The majority of the species ringed are Little Stint (*Calidris minuta*, 1901), Dunlin (*C. alpina*, 381), Wood Sandpiper (*Tringa glareola*, 195), Redshank (*T. totanus*, 122), and Common Sandpiper *Actitis hypoleucos*. Of these, only two (0.06%) were retrapped, a Greenshank *T. nebularia* after 455d at a distance of 3,500 km in Vologda, Russia; and a Green Sandpiper *T. ochropus* after 160d at a distance of 1900 km in the Ukraine. A significant increase in the number of waders trapped was noted following the construction of seawater pans for extracting table salt. In addition, exact numbers of waders were counted throughout the migration seasons of 1989 and 1990. Combining the data I established the phenology of the various wader species in the Eilat region. Of special interest is the migration of the Curlew Sandpiper *C. ferruginea* which is one of the earliest migrants appearing in mid-July till late September in autumn, and a comparatively very late migrant in spring with the peak in May.

**Lake Chrissie Panveld, Mpumalanga, South Africa**

***Jake de Villiers***
*41 Venus Street, Melrose, 2196, South Africa*

The presentation reports the results of 21 consecutive monthly counts at 14 pans in the Lake Chrissie region of Mapumalanga in eastern South Africa. Counts were made at a representative subset of the more than 300 pans and five lakes in the region, which vary from less than 1 hectare to more than 1,100 hectares in size.

The pans are endorheic; randomly distributed; roughly circular in shape; having no discernible inlet or outflow. The five lakes in contrast have both inlets and outlets; are kidney shaped; with rocky western and sandy eastern shores; occur along a north-south linea trend probably reflecting a fossil river system prior to river capture by the Vaal River in the west. The pans can be classified as grassy; sedge-lined; rocky; reed; saline and open. All the lakes fall into the open classification. A total of 63 species of waterbirds have been recorded from a theoretical checklist of some 75 species.

Previous counts in 1985/86 and 1991/94 reflected substantial numbers of both flamingos (10,000 – 12,000) and Scolopacids (up to 2300) on Lake Chrissie. The current surveys reflect markedly lower flamingo and Scolopacid concentrations – the totals for all 14 pans seldom exceeding 200 birds in any one month. This is attributed to the absence of mud banks in what potentially are wetter conditions, though the bar charts of both monthly and yearly rainfall patterns do not indicate simple correlations. The census data has been submitted to the Avian Demography Unit for statistical analysis.

Within the Scolopacids, Curlew Sandpipers outnumbered Wood Sandpipers which in turn outnumbered Little Stints, Ruff and Greenshank. The Atlas of Southern African Birds (Vol 1 plxxix) suggests that, during dry periods, it is likely that the eastern panveld serves as an important drought refuge for waterbirds. The hypothesis suggested by the Atlas maps, that some species (*e.g.* Great Crested Grebe, Cape Shoveller, Southern Pochard and Maccoa Duck) may migrate annually between the winter rainfall and summer rainfall region., is not borne out by the Lake Chrissie censuses. The monthly counts are continuing.

## ABSTRACTS FROM THE CURLEW SANDPIPER WORKSHOP, SOUTH AFRICA 1998

### Curlew Sandpipers in Australia

***Clive Minton, Jim Wilson & Mark Barter (presented by Doris Graham)***

Comprehensive data collected through 25 years of study of Curlew Sandpipers in Australia has been analysed and compared with information generated in other flyways. Topics discussed include population sizes, migratory movements, biometrics, moult, weight and plumage changes associated with migration and variations in annual breeding success. Sex and age related differences in the above have also been investigated. The principal results include:

A. The estimated population in the East-Asian–Australasian flyway is 250,000 birds with 188,000 spending the bulk of the non-breeding season in Australia.

B. Recoveries generated from 36,000 Curlew Sandpipers banded in Australia show that birds from a wide spectrum of the breeding range reach Australia. There is an overlap in breeding ranges of birds occurring in all the flyways around the world.

C. There is evidence of a loop migration with the route followed by many birds on the southward migration being to the west of that used on the northward migration, where the Chinese coast is the principle staging area.

D. Males depart on northward migration ahead of females and also arrive back in Australia ahead of females.

E. Biometric measurements are very similar to those reported from other flyways confirming that the Curlew Sandpiper is monotypic. Females are significantly larger than males.

F. Primary moult in adult birds generally starts in October and is completed in January with a duration of 120 days.

G. Many first-year birds undergo a partial primary moult in February to April with the outer 4 to 6 primaries being replaced.

H. One-year-old birds mainly remain in Australia throughout the year. Migration back to the breeding grounds for the first time occurs at two years old.

I. Typical departure weights of birds leaving the northwest coast of Australia are 80–90g , this 60–70% addition to the fat free weights apparently being sufficient to carry them 3,000 to 4,000 km to southern China and Vietnam in a non-stop flight.

J. Annual breeding success as measured by the proportion of young in the population between the middle of November and the end of February is highly variable, but follows an approximate three-year cycle.

K. The average proportion of young birds in the population at 10.7% would not appear to be sufficient to maintain a stable population. Reasons for this apparent anomaly are discussed.

At the workshop the presentation, by Doris Graham, will focus on:

- migration routes and destinations.
- weight changes associated with migration.
- variations in annual breeding success.

**The Curlew Sandpiper *Calidris ferruginea* in China, with special reference to Hong Kong.**

***[1]David S. Melville, Geoff J. Carey and Wang Tianhou***
*WWF Hong Kong, GPO Box 12721, Hong Kong (dmelville@wwf.org.hk)*

The Curlew Sandpiper is a scarce passage migrant throughout China, with small numbers wintering along the southern coast. Hong Kong is the only known area where the species is numerous with at least 3–4% of the East Asian/Australasian flyway population using the Mai Po/Inner Deep Bay Ramsar Site on northward migration. Recoveries of Australian-ringed birds indicate that Curlew Sandpipers occur at other sites along the east coast of China, but the very limited count data suggest that the species is uncommon. On northward migration Curlew Sandpipers account for 35.6% of all waders counted in Hong Kong but along the east and northeast coasts they account for only 0.02– 3.8% of waders counted. Estimated flight ranges of the heaviest birds departing Hong Kong in spring (3,500–5,000 km) suggest that they may overfly China, but the timing of departure from Hong Kong and arrival on the breeding grounds indicates that there is an intermediate staging area. The relative rarity of Curlew Sandpipers along the eastern seaboard of Asia in spring suggests the birds probably travel overland. Curlew Sandpipers are much less numerous in Hong Kong on southward migration, and are scarce elsewhere in East Asia, and it appears that birds return to Australia by a more westerly route than that used in spring. Estimated flight ranges of birds departing Hong Kong in autumn (4,200–5,500) indicate that the heaviest birds could fly directly to northwest Australia. Ringing records and leg-flag sightings indicate that many Curlew Sandpipers passing through Hong Kong spend the non-breeding season in Australia.

**The changing status of the Curlew Sandpiper in Zimbabwe**

***Tony Tree***
*PO Box 211, Bathurst 6166, South Africa (tony.tree@pixie.co.za)*

Prior to European settlement the Curlew Sandpiper was probably only a vagrant to the Zimbabwean plateau however with the growth of dam building since the Second World War, it has increased slowly as a visitor with the greatest change noticed since 1970 but with increasing numbers into the 1980s and probably into the 1990s. This bird is now one of the commoner wader visitors to parts of the country and ringing has shown that there is an increasing tendancy for birds to be retrapped in subsequent years and for adults to form a greater proportion of the population. Birds tend to oversummer and overwinter more frequently and in increasing numbers.

**Examples of the cyclical overflow phenomenon in Curlew Sandpiper on the southern African coastline**

***Tony Tree***
*PO Box 211, Bathurst 6166, South Africa (tony.tree@pixie.co.za)*

The Curlew Sandpiper is concentrated into a few major estuaries and bays but in years of high populations, mainly those where lemming years in Siberia give rise to successful breeding of waders through a reduction in predation, may spill over into less favoured habitats. Counts and ringing at a spill-over station in the Eastern Cape support this fact. Further support for this comes from Walvis Bay and Swakopmund, in Namibia, where adults form the bulk of the population in the food-rich Walvis Bay whilst at the same time, at the saltworks outside Swakopmund, first year birds predominate. However, when the adults depart, the overwintering immatures tend to move into the more favoured sites or may move partly northwards to freshwater sites within the sub-region.

**Hemispheric studies of the migration of Red Knots (*Calidris canutus rufa*)**

***Allan J. Baker[1] and Patricia M. González[2]***
*[1]Centre for Biodiversity and Conservation Biology, Royal Ontario Muesum, Toronto, Canada.*
*[2]Fundacion Inalafquen, San Antonio Oeste, Rio Negro, Argentina.*

Over the past five years international teams under our direction have carried out a concerted programme of cannon-netting of Red Knots along the Atlantic coast of the Americas. About 10,000 birds have been banded, most of which have year and locality-specific combinations of colour bands. Northward migration from Tierra de Fuego commences in February, and movements appear to be synchronized increasingly as the Red Knots reach Delaware Bay in the United States in May. Detailed observations of colour-banded birds over the month of March in San Antonio Oeste in northern Patagonia this year revealed that the same flock of about 7,000 Red Knots was resident throughout, and underwent a slow fattening regime prior to their departure in early April. Many of the resightings we obtained were of birds colour-banded at the same site in the previous October on their annual southward migration. The San Antonio Oeste birds also arrived earlier on average in Delaware Bay than birds colour-banded in New Jersey the previous year. Fidelity of particular flocks to specific stopover sites and different migration schedules raises the possibility of unsuspected population structuring in this species. Analysis of weight data revealed that rates of fattening in Delaware Bay are the highest ever recorded for Red Knots, and point to the importance of super-abundant horseshoe crab eggs in providing the vital reserves of fat necessary for successful breeding in the Canadian arctic.

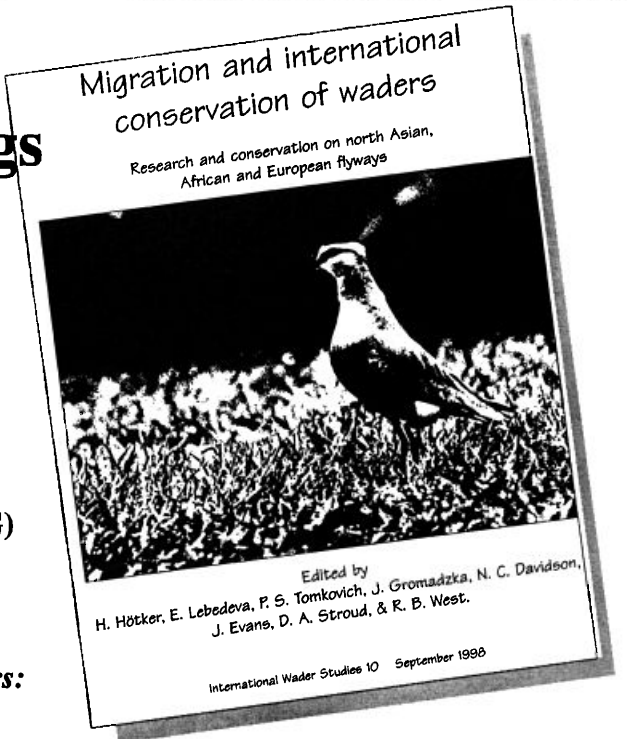
**Curlew Sandpiper on breeding grounds: schedule and geographic distribution in light of breeding system.**

***P.S.Tomkovich & M.Y.Soloviev***

Curlew Sandpiper *Calidris ferruginea* is similar to other polygenous sandpipers in parental care system, low site fidelity and certain other traits. Current evidence indicates that the species' breeding system developed recently from classical monogamy (Tomkovich 1988). Curlew Sandpiper breeding densities and length of breeding season are highly variable, as well as reaching one week difference between western and eastern parts of the breeding range in arrival and breeding dates. The

difference in schedule together with ring recoveries and direct observations of migrations suggests the existence of two geographic populations (western and eastern) within the Curlew Sandpiper breeding range. Annual and possibly intraseasonal redistribution of breeding birds are apparent for Curlew Sandpiper at least on Taimyr. A model is proposed to explain variation in breeding dates and densities in relation to snow and weather conditions in the region. In years of heavy nest predation coupled with early breeding many birds are likely to move further north for renesting. This behaviour is responsible for a double peak breeding in northern parts of the breeding range recorded in several studies.

# Odessa Proceedings launch




**The launch of the International Wader Study Group's (WSG) 500 page publication *Migration and international conservation of waders: research and conservation on north Asian, African and European flyways*[1] took place at Kiev, Ukraine on 25 September 1998 at an event hosted by Dutch government. The first copy of this work was ceremonially presented to the Ukrainian Deputy Minister for Environmental Protection, Ya. Movchan, by the Netherlands Ambassador, O.W.C. Hattinga van 't Sant.**

In his address to the Press Conference, Minister Movchan stressed the imperative for environmental protection and summarised some of Ukraine's current and proposed initiatives regarding the protection of wetlands and waterbirds including his government's recent signature of the Ramsar Convention. Particularly welcome was his announcement of Ukraine's formal ratification of the African-Eurasian Waterbird Agreement (AEWA) which had occurred earlier that week. In his presentation, the Netherlands Ambassador highlighted the benefits to countries such as Ukraine from taking early action to conserve natural wetland systems, contrasting the Dutch experience where the restoration and recreation of now degraded remnants of more extensive wetlands is costing huge sums of money.

The WSG-Wetlands International Liaison Officer, David Stroud, outlined the contents of the volume, part of the *International Wader Study Series*, that was being launched. It is a unique compilation of long-term and short-term studies on waders in a part of the world with few previous studies, set in an international context by descriptions of

## International Wader Study Group Meeting, Cape Town, South Africa, August 1998
*A personal view*

The IWSG meeting in Cape Town was a delight to attend. Held in conjunction with the 22nd International Ornithological Congress it was a good opportunity for members (especially non-European members) to come who might not have been able to attend otherwise. It was also a wonderful opportunity to meet the people and see first-hand the impressive quantity and quality of the work underway in southern Africa.

The South African museum was a lovely venue; during breaks it was possible to marvel at whales and galaxies in addition to the wonders of shorebirds. Cape Town itself is a lovely and interesting city, set between the ocean and dramatic cliffs and tablelands. It has a sense of a city full of life, with a slightly chaotic mix of chic waterfront shops and restaurants, busy streets and government buildings, and inner city street life. The streets held a fascinating mix of beautiful older buildings, lovely gardens, and ubiquitous razor wire and window bars on buildings. Walking through the streets was never boring, with a large variety of lifestyles evident everywhere.

The organisers went all out to ensure it was a delightful meeting to attend. Everything ran very smoothly and included many special extras, such as authentic style South African food for lunches and dinners, and door to door pick up and drop off service. One of the highlights of the meeting was the field trip day to Langabaans Lagoon and the West Coast National Park. Both were superb places - Langabaans for the bird life (one of southern Africa's premiere wader sites) and the West Coast Natioanl Park for the flowers, scenery, and wildlife of all sorts. Both places were so fascinating that our hosts had a difficult job keeping us to our schedule. The meeting was a great opportunity for those who were able to attend to see a whole other side of wader studies, enjoy a wonderful location, and be hosted by some of the most dedicated and delightful hosts one could ever hope for.

*Frances Schmechel*