1986 and followed by Monval and Pirot 1989 and Rose 1995 in previous analyses of waterbird count data from the region. These areas comprise: 1) Baltic and Nordic area, 2) Northwest Europe, 3) Central Europe, 4) West Mediterranean, 5) Black Sea and East Mediterranean, and 6) Southwest Asia. Previous analyses combined The Baltic and Nordic area and Northwest Europe into one area for the purposes of analysis, but we preferred to separate them because an assumption of the computer programme used to estimate population trends is that trends are similar in all parts of the area being analysed. The main advantage in using these areas is that it allows comparison to be made with results presented in previous reports. The areas used represent a sub-division of areas used in early analyses of IWC data in Europe (Atkinson-Willes 1976) but not in Southwest Asia. In future reports it is hoped to present population trend analyses at the level of the individual flyway for each species (as illustrated for Anatidae by Scott and Rose 1996).

4. Southwest Asia

Waterbird counts in Iran have been carried out since 1967, but in many other countries of "Southwest Asia", regular waterbird counting only began in 1988 following the launch of the Asian Waterfowl Census a year earlier (van der Ven 1987). The numbers of waterbirds using this area are huge, and we still only have preliminary understanding of the importance of the Caspian shores of Russia, Kazakhstan, Turkmenistan and Azerbaijan (Gistsov and Auezov 1996, Paynter *et al.* 1996, Lebedeva and Butiev, 1998, Shubin, 1998). The marshes of Iraq form another immensely important and little known wetland complex which have been rarely and only partially surveyed (e.g. Scott and Carp 1982), about which Scott (1995) wrote "… the ongoing drainage of the wetlands of Lower Mesopotamia constitutes an ecological catastrophe of unprecedented proportions in Western Eurasia". There is considerable scope for increasing the frequency and consistency of waterbird counting in Southwest Asia, but a shortage of observers, the huge and inaccessible nature of many of the wetlands and widespread economic problems present considerable challenges to progress. More frequent and detailed feedback to counters will stimulate counting in the area, and at least two countries now produce annual reports on their midwinter counts (Cummins 1996, Grobler 1998, Oman Bird News, Emirates Bird Reports).

Development of analyses of count data from "Southwest Asia" will be made as the quantity and quality of information from the area improve. The current geographical division is unsatisfactory in its separation of the east and west shores of the Red Sea, and there are good arguments for treating Southwest Asia together with East Africa for many species. Separation from the Black Sea/East Mediterranean area is also difficult to justify for some species. Drawing lines on maps is often problematical, and the current treatment has at least as many positive as negative aspects. Because the avifauna of this part of western and central Asia has close affinities with the Western Palearctic, and because the area is largely included under AEWA, counts from countries on the Arabian Peninsula, Iran, Turkmenistan, Uzbekistan, Kazakhstan, Tajikistan and Kyrgyzstan have been included in this report in the area called "Southwest Asia". Azerbaijan and Iraq were included in the Western Palearctic by Cramp *et al.* (1977), but in this report we have followed Perennou *et al.* (1994) in including these two countries in Southwest Asia. The area defined as "Southwest Asia" is thus identical to that recognised by Perennou *et al.* (1994) except for the exclusion of Afghanistan, where no waterbirds have been counted since 1976. This represents a slight eastward extension of the areas covered by international overviews produced in earlier "Western Palearctic and Southwest Asia" analyses (Rose and Taylor 1993, Rose 1995).

5. Organisation

Before computerisation in the 1980s, IWC was usually organised by only one person, and relied heavily on the enthusiasm and skill of national waterbird count co-ordinators. The success of the census still largely rests with the co-ordinators of national waterbird monitoring schemes who voluntarily submit January counts to Wetlands International. Paul Rose, who co-ordinated the census in the region from 1989 to 1997, set up and maintained a modern database system, established effective routines for data management and reporting and oversaw considerable expansion of the scheme. Since the move of Wetlands International to The Netherlands in 1996, improvements in computing capability and the availability of additional staff have allowed more resources to be put into organisation and management of the census. The census is now also guided by a Steering Committee which has met annually since 1995.

6. Field methods

The major contributors to waterbird monitoring in western Europe and parts of Southwest Asia are volunteer birdwatchers who participate because they find counting birds enjoyable and rewarding. In most countries the census is coordinated professionally, and in many countries, particularly in eastern Europe, professionals also carry out much of the fieldwork (although often on a voluntary basis, in their own time). The methodology requires a single count at each site each winter in the month of January. IWC is a so-called look-see survey (Bibby *et al.* 1992) whereby observers visit a site and make a count of every waterbird species present.

One of the most important principles in the IWC methodology is standardisation, so that the same sites are covered in the same way each winter, maximising the validity of comparisons of counts from site to site and from year to year. Standardisation is ensured by the use of rigorously designed recording forms, and by the use of a network of national organisers who liaise with counters and ensure that optimum coverage is maintained. At the national level, responsibility is often divided between a number of local organisers. At large sites which are divided into sub-sites, good organisation and teamwork play an important part in the success of counts.

7. Interpretation of waterbird counts

Waterbird counts are long established and internationally recognised as an objective and scientifically valid method of assessing the sizes of waterbird populations and the importance of wetlands, but the interpretation of waterbird count data nevertheless requires considerable caution.

7.1 Counting errors

Counting birds, as is the case with all scientific recording methods, is subject to error. Experienced counters are able to enumerate high numbers of birds under pressure of time with considerable accuracy. Prater (1979) conducted experiments with observers viewing photographs of flocks of flying birds and concluded that there may be a tendency for observers counting flocks of between 100 and 1,000 birds to under-estimate slightly (on average, 8%), and for counts of bigger flocks of a few thousand upward to be slightly over-estimated. Rappoldt *et al.* (1985) compared estimated numbers with real flock sizes and concluded that on average, counting errors cancel one another out and that estimates are usually correct. Counting errors can be considerable and Rappoldt *et al.* reported average counting errors of waders in flight of 17%, and of birds concentrated densely in roosts of up to 37%. Summaries of count data at national and international level often comprise estimates made at hundreds, even thousands of sites, where it is reasonable to assume that random counting errors to some extent cancel one another out. Research on counting errors has been minimal, and it would be valuable to conduct more detailed experiments with counters of varying experience.

7.2 Factors which cause under-estimation

The behaviour of some species makes them difficult to count. Snipes *Gallinago sp* and rails *Rallidae*, for example, are inclined to skulk in dense vegetation and a high proportion may be missed by normal counting methods. Some species habitually feed at non-wetland sites; geese, swans, Northern Lapwing *Vanellus vanellus* and Golden Plover *Pluvialis apricaria* are conspicuous examples in Europe. Other waterbird species, for example divers *Gaviidae* and seaducks e.g. *Melanitta* species, *Somateria* species, spend a lot of time far out at sea beyond the range of telescopes, or, if feeding, remain much of the time below the water surface. At large tidal sites, unless the areas used by roosting waterbirds, particularly waders, are known, birds are easily missed at high tide. If the roosts are known and accessible, however, high tide (or during the incoming tide) is often the best time to count such sites.

Migratory waterbirds pass through many wetlands *en route* to their breeding or wintering grounds and although, as a result of this turnover, the number of birds present at any one time may never exceed 20,000 birds or 1% of a population, the wetland may still be supporting internationally important numbers of birds. In the case of Barnacle Geese *Branta leucopsis* wintering in The Netherlands, Ebbinge (1985) showed that at one site, although no more than 10,000–20,000 birds were present at the same time, the total number of birds using the area was about 40,000, which was about 60% of the Dutch wintering population at that time. Davidson *et al.* (1991) reviewed the question of turnover at individual estuaries in Britain and concluded that "in general, a larger, and sometimes a very much larger, proportion of each waterfowl population than is apparent at any one time depends on each estuary in the network used during the non-breeding season." And that "Overall the implication is that many estuaries which fall below the 1% criterion on the basis of peak monthly counts alone, in reality support more than 1% of the relevant populations during the course of a year and so will qualify as nationally or internationally important." One reason why IWC concentrates on counts made in the month of January is to minimise the effects on the counts of turnover, since this is the time of least between-site movement by most waterbird species in the Western Palearctic. Close international synchronisation of counts also ensures that the effects of turnover are minimised.

At national level, organisers and observers decide which sites to count on the basis of their perceived importance for waterbirds and on practical factors such as accessibility. Inaccessible sites and those which are perceived to be unimportant for waterbirds thus produce an unknown element in the national waterbird totals each season. Moser (1987) was able to calculate upward revisions of most species of shorebird wintering in the UK following a major survey which covered almost the entire coastline.

These factors mean that counts may be under-estimates of the number of birds using a site, and this is why maximum counts are often used when assessing the importance of a site or the size of a waterbird population. Factors causing under-estimation can often be assumed to be constant over a range of sites and years, so that while under-estimates may occur, comparisons between sites and years usually remain valid.

7.3 Delimitation of site boundaries

Another factor which can cause problems when interpreting waterbird count data is the delimitation of site boundaries. Sites such as large lakes and estuaries are usually self-contained and have fairly obvious physical boundaries, but in some areas, the best boundaries to use are not clear-cut. Vinogradov (1996) described an immense network of wetlands in Siberia where the delimitation of "sites" is not very meaningful. This is an extreme example, but rivers, stretches of open coast, and

groups of small lakes are more frequently encountered examples of the type of area where site boundaries may be difficult to define. Coverage of these sites may not have been the same in different years, but it can be difficult to discern at what point in time changes in coverage occurred. Political boundaries often follow rivers and lakes, and this can complicate organisation and reporting of counts at the sites affected, resulting in partial or disjointed coverage, or double counting. The encouragement of mapping and careful keeping of records of count site boundaries have in recent years led to improvements in site definition which will continue in future. A need still exists to establish and maintain inventories (including detailed maps) of the geographical units which form the basis of every national waterbird monitoring scheme.

Inconsistent use of site names by counters results in the loss of valuable data every season. Changes in counters and organisers, and transliterations into English from other languages and scripts can result in the site appearing several times in the database under slightly different names. An extreme example from Iran is a site known in English as Arigan, Arjan, Dasht-e Arjan or Dasht-i Arjan.

7.4 Changes in counts do not always represent actual changes in the numbers of birds

Analysis of bird count data may show long-term changes even if populations are not actually changing. Such potential bias in long-term trends in bird numbers has been recognised for many years (e.g. Faanes and Bystrak 1981). Link and Sauer (1997) working with count data from the North American Breeding Bird Survey identified two particular types of observer effects: baseline differences in observer competence, and changes through time in the ability of individual observers.

A number of factors might cause unrepresentative long-term changes in the numbers of birds recorded by waterbird monitoring schemes. Increasing numbers of sites are being designated as nature reserves and refuges that are protected from disturbance and other negative impacts. These sites feature strongly in the reduced site list of each country. Bell and Fox (1991) demonstrated that a progressively increasing proportion of the Eurasian Wigeon *Anas penelope* counted in Britain were recorded at those count sites with disturbance-free refuges, and Madsen (1998) demonstrated the same effect experimentally for a suite of waterbird species in Denmark.

As described by Link and Sauer (1997) some observers are more competent than others, and standards are generally improving. It may be reasonable to assume at some sites that each generation of observers counts a higher proportion of birds with greater accuracy than the generation that preceded them. A contributory factor to these rising standards might be the ever improving quality of optical equipment, and in particular, the increasing use of telescopes seems likely to be a cause of increases in the number of birds counted at some sites in the 1990s compared with the 1960s. These factors are difficult to quantify retrospectively, and their effects on past waterbird counts remain unknown.

At large, complex sites (where a majority of birds occur) it may take several visits to become familiar with the site and its usage by waterbirds and to establish the best counting routines (Bibby *et al.* 1992). During the first few visits to such sites, the number of birds counted may increase in a manner unrepresentative of the number of birds actually present. Counts at such large, complex sites are sometimes discontinued, and restarted after an interval of some years. In such cases, the process of getting to know the site and its birds starts again.

8. Methods used in Analyses

8.1 Deriving population estimates

There are no standard methods for deriving population estimates from count data. The proportion of a population represented by large-scale counts depends on the behaviour of the species and the extent of coverage by counters within the range of its populations. Conspicuous species which congregate at relatively few sites which are well covered by counters have a high proportion of their populations counted. For such species, the overall count total is close to an estimate of the actual population. For some species of geese in Europe, count coverage is so good that count totals are assumed to be equivalent to actual numbers of birds in the populations (e.g. Madsen 1996). Most species are less well covered, or have less conspicuous behaviour, necessitating an element of extrapolation and 'expert opinion' in the estimation of their populations.

Some national waterbird monitoring schemes have derived national estimates for their populations of waterbird species (e.g. Kirby 1995, Cayford and Waters 1996, Serra *et al.* 1997) but published estimates remain unavailable for most countries. Population estimates at international level are required for application of Ramsar Convention Criterion 6 (formerly 3c), and count data are frequently used as the basis of these estimates (e.g. Pirot *et al.* 1989, Pihl 1996).

In the results that follow, counts have been summed to produce totals at regional, area and national level. These totals are compared in order to summarise the numbers and distribution of each species as revealed by the counts in January 1995 and 1996. In these descriptive comparisons, raw count totals were used, and the effects of gaps in coverage and of differences in coverage between the two seasons have been included in discussions. Such a descriptive approach is not possible when comparing numbers of birds counted over a longer time-series of years, and for the long-term population trend analyses, annual population indices were calculated for each species.

8.2 Calculating population indices and trends

Population indices show relative changes in population size. A base year is chosen, and the population in previous and subsequent years is expressed as a proportion of the population in this base year. Indices are presented as a proportion of the base-year

population size. The population index for year 19XX thus equals:

$$\frac{\text{Population size in 19XX}}{\text{Population size in the base year}}$$

The value of the index is directly proportional to the relative population size. An index of 2 represents a population twice as big as the base-year population; an index of 0.5 represents a population half as big.

In most cases, 1989 was used as the base year. Only if there were no data for a species in that year, another year has been used (usually 1993). Population indices relate only to the base year. A need exists to relate indices to the historical numbers of each population. Many apparent increases are in fact recoveries to former levels. Detailed information about the historical levels of waterbird populations are, however, rarely available.

8.2.1 Problems with analyses of waterbird population indices and trends

Analyses of population indices and trends from waterbird count data have a number of inherent problems which were summarised by Pettifor (1997) as follows:

1. Many of the trends in count data are non-linear, and traditional polynomial expansions and/or transformations may not adequately model the observed data.
2. Waterbird count data are usually overdispersed. A high number of birds occur at a relatively small number of sites and classical models which assume a Poisson distribution do not adequately fit the data.
3. Incomplete coverage over the years results in missing values in years when sites are not counted (see below).
4. Some sites 'drop in' and 'fall out' of the database over time as sites (and counters) change.
5. Organisers and counters usually choose which sites to count for reasons such as their importance for waterbirds or the convenience of undertaking counts; no stratified sampling is undertaken.
6. Linking described trends to causal factors is not usually feasible.

Pettifor (1997) emphasised the fact that these problems can only be overcome by use of the correct statistical techniques at a range of scales (e.g. site, national and international). Analysis of an international dataset as large and diverse as that of IWC is complex. TRIM (Trends and Indices for Monitoring data) (Pannekoek and van Strien 1998), the indexing programme used in this analysis (see 8.2.3 below) addresses many of the problems, but fully appropriate methods of estimating population trends at the international level have yet to be developed. We have, nevertheless, conducted trend analyses using a technique which allows comparison with similar analyses presented by Rose (1995). We recognise that these analyses have limitations, but present them as the best description currently possible of the changes taking place in midwinter waterbird numbers in the Western Palearctic. Tables presenting factors such as the extent of overdispersion of the count of each species in each area and the proportion of the base year counts that were imputed by the indexing program, enable readers to assess the factors affecting the reliability of the trend estimates. The trends revealed are generally similar to those presented by several national scale analyses (e.g. Aubrecht and Winkler 1997, Cranswick *et al.* 1997, Deceuninck 1997) and by a few single species analyses (e.g. Keller 1999, Laubeck *et al.* 1999). A small number of known inaccuracies are discussed in the relevant species accounts.

8.2.2 The problem of missing values

Using actual count totals to construct population indices is not valid as a method of calculating population trends because of differences in coverage achieved by counts in different years. All large scale monitoring programmes suffer from missing values which affect different sites in different years (ter Braak *et al.* 1994). For many years this problem of missing values was addressed by using the chain method, which involves comparing totals only from sites counted in consecutive years (e.g. Ogilvie 1967). Comparison of counts from sites covered in consecutive years usually produces valid population trends, but results in the exclusion of valuable data from sites not counted in one of the pairs of years used in making year-on-year comparison. The method has the advantage of being very simple to apply and easy to understand, but a problem called 'random walk' can produce spurious trends (e.g. Crawford 1991).

8.2.3 Index methods

Annual population indices were presented by Rose (1995) for Western Palearctic Anatidae Populations for the period 1967–1993 using the Underhill indexing method (Underhill and Prys-Jones 1994, Prys Jones *et al.* 1994, Kirby *et al.* 1995). This method replaces missing values (the gaps in coverage caused by sites not being visited every year) by estimating (imputing) 'best fit' values using available information for the year. The underlying assumption is that the proportional changes between years are the same for all sites being considered. Missing counts are imputed using the information from the changes at other sites. This approach allows all counts to be used in the calculation of population indices, although the reliability of the indices can become suspect if too many values are missing and the between-year changes are not similar across sites. The percentage of imputed counts in the IWC data set can be more than 50% (see Tables 24 and 25), which implies that the indices strongly depend on this model assumption.

In this report, another method has been used to calculate population indices of Western Palearctic Anatidae, namely loglinear regression or Poisson regression, a form of Generalised Linear Modelling (GLM). This method treats missing values in a manner similar to the Underhill method, but the estimates can be improved by including variables such as trends in neighbouring areas, or climatic factors, that may explain the differences in changes between sites. This method is thus able to relax the assumption that changes over years are the same across sites, by fitting models with covariates (ter Braak *et al.* 1994). In this report, no such models have yet been fitted. Without covariates in the models, the indices are virtually identical

to indices produced by the Underhill method. The relatively low standard errors produced for most species suggest that the models applied were probably acceptable, and that the indices were reasonably accurate. Future work is planned in which covariates will be used to improve the fit of the models and the reliability of the indices. Weighting of sites may be useful to adjust for the lack of representativeness (non-random selection) of sites, especially in earlier periods of the waterbird time series.

The implementation of loglinear regression used was the program called TRIM (TRends and Indices for Monitoring data; Pannekoek and van Strien 1998). TRIM enables the fit of many different models (including non-linear models) using goodness-of-fit tests, to test whether indices differ between subsets of sites and allowing weighting of sites so that the size of the populations they represent can be taken into account. We initially used a model with site and time effects for each time point. When there was a problem with the run (e.g. floating point error) for one or more time points, a model with only the site, and a linear (on the log-scale) effect was used.

TRIM also computes the standard errors of the annual indices. The loglinear regression method is based on the assumption of independent Poisson distributions for the counts. Such an assumption is likely to be violated for counts of waterbirds because the variance is often larger than expected for a Poisson distribution, a phenomenon called overdispersion. Large scale waterbird count data are well known for being overdispersed, up to values of more than 100, where a value of 1 stands for no overdispersion (Tables 24 and 25). They do not conform to a normal Poisson distribution because a relatively high proportion of birds is often found at a small number of sites, and most sites hold relatively low numbers. Furthermore, the counts may not be independently distributed because the counts at a particular point in time may depend on the counts at the previous time point (serial correlation). Most species showed relatively low serial correlation, with values generally lower than 0.2, where 0 indicates no serial correlation (Tables 24 and 25). Overdispersion and serial correlation may affect the standard errors of the indices, but hardly influence the indices themselves. TRIM makes allowance for overdispersion, however, as well as for the serial correlation between counts.

TRIM thus deals with many of the problems described by Pettifor (1997) and listed above (8.2.1) Point 1 above (non-linear trends) is addressed by computing yearly indices without linear extrapolations. Point 2, (overdispersed data) does not influence the indices themselves, only the standard errors, and TRIM makes allowance for overdispersion. TRIM also makes allowance for serial correlation, a problem not mentioned by Pettifor (1997). The indexing method addresses Points 3 and 4 (missing values), but the method requires further refinement. The implementation of covariates in future analyses should improve the quality of indices computed by TRIM, and may also address aspects of Point 6 (linking described trends to causal factors). It may also be possible to address Point 5 (non-random selection of sites) through weighting of sites in analyses.

8.2.4 Population trends

In addition to annual indices and their standard errors, TRIM allows the estimation of long-term trends. The trend is expressed as the factor that describes the rate of change over the whole period studied. An overall trend of 1 means that no change has occurred. A trend value of 1.1 would imply that each year the numbers are growing by 10%. A trend of 0.9 means a loss of 10% each year during the whole period studied. TRIM computes the trend slope without an intercept, which means that the regression line goes through the count value of the first year.

Species that do not demonstrate statistically significant trends cannot be simply regarded as being species with stable population numbers. If the standard error of the trend estimate is large, considerable changes in numbers may remain undetected, and the statistical power of the scheme may as yet be too low for such species (Van Strien *et al.*, 1997). The standard errors of the trends can be used to discriminate between "stable population numbers" and "unknown population changes" (Hayes and Steidl, 1997). The procedure applied to diagnose the population trends of Western Palearctic Anatidae over the periods 1974–1996 (23 years) and 1987–1996 (10 years) was as follows:

- assess the 95% confidence interval of a trend estimate by taking 1.96 times the standard errors (if this interval includes the value 1, then the trend is not statistically significant);
- convert the lower and upper limit of the confidence interval into the corresponding magnitudes of change in standard periods of 23 years and 10 years (using the lower and upper limits of the trend as multipliers);
- If the trend was not significant and the confidence limits were sufficiently small that the trend was expected to be at most 25% in a 10-year period, the species was classified as having stable population numbers; if the trend was not significant and the confidence limits were so large that the trend could be larger than 25%, the population trend was considered to be "poorly known" When the confidence limits ranged from more than 50% decline to less than 25% increase, the trend was classified as "decline more likely" and when the confidence limits ranged from less than 25% decline to more than 50% increase the trend was classified as "increase more likely". Trends on the brink of "poorly known" and "stable" were classified as "poorly known to stable".

8.3 The "reduced site list"

The sheer scale of the IWC database for the Western Palearctic and Southwest Asia (e.g. Figure 2) and historical and spatial inconsistencies in coverage in some countries led to a new approach in the early 1990s (Rose 1992b). Instead of using information from every site ever counted in each country, counts from a sample of the most important and consistently covered sites were used to compare totals from year to year. The most important sites in each country are usually the places that are most interesting to birdwatchers and ornithological researchers, and so are often the sites where coverage is best. A representative sample of less important wetlands was also

included in the reduced sample of sites selected in each country where possible. These sites formed what was called the “reduced site list” in each country, and national coordinators were asked to select these sites on the basis of their importance for waterbirds and the frequency with which they had been counted in the past.

The sites on the “reduced site list” are given the highest priority for coverage in January each year. Ideally, sites where a high proportion of the country’s waterbirds can be found in January are chosen for the “reduced site list”. In France, for example, between 1967 and 1990, 1,185 sites were counted, but a high proportion of the waterbirds (70% to 90%) were found at just 175 of these sites. Now that these 175 sites are covered as a matter of priority each year, the consistency of waterbird count data collected in France has improved. No country can be expected to achieve the ideal of identical coverage of a representative sample of sites every single year. If most participating countries are able to strive for this ideal, the IWC will develop into a very powerful and sensitive monitoring tool indeed.

Results

1. Coverage

1.1 Coverage since 1967

Figures 1 to 15 and Table 3 summarise much of the information upon which analyses of numbers and trends which appear in the species accounts are based.

Figure 2 is a map showing the 13,468 sites in the Western Palearctic and Southwest Asia where at least one waterbird count conducted since 1967 is held on the database. The prodigious scale of the database is immediately apparent. Also apparent is the European bias in countries that have had a large number of sites counted. Site-based databases have inherent problems of consistency because unlike datasets based on standard spatial units such as grid squares, points or transects, different boundaries may have been used for counting at some sites in different years. Another potential source of inconsistency is that many sites 'drop in' and 'fall out' of the database over time as site coverage and counters change. Some sites have only been counted on a few occasions in the 30 years for which data are held. The reduced site list approach (see methods) has been an effective method of increasing the consistency of analyses of this dataset, but work remains to be done to maximise the efficiency of long term trend analyses.

Figure 1 is a graph showing how the number of sites and species counted have changed since 1967, and how the overall number of birds counted has changed over time. The improvement in coverage over the 30 years for which the census has been running means that data from recent years are more reliable than those from the early years. Table 3 summarises the number of years since 1967 that data are held on the database for each country in the region.

1.2 Spatial coverage in 1995 and 1996

Figures 4 to 15 illustrate the extent of coverage for the census and the numerical distribution of waterbirds (excluding data held in decentralised databases on seaducks, geese, and waders) counted at sites on the "reduced site list" in January 1995 and 1996. These are the sites from which totals in the "reduced" columns in Tables 4 to 22 were derived, and from which trend analyses were undertaken. Countries for which no data were available from January 1995 or 1996 were Armenia, Bahrain, Belarus, Egypt, Finland, Georgia, Iceland, Iraq, Jordan, Kuwait, Lebanon, Libya, Luxembourg, Macedonia, Moldova, Russia, Spain, Tadjikistan and Yemen. Countries which submitted data from 1995 but not 1996 were Germany, Iran, Morocco, Syria, and Tunisia. Countries which submitted data from 1996 but not 1995 were Kazakhstan, Kyrgyzstan and Uzbekistan. Information from many of these countries will probably be

Figure 1. Data held on the central IWC database on the "total" site list

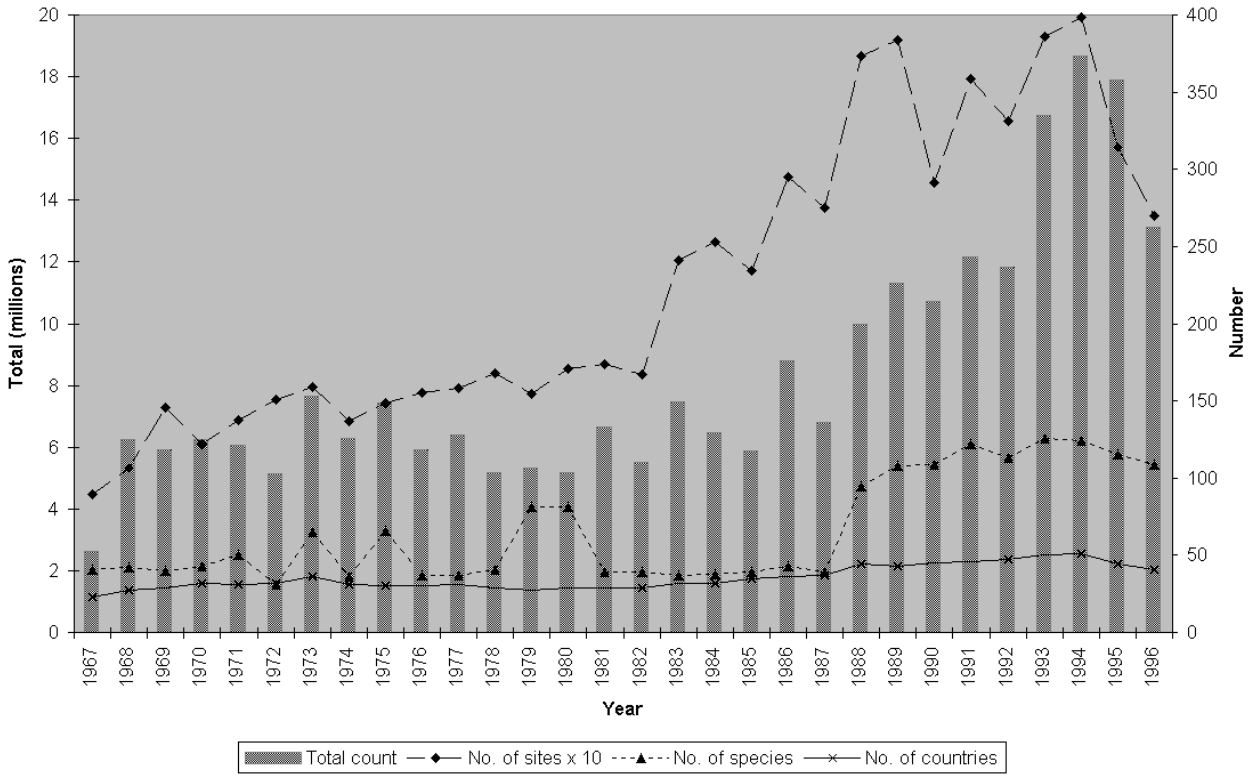


Table 3. Number of years for which data are stored on the IWC database for each country in the Western Palearctic and Southwest Asia: 1) for the 30 years 1967–1996; 2) for the 10 years 1987–1996. Data held on decentralised goose, seaduck and wader databases are not included. Some countries (Belgium, Poland, Spain) have submitted data for more years which cannot yet be used for technical reasons. France, Germany and Russia each appear twice because they are divided in analyses between two areas. Figures in brackets refer to very restricted data sets.

	30 yrs 1967–96	10 yrs 1987–96
NORTHWEST EUROPE		
France	30	10
UK	30	10
Germany	29	9
Netherlands	29	9
Ireland	25	7
Belgium*	2	2
Iceland	12	0
BALTIC/NORDIC		
Sweden	30	10
Denmark	28	10
Norway	25	10
Latvia	13	10
Lithuania	10	10
Estonia	20	8
Finland	22	7
Russia (Kaliningrad)	6	6
Russia (Murmansk)	5	5
Poland*	4	4
CENTRAL EUROPE		
Austria	30	10
Hungary	30	10
Switzerland	30	10
Germany	28	9
Czech Republic	25	9
Slovakia	6	6
WEST MEDITERRANEAN		
France	30	10
Portugal	26	10
Algeria	25	10
Italy	23	10
Morocco	22	9
Tunisia	26	8
Spain*	25	8
BLACK SEA / EAST MEDITERRANEAN		
Croatia	25	10
Cyprus	16	10
Yugoslavia	15	10
Ukraine	(25)	10
Israel	29	9
Greece	22	9
Romania	22	9
Turkey	17	9
Slovenia	9	9
Bulgaria	22	8
Bosnia Hercegovina	6	5
Macedonia	7	4
Albania	4	4
Syria	5	3
Egypt	4	2
SOUTHWEST ASIA		
Iran	27	9
Turkmenistan	26	9
Uzbekistan	9	8
Oman	8	8
United Arab Emirates	8	7
Saudi Arabia	7	7
Jordan	10	6
Qatar	6	6
Azerbaijan	5	5
Bahrain	5	5
Kuwait	4	4
Kazakhstan	(20)	3
Yemen	3	3
Russia	(20)	2
Kyrghizstan	5	1
Tadjikistan	4	1
Iraq	5	0

provided in the fullness of time, and will be presented in future reports.

1.3 Summary of coverage in January 1995 and 1996 by area

Northwest Europe (Figures 4 and 5):
A major difference in coverage between the two seasons was the lack of information from northern Germany in 1996. Other participating countries (Belgium, France, Ireland, Netherlands and UK) achieved consistent coverage between the two years. No information was received from Iceland, Luxembourg or Wallonia (south Belgium) in either season.

Baltic/Nordic (Figures 6 and 7):
Coverage was quite consistent between the two seasons in Denmark, Estonia, Latvia, Lithuania and Sweden. Fewer sites were counted in Poland in 1996, and rather more sites were covered in 1996 in Norway than in 1995. No counts were submitted from Belarus, Finland or Russia in either season.

Central Europe (Figures 8 and 9):
A major difference in coverage between the two seasons was the lack of information from southern Germany in 1996. Information from Hungary was in short supply in both seasons. Coverage was consistent between the two years in all other countries (Austria, Switzerland, and the Czech and Slovak Republics).

West Mediterranean (Figures 10 and 11):
Consistent coverage between the two years was achieved in Algeria, Mediterranean France and Italy. Spain was the major gap in both years: counts were undertaken, but organisational and technical difficulties prevent their use. A lack of information from Morocco, Tunisia and Western Sahara, and a reduction in coverage in Portugal in 1996 reduce the value of analyses of counts from this season in the area.

Black Sea and East Mediterranean (Figures 12 and 13):
Consistent coverage was achieved in 1995 and 1996 in Albania, Bulgaria, Cyprus, Greece, Israel, and Romania. Counts were not undertaken in either season in Armenia, Egypt, Georgia, Lebanon, Libya, or Moldova. No sites in Syria were counted in 1996. More sites were counted in Ukraine in 1995 than in 1996, and coverage of Turkey was much reduced in 1995 compared with 1996. War and civil unrest in the states of former Yugoslavia continued to hamper the census, but counts were achieved in both years in each of Croatia, Slovenia and Yugoslavia.

Southwest Asia (Figures 14 and 15):
Coverage was consistent between the two years in Oman, Qatar, and the United Arab Emirates. No counts were received from Iraq, Jordan, Kuwait, or Yemen. Data from Iran have not yet been submitted from 1996. Iran has been one of the most consistent and prolific contributors to IWC over the years, and this was only the third season since 1967 that data have not been submitted on time. Counts were submitted from Kazakhstan, Kyrgyzstan and Uzbekistan in 1996, but not 1995. More sites were covered in Azerbaijan, Saudi Arabia and Turkmenistan in 1996 than 1995.

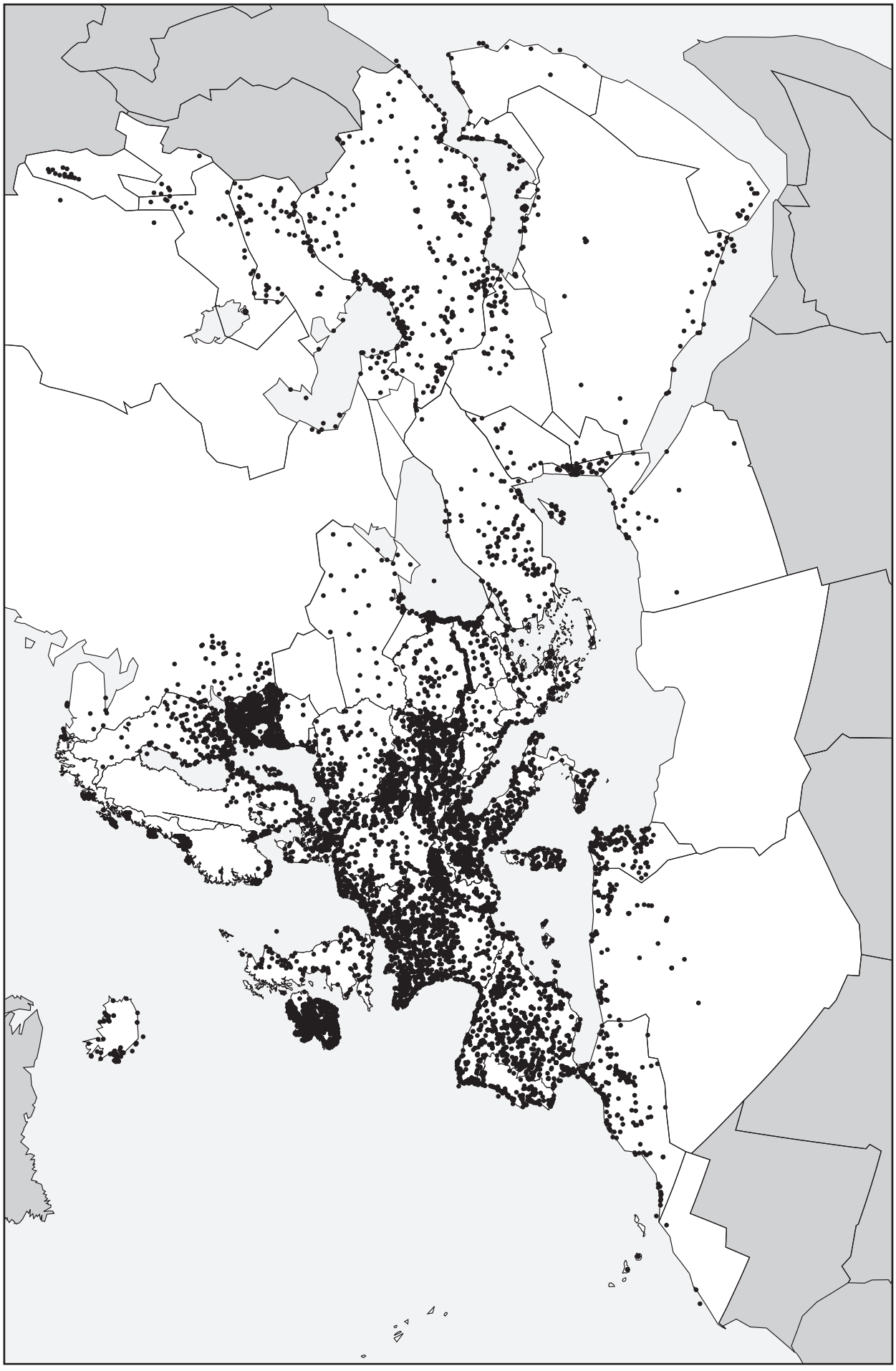


Figure 2. Sites included in the IWC database on the "total" site list. Note: > 1,000 sites in the UK are missing because their coordinates have not yet been recorded.

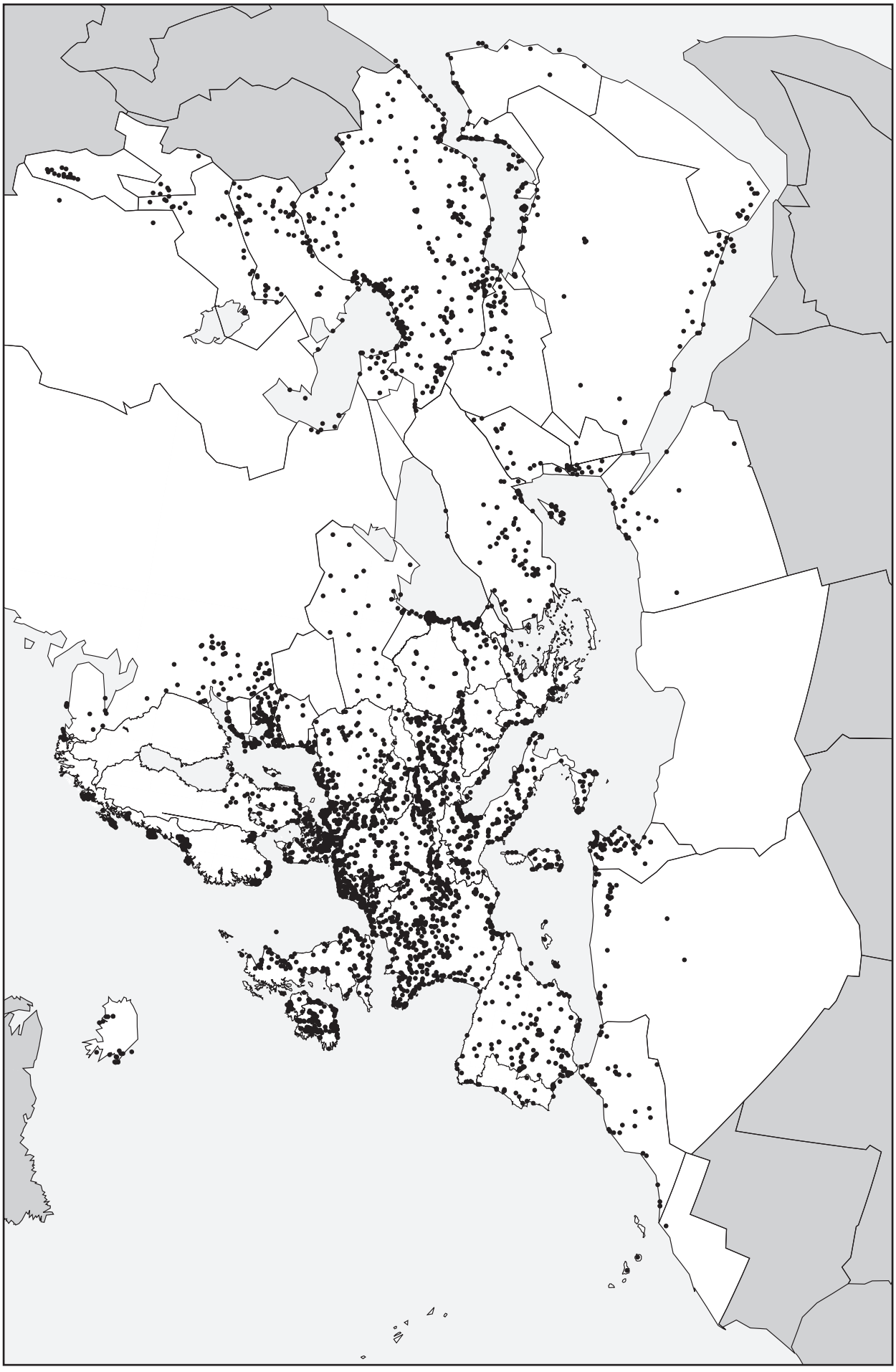


Figure 3. Sites included in the IWC database on the "reduced" site list.

Figure 4. Sites on the "reduced site list" in Northwest Europe, showing site coverage and counts of ducks, swans and coots in January, 1995.

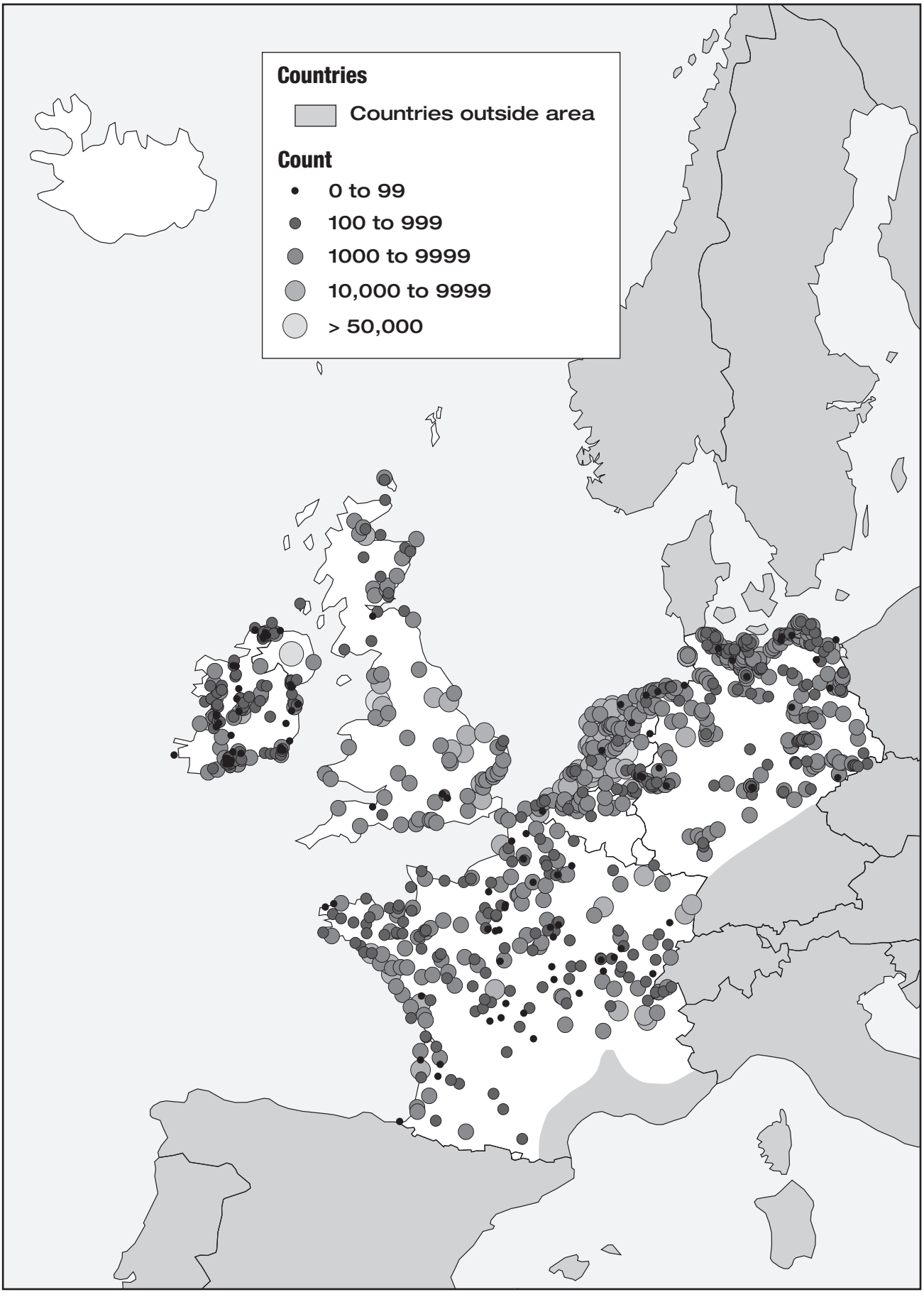


Figure 5. Sites on the "reduced site list" in Northwest Europe, showing site coverage and counts of ducks, swans and coots in January, 1996.

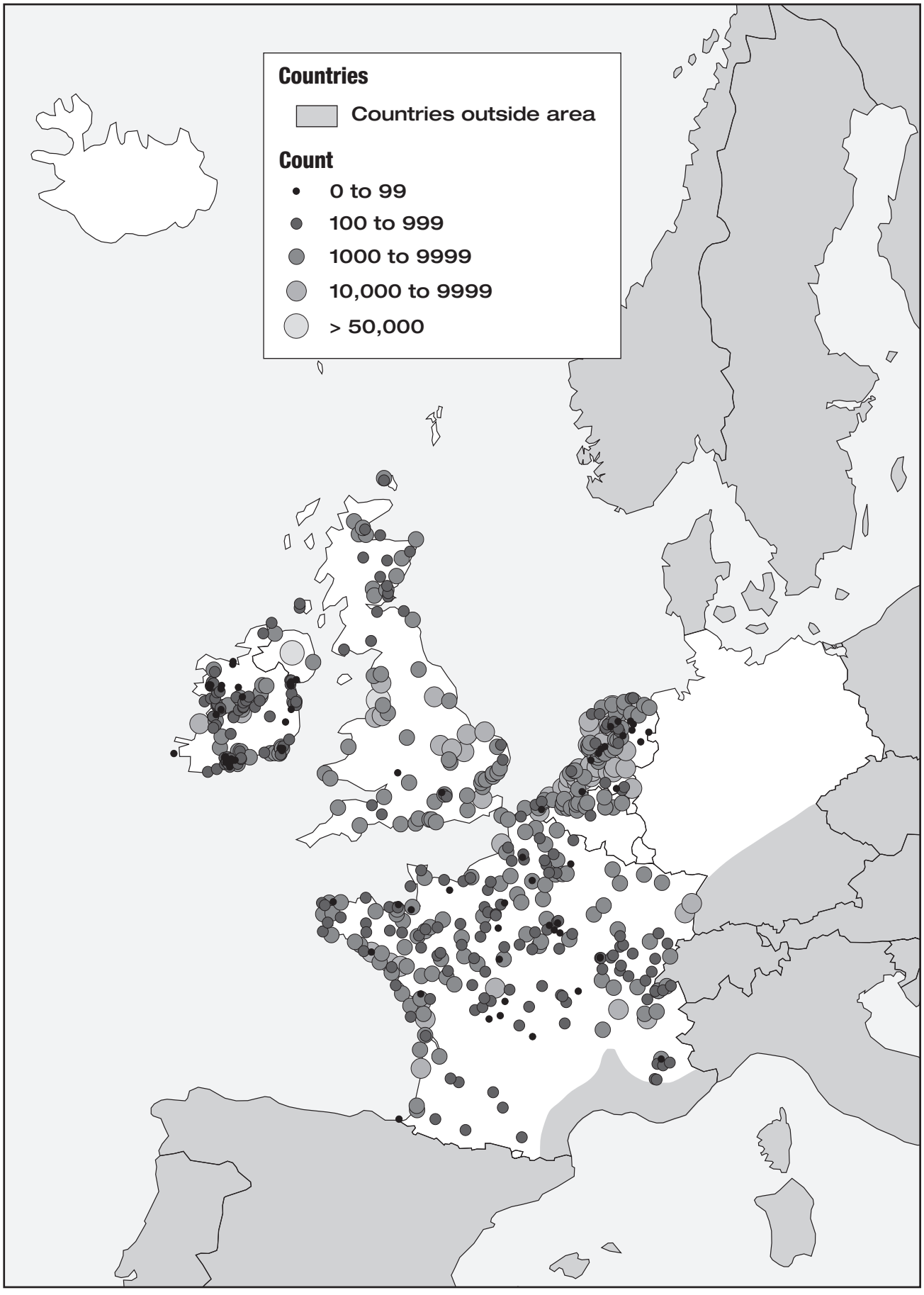


Figure 6. Sites on the "reduced site list" in the Baltic/Nordic area, showing site coverage and counts of ducks, swans and coots in January, 1995.

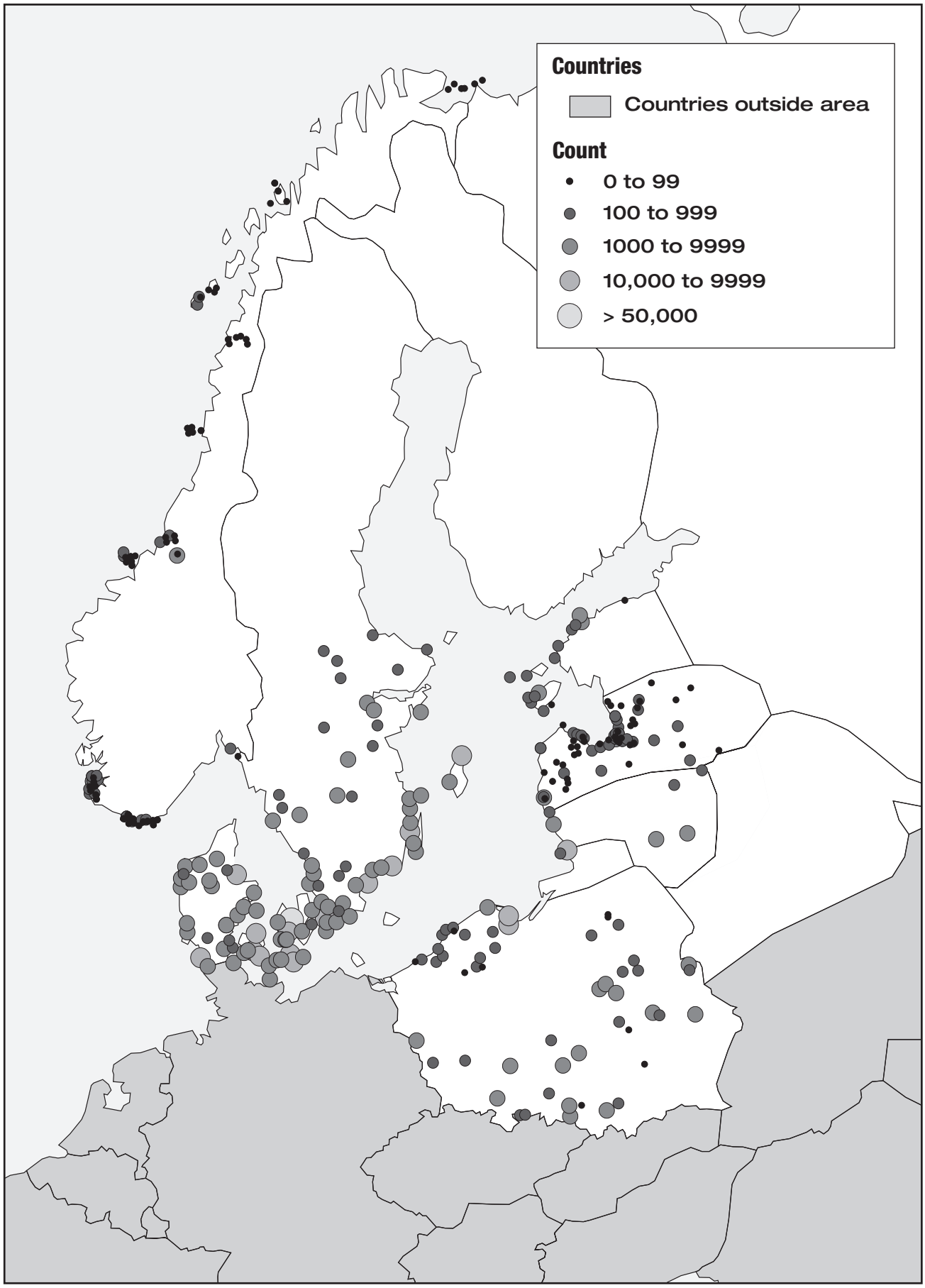


Figure 7. Sites on the "reduced site list" in the Baltic/Nordic area, showing site coverage and counts of ducks, swans and coots in January, 1996.

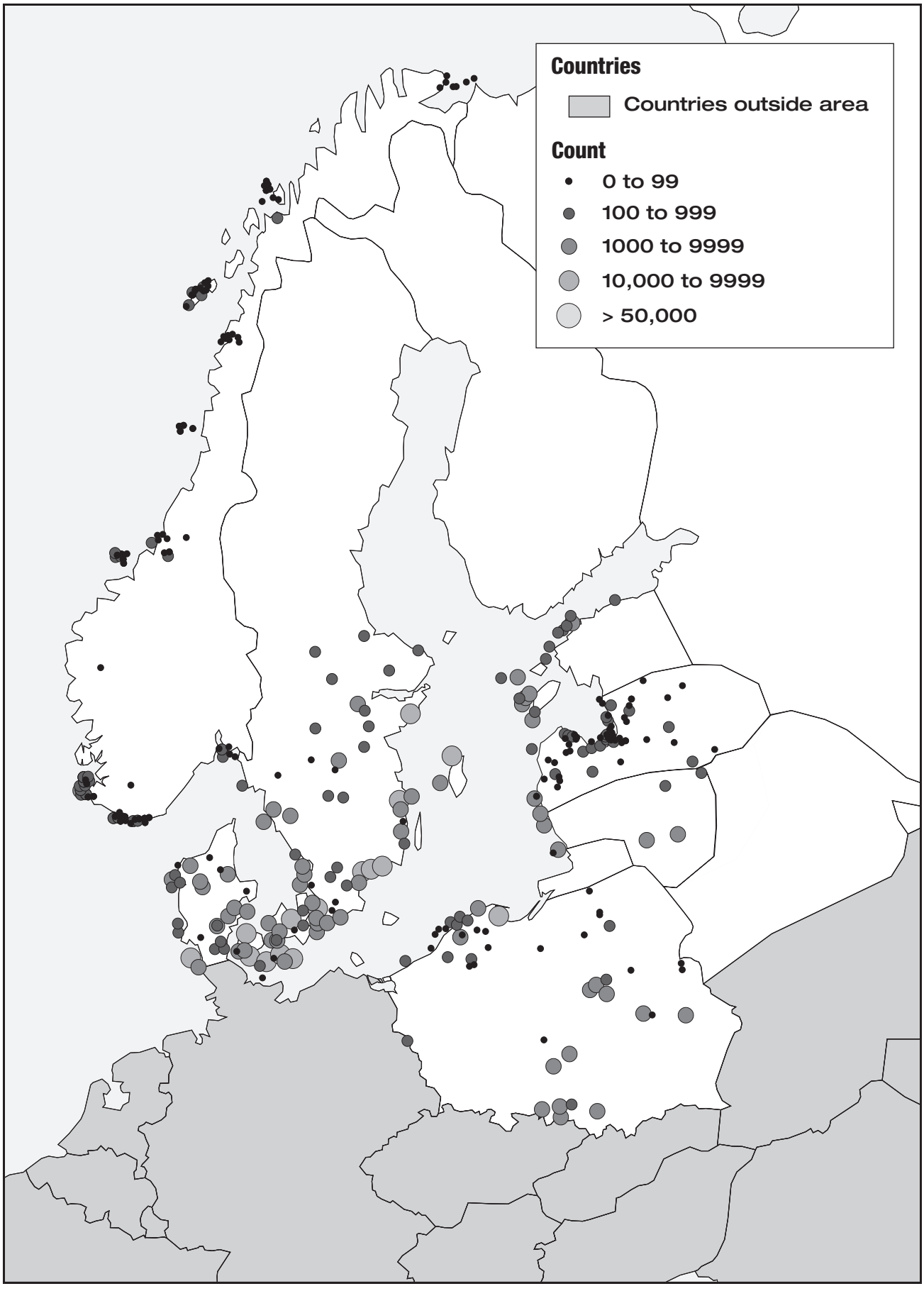


Figure 8. Sites on the "reduced site list" in Central Europe, showing site coverage and counts of ducks, swans and coots in January, 1995.

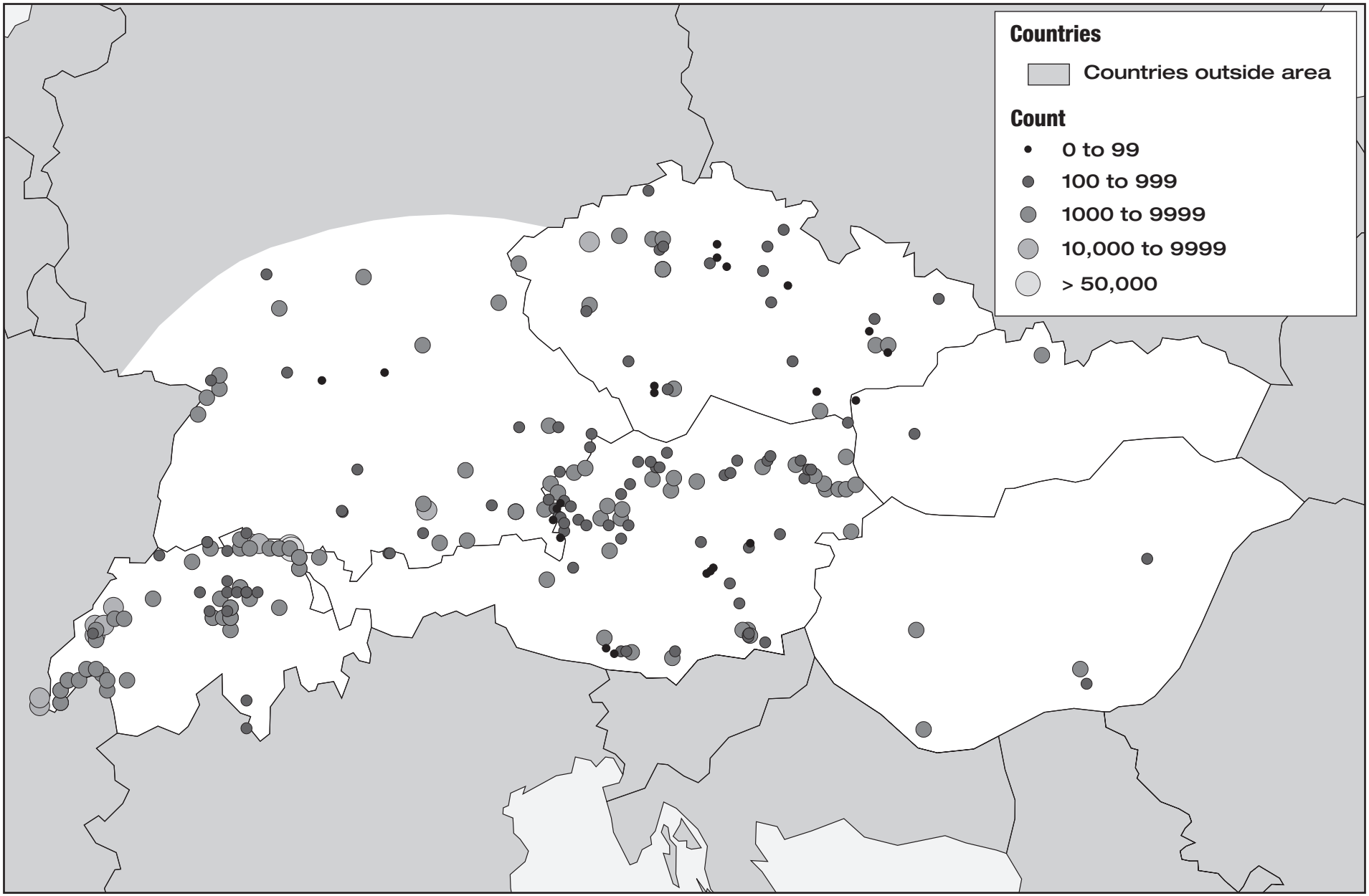


Figure 9. Sites on the "reduced site list" in Central Europe, showing site coverage and counts of ducks, swans and coots in January, 1996.

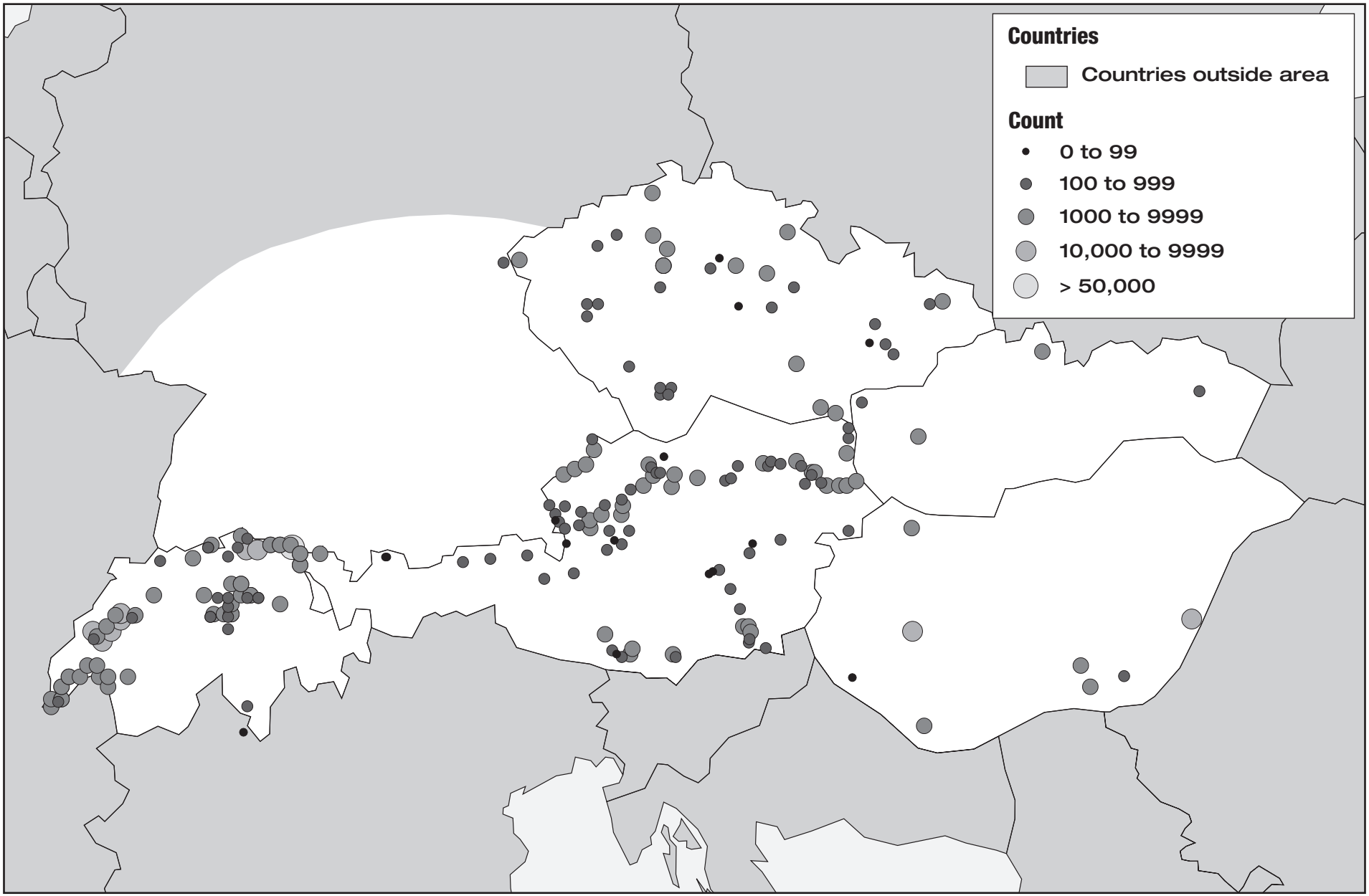


Figure 10. Sites on the "reduced site list" in the West Mediterranean, showing site coverage and counts of ducks, swans and coots in January, 1995.

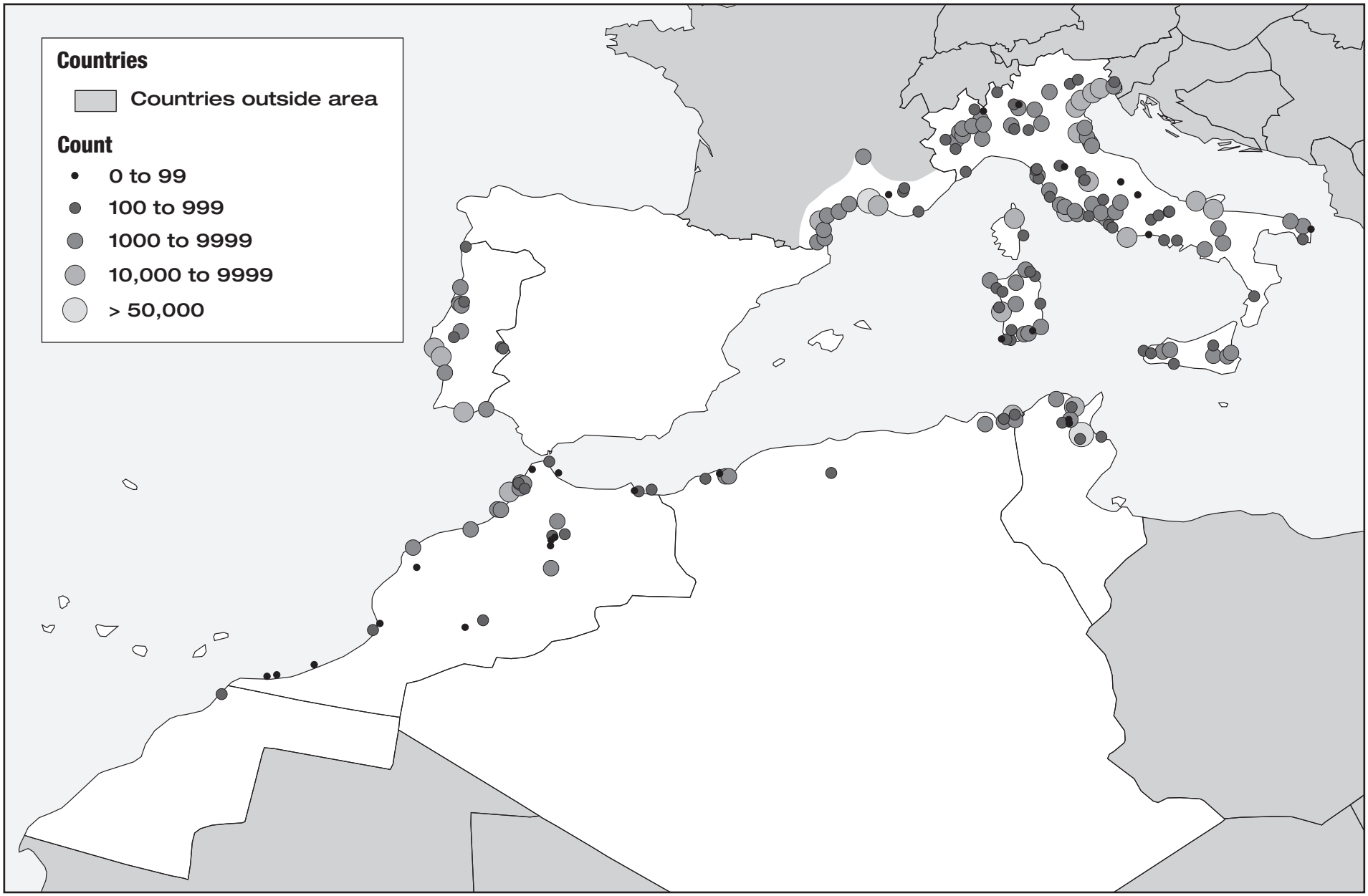


Figure 11. Sites on the "reduced site list" in the West Mediterranean, showing site coverage and counts of ducks, swans and coots in January, 1996.

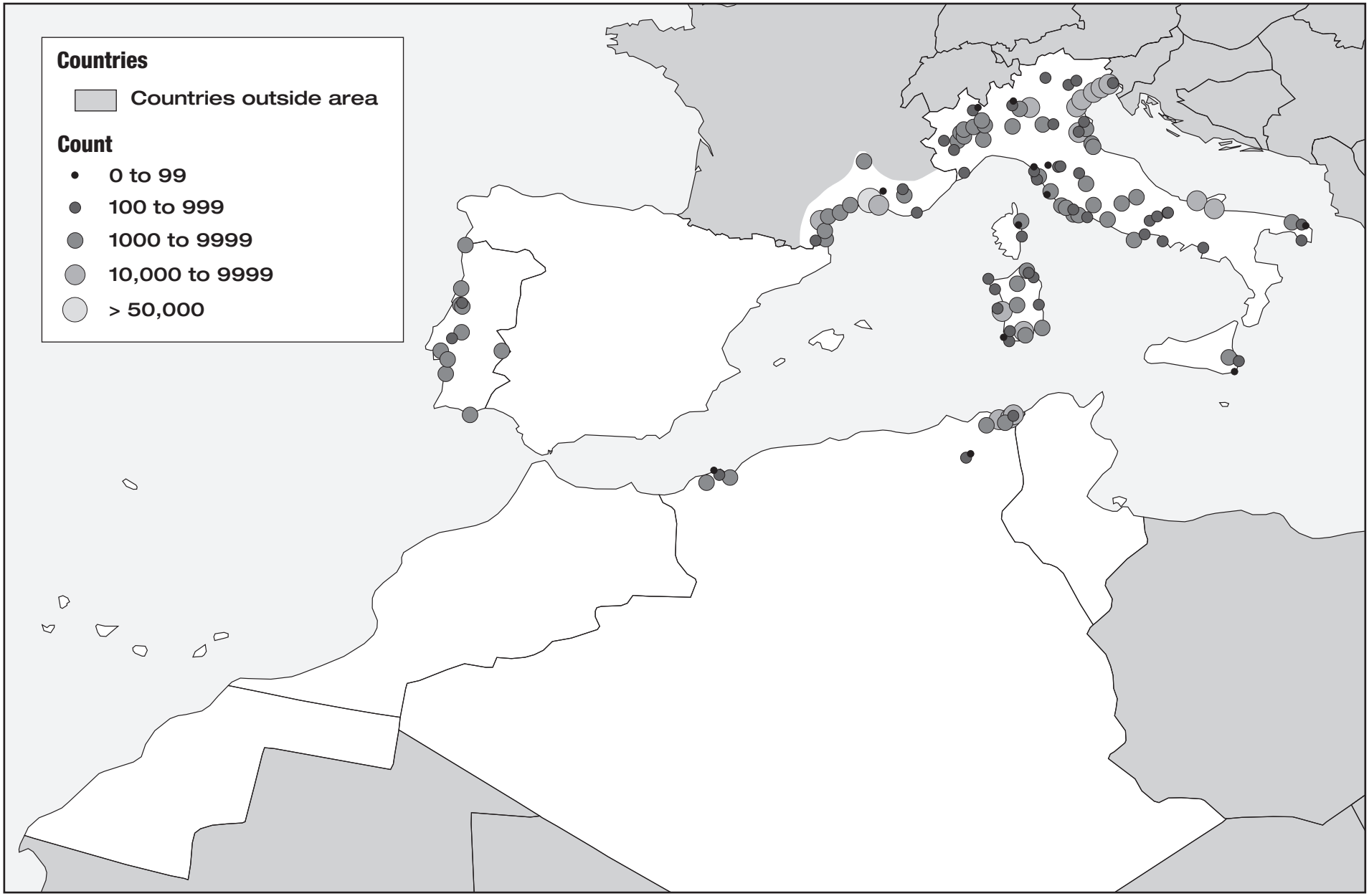


Figure 12. Sites on the "reduced site list" in the East Mediterranean/Black Sea area, showing site coverage and counts of ducks, swans and coots in January, 1995.

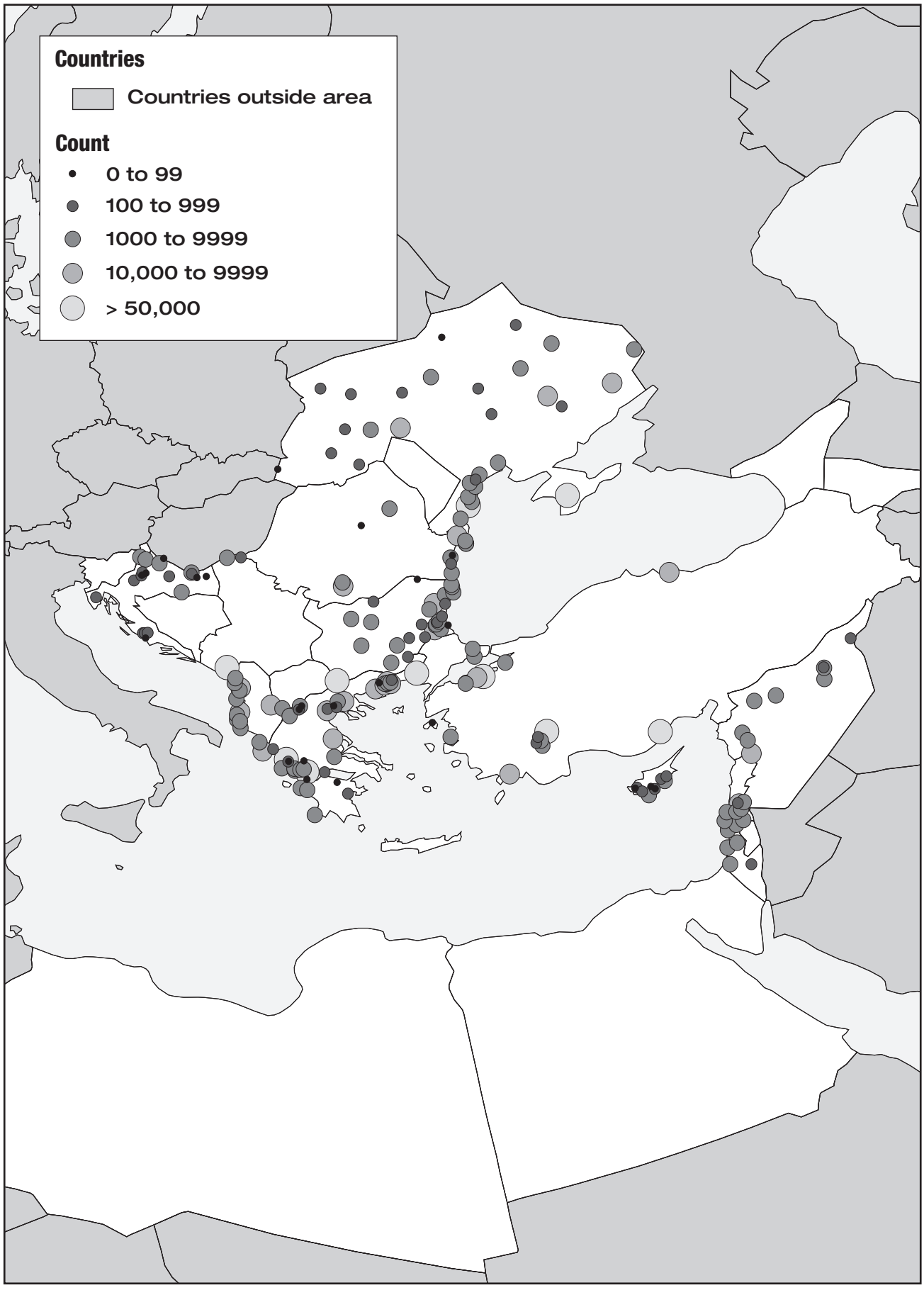
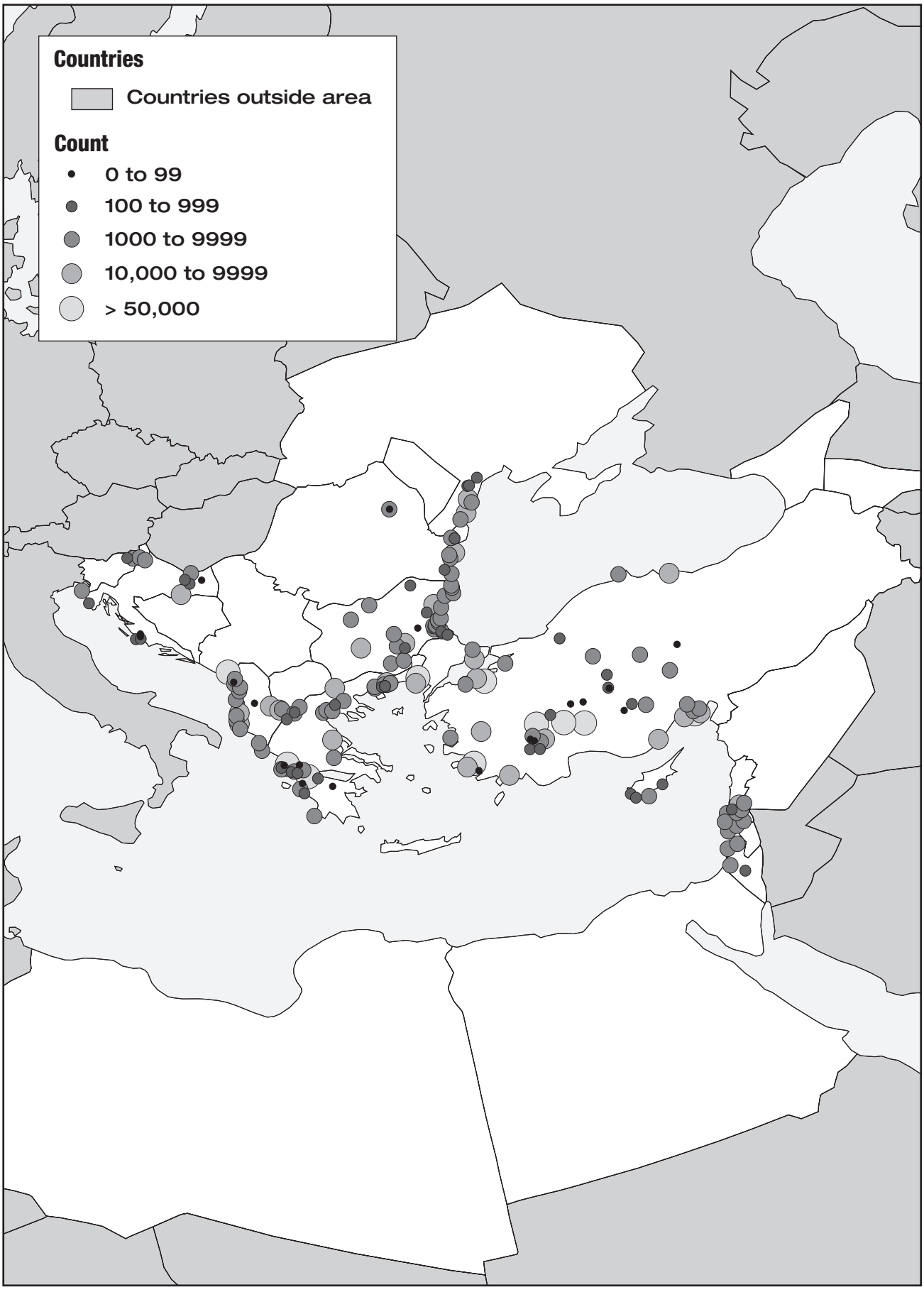


Figure 13. Sites on the "reduced site list" in the East Mediterranean/Black Sea area, showing site coverage and counts of ducks, swans and coots in January, 1996.



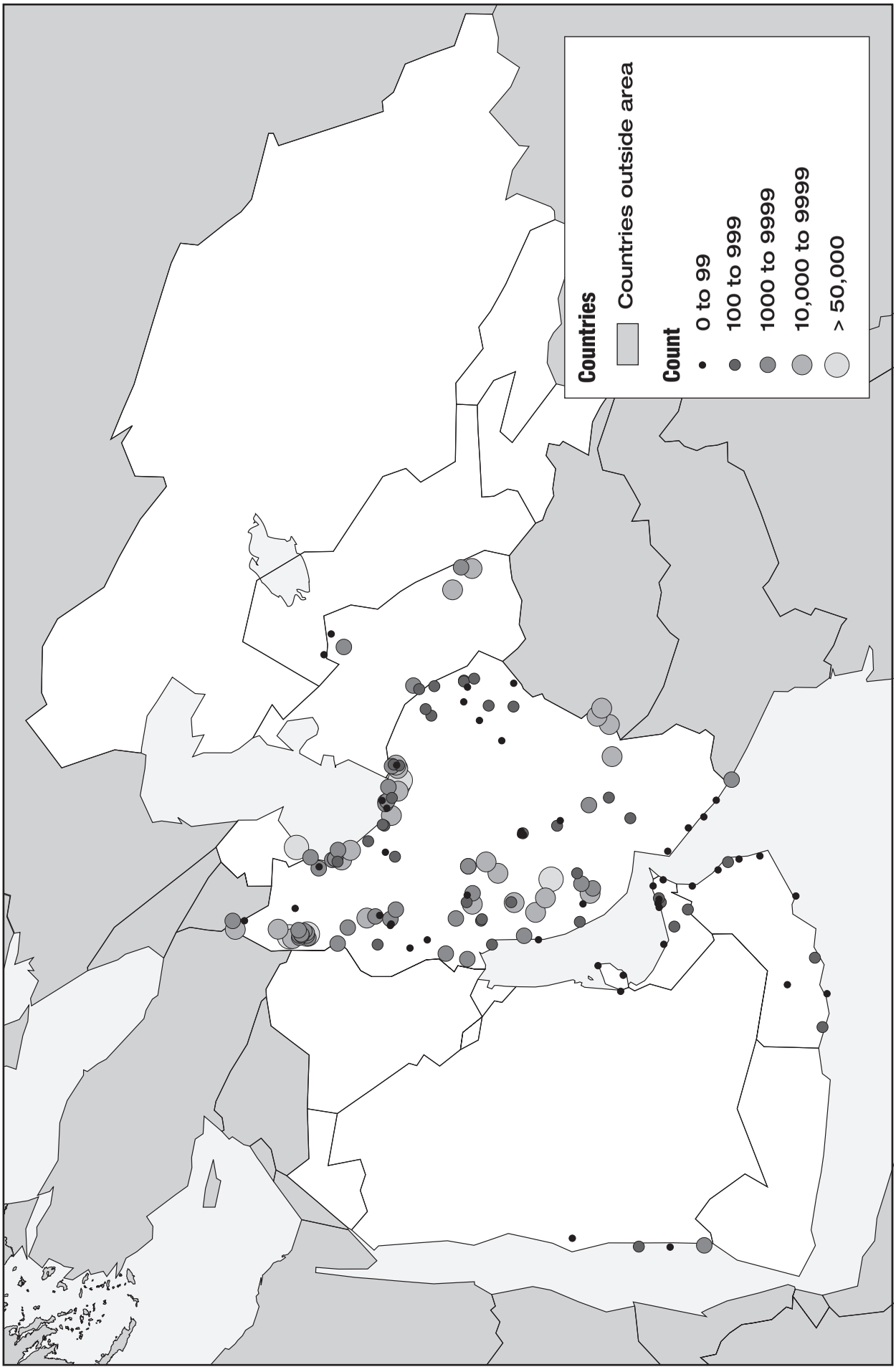
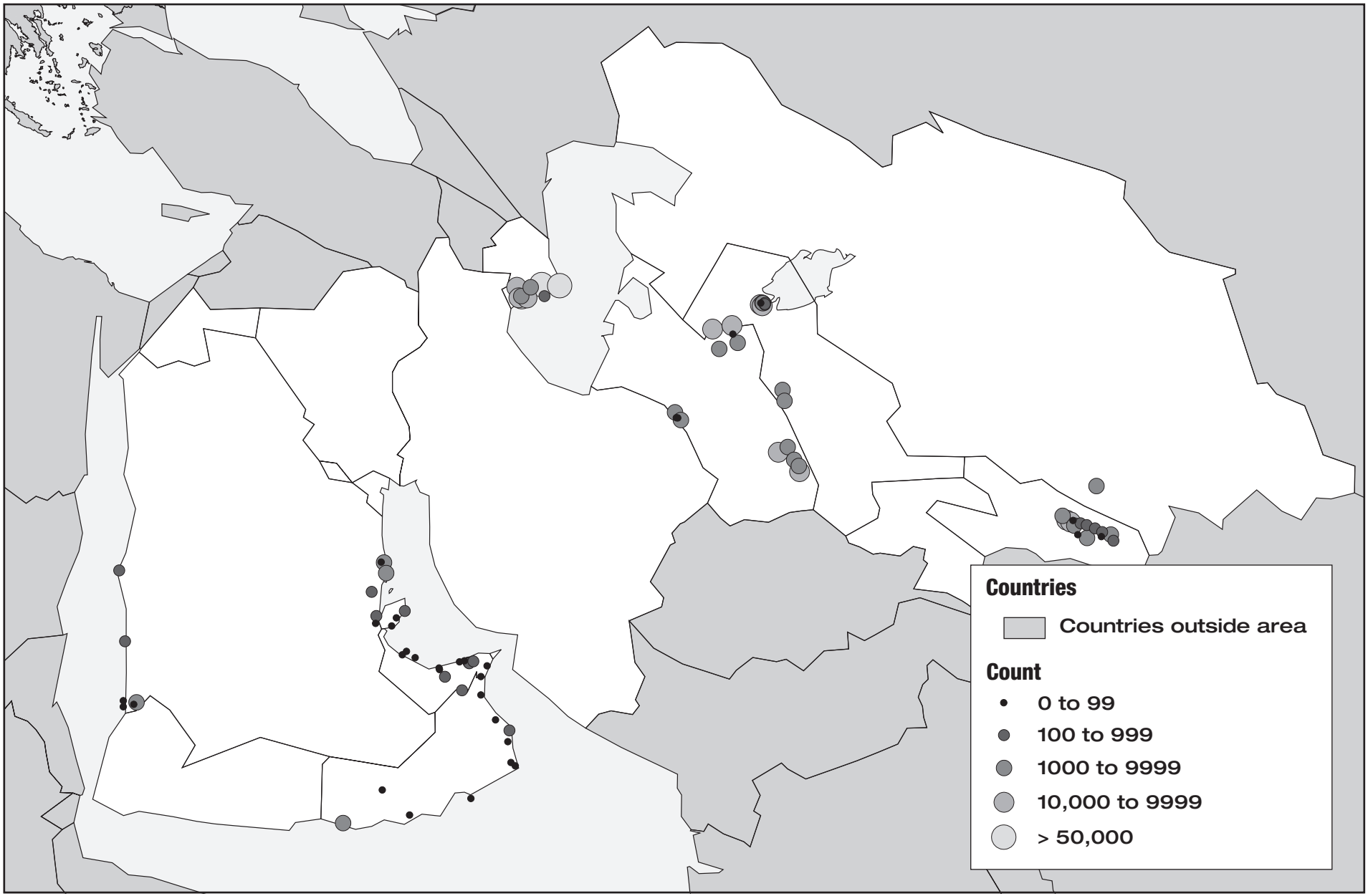


Figure 14. Sites in Southwest Asia, showing site coverage and counts of ducks, swans and coots in January, 1995.

Figure 15. Sites in Southwest Asia, showing site coverage and counts of ducks, swans and coots in January, 1996.



2. Meteorological conditions in January 1995 and 1996

Winter weather can have pronounced effects on counts of waterbirds. An early analysis of changes in waterbird numbers with time studied the effects of the intensely cold 1962–63 winter on the numbers of ducks wintering in Britain (Atkinson-Willes and Frith 1965). Hard winters push many Arctic nesting populations further south and west than they migrate during milder conditions (e.g. Ridgill and Fox 1990). Cold weather movements in Southwest Asia are less well understood, but Perennou *et al.* (1994) identified such movements by five species of Anatidae. Drought also affects waterbird numbers and distribution, particularly in countries of Southwest Asia and the Mediterranean.

The effects of weather conditions on count totals are not always easy to interpret. For example, in some East European countries, hard weather concentrates birds at a few unfrozen sites where they are relatively easy to count. During milder weather, these birds disperse to more sites and a proportion may be missed by counters. Thus, hard weather may reduce the number of birds in a country, but may result in higher counts because of the concentration of birds at a relatively small number of easily counted sites.

The winter of 1994–95 was generally mild and wet in Europe. Waterbirds were able to remain in the northern and eastern parts of their wintering ranges which freeze in some winters. Extensive flooding in many parts of Europe may have caused waterbirds to disperse more widely than normal because of the development of flooded wetlands not normally available to them. This may have caused a reduction in the proportion of waterbirds counted in some countries, and higher overall totals than normal in others.

The winter of 1995–96 was cold. In many parts of Northwest Europe, it was the coldest since 1987. Proportions of many waterbird populations were pushed by these conditions further south and west than they migrate during normal milder winters. The cold weather will also have increased the mortality rates of some species.

Waterbird counters at Hirfanli Reservoir, Turkey.

Gernant Magnin.

3. Count totals tables

Tables 4 to 22 present the national count total of each species from total and reduced site lists in January 1995 and 1996. These totals have been compiled into totals for each of the six areas used in analysis, and overall regional totals for each species are also presented (Table 23). The totals are discussed, and comparisons are made between the two seasons (1995 and 1996) and with earlier analyses (e.g. Rose 1995) in the species accounts that follow. The totals presented in the tables are counted totals without extrapolation or any other adjustment.

The tables in this section are organised into three groups which reflect IWC data management practices.

- The first group of tables (Tables 4 to 10, pages 32–47) covers sheldgeese, diving ducks, dabbling ducks and Common Coot *Fulica atra*. These are the species for which the IWC databases hold the longest time series of information, and for which the most detailed analyses are undertaken.

- The second group of tables in this section (Tables 11 to 15, pages 48–53) covers all the waders and was compiled by Lieuwe Haanstra from the decentralised wader database.

- The third group of tables in this section (Tables 16 to 22, pages 54–77) covers a variety of species grouped under the heading "Other waterbird species" All species in the following families will be found in these tables: divers *Gaviidae*, grebes *Podicipedidae*, pelicans *Pelecanidae*, cormorants *Phalacrocoracidae*, egrets herons and bitterns *Ardeidae*, storks *Ciconiidae*, ibises and spoonbills *Threskiornithidae*, flamingos *Phoenicopteridae*, cranes *Gruidae*, rails *Rallidae*, gulls and terns *Laridae*.

- Geese *Anser* species, *Branta* species, and seaducks e.g. *Melanitta* species, *Somateria* species, are covered in separate sections as follows: geese, page 92; seaducks, page 98.

- The tables include some counts of waterbirds not identified to species level. These are usually the result of aerial surveys, where it may not be possible to differentiate the species in large mixed flocks of diving ducks or waders (for example). Such counts may also be made at very large sites lacking suitable vantage points.

Table 4. Anatidae and Common Coot, Baltic/Nordic countries.

		Denmark		Estonia			Latvia				Lithuania		Norway			
		1995 Reduced	1996 Reduced	1995 Reduced	1996 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced	1995 Total	Reduced	1996 Total	Reduced
Mute Swan	*Cygnus olor*	25,079	31,184	1,592	3,595	3,539	2,457	2,239	430	394	802	1,499	158	153	525	524
Bewick's Swan	*Cygnus (columbianus) bewickii*	181	34	3								1				
Whooper Swan	*Cygnus cygnus*	10,292	5,034	110	54	54	15	11			93	39	512	354	730	506
Egyptian Goose	*Alopochen aegyptiacus*															
Ruddy Shelduck	*Tadorna ferruginea*															
Common Shelduck	*Tadorna tadorna*	26,524	14,679										3	3	7	7
Eurasian Wigeon	*Anas penelope*	16,427	2,232										718	715	743	739
Gadwall	*Anas strepera*	4	1													
Common Teal	*Anas crecca*	1,567	252				13	13					195	195	243	235
Mallard	*Anas platyrhynchos*	66,646	38,055	1,724	1,839	1,834	9,891	8,971	4,887	4,513	5,427	3,393	9,079	7,625	12,601	9,972
Northern Pintail	*Anas acuta*	1,426	136										5	5	2	
Garganey	*Anas querquedula*															
Northern Shoveler	*Anas clypeata*	18	2		1	1										
Marbled Teal	*Marmaronetta angustirostris*															
Red-crested Pochard	*Netta rufina*		1													
Common Pochard	*Aythya ferina*	12,501	2,961	16			5	5	1	1	127		220	214	26	26
Ferruginous Duck	*Aythya nyroca*															
Tufted Duck	*Aythya fuligula*	146,057	51,564	25	75	74	8	8	20	20	353	40	665	663	576	572
Common Goldeneye	*Bucephala clangula*	25,016	26,559	3,735	11,851	11,443	2,758	1,887	2,066	1,965	2,162	1,914	1,538	1,011	2,050	1,340
Smew	*Mergellus albellus*	337	193	8	120	120	71	71	52	52	971	480	5	4	5	5
Red-breasted Merganser	*Mergus serrator*	2,400	2,014	68	178	172	251	68	138	38	785	32	1,655	1,381	2,014	1,554
Goosander	*Mergus merganser*	11,662	9,054	1,039	1,832	1,799	8,559	2,264	14,749	7,809	19,413	6,241	116	85	313	280
Ruddy Duck	*Oxyura jamaicensis*															
White-headed Duck	*Oxyura leucocephala*															
Unidentified Pochards	*Aythya spp.*			3	28	28	4						17	17	7	7
Unidentified Ducks	*Anatinae spp.*			132	24	24	1,649	827	821	655			1		18	14
Common Coot	*Fulica atra*	81,736	71,516				43	43	5	5	696	1,417	64	64	105	105
	Sum of all species	**427,873**	**255,471**	**8,455**	**19,597**	**19,088**	**25,724**	**16,407**	**23,169**	**15,452**	**30,829**	**15,056**	**14,951**	**12,489**	**19,965**	**15,886**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 4 continued. Anatidae and Common Coot, Baltic/Nordic countries.

		Poland				Sweden			Overall area totals			
		1995		1996		1995	1996		1995		1996	
		Total	Reduced	Total	Reduced	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*	8,536	7,444	7,206	4,314	8,639	8,639	7,254	47,263	45,948	53,078	48,708
Bewick's Swan	*Cygnus (columbianus) bewickii*	3	3						187	187	35	35
Whooper Swan	*Cygnus cygnus*	1,292	945	734	428	1,042	1,019	934	13,356	12,847	7,610	6,995
Egyptian Goose	*Alopochen aegyptiacus*								0	0	0	0
Ruddy Shelduck	*Tadorna ferruginea*								0	0	0	0
Common Shelduck	*Tadorna tadorna*					82	5	5	26,609	26,609	14,691	14,691
Eurasian Wigeon	*Anas penelope*	62	39	178	175	2,805	570	559	20,012	19,986	3,723	3,705
Gadwall	*Anas strepera*	1	1	2		3	6	4	8	8	9	5
Common Teal	*Anas crecca*	762	632	402	381	254	176	165	2,791	2,661	1,073	1,033
Mallard	*Anas platyrhynchos*	73,322	53,100	57,757	37,391	60,448	51,057	47,540	226,537	203,941	169,589	142,698
Northern Pintail	*Anas acuta*	6	5			20	15	14	1,457	1,456	153	150
Garganey	*Anas querquedula*			1	1				0	0	1	1
Northern Shoveler	*Anas clypeata*	8	7			1			27	26	3	3
Marbled Teal	*Marmaronetta angustirostris*								0	0	0	0
Red-crested Pochard	*Netta rufina*								0	0	1	1
Common Pochard	*Aythya ferina*	1,905	1,804	409	292	2,626	2,719	2,361	17,400	17,293	6,116	5,641
Ferruginous Duck	*Aythya nyroca*								0	0	0	0
Tufted Duck	*Aythya fuligula*	7,547	6,761	20,560	19,286	60,064	91,277	88,677	214,719	213,931	164,112	160,233
Common Goldeneye	*Bucephala clangula*	18,063	17,601	21,131	1,291	15,454	23,380	22,420	68,726	66,866	88,951	66,932
Smew	*Mergellus albellus*	390	302	568	444	1,066	1,959	1,936	2,848	2,759	3,377	3,230
Red-breasted Merganser	*Mergus serrator*	257	56	335	89	2,330	2,778	2,588	7,746	7,088	7,489	6,487
Goosander	*Mergus merganser*	2,869	2,051	6,012	2,940	12,131	8,782	8,158	55,789	48,645	46,983	36,281
Ruddy Duck	*Oxyura jamaicensis*								0	0	0	0
White-headed Duck	*Oxyura leucocephala*								0	0	0	0
Unidentified Pochards	*Aythya spp.*	21	21						45	41	35	35
Unidentified Ducks	*Anatinae spp.*	186	186	46	2				1,968	1,145	909	695
Common Coot	*Fulica atra*	11,637	10,167	6,030	4,402	12,517	11,678	10,724	106,693	105,223	90,751	88,169
	Sum of all species	**126,867**	**101,125**	**121,371**	**71,436**	**179,482**	**204,060**	**193,339**	**814,181**	**776,660**	**658,689**	**585,728**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp.92–101.

Table 5. Anatidae and Common Coot, Central Europe.

		Austria				Czech Republic				Germany (South)	Hungary			
		1995		1996		1995		1996		1995	1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*	1,723	1,709	2,344	1,676	1,696	1,593	1,424	1,324	2,461	44	44	28	24
Bewick's Swan	*Cygnus (columbianus) bewickii*									3				
Whooper Swan	*Cygnus cygnus*	52	52	57	57					273	2			
Egyptian Goose	*Alopochen aegyptiacus*			2	1									
Ruddy Shelduck	*Tadorna ferruginea*			1	1					3				
Common Shelduck	*Tadorna tadorna*	9	9	8	8					13				
Eurasian Wigeon	*Anas penelope*	364	364	493	456	17	17	73	73	511	181	18	142	108
Gadwall	*Anas strepera*	536	536	827	767			10	10	3,631	1	1	1	
Common Teal	*Anas crecca*	1,736	1,696	1,671	1,410	220	194	427	349	4,114	494	24	1,273	942
Mallard	*Anas platyrhynchos*	39,340	38,805	44,146	38,046	38,747	37,222	42,060	39,495	33,586	34,065	4,910	64,874	50,992
Northern Pintail	*Anas acuta*	26	26	16	16	1	1	17	17	260	2		12	9
Garganey	*Anas querquedula*	3	3											
Northern Shoveler	*Anas clypeata*	69	69	176	176	1	1			323	97	95	2	2
Marbled Teal	*Marmaronetta angustirostris*	0	0	0	0									
Red-crested Pochard	*Netta rufina*	21	21	59	59					2,970	1	1		
Common Pochard	*Aythya ferina*	7,839	7,817	7,457	6,651	4,531	4,531	3,593	3,429	45,113	2,219	624	806	151
Ferruginous Duck	*Aythya nyroca*			5	5	1	1			4	3	2	4	2
Tufted Duck	*Aythya fuligula*	16,231	16,174	21,993	19,286	5,289	5,289	4,980	4,893	88,953	351	21	100	71
Common Goldeneye	*Bucephala clangula*	2,559	2,544	3,498	3,323	137	136	244	242	9,201	788	128	592	578
Smew	*Mergellus albellus*	42	42	114	108	11	11	49	49	45	122	89	127	84
Red-breasted Merganser	*Mergus serrator*	4	4	9	9	3	3			24				
Goosander	*Mergus merganser*	545	534	992	887	524	524	762	762	761	20	10	29	1
Ruddy Duck	*Oxyura jamaicensis*													
White-headed Duck	*Oxyura leucocephala*													
Unidentified Pochards	*Aythya spp.*													
Unidentified Ducks	*Anatinae spp.*	4	4	48	48			7	7					
Common Coot	*Fulica atra*	24,720	24,435	27,409	24,108	4,257	4,163	3,529	3,456	86,984	812	563	638	395
	Sum of all species	**95,823**	**94,844**	**111,325**	**97,098**	**55,435**	**53,686**	**57,175**	**54,106**	**279,233**	**39,202**	**6,530**	**68,628**	**53,359**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 5. Anatidae and Common Coot, Central Europe.

		Slovakia				Switzerland				Overall area totals			
		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*	599	37	512	151	4,791	3,649	5,027	3,838	11,314	9,493	9,335	7,013
Bewick's Swan	*Cygnus (columbianus) bewickii*									3	3	0	0
Whooper Swan	*Cygnus cygnus*					279	278	385	383	606	603	442	440
Egyptian Goose	*Alopochen aegyptiacus*									0	0	2	1
Ruddy Shelduck	*Tadorna ferruginea*									3	3	1	1
Common Shelduck	*Tadorna tadorna*					19	16	41	28	41	38	49	36
Eurasian Wigeon	*Anas penelope*	38		1		996	665	938	587	2,107	1,575	1,647	1,224
Gadwall	*Anas strepera*	12		17	4	5,421	4,482	9,342	8,036	9,601	8,650	10,197	8,817
Common Teal	*Anas crecca*	953	72	434	277	4,382	3,290	7,727	5,846	11,899	9,390	11,532	8,824
Mallard	*Anas platyrhynchos*	23,699	1,478	29,022	5,645	46,654	27,269	45,500	27,122	216,091	143,270	225,602	161,300
Northern Pintail	*Anas acuta*	7		2		285	274	928	875	581	561	975	917
Garganey	*Anas querquedula*					1				4	3	0	0
Northern Shoveler	*Anas clypeata*			1		717	457	1,163	673	1,207	945	1,342	851
Marbled Teal	*Marmaronetta angustirostris*									0	0	0	0
Red-crested Pochard	*Netta rufina*	2				8,071	7,873	9,504	9,252	11,065	10,865	9,563	9,311
Common Pochard	*Aythya ferina*	3,457	154	3,102	111	85,180	75,970	97,945	87,268	148,339	134,209	112,903	97,610
Ferruginous Duck	*Aythya nyroca*			26	6	17	10	12	5	25	17	47	18
Tufted Duck	*Aythya fuligula*	2,868	457	4,702	325	186,620	171,038	194,118	176,691	300,312	281,932	225,893	201,266
Common Goldeneye	*Bucephala clangula*	3,899	124	2,872	139	12,284	11,727	13,088	12,454	28,868	23,860	20,294	16,736
Smew	*Mergellus albellus*	594	10	206	62	27	18	125	106	841	215	621	409
Red-breasted Merganser	*Mergus serrator*	2		2		36	31	38	33	69	62	49	42
Goosander	*Mergus merganser*	109	9	45	16	3,255	2,426	3,440	2,328	5,214	4,264	5,268	3,994
Ruddy Duck	*Oxyura jamaicensis*									0	0	0	0
White-headed Duck	*Oxyura leucocephala*									0	0	0	0
Unidentified Pochards	*Aythya spp.*									0	0	0	0
Unidentified Ducks	*Anatinae spp.*	1,905	201	1,185	120					1,909	205	1,240	175
Common Coot	*Fulica atra*	2,680	155	2,297	132	116,217	98,401	119,716	102,611	235,670	214,701	153,589	130,702
	Sum of all species	**40,824**	**2,697**	**44,426**	**6,988**	**475,252**	**407,874**	**509,037**	**438,136**	**985,769**	**844,864**	**790,591**	**649,687**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 6. Anatidae and Common Coot, East Mediterranean and Black Sea.

		Albania		Bulgaria				Croatia				Cyprus	
		1995 Reduced	1996 Reduced	1995 Total	Reduced	1996 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced
Mute Swan	*Cygnus olor*	8		383	377	1,030	773	156	106	340	340		
Bewick's Swan	*Cygnus (columbianus) bewickii*		2										
Whooper Swan	*Cygnus cygnus*		8	93	54	354	182	4	1	5	5	3	
Egyptian Goose	*Alopochen aegyptiacus*												
Ruddy Shelduck	*Tadorna ferruginea*					4	2					11	
Common Shelduck	*Tadorna tadorna*	487	631	1,182	1,182	1,572	1,572	1		3	3	160	
Eurasian Wigeon	*Anas penelope*	20,225	36,807	665	265	2,863	2,640	50	37	290	290	244	135
Gadwall	*Anas strepera*	315	68	18	14	32	7	2	2	248	248	14	5
Common Teal	*Anas crecca*	18,409	9,223	1,077	658	6,612	4,682	935	864	2,217	2,217	725	384
Mallard	*Anas platyrhynchos*	4,697	2,234	34,618	31,152	60,536	37,075	13,526	9,970	7,629	7,629	1,140	828
Northern Pintail	*Anas acuta*	508	947	48	39	180	173	55	55	142	142	89	4
Garganey	*Anas querquedula*											1	
Northern Shoveler	*Anas clypeata*	3,393	4,605	285	285	66	66	8	7	230	230	197	35
Marbled Teal	*Marmaronetta angustirostris*												
Red-crested Pochard	*Netta rufina*	838	1,421	38	38	65	35	2	2	2	2	2	1
Common Pochard	*Aythya ferina*	10,322	7,714	22,653	21,818	38,876	34,487	3,003	2,141	1,336	1,336	297	88
Ferruginous Duck	*Aythya nyroca*			1	1	2	2	3	3	28	28	2	
Tufted Duck	*Aythya fuligula*	1,404	3,180	8,384	8,210	12,443	10,703	1,413	1,312	342	288	26	14
Common Goldeneye	*Bucephala clangula*	808	675	22	22	139	26	792	703	220	218		
Smew	*Mergellus albellus*	13	3	217	172	623	106	96	79	25	25		
Red-breasted Merganser	*Mergus serrator*	247	308	182	179	293	288	8	2	21	7		
Goosander	*Mergus merganser*		25			100	4			37	37		
Ruddy Duck	*Oxyura jamaicensis*												
White-headed Duck	*Oxyura leucocephala*	4				76	76						
Unidentified Pochards	*Aythya spp.*			3	3	6	6						
Unidentified Ducks	*Anatinae spp.*	2,380	250	104	104	656	103	25	5	2,000	2,000	1,400	750
Common Coot	*Fulica atra*	37,971	75,750	20,224	19,145	39,860	37,125	13,761	10,773	14,166	13,703	1,141	307
	Sum of all species	**102,029**	**143,851**	**90,197**	**83,718**	**166,388**	**130,133**	**33,840**	**26,062**	**29,281**	**28,748**	**5,452**	**2,551**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 6 continued. Anatidae and Common Coot, East Mediterranean and Black Sea.

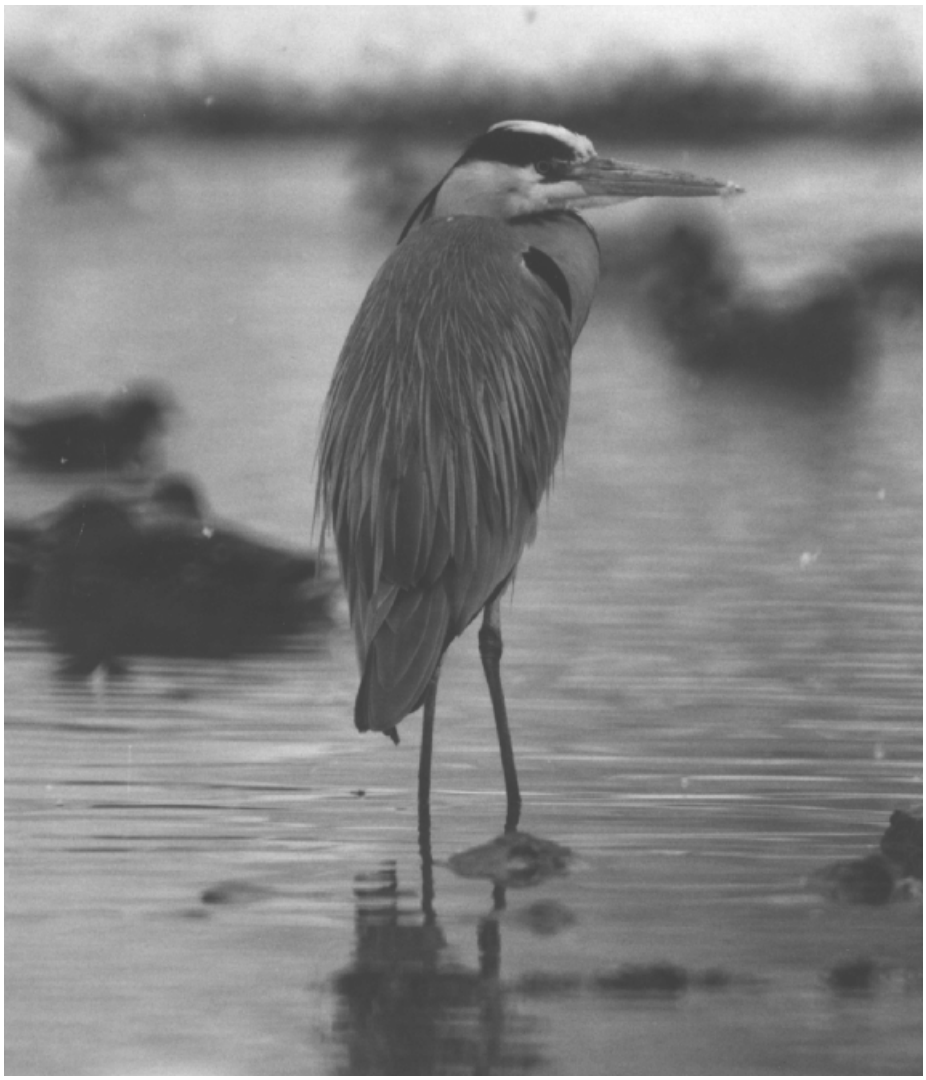
		Greece				Israel		Romania			Slovenia			Syria
		1995		1996		1995	1996	1995	1996		1995	1996		1995
		Total	Reduced	Total	Reduced	Reduced	Reduced	Reduced	Total	Reduced	Reduced	Total	Reduced	Reduced
Mute Swan	*Cygnus olor*	1,667	1,632	2,064	2,039		3	1,776	459	457	42	55	50	
Bewick's Swan	*Cygnus (columbianus) bewickii*													
Whooper Swan	*Cygnus cygnus*	26	26	32	32			2,364	239	188				
Egyptian Goose	*Alopochen aegyptiacus*													
Ruddy Shelduck	*Tadorna ferruginea*	9	3	20		10	106							
Common Shelduck	*Tadorna tadorna*	7,134	6,774	5,517	5,506	186	806	139	9	9		7	7	830
Eurasian Wigeon	*Anas penelope*	80,930	80,053	54,148	54,148	610	1,740	413	100	100	32	640	600	600
Gadwall	*Anas strepera*	1,143	1,141	1,272	1,272	266	229	15				1	1	1,200
Common Teal	*Anas crecca*	82,028	80,947	75,255	75,175	7,609	10,347	2,534	313	313	300	2,051	1,301	1,300
Mallard	*Anas platyrhynchos*	89,445	88,219	30,012	30,012	31,043	29,707	31,057	7,769	7,245	1,500	6,398	6,023	3,800
Northern Pintail	*Anas acuta*	32,213	32,058	25,306	25,306	340	557	1,055	18	8	57	2	2	1,000
Garganey	*Anas querquedula*					159	233		2	2				400
Northern Shoveler	*Anas clypeata*	23,950	23,851	36,448	36,448	16,772	23,678	55	5	5	56	25	5	
Marbled Teal	*Marmaronetta angustirostris*					111	26							40
Red-crested Pochard	*Netta rufina*	95	95	30	30	5		253	650	650				300
Common Pochard	*Aythya ferina*	69,690	69,182	58,860	58,526	4,143	2,901	11,463	9,838	4,748	150	1,196	1,196	8,800
Ferruginous Duck	*Aythya nyroca*	15	11	12	12	155	300							
Tufted Duck	*Aythya fuligula*	12,832	12,710	4,118	4,118	4,150	5,114	9,708	13,780	7,970	100	1,372	1,372	10,200
Common Goldeneye	*Bucephala clangula*	322	322	193	193	7		1,812	387	336	46	414	414	
Smew	*Mergellus albellus*	297	297	82	82			1,442	863	781	1	43	43	
Red-breasted Merganser	*Mergus serrator*	678	672	976	969			101	22			51	41	
Goosander	*Mergus merganser*	2	2	27	27			428	65	35	1			
Ruddy Duck	*Oxyura jamaicensis*													
White-headed Duck	*Oxyura leucocephala*	386	386	632	632	75	1	17	9	9				140
Unidentified Pochards	*Aythya spp.*					66	32							
Unidentified Ducks	*Anatinae spp.*	42,442	42,232	26,058	26,058	940	1,256	7,680	5,393	5,213	350			6,300
Common Coot	*Fulica atra*	159,443	154,918	131,379	131,183	31,720	20,364	11,433	2,821	1,179	2,000	1,587	1,553	
	Sum of all species	**604,747**	**595,531**	**452,441**	**451,768**	**98,367**	**97,400**	**83,745**	**42,742**	**29,248**	**4,635**	**13,842**	**12,608**	**34,910**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 6 continued. Anatidae and Common Coot, East Mediterranean and Black Sea.

		Turkey				Ukraine				Yugoslavia				Overall area totals			
		1995 Total	Reduced	1996 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced
Mute Swan	*Cygnus olor*	103	46	2,137	2,120	11,985	6,245	6,550	1,790	32	32	32	32	16,152	10,264	12,670	7,604
Bewick's Swan	*Cygnus (columbianus) bewickii*			17	17									0	0	19	19
Whooper Swan	*Cygnus cygnus*													0	0	0	0
Ruddy Shelduck	*Tadorna ferruginea*	2,242	2,242	7,177	5,879	84								2,356	2,266	7,307	5,987
Common Shelduck	*Tadorna tadorna*	262	185	445	445	1,545	1,545	585	555	22	6	12		11,948	11,494	9,587	9,534
Eurasian Wigeon	*Anas penelope*	12,937	7,529	35,708	32,906					550	510	360	300	117,256	110,518	132,791	129,666
Gadwall	*Anas strepera*	687	104	402	138					60	60	355	150	3,720	3,131	2,612	2,118
Common Teal	*Anas crecca*	23,095	15,314	73,411	53,229					5,403	5,101	1,531	1,000	143,415	133,761	181,344	157,871
Mallard	*Anas platyrhynchos*	48,507	25,733	64,227	34,427	95,950	86,315	25,560	2,000	27,822	20,100	32,578	5,000	383,105	334,726	267,478	162,180
Northern Pintail	*Anas acuta*	11,190	7,006	4,426	2,595			70		925	800	401	300	47,480	43,007	32,053	30,034
Garganey	*Anas querquedula*													560	560	235	235
Northern Shoveler	*Anas clypeata*	7,075	4,075	6,795	2,387					44	44	21	20	51,835	48,735	71,908	67,479
Marbled Teal	*Marmaronetta angustirostris*													151	151	26	26
Red-crested Pochard	*Netta rufina*	2,252	1,186	6,522	2,184	100				2	2			3,887	2,721	8,691	4,323
Common Pochard	*Aythya ferina*	43,329	24,562	250,984	213,810	90,800	63,100	42,040	33,820	45,314	45,014	30,257	30,000	309,964	260,992	444,090	388,626
Ferruginous Duck	*Aythya nyroca*	11	11			4	4	15		2				193	187	357	342
Tufted Duck	*Aythya fuligula*	12,738	6,679	58,271	33,694	22,750	15,450	9,610	4,360	15,021	15,001	13,000	13,000	98,726	84,950	121,244	83,813
Common Goldeneye	*Bucephala clangula*	53	45	40	18			150		725	715	1,572	1,500	4,587	4,480	3,790	3,380
Smew	*Mergellus albellus*	829	820	163	141	80	80	4,947	4,217	23	21	46	35	2,998	2,925	6,795	5,433
Red-breasted Merganser	*Mergus serrator*	79	73	184	184			45				7		1,295	1,274	1,907	1,797
Goosander	*Mergus merganser*			4		85	85	171	80					516	516	429	208
Ruddy Duck	*Oxyura jamaicensis*													0	0	0	0
White-headed Duck	*Oxyura leucocephala*	2,964	2,921	1,300	1,175					6				3,592	3,543	2,018	1,893
Unidentified Pochards	*Aythya spp.*													69	69	38	38
Unidentified Ducks	*Anatinae spp.*	85,540	19,880	126,684	102,614	88,170	88,170							235,331	169,441	163,047	138,244
Common Coot	*Fulica atra*	208,307	170,436	1,137,529	982,540	1,575	1,445	2,089	250	111,012	110,006	123,300	120,000	598,587	550,988	1,549,152	1,383,954
	Sum of all species	**462,237**	**288,884**	**1,776,635**	**1,470,679**	**313,702**	**262,668**	**93,642**	**47,342**	**206,963**	**197,412**	**203,472**	**171,337**	**2,040,824**	**1,783,413**	**3,022,245**	**2,585,665**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.



Mark Hulme.

Left: Grey Heron, England.
Below: Mallards, England.

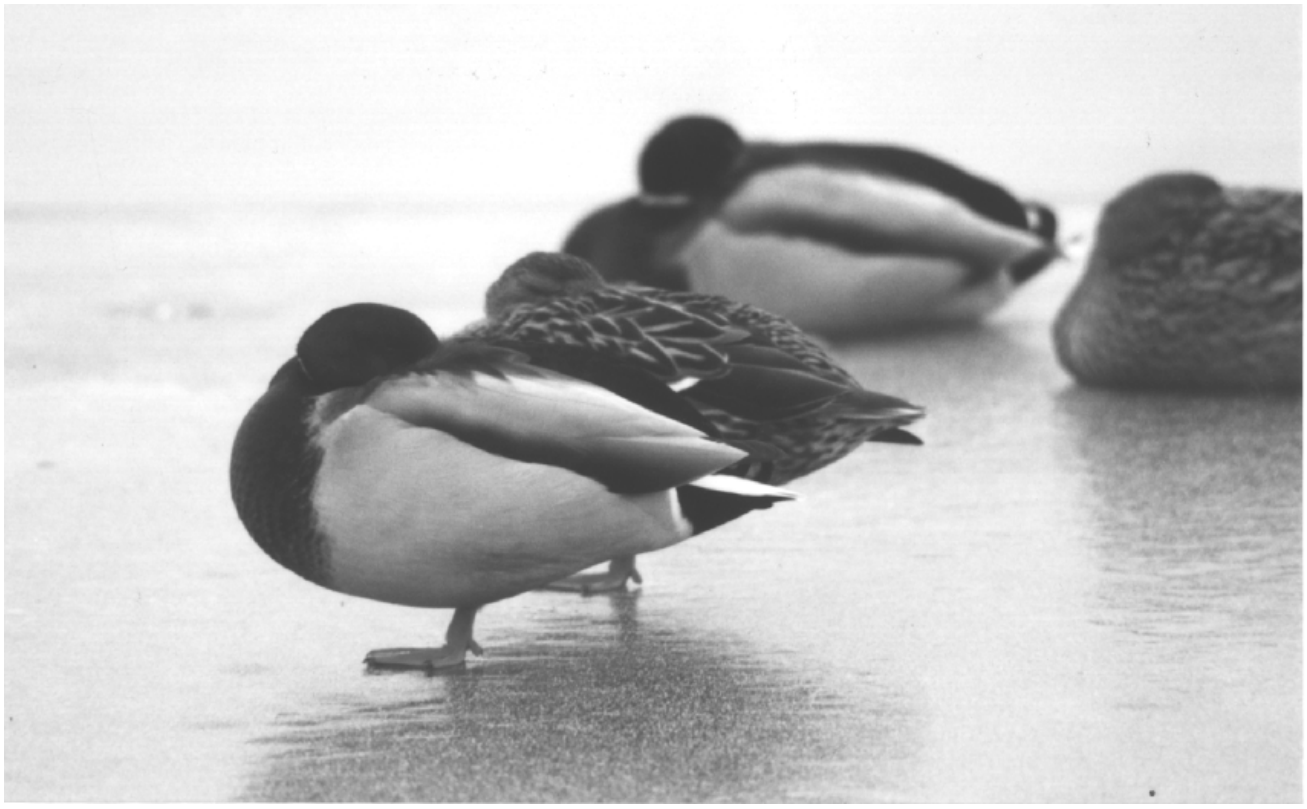


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Table 7. Anatidae and Common Coot, Northwest Europe.

		Belgium			France North & West		Germany North	Ireland			
		1995 Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced	1995 Reduced	1995 Total	Reduced	1996 Total	Reduced
Mute Swan	*Cygnus olor*	133	355	171	4,667	4,717	28,081	4,147	2,229	3,831	2,112
Bewick's Swan	*Cygnus (columbianus) bewickii*	61	130	112	38	43	268	406	367	942	552
Whooper Swan	*Cygnus cygnus*	7	12	12	10	30	6,808	4,235	2,459	4,339	1,614
Egyptian Goose	*Alopochen aegyptiacus*	14	320	66	29						
Ruddy Shelduck	*Tadorna ferruginea*		2	2							
Common Shelduck	*Tadorna tadorna*	3,661	5,469	4,637	34,169	45,371	59,769	8,717	8,297	8,130	7,711
Eurasian Wigeon	*Anas penelope*	55,046	56,838	52,314	21,420	29,120	149,555	58,496	46,433	70,642	53,794
Gadwall	*Anas strepera*	2,604	3,496	2,891	6,187	6,764	172	128	97	210	163
Common Teal	*Anas crecca*	25,229	25,251	22,835	58,743	68,235	5,446	23,263	16,642	26,155	17,302
Mallard	*Anas platyrhynchos*	31,807	51,644	26,866	133,836	122,988	298,663	12,088	6,442	14,750	6,632
Northern Pintail	*Anas acuta*	2,162	1,792	1,461	11,906	12,180	2,742	1,223	1,037	1,036	766
Garganey	*Anas querquedula*										
Northern Shoveler	*Anas clypeata*	1,651	1,512	1,076	15,286	15,494	257	1,888	1,452	2,221	1,876
Marbled Teal	*Marmaronetta angustirostris*										
Red-crested Pochard	*Netta rufina*	2	9	3	114	301	6			2	2
Common Pochard	*Aythya ferina*	5,438	26,697	20,427	53,506	59,495	38,298	5,306	3,550	9,214	6,915
Ferruginous Duck	*Aythya nyroca*	1	3	2	5	9		1	1	1	1
Tufted Duck	*Aythya fuligula*	8,380	18,903	15,535	34,388	42,594	126,209	6,064	4,132	10,556	7,097
Common Goldeneye	*Bucephala clangula*	164	332	225	2,845	3,006	28,719	2,047	1,296	2,308	1,306
Smew	*Mergellus albellus*	50	188	147	176	360	3,427	4	3	1	1
Red-breasted Merganser	*Mergus serrator*	43	79	79	3,403	3,274	5,051	861	674	1,215	966
Goosander	*Mergus merganser*	51	680	328	940	1,364	15,606	2		2	
Ruddy Duck	*Oxyura jamaicensis*	4	5	5				10	10	1	1
White-headed Duck	*Oxyura leucocephala*										
Unidentified Pochards	*Aythya spp.*				1						
Unidentified Ducks	*Anatinae spp.*				3,662	607	1,248				
Common Coot	*Fulica atra*	14,232	30,695	17,541	121,468	127,682	139,931	6,789	5,549	7,169	5,799
	Sum of all species	**150,740**	**224,412**	**166,735**	**506,770**	**543,634**	**910,285**	**135,675**	**100,670**	**162,725**	**114,610**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 7 continued. Anatidae and Common Coot, Northwest Europe.

		Netherlands				United Kingdom				Overall area totals			
		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*	16,692	8,044	16,877	6,404	16,143	6,481	16,073	6,061	69,863	49,635	41,853	19,465
Bewick's Swan	*Cygnus (columbianus) bewickii*	19,399	6,391	17,493	4,347	7,293	6,481	8,198	7,046	27,465	13,606	26,806	12,100
Whooper Swan	*Cygnus cygnus*	1,386	568	3,334	759	7,799	4,719	4,895	3,491	20,245	14,571	12,610	5,906
Egyptian Goose	*Alopochen aegyptiacus*	2,975	1,494	3,163	1,623	62	18	95	80	3,080	1,555	3,578	1,769
Ruddy Shelduck	*Tadorna ferruginea*	3	3	3	3	2	2	5		5	5	10	5
Common Shelduck	*Tadorna tadorna*	33,962	32,045	23,516	22,582	69,699	56,078	81,748	67,719	209,977	194,019	164,234	148,020
Eurasian Wigeon	*Anas penelope*	775,643	608,915	758,120	549,645	346,745	237,402	350,323	238,076	1,406,905	1,118,771	1,265,043	922,949
Gadwall	*Anas strepera*	9,464	6,196	8,324	5,357	8,500	1,877	9,999	2,077	27,055	17,133	28,794	17,252
Common Teal	*Anas crecca*	25,266	17,786	11,374	6,987	132,323	71,524	123,219	60,500	270,270	195,370	254,234	175,859
Mallard	*Anas platyrhynchos*	407,259	245,549	359,765	166,304	141,013	51,282	135,802	46,404	1,024,666	767,579	684,949	369,194
Northern Pintail	*Anas acuta*	10,974	10,672	7,595	6,744	22,234	15,760	26,814	19,417	51,241	44,279	49,417	40,568
Garganey	*Anas querquedula*									0	0	0	0
Northern Shoveler	*Anas clypeata*	2,325	1,348	1,444	799	7,561	2,547	7,907	2,536	28,968	22,541	28,578	21,781
Marbled Teal	*Marmaronetta angustirostris*									0	0	0	0
Red-crested Pochard	*Netta rufina*	25	1	2	2	71	11	56	7	218	134	370	315
Common Pochard	*Aythya ferina*	59,684	49,117	40,795	22,927	56,660	28,951	62,082	33,631	218,892	178,860	198,283	143,395
Ferruginous Duck	*Aythya nyroca*	1	1	2	2	1				9	8	15	14
Tufted Duck	*Aythya fuligula*	166,870	133,689	129,887	87,792	66,921	26,623	68,547	33,265	408,832	333,421	270,487	186,283
Common Goldeneye	*Bucephala clangula*	15,671	14,462	17,777	16,794	23,556	12,052	20,389	11,336	73,002	59,538	43,812	32,667
Smew	*Mergellus albellus*	4,978	4,135	10,169	9,225	87	21	209	34	8,722	7,812	10,927	9,767
Red-breasted Merganser	*Mergus serrator*	7,616	6,274	11,947	8,614	5,043	3,323	3,718	2,211	22,017	18,768	20,233	15,144
Goosander	*Mergus merganser*	8,937	6,666	20,373	12,559	2,488	512	3,623	723	28,024	23,775	26,042	14,974
Ruddy Duck	*Oxyura jamaicensis*	11	4	1	1	2,967	1,297	3,112	1,536	2,992	1,315	3,119	1,543
White-headed Duck	*Oxyura leucocephala*									0	0	0	0
Unidentified Pochards	*Aythya spp.*									1	1	0	0
Unidentified Ducks	*Anatinae spp.*									4,910	4,910	607	607
Common Coot	*Fulica atra*	242,451	140,394	303,188	168,916	92,770	23,202	94,473	26,072	617,641	444,776	563,207	346,010
	Sum of all species	**1,811,592**	**1,293,754**	**1,745,149**	**1,098,386**	**1,009,938**	**550,163**	**1,021,287**	**545,624**	**4,525,000**	**3,512,382**	**3,697,208**	**2,485,587**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 8. Anatidae and Common Coot, Southwest Asia.

		Azerbaijan		Iran	Kyrgyzstan	Kazakhstan	Oman		Qatar		Saudi Arabia	
		1995 Total	1996 Total	1995 Total	1996 Total	1996 Total	1995 Total	1996 Total	1995 Total	1996 Total	1995 Total	1996 Total
Mute Swan	*Cygnus olor*		287	710								
Bewick's Swan	*Cygnus (columbianus) bewickii*		2	171								
Whooper Swan	*Cygnus cygnus*		122	1,510		92						
Egyptian Goose	*Alopochen aegyptiacus*											
Ruddy Shelduck	*Tadorna ferruginea*		100	11,241	483		3					2
Common Shelduck	*Tadorna tadorna*		1,508	28,941			6					103
Eurasian Wigeon	*Anas penelope*		135,224	36,748		5	223	101			2	1,141
Gadwall	*Anas strepera*		2,223	27,410	35	17	65	17	5			284
Common Teal	*Anas crecca*		65,606	285,806	20	40	336	192	42	8	250	1,371
Mallard	*Anas platyrhynchos*		12,607	438,904	4,720	3,860	141	198	8	134		380
Northern Pintail	*Anas acuta*		6,994	140,442			198	279			150	1,393
Garganey	*Anas querquedula*						146	142				5
Northern Shoveler	*Anas clypeata*		42,317	28,008			117	269	7	1	45	2,687
Marbled Teal	*Marmaronetta angustirostris*		285	3,677								
Red-crested Pochard	*Netta rufina*		37,669	6,407	1,252	52						
Common Pochard	*Aythya ferina*		77,528	34,939	2,106		14	30				
Ferruginous Duck	*Aythya nyroca*			1,443			12	38	2	1		
Tufted Duck	*Aythya fuligula*		63,211	5,447	1,180	15	83	57		15	1	1,654
Common Goldeneye	*Bucephala clangula*		1,277	69	20							
Smew	*Mergellus albellus*		60	508	5	4,480						
Red-breasted Merganser	*Mergus serrator*		1		8							
Goosander	*Mergus merganser*			14		313						
Ruddy Duck	*Oxyura jamaicensis*											
White-headed Duck	*Oxyura leucocephala*			1,485								
Unidentified Pochards	*Aythya spp.*											
Unidentified Ducks	*Anatinae spp.*	342,850	68,075	147,601	53,500				4	7	978	544
Common Coot	*Fulica atra*	190,800	141,716	233,754	4,250	150	121	199	6	9	40	202
	Sum of all species	**533,650**	**656,812**	**1,435,235**	**67,579**	**9,024**	**1,465**	**1,522**	**74**	**175**	**1,466**	**9,766**

Notes:
For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.
For Azerbaijan: February 1996 total for Red-crested Pochard was 179,000

Table 8 continued. Anatidae and Common Coot, Southwest Asia.

		Turkmenistan		Uzbekistan	United Arab Emirates		Overall area totals	
		1995 Total	1996 Total	1996 Total	1995 Total	1996 Total	1995 Total	1996 Total
Mute Swan	*Cygnus olor*	254	431	131			964	849
Bewick's Swan	*Cygnus (columbianus) bewickii*						171	2
Whooper Swan	*Cygnus cygnus*	45	10				1,555	224
Egyptian Goose	*Alopochen aegyptiacus*				14	186	14	186
Ruddy Shelduck	*Tadorna ferruginea*				1	1	11,245	586
Common Shelduck	*Tadorna tadorna*	2				2	28,949	1,613
Eurasian Wigeon	*Anas penelope*				19	21	36,992	136,492
Gadwall	*Anas strepera*	35	1,547		2	7	27,517	4,130
Common Teal	*Anas crecca*	2,761	28,830	92	185	350	289,380	96,509
Mallard	*Anas platyrhynchos*	7,610	30,098	35,972	1,433	2,511	448,096	90,480
Northern Pintail	*Anas acuta*	60			30	37	140,880	8,703
Garganey	*Anas querquedula*			260	3	1	149	408
Northern Shoveler	*Anas clypeata*				291	122	28,468	45,396
Marbled Teal	*Marmaronetta angustirostris*						3,677	285
Red-crested Pochard	*Netta rufina*	5,193	21,426	40,042		1	11,600	100,442
Common Pochard	*Aythya ferina*	11,525	7,067	1,047	12	82	46,490	87,860
Ferruginous Duck	*Aythya nyroca*				1	2	1,458	41
Tufted Duck	*Aythya fuligula*	786	10		18	6	6,335	66,148
Common Goldeneye	*Bucephala clangula*		4	3			69	1,304
Smew	*Mergellus albellus*	55	824	290			563	5,659
Red-breasted Merganser	*Mergus serrator*	30					30	9
Goosander	*Mergus merganser*		90				14	403
Ruddy Duck	*Oxyura jamaicensis*						0	0
White-headed Duck	*Oxyura leucocephala*						1,485	0
Unidentified Pochards	*Aythya spp.*						0	0
Unidentified Ducks	*Anatinae spp.*						491,433	122,126
Common Coot	*Fulica atra*	21,920	49,440	1,343	13	32	446,654	197,341
	Sum of all species	**50,276**	**139,777**	**79,180**	**2,022**	**3,361**	**2,024,188**	**967,196**

Note:
For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 9. Anatidae and Common Coot, West Mediterranean.

		Algeria				France South		Italy				Morocco	
		1995		1996		1995	1996	1995		1996		1995	
		Total	Reduced	Total	Reduced	Reduced	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*					394	341	1,026	896	898	813		
Bewick's Swan	*Cygnus (columbianus) bewickii*					14	38						
Whooper Swan	*Cygnus cygnus*												
Egyptian Goose	*Alopochen aegyptiacus*							1	1				
Ruddy Shelduck	*Tadorna ferruginea*			6						2	2	1,513	979
Common Shelduck	*Tadorna tadorna*	3,818	3,329	809	757	3,473	3,155	7,421	7,314	4,451	4,437	1,431	1,424
Eurasian Wigeon	*Anas penelope*	16,993	15,809	51,904	47,926	15,728	15,260	71,788	68,223	63,457	61,888	27,990	17,679
Gadwall	*Anas strepera*	485	190	6,793	4,188	9,705	6,727	4,187	3,971	2,678	2,609	752	694
Common Teal	*Anas crecca*	123	106	3,285	2,824	28,224	18,277	55,586	52,097	41,283	38,883	7,562	5,378
Mallard	*Anas platyrhynchos*	5,426	4,404	7,131	4,460	22,476	24,530	68,187	59,055	61,452	55,219	10,495	2,586
Northern Pintail	*Anas acuta*	2,368	1,968	2,522	1,143	1,299	3,269	8,436	8,328	6,829	6,773	4,887	2,579
Garganey	*Anas querquedula*												
Northern Shoveler	*Anas clypeata*	16,374	13,399	9,958	3,766	12,236	14,909	15,882	15,526	17,788	17,662	23,853	10,689
Marbled Teal	*Marmaronetta angustirostris*											471	191
Red-crested Pochard	*Netta rufina*					2,114	512	45	42	5	5	435	18
Common Pochard	*Aythya ferina*	1,718	966	9,004	5,838	31,126	33,440	42,260	38,685	38,414	34,692	11,578	2,947
Ferruginous Duck	*Aythya nyroca*	270		148	2	4	2	151	110	74	36	7	7
Tufted Duck	*Aythya fuligula*	2,118	1,964	2,529	1,459	9,212	12,633	6,539	6,085	5,784	5,616	931	139
Common Goldeneye	*Bucephala clangula*					10	9	2,236	2,233	2,047	2,043		
Smew	*Mergellus albellus*							6	6	10	9		
Red-breasted Merganser	*Mergus serrator*					284	56	1,739	1,633	1,171	1,030		
Goosander	*Mergus merganser*						9	5	5	5	3		
Ruddy Duck	*Oxyura jamaicensis*							1	1	1	1	4	4
White-headed Duck	*Oxyura leucocephala*	53	53	2	2								
Unidentified Pochards	*Aythya spp.*					300				2	2		
Unidentified Ducks	*Anatinae spp.*	4,005	4,005	12,092	10,487	4,015	12,708			370	361	13,010	20
Common Coot	*Fulica atra*	20,011	17,402	15,606	13,119	62,882	53,292	214,696	205,778	138,944	134,400	27,616	5,286
	Sum of all species	**73,762**	**63,595**	**121,789**	**95,971**	**203,496**	**199,167**	**500,192**	**469,989**	**385,665**	**366,484**	**132,535**	**50,620**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 9 continued. Anatidae and Common Coot, West Mediterranean.

		Portugal			Tunisia		Overall area totals			
		1995 Total	Reduced	1996 Reduced	1995 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced
Mute Swan	*Cygnus olor*						1,420	1,290	1,239	1,154
Bewick's Swan	*Cygnus (columbianus) bewickii*						14	14	38	38
Whooper Swan	*Cygnus cygnus*						0	0	0	0
Egyptian Goose	*Alopochen aegyptiacus*						1	1	0	0
Ruddy Shelduck	*Tadorna ferruginea*						1,513	979	8	2
Common Shelduck	*Tadorna tadorna*	49	49	18	4,565	4,565	20,757	20,154	8,433	8,367
Eurasian Wigeon	*Anas penelope*	12,569	12,569	6,073	35,850	35,700	180,918	165,708	136,694	131,147
Gadwall	*Anas strepera*	627	621	423	20		15,776	15,181	16,621	13,947
Common Teal	*Anas crecca*	14,615	14,593	6,906	2,100	2,000	108,210	102,398	69,751	66,890
Mallard	*Anas platyrhynchos*	7,829	7,818	4,199	670	650	115,083	96,989	97,312	88,408
Northern Pintail	*Anas acuta*	3,532	3,532	1,595	2,370	2,370	22,892	20,076	14,215	12,780
Garganey	*Anas querquedula*						0	0	0	0
Northern Shoveler	*Anas clypeata*	12,888	12,764	10,876	13,770	13,750	95,003	78,364	53,531	47,213
Marbled Teal	*Marmaronetta angustirostris*						471	191	0	0
Red-crested Pochard	*Netta rufina*	620	620	10	1		3,215	2,794	527	527
Common Pochard	*Aythya ferina*	758	758	1,097	3,745	3,595	91,185	78,077	81,955	75,067
Ferruginous Duck	*Aythya nyroca*	1	1		5		438	122	224	40
Tufted Duck	*Aythya fuligula*	201	201	572	10		19,011	17,601	21,518	20,280
Common Goldeneye	*Bucephala clangula*						2,246	2,243	2,056	2,052
Smew	*Mergellus albellus*						6	6	10	9
Red-breasted Merganser	*Mergus serrator*	121	121	61			2,144	2,038	1,288	1,147
Goosander	*Mergus merganser*						5	5	14	12
Ruddy Duck	*Oxyura jamaicensis*						5	5	1	1
White-headed Duck	*Oxyura leucocephala*				12		65	53	2	2
Unidentified Pochards	*Aythya spp.*						300	300	2	2
Unidentified Ducks	*Anatinae spp.*						21,030	8,040	25,170	23,556
Common Coot	*Fulica atra*	6,341	6,165	3,641	7,040	5,540	338,586	303,053	211,483	204,452
	Sum of all species	**60,151**	**59,812**	**35,471**	**70,158**	**68,170**	**1,040,294**	**915,682**	**742,092**	**697,093**

Note:For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 10. Anatidae and Common Coot, summary of all areas.

		Baltic/Nordic Countries				Central Europe				East Mediterranean			
		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*	47,263	45,948	53,078	48,708	11,314	9,493	9,335	7,013	16,152	10,264	12,670	7,604
Bewick's Swan	*Cygnus (columbianus) bewickii*	187	187	35	35	3	3	0	0	0	0	19	19
Whooper Swan	*Cygnus cygnus*	13,356	12,847	7,610	6,995	606	603	442	440	3,101	2,714	2,657	861
Egyptian Goose	*Alopochen aegyptiacus*	0	0	0	0	0	0	2	1	0	0	0	0
Ruddy Shelduck	*Tadorna ferruginea*	0	0	0	0	3	3	1	1	2,356	2,266	7,307	5,987
Common Shelduck	*Tadorna tadorna*	26,609	26,609	14,691	14,691	41	38	49	36	11,948	11,494	9,587	9,534
Eurasian Wigeon	*Anas penelope*	20,012	19,986	3,723	3,705	2,107	1,575	1,647	1,224	117,256	110,518	132,791	129,666
Gadwall	*Anas strepera*	8	8	9	5	9,601	8,650	10,197	8,817	3,720	3,131	2,612	2,118
Common Teal	*Anas crecca*	2,791	2,661	1,073	1,033	11,899	9,390	11,532	8,824	143,415	133,761	181,344	157,871
Mallard	*Anas platyrhynchos*	226,537	203,941	169,589	142,698	216,091	143,270	225,602	161,300	383,105	334,726	267,478	162,180
Northern Pintail	*Anas acuta*	1,457	1,456	153	150	581	561	975	917	47,480	43,007	32,053	30,034
Garganey	*Anas querquedula*	0	0	1	1	4	3	0	0	560	560	235	235
Northern Shoveler	*Anas clypeata*	27	26	3	3	1,207	945	1,342	851	51,835	48,735	71,908	67,479
Marbled Teal	*Marmaronetta angustirostris*	0	0	0	0	0	0	0	0	151	151	26	26
Red-crested Pochard	*Netta rufina*	0	0	1	1	11,065	10,865	9,563	9,311	3,887	2,721	8,691	4,323
Common Pochard	*Aythya ferina*	17,400	17,293	6,116	5,641	148,339	134,209	112,903	97,610	309,964	260,992	444,090	388,626
Ferruginous Duck	*Aythya nyroca*	0	0	0	0	25	17	47	18	193	187	357	342
Tufted Duck	*Aythya fuligula*	214,719	213,931	164,112	160,233	300,312	281,932	225,893	201,266	98,726	84,950	121,244	83,813
Common Goldeneye	*Bucephala clangula*	68,726	66,866	88,951	66,932	28,868	23,860	20,294	16,736	4,587	4,480	3,790	3,380
Smew	*Mergellus albellus*	2,848	2,759	3,377	3,230	841	215	621	409	2,998	2,925	6,795	5,433
Red-breasted Merganser	*Mergus serrator*	7,746	7,088	7,489	6,487	69	62	49	42	1,295	1,274	1,907	1,797
Goosander	*Mergus merganser*	55,789	48,645	46,983	36,281	5,214	4,264	5,268	3,994	516	516	429	208
Ruddy Duck	*Oxyura jamaicensis*	0	0	0	0	0	0	0	0	0	0	0	0
White-headed Duck	*Oxyura leucocephala*	0	0	0	0	0	0	0	0	3,592	3,543	2,018	1,893
Unidentified Pochards	*Aythya spp.*	45	41	35	35	0	0	0	0	69	69	38	38
Unidentified Ducks	*Anatinae spp.*	1,968	1,145	909	695	1,909	205	1,240	175	235,331	169,441	163,047	138,244
Common Coot	*Fulica atra*	106,693	105,223	90,751	88,169	235,670	214,701	153,589	130,702	598,587	550,988	1,549,152	1,383,954
	Sum of all species	**814,181**	**776,660**	**658,689**	**585,728**	**985,769**	**844,864**	**790,591**	**649,687**	**2,040,824**	**1,783,413**	**3,022,245**	**2,585,665**

Note:For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 10 continued. Anatidae and Common Coot, Summary of all areas.

		Northwest Europe				Southwest Asia		West Mediterranean				Overall regional totals			
		1995		1996		1995	1996	1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Total	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Mute Swan	*Cygnus olor*	69,863	49,635	41,853	19,465	964	849	1,420	1,290	1,239	1,154	146,976	117,594	119,024	84,793
Bewick's Swan	*Cygnus (columbianus) bewickii*	27,465	13,606	26,806	12,100	171	2	14	14	38	38	27,840	13,981	26,900	12,194
Whooper Swan	*Cygnus cygnus*	20,245	14,571	12,610	5,906	1,555	224	0	0	0	0	38,863	32,290	23,543	14,426
Egyptian Goose	*Alopochen aegyptiacus*	3,080	1,555	3,578	1,769	14	186	1	1	0	0	3,095	1,570	3,766	1,956
Ruddy Shelduck	*Tadorna ferruginea*	5	5	10	5	11,245	586	1,513	979	8	2	15,122	14,498	7,912	6,581
Common Shelduck	*Tadorna tadorna*	209,977	194,019	164,234	148,020	28,949	1,613	20,757	20,154	8,433	8,367	298,281	281,263	198,607	182,261
Eurasian Wigeon	*Anas penelope*	1,406,905	1,118,771	1,265,043	922,949	36,992	136,492	180,918	165,708	136,694	131,147	1,764,190	1,453,550	1,676,390	1,325,183
Gadwall	*Anas strepera*	27,055	17,133	28,794	17,252	27,517	4,130	15,776	15,181	16,621	13,947	83,677	71,620	62,363	46,269
Common Teal	*Anas crecca*	270,270	195,370	254,234	175,859	289,380	96,509	108,210	102,398	69,751	66,890	825,965	732,960	614,443	506,986
Mallard	*Anas platyrhynchos*	1,024,666	767,579	684,949	369,194	448,096	90,480	115,083	96,989	97,312	88,408	2,413,578	1,994,601	1,535,410	1,014,260
Northern Pintail	*Anas acuta*	51,241	44,279	49,417	40,568	140,880	8,703	22,892	20,076	14,215	12,780	264,531	250,259	105,516	93,152
Garganey	*Anas querquedula*	0	0	0	0	149	408	0	0	0	0	713	712	644	644
Northern Shoveler	*Anas clypeata*	28,968	22,541	28,578	21,781	28,468	45,396	95,003	78,364	53,531	47,213	205,508	179,079	200,758	182,723
Marbled Teal	*Marmaronetta angustirostris*	0	0	0	0	3,677	285	471	191	0	0	4,299	4,019	311	311
Red-crested Pochard	*Netta rufina*	218	134	370	315	11,600	100,442	3,215	2,794	527	527	29,985	28,114	119,594	114,919
Common Pochard	*Aythya ferina*	218,892	178,860	198,283	143,395	46,490	87,860	91,185	78,077	81,955	75,067	832,270	715,921	931,207	798,199
Ferruginous Duck	*Aythya nyroca*	9	8	15	14	1,458	41	438	122	224	40	2,123	1,792	684	455
Tufted Duck	*Aythya fuligula*	408,832	333,421	270,487	186,283	6,335	66,148	19,011	17,601	21,518	20,280	1,047,935	938,170	869,402	718,023
Common Goldeneye	*Bucephala clangula*	73,002	59,538	43,812	32,667	69	1,304	2,246	2,243	2,056	2,052	177,498	157,056	160,207	123,071
Smew	*Mergellus albellus*	8,722	7,812	10,927	9,767	563	5,659	6	6	10	9	15,978	14,280	27,389	24,507
Red-breasted Merganser	*Mergus serrator*	22,017	18,768	20,233	15,144	30	9	2,144	2,038	1,288	1,147	33,301	29,260	30,975	24,626
Goosander	*Mergus merganser*	28,024	23,775	26,042	14,974	14	403	5	5	14	12	89,562	77,219	79,139	55,872
Ruddy Duck	*Oxyura jamaicensis*	2,992	1,315	3,119	1,543	0	0	5	5	1	1	2,997	1,320	3,120	1,544
White-headed Duck	*Oxyura leucocephala*	0	0	0	0	1,485	0	65	53	2	2	5,142	5,081	2,020	1,895
Unidentified Pochards	*Aythya spp.*	1	1	0	0	0	0	300	300	2	2	415	411	75	75
Unidentified Ducks	*Anatinae spp.*	4,910	4,910	607	607	491,433	122,126	21,030	8,040	25,170	23,556	756,581	675,174	313,099	285,403
Common Coot	*Fulica atra*	617,641	444,776	563,207	346,010	446,654	197,341	338,586	303,053	211,483	204,452	2,343,831	2,065,395	2,765,523	2,350,628
	Sum of all species	**4,525,000**	**3,512,382**	**3,697,208**	**2,485,587**	**2,024,188**	**967,196**	**1,040,294**	**915,682**	**742,092**	**697,093**	**11,430,256**	**9,857,189**	**9,878,021**	**7,969,881**

Note: For totals of geese (*Anser* and *Branta* sp.) and seaducks (e.g. *Melanitta* sp., *Somateria* sp.) see pp. 92–101.

Table 11. Waders, East Mediterranean and the Black Sea.

		Albania		Bulgaria		Cyprus		Greece		Israel		Turkey		Ukraine		Yugoslavia	
		1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996
Eurasian Oystercatcher	*Haematopus ostralegus*	6	19					250	63			9					
Black-winged Stilt	*Himantopus himantopus*							12		718	978		2				
Pied Avocet	*Recurvirostra avosetta*	1,529	1,562					4,438	2,023	436	616	180	1,001				
Stone Curlew	*Burhinus oedicnemus*					10	150										
Little Ringed Plover	*Charadrius dubius*			1			1			12	193		1				
Common Ringed Plover	*Charadrius hiaticula*	1					2	12	15	197	292	22	24				
Kentish Plover	*Charadrius alexandrinus*	844	215	1	1	76	73	1,612	1,566	55	90	90	714				
Greater Sandplover	*Charadrius leschenaultii*									113							
Unidentified *Charadrius* Plover	*Charadrius* spp.	14								48	131		1,300				
Eurasian Golden Plover	*Pluvialis apricaria*	623	1,013			1	22	1,290	249		59	902	1,506				
Grey Plover	*Pluvialis squatarola*	300	388	4	5	5	5	1,215	426	64	71	85	128				
Spur-winged Plover	*Vanellus spinosus*									3,664	4,507						
Northern Lapwing	*Vanellus vanellus*	10,999	10,939	2		272	73	7,990	3,104	2,144	3,612	2,210	3,559			62	1,100
Red Knot	*Calidris canutus*								23				68	55			
Sanderling	*Calidris alba*		3	2	8			45	21	208	83	6	24				
Little Stint	*Calidris minuta*	592	4,499	112		20	91	4,213	759	379	591	2,338	4,728				
Temminck's Stint	*Calidris temminckii*									1	2		4				
Curlew Sandpiper	*Calidris ferruginea*									4							
Dunlin	*Calidris alpina*	2,696	2,843	50	50	11	24	12,042	6,639	143	181	1,247	4,040	150			
Unidentified *Calidris* Sandpiper	*Calidris* spp.									42	1,505						
Ruff	*Philomachus pugnax*	40								11	62	4	8				
Jack Snipe	*Lymnocryptes minimus*		1							24	7	1					
Common Snipe	*Gallinago gallinago*	142	166	3	20	3		167	250	71	261	319	145			1,000	10
Great Snipe	*Gallinago media*				44				1	3							
Swinhoe's Snipe	*Gallinago megala*										1						
Unidentified Snipes	*Gallinago* spp.									16	12						
Eurasian Woodcock	*Scolopax rusticola*		3		1			1					3				
Black-tailed Godwit	*Limosa limosa*	163	39					1	48	297	260	42	617				
Bar-tailed Godwit	*Limosa lapponica*							2	2		3						
Eurasian Curlew	*Numenius arquata*	1,090	999	16	16	9	1	1,678	1,532		1	218	915		2	32	65
Spotted Redshank	*Tringa erythropus*	399	17					68	25	112	277	13	26				
Common Redshank	*Tringa totanus*	644	853	2	2	165	17	3,634	2,103	694	1,137	449	1,496				
Marsh Sandpiper	*Tringa stagnatilis*									10	8		1				
Common Greenshank	*Tringa nebularia*	22	16					26	18	10	45	5	66				
Green Sandpiper	*Tringa ochropus*	12	11	1	63			16	14	31	57	3	4				
Wood Sandpiper	*Tringa glareola*									4	2						
Unidentified *Tringa* Sandpiper	*Tringa* spp.									244	509						
Terek Sandpiper	*Xenus cinereus*									6	1						
Common Sandpiper	*Actitis hypoleucos*	4	12			1		7	9	154	221	2	3				
Ruddy Turnstone	*Arenaria interpres*									123	98						
Unidentified Waders	*Charadrii* spp.				1		150	3,900	7,480								
	Sum of all species	**20,120**	**23,598**	**194**	**211**	**573**	**609**	**42,619**	**26,370**	**10,038**	**15,873**	**8,145**	**20,383**	**205**	**2**	**1,094**	**1,175**

Table 12. Waders, Northwest Europe.

		Austria (1)		Belgium		Denmark (2)		France North & West		Ireland		Netherlands		United Kingdom (3)		Wadden Sea (4)	
		1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996
Eurasian Oystercatcher	*Haematopus ostralegus*			1,765	4,243	50,171		39,155	48,417	20,069	14,731	305,277	328,262	252,979	236,061	375,399	295,779
Black-winged Stilt	*Himantopus himantopus*													1			
Pied Avocet	*Recurvirostra avosetta*			183	178			20,294	19,270			1,114	430	2,672	2,138	264	34
Stone Curlew	*Burhinus oedicnemus*								1								
Little Ringed Plover	*Charadrius dubius*							7									
Common Ringed Plover	*Charadrius hiaticula*			45	64			9,778	13,268	3,330	3,196	237	170	8,413	10,475	91	8
Kentish Plover	*Charadrius alexandrinus*							45	430					1	1	1	
Eurasian Dotterel	*Eudromias morinellus*													1			
Eurasian Golden Plover	*Pluvialis apricaria*					2,111		11,353	21,564	102,857	83,994	12,841	6,674	147,927	122,337	7,841	2,284
Grey Plover	*Pluvialis squatarola*			544	559	662		23,609	30,959	4,394	4,058	28,158	15,420	40,112	46,403	24,242	10,012
Northern Lapwing	*Vanellus vanellus*			4,081	778	143		220,295	370,655	172,309	121,813	44,347	27,396	533,175	295,531	430	791
Red Knot	*Calidris canutus*			70	30	4,890		17,998	39,559	11,884	7,767	90,653	43,636	203,574	217,295	105,729	37,636
Sanderling	*Calidris alba*			401	210	387		4,648	9,961	1,828	934	2,994	5,207	6,110	4,833	2,573	4,021
Little Stint	*Calidris minuta*							669	529				4	8	5		
Curlew Sandpiper	*Calidris ferruginea*									1					1		
Purple Sandpiper	*Calidris maritima*			111	129			249	467	157	78	231	346	1,439	1,185	107	148
Dunlin	*Calidris alpina*			2,945	4,856	28,482		282,928	293,588	93,495	76,504	165,232	126,216	444,281	501,316	176,512	85,377
unident. *Calidris* Sandpiper	*Calidris* spp.											20	12,200			16	12,200
Ruff	*Philomachus pugnax*							111	268		14	108	1,099	453	536	61	129
Jack Snipe	*Lymnocryptes minimus*					1		16	8	4	16	5	4	123	111	1	
Common Snipe	*Gallinago gallinago*		5			21		4,576	3,669	1,567	2,529	490	81	7,651	7,388	39	5
Long-billed Dowitcher	*Limnodromus scolopaceus*															1	
Eurasian Woodcock	*Scolopax rusticola*					1		22	47	11	4	18	27	30	78		
Black-tailed Godwit	*Limosa limosa*				2			5,012	4,900	6,851	8,329	220	5	10,994	11,875	13	
Bar-tailed Godwit	*Limosa lapponica*			8	114	3,776		3,709	6,289	6,187	7,015	22,346	18,372	36,442	50,103	31,724	22,248
Whimbrel	*Numenius phaeopus*							196	30	2	3	16	1	5	21		2
Eurasian Curlew	*Numenius arquata*	14		739	879	4,221		14,293	30,556	33,705	19,573	132,416	100,518	93,491	65,718	146,637	95,601
Spotted Redshank	*Tringa erythropus*			13				362	217	6	11	99	36	81	77	38	
Common Redshank	*Tringa totanus*			267	262	2,278		3,885	4,422	14,120	9,752	11,444	11,941	75,647	71,353	12,470	10,765
Common Greenshank	*Tringa nebularia*							59	79	320	256	3	23	257	473	4	
Greater Yellowlegs	*Tringa melanoleuca*											1					
Green Sandpiper	*Tringa ochropus*	4	19					105	160	10	6	77	55	87	93		
Common Sandpiper	*Actitis hypoleucos*	1	2					92	161	2	2	12	15	32	33		
Spotted Sandpiper	*Actitis macularia*													1			
Ruddy Turnstone	*Arenaria interpres*			1,118	1,109			5,868	9,190	2,640	2,219	5,871	2,956	14,618	16,232	3,556	1,134
Grey Phalarope	*Phalaropus fulicarius*										1			2			
	Sum of all species	**19**	**26**	**12,290**	**13,413**	**97,144**		**669,334**	**908,664**	**475,749**	**362,805**	**824,230**	**701,094**	**1,880,607**	**1,661,672**	**887,749**	**578,174**

1. Austria is part of the Central Europe area.
2. Denmark is part of the Baltic area.
3. Data for United Kingdom not yet confirmed by the national co-ordinator.
4. No data from Lower Saxony (Germany). Dutch and Danish national totals also include Wadden Sea data.

Table 13. Waders, Southwest Asia.

		Azerbaijan	Iran	Oman		Saudi-Arabia		U.A.E.	
		1996	1995	1995	1996	1995	1996	1995	1996
Eurasian Oystercatcher	*Haematopus ostralegus*		847	2,466	1,506	177	315	543	480
Black-winged Stilt	*Himantopus himantopus*		3,497	144	88	425	197	210	227
Pied Avocet	*Recurvirostra avosetta*	2,471	6,137	80	86	1	702		5
Crab Plover	*Dromas ardeola*		332	1,438	1,386	2,689	1,522	860	649
Stone Curlew	*Burhinus oedicnemus*					425	428		
Spotted Dikkop	*Burhinus capensis*			1					
Great Thick-knee	*Burhinus recurvirostris*		38						
Cream-coloured Courser	*Cursorius cursor*			7	3			1	
Collared Pratincole	*Glareola pratincola*				1				
Little Ringed Plover	*Charadrius dubius*			29	16		39	2	
Common Ringed Plover	*Charadrius hiaticula*	374	1,707	156	88	146	540	365	521
Kentish Plover	*Charadrius alexandrinus*		2,182	1,646	841	705	1,361	3,946	1,270
Lesser Sandplover	*Charadrius mongolus*			7,933	5,679	257	2,292	6,540	3,525
Greater Sandplover	*Charadrius leschenaultii*		318	1,246	378	288	540	506	213
Unidentified *Charadrius* Plover	*Charadrius* spp.		5,865		1,500	181	355	50	1,380
Eurasian Golden Plover	*Pluvialis apricaria*	1,014							
Grey Plover	*Pluvialis squatarola*	273	4	1,185	927	331	424	2,442	1,835
Pacific Golden Plover	*Pluvialis fulva*			55	35		3	48	68
Spur-winged Plover	*Vanellus spinosus*					2	54		
Red-wattled Lapwing	*Vanellus indicus*		2,864	87	54			19	20
Sociable Lapwing	*Vanellus gregarius*			2					
White-tailed Lapwing	*Vanellus leucurus*		533	10	15	3	9	8	1
Northern Lapwing	*Vanellus vanellus*	3,326	25,166	5					4
Great Knot	*Calidris tenuirostris*				1			54	24
Sanderling	*Calidris alba*			1,995	765	79	95	115	60
Little Stint	*Calidris minuta*		5,481	1,843	577	1,021	2,166	1,677	261
Temminck's Stint	*Calidris temminckii*		1,058	76	12			6	7
Curlew Sandpiper	*Calidris ferruginea*			318	70	634	1,607	543	672
Dunlin	*Calidris alpina*	2,952	5,706	2,594	926	220	3,731	8,828	5,813
Unidentified *Calidris* Sandpiper	*Calidris* spp.				250	251	841	60	1,200
Broad-billed Sandpiper	*Limicola falcinellus*			203	38		51	510	561
Ruff	*Philomachus pugnax*		218	206	120	2,799	155	60	54
Jack Snipe	*Lymnocryptes minimus*		93	3	1			1	
Common Snipe	*Gallinago gallinago*	60	132	66	32		18	5	109
Pintail Snipe	*Gallinago stenura*			7	3			4	3
Black-tailed Godwit	*Limosa limosa*	896	4,878	42	8		446	69	62
Bar-tailed Godwit	*Limosa lapponica*			2,772	1,205	341	1,976	3,890	4,175
Whimbrel	*Numenius phaeopus*		348	743	895	69	62	137	40
Eurasian Curlew	*Numenius arquata*	246	2,734	1,576	1,355	60	131	423	514
Spotted Redshank	*Tringa erythropus*			7	6	22	14		
Common Redshank	*Tringa totanus*	1,097	10,596	590	388	492	1,763	2,682	3,596
Marsh Sandpiper	*Tringa stagnatilis*		1,105	8	5	7	16	10	35
Common Greenshank	*Tringa nebularia*		1,402	529	301	80	82	209	199
Green Sandpiper	*Tringa ochropus*		144	27	13	1	10	4	6
Wood Sandpiper	*Tringa glareola*		20	44	12	1	2	1	3
Terek Sandpiper	*Xenus cinereus*		167	112	122	209	802	191	223
Common Sandpiper	*Actitis hypoleucos*		195	87	121	14	27	35	59
Ruddy Turnstone	*Arenaria interpres*		36	469	845	801	952	343	319
Red-necked Phalarope	*Phalaropus lobatus*			2,463	102			31	
Unidentified Wader	*Charadrii* spp.		21,254			37,897	54,752	6,601	800
	Sum of all species	**12,709**	**105,057**	**33,270**	**20,776**	**50,628**	**78,480**	**42,029**	**28,993**

Table 14. Waders, West Mediterranean.

		Algeria		France South		Italy		Morocco	Portugal		Tunisia
		1995	1996	1995	1996	1995	1996	1995	1995	1996	1995
Eurasian Oystercatcher	*Haematopus ostralegus*			11			11	4,767	1,226	145	
Black-winged Stilt	*Himantopus himantopus*		331	15	1	188	166	2,146	1,272	152	
Pied Avocet	*Recurvirostra avosetta*		30	504	357	6,397	1,926	6,257	8,903	10,904	
Stone Curlew	*Burhinus oedicnemus*			6		41	38	32			
Cream-coloured Courser	*Cursorius cursor*							6			
Collared Pratincole	*Glareola pratincola*									1	
Little Ringed Plover	*Charadrius dubius*			7		57	11	571			
Common Ringed Plover	*Charadrius hiaticula*		44	64	1	65	111	23,476	5,760	1,750	
Kentish Plover	*Charadrius alexandrinus*		98	130	54	2,277	2,142	25,579	4,178	582	5,500
Unidentified *Charadrius* Plover	*Charadrius* spp.							2,640			
Eurasian Golden Plover	*Pluvialis apricaria*			2	50	584	772	12,554	292	270	
Grey Plover	*Pluvialis squatarola*			107	5	1,686	1,597	9,165	8,879	5,575	
Northern Lapwing	*Vanellus vanellus*	1,225	5,399	1,185	2,322	10,370	19,341	2,551	2,704	1,511	
Red Knot	*Calidris canutus*					2	1	13,981	145	690	
Sanderling	*Calidris alba*					59	44	10,149	722	157	
Little Stint	*Calidris minuta*			975	102	2,446	2,598	23,375	1,574	205	
Temminck's Stint	*Calidris temminckii*					1	3				
Curlew Sandpiper	*Calidris ferruginea*							799	55	200	
Dunlin	*Calidris alpina*			3,190	150	53,076	46,695	69,342	62,525	26,514	
Unidentified *Calidris* Sandpiper	*Calidris* spp.						130				
Ruff	*Philomachus pugnax*		21			118	92	295	131	3	
Jack Snipe	*Lymnocryptes minimus*					3	5	1			
Common Snipe	*Gallinago gallinago*		226	311	72	1,086	615	174	261	446	
Eurasian Woodcock	*Scolopax rusticola*			1		8	3				
Black-tailed Godwit	*Limosa limosa*		20	5		75	103	19,870	23,436	26,632	
Bar-tailed Godwit	*Limosa lapponica*						6	14,884	6,048	1,810	
Whimbrel	*Numenius phaeopus*					7		156	403	8	
Slender-billed Curlew	*Numenius tenuirostris*					7		3			
Eurasian Curlew	*Numenius arquata*		3	167	12	1,721	3,085	1,858	2,788	609	
Unidentified Curlew	*Numenius* spp.									3	
Spotted Redshank	*Tringa erythropus*		200	3	2	616	661	53	58	4	
Common Redshank	*Tringa totanus*		200	39	6	2,828	2,418	3,622	6,406	1,930	
Marsh Sandpiper	*Tringa stagnatilis*					1		8			
Common Greenshank	*Tringa nebularia*		11	1	1	123	98	215	187	41	
Green Sandpiper	*Tringa ochropus*			9	1	22	20	33	6		
Wood Sandpiper	*Tringa glareola*							5			
Unidentified *Tringa* Sandpiper	*Tringa* spp.							12			
Common Sandpiper	*Actitis hypoleucos*		111	17	26	137	271	199	67	43	
Ruddy Turnstone	*Arenaria interpres*					24	15	2,214	1,475	76	
Grey Phalarope	*Phalaropus fulicarius*									2	
	Sum of all species	**1,225**	**6,694**	**6,749**	**3,162**	**84,025**	**82,848**	**251,122**	**139,501**	**80,263**	**5,500**

Table 15. Waders, summary of all areas.

		Baltic area (1)		Central Europe		East Mediterranean		Northwest Europe (2)		Southwest Asia		West Mediterranean		Overall regional totals	
		1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996
Eurasian Oystercatcher	*Haematopus ostralegus*	847				265	82	773,660	690,439	4,033	2,301	6,004	156	784,809	692,978
Black-winged Stilt	*Himantopus himantopus*					730	980	1		4,276	512	3,621	650	8,628	2,142
Pied Avocet	*Recurvirostra avosetta*					6,583	5,202	24,263	22,016	6,218	3,264	22,061	13,217	59,125	43,699
Crab Plover	*Dromas ardeola*									5,319	3,557			5,319	3,557
Stone Curlew	*Burhinus oedicnemus*					10	150		1	425	428	79	38	514	617
Spotted Dikkop	*Burhinus capensis*									1				1	0
Great Thick-knee	*Burhinus recurvirostris*									38				38	0
Cream-coloured Courser	*Cursorius cursor*									8	3	6		14	3
Collared Pratincole	*Glareola pratincola*										1		1	0	2
Little Ringed Plover	*Charadrius dubius*					13	195	7		31	55	635	11	686	261
Common Ringed Plover	*Charadrius hiaticula*					232	333	21,863	27,173	2,374	1,523	29,365	1,906	53,834	30,935
Kentish Plover	*Charadrius alexandrinus*					2,678	2,659	47	431	8,479	3,472	37,664	2,876	48,868	9,438
Lesser Sandplover	*Charadrius mongolus*									14,730	11,496			14,730	11,496
Greater Sandplover	*Charadrius leschenaultii*					113				2,358	1,131			2,471	1,131
unidentified *Charadrius* plover	*Charadrius* spp.					62	1,431			6,096	3,235	2,640		8,798	4,666
Eurasian Dotterel	*Eudromias morinellus*							1						1	0
Eurasian Golden Plover	*Pluvialis apricaria*	603				2,816	2,849	278,973	234,571		1,014	13,432	1,092	295,824	239,526
Grey Plover	*Pluvialis squatarola*	2				1,673	1,023	103,626	98,763	3,962	3,459	19,837	7,177	129,100	110,422
Pacific Golden Plover	*Pluvialis fulva*									103	106			103	106
Spur-winged Plover	*Vanellus spinosus*					3,664	4,507			2	54			3,666	4,561
Red-wattled Lapwing	*Vanellus indicus*									2,970	74			2,970	74
Sociable Lapwing	*Vanellus gregarius*									2				2	0
White-tailed Lapwing	*Vanellus leucurus*									554	25			554	25
Northern Lapwing	*Vanellus vanellus*	124				23,679	22,387	974,247	816,175	25,171	3,330	18,035	28,573	1,041,256	870,465
Great Knot	*Calidris tenuirostris*									54	25			54	25
Red Knot	*Calidris canutus*	36				55	91	354,973	319,664			14,128	691	369,192	320,446
Sanderling	*Calidris alba*					261	139	16,485	21,174	2,189	920	10,930	201	29,865	22,434
Little Stint	*Calidris minuta*					7,654	10,668	677	534	10,022	3,004	28,370	2,905	46,723	17,111
Temminck's Stint	*Calidris temminckii*					1	6			1,140	19	1	3	1,142	28
Curlew Sandpiper	*Calidris ferruginea*					4		1	1	1,495	2,349	854	200	2,354	2,550
Purple Sandpiper	*Calidris maritima*							2,187	2,011					2,187	2,011
Dunlin	*Calidris alpina*	4,838				16,339	13,777	1,056,553	1,017,415	17,348	13,422	188,133	73,359	1,283,211	1,117,973
Broad-billed Sandpiper	*Limicola falcinellus*									713	650			713	650
unident. *Calidris* sandpiper	*Calidris* spp.					42	1,505	20	12,398	311	2,291	130		503	16,194

Table 15 continued. Waders, summary of all areas.

		Baltic area (1)		Central Europe		East Mediterranean		Northwest Europe (2)		Southwest Asia		West Mediterranean		Overall regional totals	
		1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996
Ruff	*Philomachus pugnax*					55	70	672	1,917	3,283	329	544	116	4,554	2,432
Jack Snipe	*Lymnocryptes minimus*	1				25	8	148	139	97	1	4	5	275	153
Common Snipe	*Gallinago gallinago*	14			5	1,705	852	14,292	13,672	203	219	1,832	1,359	18,046	16,107
Great Snipe	*Gallinago media*					3	45							3	45
Pintail Snipe	*Gallinago stenura*									11	6			11	6
Swinhoe's Snipe	*Gallinago megala*						1							0	1
Long-billed Dowitcher	*Limnodromus scolopaceus*							1						1	0
Eurasian Woodcock	*Scolopax rusticola*	1				1	7	81	156			9	3	92	166
unidentified Snipes	*Gallinago* spp.					16	12							16	12
Black-tailed Godwit	*Limosa limosa*					503	964	23,077	25,111	4,989	1,412	43,386	26,755	71,955	54,242
Bar-tailed Godwit	*Limosa lapponica*	68				2	5	82,649	94,438	7,003	7,356	20,932	1,816	110,654	103,615
Whimbrel	*Numenius phaeopus*							219	57	1,297	997	566	8	2,082	1,062
Slender-billed Curlew	*Numenius tenuirostris*											10		10	0
Eurasian Curlew	*Numenius arquata*	335		14		3,043	3,531	318,055	229,399	4,793	2,246	6,534	3,709	332,774	238,885
Unidentified Curlews	*Numenius* spp.												3	0	3
Spotted Redshank	*Tringa erythropus*					592	345	597	341	29	20	730	867	1,948	1,573
Common Redshank	*Tringa totanus*	387				5,588	5,608	109,197	98,506	14,360	6,844	12,895	4,554	142,427	115,512
Marsh Sandpiper	*Tringa stagnatilis*					10	9			1,130	56	9		1,149	65
Common Greenshank	*Tringa nebularia*					63	145	643	831	2,220	582	526	151	3,452	1,709
Greater Yellowlegs	*Tringa melanoleuca*							1						1	0
Green Sandpiper	*Tringa ochropus*			4	19	63	149	283	333	176	29	70	21	596	551
Wood Sandpiper	*Tringa glareola*					4	2			66	17	5		75	19
Terek Sandpiper	*Xenus cinereus*					6	1			679	1,147			685	1,148
Common Sandpiper	*Actitis hypoleucos*			1	2	168	245	139	213	331	207	420	451	1,059	1,118
Spotted Sandpiper	*Actitis macularia*							1						1	0
Unidentified *Tringa* Sandpipers	*Tringa* spp.					244	509					12		256	509
Ruddy Turnstone	*Arenaria interpres*					123	98	30,690	31,750	1,649	2,116	3,713	91	36,175	34,055
Red-necked Phalarope	*Phalaropus lobatus*									2,494	102			2,494	102
Grey Phalarope	*Phalaropus fulicarius*							2	1				2	2	3
Unidentified Wader	*Charadrii* spp.					3,900	7,631			65,752	55,552			69,652	63,183
	Sum of all species	**7,256**	**0**	**19**	**26**	**82,988**	**88,221**	**4,188,331**	**3,759,630**	**230,984**	**140,958**	**488,122**	**172,967**	**4,997,700**	**4,161,802**

1. Numbers represent Danish totals excluding Wadden Sea data.
2. Northwest Europe totals include all Wadden Sea data.

Table 16. Other waterbird species, Baltic/Nordic countries.

		Denmark		Estonia		Latvia			Lithuania		Poland			
		1995 Reduced	1996 Reduced	1995 Reduced	1996 Reduced	1995 Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced	1995 Total	Reduced	1996 Total	Reduced
Red-throated Diver	*Gavia stellata*	2				201	5	1	79	58	3	1		
Black-throated Diver	*Gavia arctica*						1	1	253	48	16	14	6	
Little Grebe	*Tachybaptus ruficollis*	404	359				1		62	18	296	244	139	97
Great Crested Grebe	*Podiceps cristatus*	605	50		1	164	6	3	605	1,053	791	787	607	547
Red-necked Grebe	*Podiceps grisegena*						1	1						
Slavonian Grebe	*Podiceps auritus*	1	2						35	47	13	13		
Black-necked Grebe	*Podiceps nigricollis*		1										15	15
Great Cormorant	*Phalacrocorax carbo*	2,775	635	17	55	3	4	2	46	33	266	266	272	259
Great Bittern	*Botaurus stellaris*	4	2						3		1	1	1	
Great Egret	*Casmerodius albus*												12	
Grey Heron	*Ardea cinerea*	577	199	9			1	1	74	50	918	763	662	454
Greater Flamingo	*Phoenicopterus ruber roseus*	2												
Water Rail	*Rallus aquaticus*	5											5	5
Spotted Crake	*Porzana porzana*								1					
Moorhen	*Gallinula chloropus*	12				1	1	1			78	71	127	122
Little Gull	*Larus minutus*	12												
Black-headed Gull	*Larus ridibundus*	7,699	4,242		1	79	15	15			12,647	10,974	5,866	4,054
Common Gull	*Larus canus*	3,504	2,654	60	149	1,059	1,735	1,019			20,140	19,693	9,880	6,419
Lesser Black-backed Gull	*Larus fuscus*					8	9	9			1	1	27	24
Herring Gull	*Larus argentatus*	7,107	3,655	141	3,088	5,969	4,484	3,948			12,953	12,454	14,706	9,776
Great Black-backed Gull	*Larus marinus*	662	320	33	74	132	148	127			942	918	828	587
	Sum of all species	**23,371**	**12,119**	**260**	**3,368**	**7,616**	**6,411**	**5,128**	**1,158**	**1,307**	**49,065**	**46,200**	**33,153**	**22,359**

Table 16 continued. Other waterbird species, Baltic/Nordic countries.

		Sweden			Overall area totals			
		1995 Reduced	1996 Total	Reduced	1995 Total	Reduced	1996 Total	Reduced
Red-throated Diver	*Gavia stellata*	48	30	27	333	331	93	86
Black-throated Diver	*Gavia arctica*	5	7		274	272	62	49
Little Grebe	*Tachybaptus ruficollis*	45	65	65	807	755	582	539
Great Crested Grebe	*Podiceps cristatus*	639	398	373	2,880	2,800	2,115	2,027
Red-necked Grebe	*Podiceps grisegena*	15	11	9	17	15	12	10
Slavonian Grebe	*Podiceps auritus*	11	4	4	60	60	53	53
Black-necked Grebe	*Podiceps nigricollis*				0	0	16	16
Great Cormorant	*Phalacrocorax carbo*	5,461	3,474	2,972	8,584	8,568	4,473	3,956
Great Bittern	*Botaurus stellaris*		1	1	9	8	4	3
Great Egret	*Casmerodius albus*				0	0	12	0
Grey Heron	*Ardea cinerea*	612	286	242	2,190	2,035	1,198	946
Greater Flamingo	*Phoenicopterus ruber roseus*				2	2	0	0
Water Rail	*Rallus aquaticus*				5	5	5	5
Spotted Crake	*Porzana porzana*				1	1	0	0
Moorhen	*Gallinula chloropus*				91	84	128	123
Little Gull	*Larus minutus*				12	12	0	0
Black-headed Gull	*Larus ridibundus*				20,430	18,752	10,124	8,312
Common Gull	*Larus canus*				24,977	24,316	14,418	10,241
Lesser Black-backed Gull	*Larus fuscus*				20	9	36	33
Herring Gull	*Larus argentatus*				32,103	25,671	25,933	20,467
Great Black-backed Gull	*Larus marinus*				2,054	1,745	1,370	1,108
	Sum of all species	**6,836**	**4,276**	**3,693**	**94,849**	**85,441**	**60,634**	**47,974**

Table 17. Other waterbird species, Central Europe.

		Austria				Czech Republic				Germany South	Hungary			
		1995		1996		1995		1996		1995	1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Reduced	Total	Reduced	Total	Reduced
Red-throated Diver	*Gavia stellata*	9	9	3	2					18				
Black-throated Diver	*Gavia arctica*	4	4	11	9					42				
Great Northern Diver	*Gavia immer*													
Little Grebe	*Tachybaptus ruficollis*	980	970	1,093	960	226	213	155	127	1,201	4	1	15	
Great Crested Grebe	*Podiceps cristatus*	1,161	1,161	1,806	1,769	88	88	16	15	9,185			6	
Red-necked Grebe	*Podiceps grisegena*	7	7	19	19					113				
Slavonian Grebe	*Podiceps auritus*			3	2					5				
Black-necked Grebe	*Podiceps nigricollis*	40	40	51	47					455				
Great Cormorant	*Phalacrocorax carbo*	2,641	2,641	4,286	3,405	612	586	1,507	1,496	4,644	1,421	149	981	359
Pygmy Cormorant	*Phalacrocorax pygmaeus*			1	1								2	
Great Bittern	*Botaurus stellaris*	1	1	1	1			1	1		9	3	10	7
Great Egret	*Casmerodius albus*	31	31	46	36	2	2	11	11		121	39	28	18
Grey Heron	*Ardea cinerea*	328	321	487	319	291	256	382	341	47	321	218	260	192
White Stork	*Ciconia ciconia*							1	1					
Water Rail	*Rallus aquaticus*	2	2	3	1									
Moorhen	*Gallinula chloropus*	113	111	164	88	81	73	152	103					
Black-headed Gull	*Larus ridibundus*	25,062	25,022	24,370	21,998	4,607	4,542	4,415	4,309		3,714	474	6,789	2,489
Common Gull	*Larus canus*	4,973	4,973	3,253	3,084	185	185	226	226		86	27	150	51
Lesser Black-backed Gull	*Larus fuscus*	1	1	3	3								1	
Herring Gull	*Larus argentatus*	61	61	91	74	6	6	78	78		62	40	336	302
Yellow-legged Gull	*Larus cachinnans*	413	413	502	488									
Great Black-backed Gull	*Larus marinus*			1	1									
	Sum of all species	**35,827**	**35,768**	**36,194**	**32,307**	**6,098**	**5,951**	**6,944**	**6,708**	**15,710**	**5,738**	**951**	**8,578**	**3,418**

Table 17 continued. Other waterbird species, Central Europe.

		Slovakia				Switzerland				Overall area totals			
		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Red-throated Diver	*Gavia stellata*	1		1		11	10	7	6	39	37	11	8
Black-throated Diver	*Gavia arctica*					42	40	58	58	88	86	69	67
Great Northern Diver	*Gavia immer*					1	1			1	1	0	0
Little Grebe	*Tachybaptus ruficollis*	327	33	259	12	2,823	1,734	3,262	2,022	5,561	4,152	4,784	3,121
Great Crested Grebe	*Podiceps cristatus*	29		21	2	31,091	27,691	19,575	15,988	41,554	38,125	21,424	17,774
Red-necked Grebe	*Podiceps grisegena*			1		91	78	78	65	211	198	98	84
Slavonian Grebe	*Podiceps auritus*	5				4	4	9	7	14	9	12	9
Black-necked Grebe	*Podiceps nigricollis*			2	2	1,354	1,164	1,360	1,111	1,849	1,659	1,413	1,160
Great Cormorant	*Phalacrocorax carbo*	1,222		902	13	6,356	4,533	6,145	4,513	16,896	12,553	13,821	9,786
Pygmy Cormorant	*Phalacrocorax pygmaeus*									0	0	3	1
Great Bittern	*Botaurus stellaris*									10	4	12	9
Great Egret	*Casmerodius albus*	95	9	61	6					249	81	146	71
Grey Heron	*Ardea cinerea*	220	37	186	53	1,211	747	1,043	609	2,418	1,626	2,358	1,514
White Stork	*Ciconia ciconia*									0	0	1	1
Water Rail	*Rallus aquaticus*	3		5	5					5	2	8	6
Moorhen	*Gallinula chloropus*	6	4	1						200	188	317	191
Black-headed Gull	*Larus ridibundus*	1,917	500	949	2					35,300	30,538	36,523	28,798
Common Gull	*Larus canus*	818	700	519						6,062	5,885	4,148	3,361
Lesser Black-backed Gull	*Larus fuscus*									1	1	4	3
Herring Gull	*Larus argentatus*	123	2	83						252	109	588	454
Yellow-legged Gull	*Larus cachinnans*									413	413	502	488
Great Black-backed Gull	*Larus marinus*									0	0	1	1
	Sum of all species	**4,766**	**1,285**	**2,990**	**95**	**42,984**	**36,002**	**31,537**	**24,379**	**111,123**	**95,667**	**86,243**	**66,907**

Table 18. Other waterbird species, East Mediterranean and the Black Sea.

		Albania		Bulgaria				Croatia				Cyprus	
		1995	1996	1995		1996		1995		1996		1995	1996
		Reduced	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Reduced	Reduced
Red-throated Diver	*Gavia stellata*	15	31			1	1						
Black-throated Diver	*Gavia arctica*	74	15	2	2	7	1	1		22	15		
Little Grebe	*Tachybaptus ruficollis*	507	472	110	95	141	107	246	142	182	133	49	52
Great Crested Grebe	*Podiceps cristatus*	1,471	1,004	799	754	2,955	2,181	87	40	89	84	16	11
Red-necked Grebe	*Podiceps grisegena*	6	11	1	1	1	1			3			
Slavonian Grebe	*Podiceps auritus*	8	11	3		1	1						
Black-necked Grebe	*Podiceps nigricollis*	1,206	1,796	1,904	1,894	1,973	1,965	19	6			29	3
Great Cormorant	*Phalacrocorax carbo*	3,257	1,331	9,834	9,297	15,984	11,152	3,977	2,766	3,567	3,106	93	96
Pygmy Cormorant	*Phalacrocorax pygmaeus*	979	1,914	628	456	5,394	5,163	259	242	400	400		
Great White Pelican	*Pelecanus onocrotalus*			3	3								
Dalmatian Pelican	*Pelecanus crispus*	186	167	276	248	439	344						
Great Bittern	*Botaurus stellaris*	2	1	3	3	2	2			9	9		
Little Bittern	*Ixobrychus minutus*												
Black-crowned Night-heron	*Nycticorax nycticorax*					100	100						
Squacco Heron	*Ardeola ralloides*												
Cattle Egret	*Bubulcus ibis*											5	4
Western Reef Egret	*Egretta gularis*												
Little Egret	*Egretta garzetta*	147	368	1	1	3	1	20	7	4			
Great Egret	*Casmerodius albus*	179	137	127	113	364	274	256	251	684	684		
Grey Heron	*Ardea cinerea*	234	190	64	43	270	193	1,110	1,045	981	964	16	3
Purple Heron	*Ardea purpurea*												
Black Stork	*Ciconia nigra*							1	1				
White Stork	*Ciconia ciconia*			1	1	1	1						
Glossy Ibis	*Plegadis falcinellus*												
Eurasian Spoonbill	*Platalea leucorodia*	11	19							16	16		

Table 18 continued. Other waterbird species, East Mediterranean and the Black Sea.

		Albania		Bulgaria				Croatia				Cyprus	
		1995	1996	1995		1996		1995		1996		1995	1996
		Reduced	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Reduced	Reduced
Greater Flamingo	*Phoenicopterus ruber roseus*	271	20									12,642	4,698
Water Rail	*Rallus aquaticus*	20	17	64	38	8	8	7	3	5	5		
Little Crake	*Porzana parva*												
Moorhen	*Gallinula chloropus*	36	15	4	4	215	213	65	29	5	5	18	13
Purple Swamphen	*Porphyrio porphyrio*												
Common Crane	*Grus grus*							1	1	232	232		
White-eyed Gull	*Larus leucophthalmus*												
Great Black-headed Gull	*Larus ichthyaetus*												
Mediterranean Gull	*Larus melanocephalus*	11	4	2	2	2	2						
Little Gull	*Larus minutus*	4		44	43	150	150					1	
Black-headed Gull	*Larus ridibundus*	11,913	8,291	910	886	2,204	1,450	9,399	5,842	7,805	7,739	2,953	2,840
Slender-billed Gull	*Larus genei*	487	721	3	3	1	1						
Audouin's Gull	*Larus audouinii*	1											
Common Gull	*Larus canus*	29	25	1,463	1,429	6,542	5,451	136	111				
Lesser Black-backed Gull	*Larus fuscus*		4	117	53	129	1						2
Yellow-legged Gull	*Larus cachinnans*	331	688	7,519	6,972	11,185	6,057	1,716	842	245	237	1,121	662
Great Black-backed Gull	*Larus marinus*												
Caspian Tern	*Sterna caspia*	12	10										
Sandwich Tern	*Sterna sandvicensis*	314	147					8					14
Common Tern	*Sterna hirundo*												
Whiskered Tern	*Chlidonias hybridus*		2										
Black Tern	*Chlidonias niger*	1											
White-winged Black Tern	*Chlidonias leucopterus*												
	Sum of all species	**21,712**	**17,411**	**23,882**	**22,341**	**48,072**	**34,820**	**17,308**	**11,328**	**14,249**	**13,629**	**16,943**	**8,398**

Table 18 continued. Other waterbird species, East Mediterranean and the Black Sea.

		Greece				Israel		Romania			Slovenia			Syria
		1995 Total	Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced	1995 Reduced	1996 Total	Reduced	1995 Reduced	1996 Total	Reduced	1995 Reduced
Red-throated Diver	*Gavia stellata*	3	3	6	6									
Black-throated Diver	*Gavia arctica*	74	74	21	21				3	3	3	40	40	
Little Grebe	*Tachybaptus ruficollis*	1,569	1,362	1,416	1,414	1,366	1,740	28			10	45	42	2,700
Great Crested Grebe	*Podiceps cristatus*	18,299	18,256	13,889	13,854	514	429	158	161	67	18	77	71	17,000
Red-necked Grebe	*Podiceps grisegena*	2	2	2	2		1	1				1	0	
Slavonian Grebe	*Podiceps auritus*			2	2							1	1	
Black-necked Grebe	*Podiceps nigricollis*	7,537	7,029	8,521	8,509	670	537	2,557	1,083	143		34	30	21,420
Great Cormorant	*Phalacrocorax carbo*	12,494	11,293	11,463	11,401	17,130	15,527	4,759	102	2	73	281	280	
Pygmy Cormorant	*Phalacrocorax pygmaeus*	5,122	5,116	1,377	1,377	216	278	1,635	868	840		23	23	
Great White Pelican	*Pelecanus onocrotalus*	34	34	12	12	443	455							20
Dalmatian Pelican	*Pelecanus crispus*	1,260	1,184	1,654	1,654									130
Great Bittern	*Botaurus stellaris*	6	6	2	2	4	7	11			1			
Little Bittern	*Ixobrychus minutus*					4	9							
Black-crowned Night-heron	*Nycticorax nycticorax*	4	4	18	18	1,081	1,334	22						
Squacco Heron	*Ardeola ralloides*					6	15							
Cattle Egret	*Bubulcus ibis*					1,158	697							
Western Reef Egret	*Egretta gularis*						1							
Little Egret	*Egretta garzetta*	750	723	997	989	1,604	2,470					85	60	70
Great Egret	*Casmerodius albus*	2,274	2,218	1,312	1,308	2,802	5,198	272	2	2	5	22	22	270
Grey Heron	*Ardea cinerea*	1,327	1,246	1,261	1,259	4,641	5,955	167	1		20	60	47	100
Purple Heron	*Ardea purpurea*					6	15							
Black Stork	*Ciconia nigra*	1	1			449	823							100
White Stork	*Ciconia ciconia*			3	2	727	550							350
Glossy Ibis	*Plegadis falcinellus*					245	685							
Eurasian Spoonbill	*Platalea leucorodia*	122	122	143	143	557	393							80

Table 18 continued. Other waterbird species, East Mediterranean and the Black Sea.

		Greece				Israel		Romania			Slovenia			Syria
		1995 Total	Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced	1995 Reduced	1996 Total	Reduced	1995 Reduced	1996 Total	Reduced	1995 Reduced
Greater Flamingo	*Phoenicopterus ruber roseus*	4,526	3,576	1,508	1,398	56	57							650
Water Rail	*Rallus aquaticus*	22	21	51	51	16	23							20
Little Crake	*Porzana parva*					1								
Moorhen	*Gallinula chloropus*	144	138	140	140	1,309	1,516	41	2	2	1			800
Purple Swamphen	*Porphyrio porphyrio*					1								300
Common Crane	*Grus grus*					2,459	378							
White-eyed Gull	*Larus leucophthalmus*						1							
Great Black-headed Gull	*Larus ichthyaetus*	1	1			145	609		60	60				50
Mediterranean Gull	*Larus melanocephalus*	354	89	285	205	1	2							1,450
Little Gull	*Larus minutus*	31	19	73	73	10	66	15	1					
Black-headed Gull	*Larus ridibundus*	37,217	32,227	27,926	27,126	23,742	22,058	1,800	249	199	400	1,206	956	1,050
Slender-billed Gull	*Larus genei*	3,087	3,082	2,592	2,592	147	23							1,450
Audouin's Gull	*Larus audouinii*													
Common Gull	*Larus canus*	1,253	1,251	205	205	44	8	3,027	210	10		784	784	
Lesser Black-backed Gull	*Larus fuscus*			3	3	215	263	3	2					
Yellow-legged Gull	*Larus cachinnans*	17,455	14,700	15,314	15,244	7,206	11,244	6,136	895	145	20	1,075	1,025	
Great Black-backed Gull	*Larus marinus*													
Caspian Tern	*Sterna caspia*	12	12	18	18		1							
Sandwich Tern	*Sterna sandvicensis*	265	260	451	451	11	7							
Common Tern	*Sterna hirundo*					11								
Whiskered Tern	*Chlidonias hybridus*					6								
Black Tern	*Chlidonias niger*	1	1					1						
White-winged Black Tern	*Chlidonias leucopterus*					8								
	Sum of all species	**115,246**	**104,050**	**90,665**	**89,479**	**69,011**	**73,375**	**20,633**	**3,639**	**1,473**	**551**	**3,734**	**3,381**	**48,010**

Table 18 continued. Other waterbird species, East Mediterranean and the Black Sea.

		Turkey				Ukraine				Yugoslavia				Overall area totals			
		1995		1996		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Red-throated Diver	*Gavia stellata*			1										18	18	39	38
Black-throated Diver	*Gavia arctica*	4	2	9	6					16		12		174	155	129	101
Little Grebe	*Tachybaptus ruficollis*	414	361	2,275	1,988	35	33	53	1	2,082	2,000	1,610	1,500	9,116	8,653	7,986	7,449
Great Crested Grebe	*Podiceps cristatus*	2,324	2,154	15,372	11,250	14	14	195	76	6,627	6,502	3,083	3,000	47,327	46,897	37,265	32,027
Red-necked Grebe	*Podiceps grisegena*	5	2	1		6	1	38				3		21	13	61	15
Slavonian Grebe	*Podiceps auritus*													11	8	15	15
Black-necked Grebe	*Podiceps nigricollis*	1,444	1,310	3,640	2,608	16	11	89	2	4,000	4,000	5,500	5,500	40,802	40,132	23,176	21,093
Great Cormorant	*Phalacrocorax carbo*	1,179	1,067	6,209	5,656	529	5	655		2,720	2,500	4,255	3,600	56,045	52,240	59,470	52,151
Pygmy Cormorant	*Phalacrocorax pygmaeus*	1,493	1,410	1,100	1,086	378	140	1,990	50	3,800	3,500	3,395	3,000	14,510	13,694	16,739	14,131
Great White Pelican	*Pelecanus onocrotalus*	4	4	8	8									504	504	475	475
Dalmatian Pelican	*Pelecanus crispus*	85	85	608	583									1,937	1,833	2,868	2,748
Great Bittern	*Botaurus stellaris*	1	1	2	1			29	3	32		17		60	28	69	25
Little Bittern	*Ixobrychus minutus*													4	4	9	9
Black-crowned Night-heron	*Nycticorax nycticorax*							4						1,107	1,107	1,456	1,452
Squacco Heron	*Ardeola ralloides*													6	6	15	15
Cattle Egret	*Bubulcus ibis*			9	9									1,163	1,163	710	710
Western Reef Egret	*Egretta gularis*													0	0	1	1
Little Egret	*Egretta garzetta*	72	59	627	525							5	5	2,664	2,611	4,559	4,418
Great Egret	*Casmerodius albus*	194	170	1,445	1,263	5	4	55	30	268	51	361	100	6,652	6,335	9,580	9,018
Grey Heron	*Ardea cinerea*	252	234	609	407			46	21	526	125	570	100	8,457	7,871	9,946	9,139
Purple Heron	*Ardea purpurea*													206	6	15	15
Black Stork	*Ciconia nigra*	1	1	8	8									552	552	831	831
White Stork	*Ciconia ciconia*			1	1									1,078	1,078	555	554
Glossy Ibis	*Plegadis falcinellus*													245	245	685	685
Eurasian Spoonbill	*Platalea leucorodia*	10	10	17	17									780	780	588	588

Table 18 continued. Other waterbird species, East Mediterranean and the Black Sea.

		Turkey				Ukraine				Yugoslavia				Overall area totals			
		1995		1996		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Greater Flamingo	*Phoenicopterus ruber roseus*	5,746	5,746	20,583	20,563									23,891	22,941	26,866	26,736
Water Rail	*Rallus aquaticus*	4	4	44	44					11	10	5	5	164	132	153	153
Little Crake	*Porzana parva*													1	1	0	0
Moorhen	*Gallinula chloropus*	53	53	86	51			52	40	53	50	100	100	2,524	2,479	2,144	2,095
Purple Swamphen	*Porphyrio porphyrio*													301	301	0	0
Common Crane	*Grus grus*	174	174	225	224					43		422		2,677	2,634	1,257	834
White-eyed Gull	*Larus leucophthalmus*													0	0	1	1
Great Black-headed Gull	*Larus ichthyaetus*	6	4	96	18			1						202	200	766	687
Mediterranean Gull	*Larus melanocephalus*	8	8	262	232									1,826	1,561	555	445
Little Gull	*Larus minutus*	7	7	32	29									112	99	322	318
Black-headed Gull	*Larus ridibundus*	7,320	7,220	17,786	16,020	13,660	3,210	1,620	220	3,880	2,160	3,095	2,000	114,244	93,403	95,080	88,899
Slender-billed Gull	*Larus genei*	258	204	915	910	5	5							5,437	5,378	4,252	4,247
Audouin's Gull	*Larus audouinii*													1	1	0	0
Common Gull	*Larus canus*	174	18	45	20	50		320	180	5		41		6,181	5,909	8,180	6,683
Lesser Black-backed Gull	*Larus fuscus*	1	1	63	63	25								361	272	466	336
Yellow-legged Gull	*Larus cachinnans*	6,485	6,409	7,669	5,920	1,595	1,595	2,890	140	1,070	420	1,135	750	50,654	45,752	53,002	42,112
Great Black-backed Gull	*Larus marinus*	1												1	0	0	0
Caspian Tern	*Sterna caspia*			5	5									24	24	34	34
Sandwich Tern	*Sterna sandvicensis*	43	43	37	37									641	628	656	656
Common Tern	*Sterna hirundo*													11	11	0	0
Whiskered Tern	*Chlidonias hybridus*									3	3	40	40	9	9	42	42
Black Tern	*Chlidonias niger*													3	3	0	0
White-winged Black Tern	*Chlidonias leucopterus*													8	8	0	0
	Sum of all species	**27,762**	**26,761**	**79,789**	**69,552**	**16,318**	**5,018**	**8,037**	**763**	**25,136**	**21,321**	**23,649**	**19,700**	**402,712**	**367,679**	**371,018**	**331,981**

Table 19. Other waterbird species, Northwest Europe.

		Belgium			France North & West		Germany North	Ireland			
		1995 Reduced	1996 Total	Reduced	1995 Reduced	1996 Reduced	1995 Reduced	1995 Total	Reduced	1996 Total	Reduced
Red-throated Diver	*Gavia stellata*	1	2	1	119	65	18	122	48	197	24
Black-throated Diver	*Gavia arctica*	2			20	97	87	4	2	27	25
Great Northern Diver	*Gavia immer*	1			45	40		315	156	157	76
Little Grebe	*Tachybaptus ruficollis*	335	603	436	3,223	4,041	921	437	232	491	270
Great Crested Grebe	*Podiceps cristatus*	1,678	2,975	2,322	21,272	23,999	10,318	853	721	703	591
Red-necked Grebe	*Podiceps grisegena*	5	3	2	60	423	58				
Slavonian Grebe	*Podiceps auritus*	2			171	204	27	13	8	6	4
Black-necked Grebe	*Podiceps nigricollis*	2	4	4	2,963	3,342	7	4	4	3	3
Great Cormorant	*Phalacrocorax carbo*	1,487	1,896	1,378	26,183	27,745	8,152	1,963	1,170	2,847	1,898
Great Bittern	*Botaurus stellaris*				4	10					
Black-crowned Night-heron	*Nycticorax nycticorax*				47	58					
Cattle Egret	*Bubulcus ibis*				233	448					
Little Egret	*Egretta garzetta*				6,716	5,702		8	6	26	19
Great Egret	*Casmerodius albus*				58	97					
Grey Heron	*Ardea cinerea*	256	750	357	4,176	4,472	1,933	494	295	624	359
White Stork	*Ciconia ciconia*				85	72					
Sacred Ibis	*Threskiornis aethiopicus*				52						
Eurasian Spoonbill	*Platalea leucorodia*				51	50					
Greater Flamingo	*Phoenicopterus ruber roseus*				8						
Water Rail	*Rallus aquaticus*				220	167		22	9	21	11
Spotted Crake	*Porzana porzana*					4					
Moorhen	*Gallinula chloropus*				5,048	6,327	50	502	131	394	103
Common Crane	*Grus grus*				326	7,063					
Mediterranean Gull	*Larus melanocephalus*				372	412				1	1
Little Gull	*Larus minutus*				714	803		5	5	11	3
Black-headed Gull	*Larus ridibundus*				168,414	187,993		46,001	35,648	41,009	29,810
Common Gull	*Larus canus*				1,571	8,325		6,671	4,007	7,291	4,946
Lesser Black-backed Gull	*Larus fuscus*				4,499	5,610		5,615	5,015	2,045	1,824
Herring Gull	*Larus argentatus*				52,010	77,998		6,712	4,360	4,798	3,264
Yellow-legged Gull	*Larus cachinnans*				694	828					
Iceland Gull	*Larus glaucoides*							2		2	
Glaucous Gull	*Larus hyperboreus*				2	2		5	3	2	2
Great Black-backed Gull	*Larus marinus*				3,017	2,952		2,233	1,754	1,449	1,083
Ross's Gull	*Rhodostethia rosea*							1	1		
Black-legged Kittiwake	*Larus tridactyla*				126	1		70	9	497	473
Sandwich Tern	*Sterna sandvicensis*				86	127					
Arctic Tern	*Sterna paradisaea*				1						
	Sum of all species	**3,769**	**6,233**	**4,500**	**302,586**	**369,477**	**21,571**	**72,052**	**53,584**	**62,601**	**44,789**

Table 19 continued. Other waterbird species, Northwest Europe.

		Netherlands				United Kingdom				Overall area totals			
		1995		1996		1995		1996		1995		1996	
		Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced	Total	Reduced
Red-throated Diver	*Gavia stellata*	104	42	24	6	401	183	285	94	765	411	573	190
Black-throated Diver	*Gavia arctica*	10	9	1	1	53	28	27	5	176	148	152	128
Great Northern Diver	*Gavia immer*					39	14	68	16	400	216	265	132
Little Grebe	*Tachybaptus ruficollis*	1,978	938	2,444	1,377	3,238	1,380	3,100	1,188	10,132	7,029	10,679	7,312
Great Crested Grebe	*Podiceps cristatus*	26,140	22,213	28,466	24,022	9,080	2,165	7,550	2,298	69,346	58,367	63,695	53,232
Red-necked Grebe	*Podiceps grisegena*	77	26	13	10	43	17	29	7	243	166	468	442
Slavonian Grebe	*Podiceps auritus*	29	25	40	14	159	85	137	105	401	318	387	327
Black-necked Grebe	*Podiceps nigricollis*	346	344	62	59	52	25	42	34	3,374	3,345	3,453	3,442
Great Cormorant	*Phalacrocorax carbo*	12,379	9,641	11,231	11,181	14,375	5,391	12,420	4,319	64,555	52,024	56,139	46,521
Great Bittern	*Botaurus stellaris*	30	19	127	66	8				42	23	137	76
Black-crowned Night-heron	*Nycticorax nycticorax*			10						47	47	68	58
Cattle Egret	*Bubulcus ibis*									233	233	448	448
Little Egret	*Egretta garzetta*	6	3	3	2	278		277		7,008	6,725	6,008	5,723
Great Egret	*Casmerodius albus*	1		2	1					59	58	99	98
Grey Heron	*Ardea cinerea*	4,723	2,224	2,565	2,506	2,403		2,699		14,027	8,884	11,110	7,694
White Stork	*Ciconia ciconia*	144	40	127	100					229	125	199	172
Sacred Ibis	*Threskiornis aethiopicus*									52	52	0	0
Eurasian Spoonbill	*Platalea leucorodia*	4	4	2	1	3				58	55	52	51
Greater Flamingo	*Phoenicopterus ruber roseus*	6	6	6	6					14	14	6	6
Water Rail	*Rallus aquaticus*	94	43	107	42	221	46	294	88	557	318	589	308
Spotted Crake	*Porzana porzana*									0	0	4	4
Moorhen	*Gallinula chloropus*	15,605	3,599	19,327	5,088	10,574	2,171	10,820	2,640	31,779	10,999	36,868	14,158
Common Crane	*Grus grus*	237	2	1	1					563	328	7,064	7,064
Mediterranean Gull	*Larus melanocephalus*	1		1		32		50		405	372	464	413
Little Gull	*Larus minutus*	366	58			4		22		1,089	777	836	806
Black-headed Gull	*Larus ridibundus*	204,804	100,765	142,180	76,554	244,125		276,305		663,344	304,827	647,487	294,357
Common Gull	*Larus canus*	115,863	50,108	124,436	73,649	62,670		74,606		186,775	55,686	214,658	86,920
Lesser Black-backed Gull	*Larus fuscus*	1,412	476	173	58	5,468		4,645		16,994	9,990	12,473	7,492
Herring Gull	*Larus argentatus*	125,444	86,438	110,817	76,161	64,035		71,928		248,201	142,808	265,541	157,423
Yellow-legged Gull	*Larus cachinnans*	2	2	17	16					696	696	845	844
Iceland Gull	*Larus glaucoides*	1		1		9		4		12	0	7	0
Glaucous Gull	*Larus hyperboreus*	6		2	1	9		15		22	5	21	5
Great Black-backed Gull	*Larus marinus*	7,027	4,738	6,674	2,940	11,471		11,438		23,748	9,509	22,513	6,975
Ross's Gull	*Rhodostethia rosea*									1	1	0	0
Black-legged Kittiwake	*Larus tridactyla*	51	10	4		440		40		687	145	542	474
Sandwich Tern	*Sterna sandvicensis*	6	4							92	90	127	127
Arctic Tern	*Sterna paradisaea*									1	1	0	0
	Sum of all species	**516,896**	**281,777**	**448,863**	**273,862**	**429,190**	**11,505**	**476,801**	**10,794**	**1,346,127**	**674,792**	**1,363,977**	**703,422**