

# Introducing an important new WSG publication on the status of migratory wader populations in Africa and western Eurasia in the 1990s

DAVID STROUD<sup>1</sup> & NICK DAVIDSON<sup>2</sup>

<sup>1</sup>Spring Meadows, Taylors Green, Warmington, Peterborough, PE8 7TG, UK. David.Stroud@jncc.gov.uk

<sup>2</sup>Chemin Sur le Moulin, 1261 Le Vaud, Vaud, Switzerland

In its rôle as a global wader expert network for Wetlands International, the International Wader Study Group (WSG) undertakes the compilation and interpretation of wader population estimates (although the responsibility for data collation from the International Waterbird Census resides with Wetlands International). WSG also acts as the wader Specialist Group for IUCN, The World Conservation Union's Species Survival Commission.

For some years, the WSG has been involved in re-evaluating population sizes and trends of all species of migratory waders in Africa and western Eurasia. Technical workshops were held in Belgium in 1996 and in Hungary in 1998 associated with the Group's annual conference.

The final results (which assessed 131 populations of 55 species) were incorporated into Wetlands International's third edition of *Waterbird Population Estimates* – a publication that in November 2002 was launched at and endorsed by the eighth Conference of the Parties to the Ramsar Convention in Spain. This conference urged governments and others to use these population data and derived 1% thresholds for the identification of sites of international importance.

The results were also included in the global review of wader population status undertaken at WSG's 2003 annual conference in Spain, the results of which were summarised in the Cadiz Conclusions (*WSG Bulletin* 101/102: 8–12).

For the East Atlantic Flyway, this review updates the assessment made by Cor Smit and Theunis Piersma in the 1980s and which was published in 1989. For other flyway systems in Africa and western Eurasia, there have been no prior systematic population reviews.

The review has been initially published on WSG's website ([www.waderstudygroup.org](http://www.waderstudygroup.org)) as volume 15 of WSG's occasional series *International Wader Studies*. We hope to raise the necessary funds to be able to print and distribute the review as a conventional publication, but WSG currently has no funding to permit this. Therefore the review's summary is printed below.

*Thanks to all contributors!*

The success of the review has only been possible thanks to the generous contributions of data, information and time by many, many counters, national coordinators and species experts who have provided inputs. Our enormous thanks go to all of those who have contributed, listed in the report's *Acknowledgements* section.

## *Data and information used in the review*

The project team is making available our working summary Excel spreadsheets which contain data, metadata and information drawn from the review. These data are being made available to stimulate further analyses. These are all downloadable from the web-site and for further information on these summary data (including information on the coding conventions used), please see the published review.

## *Non-migrant waders in African and Western Eurasia*

In preparation for the 2003 Cadiz WSG Conference, complementary analyses were undertaken on the status of non-migrant waders in Africa and western Eurasia (species that were not included in the review). A summary spreadsheet of these data can also be found on the group's website.

## *Wader data from Waterbird Population Estimates 3*

As an element of WSG's recent Memorandum of Cooperation with Wetlands International (see preceding pages), the web-site now has a summary spreadsheet holding data and information on waders used in *Waterbird Population Estimates 3*. WSG intends progressively to develop this spreadsheet as a web-based summary of data and information on waders and their population status. Updated versions will be made available on the website in due course.

### **Important request for feedback**

Any such review becomes out of date as soon as it is published as new data continually becomes available. We welcome feedback on any aspects of the review which should be sent to either David Stroud (David.Stroud@jncc.gov.uk) or Nick Davidson (Davidson@Ramsar.org). We intend to update the published appraisals regularly and would particularly appreciate being informed of relevant new data, information or publications. We can then ensure that future reviews include all relevant information.

### **Poorly understood populations – 'more research is needed'!**

We especially draw researchers' attention to a number of biogeographical populations (Table 1, which is Table 16 of the review summarised below) where there are issues of particular uncertainty. Further studies and reviews of existing data and information regarding these populations are urgently needed and would be of high conservation utility.



## Summary of Status of Migratory Wader Populations in Africa and Western Eurasia in the 1990s

Stroud, D.A., Davidson, N.C., West, R., Scott, D.A., Haanstra, L., Thorup, O., Ganter, B. & Delany, S. (compilers) on behalf of the International Wader Study Group. 2004. *Status of migratory wader populations in Africa and Western Eurasia in the 1990s*. International Wader Studies 15. 259 pp. (Available at [www.waderstudygroup.org](http://www.waderstudygroup.org))

Estimates of the size of wader populations need to be updated regularly for use in flyway and site conservation, and up-to-date information on population trends is an essential basis for identifying priorities for conservation action and assessing progress towards the target of significantly reducing the rate of loss of biodiversity by 2010 made by world leaders at their 2002 global summit in Johannesburg. This paper presents the results of a major collation and reanalysis of 1990s migratory wader population data for all countries in Africa and Eurasia. The review was undertaken by the International Wader Study Group between 1996 and 2000, and updates previous estimates dating from the mid-1980s. Estimates were compiled from national data sources and through workshops of wader experts, pending redevelopment of the Wetlands International's Wader Counts Database.

We present status information on 131 populations of 55 species that have at least one migratory population. Of these we report size estimates (to varying precision) for 124 populations, 1% population thresholds (or provisional thresholds) for 116 populations, and indications of trends between the mid 1980s and mid 1990s for 80 populations. The analysis reveals changes in the population sizes of 72 populations of 32 species. For 18 populations, no new data have become available to reassess numbers, and for six of these, numbers are completely unknown.

Comparisons between flyways show that data quality is better for populations using the largely coastal East Atlantic Flyway, than for other flyways in the region. For example, it has been possible to assess trends for 97% of East Atlantic Flyway populations, but for only 71% of the Black Sea/Mediterranean populations and for just 35% of west Asian/east African wader populations.

It is difficult to draw conclusions on the overall status of waders in Africa and western Eurasia, since reliable estimates of population trends can be made for only 54 of the 131 populations using the region. There are, however, nearly four times as many populations in decline as those that are increasing; there is a decrease or possible decrease in 37 populations and an increase or possible increase in ten, with 33 being stable or possibly stable. Although it is not clear from this analysis whether the changes reflect real population trends or are at least in part due to differences in count coverage and/or handling of national population estimates, some evidence from British population trends corroborates the population change pattern.

Overall, the East Atlantic Flyway, with only 37% of populations decreasing, appears to be in the healthiest state. This is in contrast to the Black Sea/Mediterranean Flyway where, of populations with known or probable trends, 55% are declining, and the West Asian/East Africa Flyway which has 53% of populations in decline. Taking all populations together, 3.7 times as many populations are definitely or probably in decline as are definitely or probably increasing. This pattern varies between flyways: 'only' 2.3 times on the East Atlantic Flyway, nine times on the West Asia/East Africa Flyway, and 11 times on the Black Sea/Mediterranean Flyway.

Of the 131 populations of migratory waders, 45 are of significant conservation concern because their populations are in decline and/or are small. Some populations are known to be severely threatened and in decline, notably Slender-billed Curlew *Numenius tenuirostris* (in imminent danger of global extinction), the Canary island race of Cream-coloured Courser *Cursorius cursor*, both populations of Sociable Lapwing *Vanellus gregarius* (categorised by IUCN as Vulnerable), the two Canary Islands races of Stone Curlews *Burhinus oedicephalus*, and both the Baltic and Britain/Ireland breeding populations of Dunlin *Calidris alpina schinzii*. Extremely rapid population declines (>50% since the mid-1980s) have been recorded for four populations: two of Sociable Lapwing, the single population of Black-winged Pratincole *Glareola nordmanni* and the western European breeding population of Black-tailed Godwit *Limosa limosa*. Only the European/North African wintering population of Great Ringed Plover *Charadrius hiaticula* has shown a correspondingly large (>50%) population increase over the same period.

Geographic patterns of population trends are not uniform across the region and three groups of populations facing severe decline can be identified: a) populations breeding in arid and semi-arid areas of the Middle East, west and central Asia and the Mediterranean Basin; b) populations breeding in temperate wet grasslands across Europe; and c) Arctic-breeding long-distance migrant populations on the East Atlantic Flyway which are heavily dependent on the Wadden Sea for spring and autumn staging. Habitat deterioration is implicated as the major driver of decline in these populations.

A review of progress in improving data and information shows that there has been significant improvement with respect to some aspects (especially knowledge of European distribution of breeding waders and their population trends, particularly in the Mediterranean Basin and in Russia). However, very little progress has been made for many other priority areas, such as waders wintering on non-estuarine coasts or inland. Indeed, for 78 populations (60% of those considered) monitoring provision is not adequate to provide even the most basic information on trends in abundance. Only in 16 populations (12%) is there a sound basis for assessing changes in population sizes. For the remaining 37 (28%) populations, monitoring provides some information although this is usually far from adequate in extent or quality. For no biogeographical population is it currently possible to assess trends with any defined degree of statistical precision. This lack of monitoring provision is a serious conservation deficiency given not only the need to assess population change at local and country scales, but also the need to assess the potential major impacts predicted from a changing global climate. It is also of major conservation concern given the high apparent level of conservation provision for these taxa under a number of different intergovernmental conservation conventions and treaties.

The African-Eurasian Waterbird Agreement has highlighted monitoring as a major priority for the international





Table 2. (Continued)

Species	Population	Priority	Population trend category	Population size category	Other rationale
Black-winged Pratincole <i>Glareola nordmanni</i>	1. western & central Asia/eastern & southern Africa	<b>High</b>	Rapid decline	Small population	IUCN Data Deficient
Black-winged Stilt <i>Himantopus himantopus</i>	1. <i>himantopus</i> western & south-western Europe & western Africa 5. Madagascar 6. <i>meridionalis</i> southern Africa		Was increasing, now stable Unknown trend Increase		
Brown-chested Lapwing <i>Vanellus superciliosus</i>	1. western, central & eastern Africa		Unknown trend		
Caspian Plover <i>Charadrius asiaticus</i>	1. western Asia (breeding)/eastern & south-central Africa (wintering)		Decline		
Chestnut-banded Plover <i>Charadrius pallidus</i>	<i>pallidus</i> <i>venustus</i>		Unknown trend		
Collared Pratincole <i>Glareola pratincola</i>	1. western Mediterranean (breeding) 2. Black Sea/eastern Mediterranean (breeding)		Decline		
Common Redshank <i>Tringa totanus</i>	2. Britain & Ireland breeding <i>britannica</i> 3. <i>totanus</i> eastern Atlantic (wintering) 4. <i>totanus</i> eastern Europe/eastern Mediterranean & Africa	Decline Decline Decline Decline			
Common Snipe <i>Gallinago gallinago</i>	1. <i>gallinago</i> (Europe breeding)	Decline			
Cream-coloured Courser <i>Cursorius cursor</i>	3. <i>exsul</i> Cape Verde Islands 4. <i>bannermani</i> Canary islands	Unknown trend Decline			
Crowned Lapwing <i>Vanellus coronatus</i>	<i>coronatus</i> central Africa	Unknown trend			
Curllew Sandpiper <i>Calidris ferruginea</i>	1. south-western Europe & western Africa (wintering)	Rapid increase			
Dunlin <i>Calidris alpina</i>	3. <i>schinzii</i> (Baltic breeding) 4. <i>schinzii</i> (UK/Ireland breeding) ( <i>angolae</i> )	Rapid decline Decline			
Egyptian Plover <i>Pluvianus aegyptius</i>	<i>aegyptius</i> eastern Africa	Unknown trend			
Eurasian Curlew <i>Numenius arquata</i>	2. <i>orientalis</i> south-western Asia & eastern Africa (wintering) 3. <i>suschkini</i> southern Urals & Kazakhstan	Decline Decline Possible decline			
Eurasian Golden Plover <i>Pluvialis apricaria</i>	4. <i>apricaria</i> Britain/Ireland/Denmark/Germany	Decline			
Great Knot <i>Calidris tenuirostris</i>	1. south-western Asia & western south Asia (wintering)	Unknown trend			
Great Ringed Plover <i>Charadrius hiaticula</i>	1. <i>hiaticula</i> Europe/north Africa (wintering) 2. western Siberia & north-east Europe (breeding)	Rapid increase Decline			
Great Snipe <i>Gallinago media</i>	1. Scandinavia (breeding) <i>minor</i> southern Africa	Decline			
Greater Black-winged Lapwing <i>Vanellus melanopterus</i>	<i>minor</i> Kenya, Tanzania	Decline			
Greater Sand Plover <i>Charadrius leschenaultii</i>	1. <i>columbinus</i>	Unknown trend			
Grey Plover <i>Pluvialis squatarola</i>	1. <i>squatarola</i> eastern Atlantic/west Africa (wintering)	Unknown trend			
Grey Pratincole <i>Glareola cinerea</i>	( <i>colorata</i> ) <i>cinerea</i>	Rapid increase Unknown trend			
Jack Snipe <i>Lymnocyptes minimus</i>	1. Europe (breeding)	Unknown trend			
Kentish Plover <i>Charadrius alexandrinus</i>	1. eastern Atlantic/western Mediterranean 2. <i>alexandrinus</i> Black Sea/eastern Mediterranean (breeding)	Possible decline Decline			
Kittlitz's Plover <i>Charadrius pecuarius</i>	( <i>allenyi</i> ) ( <i>tephricolor</i> ) <i>pecuarius</i> Madagascar <i>lugubris</i> west Africa	Possible decline Unknown trend Unknown trend Unknown trend			
Lesser Black-winged Lapwing	Senegal Plover <i>Vanellus lugubris</i>	Unknown trend			
Little Stint <i>Calidris minuta</i>	1. Europe & west Africa (wintering)	Possible decline			
Long-toed Lapwing <i>Vanellus crassirostris</i>	<i>crassirostris</i> Lake Chad Basin	Unknown trend			

Table 2. (Continued)

Species	Population	Priority	Population trend category	Population size category	Other rationale
Madagascar Practincole <i>Glareola ocularis</i>	1. Madagascar/east African coast	High	Decline	Small population	IUCN Near Threatened
Madagascar Snipe <i>Gallinago macrodactyla</i>	Madagascar	High	Unknown trend	Small population	IUCN Near Threatened
Madagascar/Black-banded Plover <i>Charadrius thoracicus</i>	Madagascar	High	Decline		
Northern Lapwing <i>Vanellus vanellus</i>	1. Europe (breeding)		Decline		
Oystercatcher <i>Haematopus ostralegus</i>	1. Europe (breeding)		Increase		
Purple Sandpiper <i>Calidris maritima</i>	1. <i>ostralegus</i> Europe & north-west Africa (wintering)	High	Rapid decline		Inadequate WPE3 review
Red Knot <i>Calidris canutus</i>	1. <i>canutus</i> western & southern Africa (wintering)	High	Rapid decline		
Rock Ptarmigan <i>Glareola nuchalis</i>	2. <i>islandica</i> north-eastern Canada & Greenland/Iceland/north-west Europe	High	Unknown trend	Small population	
Ruddy Turnstone <i>Arenaria interpres</i>	<i>iberiae</i>		Rapid increase		
Ruff <i>Philomachus pugnax</i>	1. north-east Canada, Greenland/western Europe & north-west Africa	High	Possibly rapid decline		Inadequate WPE3 review
Sanderling <i>Calidris alba</i>	1. Europe/west Africa		Possible decline		
Senegal Thick-Knee <i>Burhinus senegalensis</i>	2. south-western Asia, eastern & southern Africa (wintering)	High	Unknown trend	Small population	
Slender-billed Curlew <i>Numenius tenuirostris</i>	1. eastern Atlantic, western & southern Africa (wintering)	High	Unknown trend	Small population	
Sociable Plover <i>Vanellus gregarius</i>	( <i>inornatus</i> )		Unknown trend		
Spot-breasted Lapwing <i>Vanellus melanocephalus</i>	<i>senegalensis</i>		Rapid decline		IUCN Critical
Spotted Dikkop <i>Burhinus capensis</i>	1. Mediterranean/north Africa/Middle East (wintering)	High	Rapid decline		IUCN Vulnerable
Spur-winged Plover <i>Vanellus spinosus</i>	2. western Asia/north-eastern Africa	High	Rapid decline		IUCN Vulnerable
St Helena Plover <i>Charadrius sanctaehelena</i>	1. southern Asia		Unknown trend	Small population	
Stone Curlew <i>Burhinus oedichenemus</i>	Ethiopia		Unknown trend	Small population	
	<i>damarensis</i>		Unknown trend		
	<i>dodsoni</i>		Increase		
	<i>maculosus</i>		Decline		
	2. south-eastern Europe, Asia Minor	High	Decline	Small population	IUCN Endangered
	St Helena		Decline		
	1. <i>oedichenemus</i> western Europe		Rapid decline		
	2. <i>oedichenemus</i> eastern Europe	High	Rapid decline		
	3. <i>distinctus</i> western Canary islands	High	Rapid decline		
	4. <i>insularum</i> eastern Canary islands		Unknown trend	Small population	
	( <i>damarensis</i> )		Unknown trend	Small population	
	<i>emini</i>		Possible decline	Small population	
	<i>seebohmi</i>		Unknown trend	Small population	
	<i>bifrontatus</i>		Unknown trend	Small population	
	<i>tricoloris</i> Lake Chad		Unknown trend	Small population	
	<i>buttkoferi</i>		Unknown trend	Small population	
	4. <i>alboaxillaris</i> south-western Asia/east Africa		Unknown trend	Small population	
	<i>arenaceus</i>		Unknown trend	Small population	
	<i>hesperius</i>		Unknown trend	Small population	
	<i>marginatus</i>		Unknown trend	Small population	
	<i>mechowi</i> coastal east Africa		Unknown trend	Small population	
	<i>mechowi</i> inland east & central Africa		Unknown trend	Small population	
	<i>tenellus</i>		Decline	Small population	
	<i>albiceps</i> Tanzania		Unknown trend	Small population	
	1. south-western Asia/north-east Africa		Unknown trend	Small population	
	1. north-western Europe/west Africa		Possible decline	Small population	
White-headed Lapwing <i>Vanellus albiceps</i>					
White-tailed Lapwing <i>Vanellus leucurus</i>					
Wood Sandpiper <i>Tringa glareola</i>					

conservation of waterbirds within the region and we hope this review will stimulate concrete urgent actions to this end. The current development of a major project for potential funding by the Global Environment Facility would specifically assist the development of monitoring capacity in many developing countries – were this to come to fruition.

At least for migratory waders within the Africa, Europe and west Asia, the pattern of extremely widespread population declines indicates that major and concerted conservation actions by governments and others will be needed to achieve the aspirational target of significantly reducing the rate of loss of biodiversity by 2010.

#### Future review activity

We intend to review the status of all populations that are in rapid change (decline or increase) for inclusion in the fourth edition of *Waterbird Population Estimates*, due for submission to the next Ramsar conference in November 2005. **We will be particularly grateful for recent data and information on the status of those populations which are small and/or in rapid change, the status of which need to be re-assessed as a matter of priority.**

We list in Table 2 those African/western Eurasian populations for which WSG is anxious to review status. Although we will be approaching the International Waterbird Census coordinators requesting further information on the current status or trends of these populations, we would also encourage anyone with information on such matters to contact either David Stroud (David.Stroud@jncc.gov.uk) or Nick Davidson (Davidson@Ramsar.org). We also hope that WSG can assist in the collation of significant new data on population sizes and trends in other regions, especially in South America.

Wetlands International's deadline for submission of new population assessments is December 2004, so we would welcome new information as soon as possible!

