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

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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) 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, complimentary analyses were undertaken on the status of nonmigrant waders in Africa and western Eurasia (species that were not included in the review). A summary spreadsheet of these data can also 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 preceeding 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)

Estimates of the size of wader populations need to be updated regularly for use in flyway and site conservation, and up-todate 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 oedicnemus, 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 Practincole 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) Arcticbreeding 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



			Issue for review			
Crab Plover	north-western Indian Ocean, Red Sea and Gulf		current (single)	world population into castern	and western population	is as seems
Oystercatcher	Europe/north-west Africa (= H. o. ostralegus)	Better understanding of biological populations within the current European/NW African 'population') needed. At least five discrete breeding populations have been identified within the range of <i>H. o. ostralegus</i> , but these extensively overlap in migration periods and there is uncertainty over origins and migrations of some of these	the current Eur <i>H. o. ostralegus</i>	opean/NW African 'populatio, but these extensively overlap	m') needed. At least fiv in migration periods a	e discrete breeding ind there is uncertainty
Woodcock	Europe/Africa	Are Woodcock breeding in the Caucasus a discrete biogeographical population? The status of Woodcock in the Crimea, the Azores and the Canary islands is similarly obscure.	ogeographical I	oopulation? The status of Woo	dcock in the Crimea, th	he Azores and the Canary
Bar-tailed Godwit	; ;	Are birds wintering in Morocco of the nominate race or taymyrensis?	or taymyrensis!	ta aniantalic ar cucabhini raac	ac to anoble correct allo	vetion of Russian
Eurasian Curlew Common Redshank	western, central & northern Europe T. t. robusta (Iceland/Facrocs breeding)		and Shetland (ar	id elsewhere?) in Northern Sco	tland as suggested by Er	ngelmoer & Roselaar (1998 ite commence in
	T. t. britannica	What is the extent of the breading distribution of this race in continental Europe': Eugenmoet & Roselaal (1976) intercated its occurrence in Denmark, Germany, the Baltic States and the Netherlands (as well as in south and east England). How does this distribution relate to that of European-Intervalue $T$ intervalue.	race in conune ands (as well as	in south and east England). H	fow does this distribution	ns occurrence in on relate to that of
Common Greenshank Duddy Turnstone	¢.	Are birds by concernent in the manufacture of the grant of the British Isles as suggested by Hutchinson (1986) and Smit & Piersma (1989)? The factors breeding in Britain and Ireland a discrete population wintering in the British Isles as suggested by Hutchinson (1986) and Smit & Piersma (1989)? The factors breeding in Britain and the westwards limit of its distribution into European Russia (see Engelmoer & Roselaar 1998 and	ulation winterin vards limit of it	g in the British Isles as suggeste s distribution into European R	ed by Hutchinson (1986) ussia (see Engelmoer &	) and Smit & Piersma (1989 2 Roselaar 1998 and
		Tomkovich & Serra 1999, p. 296).			)	
Red Knot	?	What is the status of birds wintering on Mediterranean coasts? Do these comprise a distinct population?	n coasts? Do th Jearctic and Pal	ese comprise a distinct popula earctic breeding areas that are	ttion? • momholooically distin	oct (short-hilled and
rurpie Sanupiper	east Augure	Inc. population currently compress only and the compress only for more?) separate populations?	) separate popu	lations?		
Dunlin	schinzii Britain and Ireland	What is the relationship between the peatland and machair-breeding elements of this population which seem to have different breeding observations?	chair-breeding ted nonulations	elements of this population whether the second s	hich seem to have differ	rent breeding
Broad-billed Sandpiper	? couth mastern Asia eastern and	promoters, and this representer component promoter promoters. Providence the state station wintering in Tunisia (van der Have <i>et al.</i> 1997) and what are the affinities of this population? Evaluation of the ifferine definitions for this flyway (and the South Asian Flyway) adonted by this review and by Zöckler (2002a,b) supported	nisia (van der H (and the South	ave <i>et al</i> . 1997) and what are Asian Flvwav) adopted by thi	the affinities of this popies is review and by Zöckle	pulation? er (2002a,b) supported
111	southern Africa	by movements of marked birds reported by Underhill <i>et al.</i> (1999).	et al. (1999).			
Table 2. Populations in the second, Popul Species	Table 2. Populations of waders, in alphabetic sequence, in Africa and western Eurit in the second, Population, column are those allotted to each population in Annex         Species       Population	Table 2. Populations of waders, in alphabetic sequence, in Africa and western Eurasia for which WSG is actively seeking data on current status and trends for <i>Waterbird Population Estimates 4</i> (numbersin the second, Population, column are those allotted to each population in Annex 2 of the review).SpeciesPopulation <th>/ seeking data</th> <th>on current status and trends Population trend category</th> <th>s for <i>Waterbird Popula</i> Population size category</th> <th>a<i>tion Estimates 4</i> (numb <b>Other rationale</b></th>	/ seeking data	on current status and trends Population trend category	s for <i>Waterbird Popula</i> Population size category	a <i>tion Estimates 4</i> (numb <b>Other rationale</b>
African Black Oystercatcher Haemat African Snipe Gallinago nigripennis African Wattled Lapwing Vanellus s Avocet Recurvirostra avosetta	opus moquini enegallus	south-east Africa nigripennis major 3. western & south-western Asia/eastern Africa 5. southern Africa (breeding)	High	Unknown trend Unknown trend	Small population Small population Small population Small population Small population	IUCN Near Threatened
Bar-tailed Godwit <i>Limosa lapponica</i>		1. <i>lapponica</i> western Palearctic 2. <i>taymyrensis</i> western & south-western Africa (wintering)	High	Was increasing, now stable Rapid decline		
Black-headed Lapwing Vanellus tectus Black-tailed Godwit Limosa limosa		<i>latifrons</i> 1. <i>limosa</i> western Europe/western Africa	High	Unknown trend Rapid decline	Small population	

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Species	Population	Priority	Population trend category	Population size category	Other rationale
Black-winged Pratincole Glareola nordmanni Black-winged Stilt Himantopus himantopus	<ol> <li>western &amp; central Asia/eastern &amp; southern Africa</li> <li>himantopus western &amp; south-western Europe &amp; western Africa</li> <li>Madagascar</li> <li>marificiantic southern Africa</li> </ol>	High	Rapid decline Was increasing, now stable Unknown trend	Small population	IUCN Data Deficient
Brown-chested Lapwing Vanellus supercitiosus Casnian Plover Charadrius asiaticus	o. merianomano soumeru Annea 1. western, central & eastern Africa 1. western Asia (breeding)/eastern & south-central Africa (wintering)		Unknown trend Decline	Small population	
Chestnut-banded Plover Charadrius pallidus	pallidus venustus		Unknown trend	Small population Small population	
Collared Pratuncole Giareola pratincola Common Redshank Tringa totanus	<ol> <li>western Mediterrancan (breeding)</li> <li>Black Sea/eastern Mediterrancan (breeding)</li> <li>Britain &amp; Ireland breeding <i>britannica</i></li> <li>totanus eastern Atlantic (wintering)</li> </ol>		Decline Decline Decline	Small population	
Common Snipe Gallinago gallinago Cream-coloured Courser Cursorius cursor	<ol> <li>totanus castern Europe/castern Mediterranean &amp; Africa</li> <li>gallinago (Europe breeding)</li> <li>exsul Cape Verde Islands</li> </ol>		Decline Decline Unknown trend	Small population	
Crowned Lapwing Vanellus coronatus Curlew Sandpiper Calidris ferruginea Dunlin Calidris alpina	<ul> <li>4. bannermani Canary islands coronatus central Africa</li> <li>1. south-western Europe &amp; western Africa (wintering)</li> <li>3. schinzii (Baltic breeding)</li> <li>4. schinzii (UK/Ireland breeding)</li> </ul>	High High	Decline Unknown trend Rapid increase Rapid decline Decline	Small population	
Egyptian Plover Pluvianus aegyptius Eurasian Curlew Numenius arguata Eurasian Golden Plover Pluvialis apricaria Great Knot Calidris tenuirostris	<ul> <li>(angolae)</li> <li>aegyptius eastern Africa</li> <li>2. orientalis south-western Asia &amp; eastern Africa (wintering)</li> <li>3. suschkimi southern Urals &amp; Kazakhstan</li> <li>4. apricaria Britain/Ireland/Denmark/Germany</li> <li>1. south-western Asia &amp; western south Asia (wintering)</li> </ul>		Unknown trend Decline Decline Possible decline Decline Unknown trend	Small population Small population Small population	
Great Ringed Plover Charadrius hiaticula Great Snipe Gallinago media Greater Black-winged Lapwing Vanellus melanopterus Greater Sand Plover Charadrius Lecchenaultii	<ol> <li>hiaticula Europe/north Africa (wintering)</li> <li>western Siberia &amp; north-cast Europe (breeding)</li> <li>Scandinavia (breeding)</li> <li>Scandinavia Africa minor southern Africa</li> <li>columbinus</li> </ol>	High High High	Rapid increase Decline Decline Unknown trend	Small population Small population Small nonulation	Inadequate WPE3 review IUCN Near Threatened IUCN Near Threatened
Grey Plover Pluvialis squatarola Grey Pratincole Glareola cinerea Jack Snipe Lymnocryptes minimus Kentish Plover Charadrius alexandrinus	<ol> <li>squatarola eastern Atlantic/west Africa (wintering)</li> <li>squatarola eastern Atlantic/west Africa (wintering)</li> <li>(colorata)</li> <li>cinerea</li> <li>Leurope (breeding)</li> <li>Leastern Atlantic/western Mediterranean</li> </ol>	High	Rapid increase Unknown trend Possible decline Decline	Small population Small population	
Kittlitz's Plover <i>Charadrius pecuarius</i> Lesser Black-winged Lapwing	2. duexanarinus Diack Seaveastern Mediterranean (oreeding) (allenbyi) (tephricolor) pecuarius Madagascar lugubris west Africa Seneral Divers VianJlus luauhris		rossible decuite Unknown trend Unknown trend Unknown trend	Small population Small population Small population Small population	
Little Stint <i>Calidris minuta</i> Long-toed Lapwing <i>Vanellus crassirostris</i>	ourgen 1000 west Africa (wintering) 1. Europe & west Africa (wintering) crassirostris Lake Chad Basin		Possible decline Unknown trend	Small population	

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Species	Population	Priority	Population trend category	Population size category	Other rationale
Madagascar Practincole Glareola ocularis Madagascar Snipe Gallinago macrodactyla Madagascar/Black-banded Plover Charadrius thoracicus Northern Lapwing Vanellus vanellus Oystercatcher Haematopus ostralegus	<ol> <li>Madagascar/east African coast Madagascar Madagascar</li> <li>Europe (breeding)</li> <li>ostralegus Europe &amp; north-west Africa (wintering)</li> </ol>		Decline Unknown trend Decline Decline Increase	Small population Small population	IUCN Near Threatened IUCN Near Threatened
Purple Sandpiper Calidris maritima Red Knot Calidris canutus Rock Pratincole Glareola nuchalis Ruddy Turnstone Arenaria interpres Ruff Philomachus pugnax	<ol> <li>maritima eastern Atlantic (wintering)</li> <li>canutus western &amp; southern Africa (wintering)</li> <li>canutus western &amp; southern Africa (wintering)</li> <li>islandica north-eastern Canada &amp; Greenland/Iceland/north-west Europe liberiae</li> <li>north-east Canada, Greenland/western Europe &amp; north-west Africa</li> <li>Europe/west Africa</li> </ol>	High High High High	Rapid decline Rapid decline Unknown trend Rapid increase Possibly rapid decline	Small population	Inadequate WPE3 review Inadequate WPE3 review
Sanderling Calidris alba Senegal Thick-Knee Burhinus senegalensis Slender-billed Curlew Numenius tenuirostris Sociable Plover Vanellus gregrarius	<ol> <li>2. south-western Asia, eastern &amp; southern Africa (wintering)</li> <li>1. eastern Atlantic, western &amp; southern Africa (wintering) (<i>inornatus</i>)</li> <li><i>senegalensis</i></li> <li>1. Mediterranean/north Africa/Middle East (wintering)</li> <li>2. conthern Asia</li> </ol>	High High High	Possible decline Unknown trend Rapid decline Rapid decline	Small population Small population	Inadequate WPE3 review IUCN Critical IUCN Vulnerable
Spot-breasted Lapwing Vanellus melanocephalus Spotted Dikkop Burhinus capensis Spur-winged Plover Vanellus spinosus St Helena Plover Charadrius sanctaehelenae Stone Curlew Burhinus oedicnemus	er topia damarensis damarensis adodsoni maculosus 2. south-eastern Europe 1. oedicnemus eastern Europe 3. distinctus western Canarv islands		Unknown trend Unknown trend Unknown trend Increase Decline Barid decline Ranid decline	Small population Small population Small population Small population Small population	IUCN Endangered
Temminck's Courser <i>Cursorius teminckii</i> Three-banded Courser <i>Rhinoptilus cinctus</i> Three-banded Plover <i>Charadrius tricollaris</i>	<ol> <li>austanctus western Canary Islands</li> <li>insularum eastern Canary Islands (damarensis)</li> <li>emini</li> <li>seebohmi</li> <li>bifrontatus</li> </ol>		kapid decline Rapid decline Unknown trend Unknown trend Unknown trend Unknown trend	Small population Small population Small population Small population	
Water Dikkop/Thick-Knee Burhinus vermiculatus Whimbrel Numenius phaeopus White-fronted Plover Charadrius marginatus White-headed Lapwing Vanellus albiceps White-tailed Lapwing Vanellus leucurus Wood Sandpiper Tringa glareola	tricollaris Lake Chad buttikoferi 4. alboaxilliaris south-western Asia/east Africa arenaceus hesperius marginatus mechowi coastal east Africa mechowi inland east & central Africa tenellus albiceps Tanzania 1. south-western Asia/north-east Africa 1. north-western Europe/west Africa		Unknown trend Unknown trend Possible decline Unknown trend Unknown trend Unknown trend Decline Unknown trend Unknown trend Possible decline	Small population Small population Small population Small population Small population Small population Small population Small population Small population	

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!

