

## BREEDING OF PAINTED SNIPE ROSTRATULA BENGHALENSIS AT RAJKOT.

Rajkot (22°19'; 70°48' E) is one of the fast-developing cities in India and a vast area is covered by human settlements on the outskirts of the Rajkot Municipal Corporation limit. Such areas lack basic facilities such as an underground drainage system. The waste water from residential areas accumulates in lowlying areas, forming seasonal or perennial pools or lakes around the residential areas. Some of these pools, even those within the settlement areas, are visited by resident as well as migratory birds. One such pool (5,000 m<sup>2</sup> area) existed between Jalaram-2 Society and Africa Colony near the University Road. In 1995, this pool had three small islands covered with tiny Zizyphus bushes and grasses. During our visit on 25-02-95 we observed four male and four female Painted Snipe Rostratula benghalensis. During our subsequent visit on 27-02-95 we saw three chicks following a male in the grass on one of the islands. This is the first record of breeding of the Painted Snipe at Rajkot.

V.C. Soni, Department of Biosciences, Saurashtra University, Rajkot-360 005, Gujarat, India & V.K. PandyaII, Baisahebaba Girl's High School, Rajkot -360 001, Gujarat, India.

### WADER DATABASE NEWS

Reconstruction of the wader database has now been completed as far as resources permit. Data from most countries have now been received and are in the database. Only a few are waiting for confirmation from the national co-ordinators, but importing the last data will only take a few minutes.

After import of all the computerised data available, the database will have a size of ca. 62,000 records from over 12,000 sites in 73 countries. However, there are still big gaps in the data, most of them in Africa and the Middle East. There may be further data in the paper archive of Wetlands International, but this has yet to be investigated. In addition, there may be additional older data in the paper archive compiled by Cor Smit during his period as wader database co-ordinator. It will be important to check this, to ensure that the best time-series can be compiled for population trend analysis. However, the task of cross-checking with the computerised database to avoid duplicate data entry may be substantial.

We are now seeking a way of continuing database co-ordination. A proposal has been prepared from the IBN-DLO in close co-operation with Wetlands International, for the Dutch Ministry of Agriculture, Nature Management and Fisheries to continue maintenance of the wader database. This includes the management for the database for 1998-2002. I hope we will get the funds for this, as I am enjoying my work for the wader database more and more. The absolutely fantastic WSG annual meeting in Vester Vedsted in August 1997 was great for stimulating my enthusiasm. Finally, I want to thank all the people who have helped me with my work in various ways, most of all the national coordinators for their willingness to send me their data.

Lieuwe Haanstra, IBN-DLO

### NEW MEGA-PAPER ON BREEDING WADERS

A major paper on 65 years of breeding bird (mainly wader) studies on the scientific reserve of Tipperne in West Jutland (Denmark) has just appeared in 'Dansk Ornitologisk Forenings Tidsskrift' (the scientific journal of the Danish Ornithological Society - BirdLife Denmark). Tipperne is the

most important coastal meadow sanctuary in Denmark with about 14 sq. km of fresh and brackish meadows, reedbeds and shallow water areas. The 192 pages, written by Ole Thorup, is in Danish, but with 23 pages of English summary and English captions for the 120 graphs and tables! It presents the reasons for one of the greatest successes in modern Danish nature management, an increase from low numbers in the middle of the century (due to lack of grazing and mowing) to between 2000 and 2500 pairs of breeding waders on 5.45 sq km meadows after careful reintroduction of grazing and mowing.

The paper can be ordered from: The Danish Ornithological Society, The secretariat, Vesterbrogade 138-140, DK-1620 Copenhagen V, DENMARK. Email: dof@dof.dk.The reference is: Thorup, O. 1998: The breeding birds on Tipperne 1928-1992. - Dansk Orn. Foren. Tidsskr. 92: 1-192. The price is \$11, which includes packing, postage and money exchange fees. The amount should be transferred to bank account no. 0203 296-04-05652 or giro account no. 700-0839. Please notify the secretariat when you mail the money and make sure that they recieve your full mailing address.

Hans Meltofte, D.Sc., Danish Polar Center, Strandgade 100H, DK-1401 Copenhagen K, DENMARK. Phone: +45 32 88 01 34 (direct). Fax: +45 32 88 01 01. E-mail: mel@dpc.dk

# WETLAND RESTORATION PHOTOGRAPHS WANTED

Perhaps many of you already have the news that the Asian winner of the 1998 Goldman Environmental Prize, often called the "Nobel Prize in the field of environment," was awarded to Hirofumi Yamashita, of Japan Wetlands Action Network and the Isahaya Bay Emergency Rescue Task Force.

However, the impoundment of Isahaya Bay, formerly Japans greatest tidal flat wetland, will soon be followed by the landfill (for garbage) of Fujimae Tidal



Flat in Ise Bay, where the top numbers of migrating shorebirds are being recorded now that Isahaya Bays 3,000 ha. of tidal flats are drying out. There are still no plans to review the Isahaya project, and the process of evaluating the controversial environmental impact assessment for the Fujimae garbage fill is entering its last phases. Meanwhile, the effort to protect these wetlands has now, quite literally, gone into orbit!!

Last month, Dr. Julie Robinson, a researcher at the Office of Earth Sciences at the Johnson Space Center of NASA in Houston, Texas (USA) spotted some Japan Wetlands Action Network data about shorebirds on the internet and contacted us. One result was that Dr. Robinson has provided for publication in a major science magazine (SClaS, published by the Asahi Shimbun newspaper; July 17th issue) photographs of Isahaya Bay and Fujimae Tidal flat taken by astronauts on the STS-90 mission of the Space Shuttle, as well as another photo from space which shows Isahaya Bay before it was impounded (on 14 April 1997). Needless to say, the result is impressive!

This successful linkage has naturally led us to think about the potential for similar photographs to support the conservation of other wetlands. We would like to identify "before and after" photographs of wetland restoration to accompany the illustration of wetland destruction. Restoration projects at the Waddenzee, the Po Delta, and San Francisco Bay came to mind, as we were aware of active restoration projects and have already collected photos that could serve as pre-restoration references. Can anyone out there provide the geographical particulars, including their coordinates, of restoration projects at the Waddenzee, Po Delta, and San Francisco Bay? Although some photographs can have a ground resolved distance as small as 8 m, a restoration project larger than 2000 ha is most likely to be clearly identifiable.

In addition to looking for restoration

examples, we are also interested in try ing to identify 10 - 20 suitable wetland areas in the world that have been the most impacted over the last 20 years. If a short list could be compiled, then a search could be made for older photos, and where these are found, existing recent photos, and new photos specifically shot for the purpose by the astronauts, could provide some interesting contrasts. Any suggestions on how to select a short list of impacted wetlands would be much appreciated.

For those who are interested, low resolution scanned images of shuttle photos get posted to a searchable site on the World Wide Web, and text-based searching is available for all astronaut photographs since the beginning of ma nned space flight. All images are available to the public at cost of reproduction. A selection of "best" pictures can be downloaded in high resolution from the web.

The World Wide Web site is at: http://eol.jsc.nasa.gov. For those with a more technical interest, information on using the photographs for remote sensing and monitoring can be obtained from Dr. Robinson. Julie A. Robinson is at: jarobins@ems.jsc.nasa.gov. or contact me direct at:

Maggie Suzuki, Japan Wetlands Action Network (International Liaison)

BYG05310@niftyserve.or.jp

# REQUEST FOR INFORMATION ON IMPACTS OF HOVERCRAFT

I am after some information on the ecological and geolomorphological impacts of small hovervcrafts on tidal areas, particularly mudflats and sea grass communities. The potential situation is the daily use of a hovercraft to service an existing oyster farm. The area meets a number of Ramsar criteria, particularly for migratory waders but has yet to be nominated as a Ramsar site.

Robbie Gaffney, Project Officer,

Tasmanian Parks and Wildlife Service, GPO Box 44A HOBART Tasmania 7001, Australia, Fax (03) 6233 3477 ph (03) 6233 3117

# WETLAND MANAGEMENT COURSE

The brochure and application form for the 6th 'International Course on Wetland Management', held annually at the Wetland Advisory and Training Centre in Lelystad, The Netherlands, is now available. The course, which has gained a high international reputation during its first five years, will run from 2 September to 13 October 1999. There are 20 places, open to individuals from throughout the world who meet the following criteria:

- at least three years of experience in wetland management or environment conservation (if latter, must plan to specialize in wetlands in future);
- competence in English;
- B.Sc. (or similar) academic degree, or equivalent work experience.

Copies of the brochure and application form may be obtained from: Wetland Advisory & Training Centre, Secretariat of the International Course on Wetland Management, PO Box 17, 8200 AA Lelystad. Fax: +31-320-29.83.39, E-mail: watc@riza.rws.minvenw.nl

The closing date for applications is 1 February 1999.

Tim Jones, Regional Co-ordinator, Europe, Bureau of the Convention on Wetlands (Ramsar, 1971), Gland, Switzerland. E-mail: taj@hq.iucn.org

## MORE NEW RAMSAR SITES FROM NEWLY-JOINED MONGOLIA

Despite the fact that Mongolia joined the Convention only a few months ago, the Ministry of Nature and the Environment has already submitted three additional nominations to the Ramsar List of Wetlands of International



Importance, bringing the total number of Ramsar sites in Mongolia to four (264,220 hectares) and the number of Ramsar sites in all the 110 Contracting Parties to 927 (68,203,343 ha).

1. Terhivn Tsagaan Nuur (including the Khorgo-Terhiyn Tsagaan Nuur Natural Park). A freshwater and oligotrophic lake formed by volcanic activity, 6,110 ha in size, located in the Suman River valley in the Central Khangai Mountains. As with most wetlands in Mongolia, land use around the lake is restricted to fishing and livestock grazing. About 20% of the lake support aquatic macrophytes and blue-green algae dominate the phytoplankton in summer. The extensive marshes in the west are an important breeding and staging area for migratory waterfowl. The fish fauna is dominated by typically north Eurasian species of cyprinids, pike and perch. The Natural Park was included in the Protected Area System in 1995, and currently has six rangers responsible for its management and administration. An information and awareness centre is being planned within the Park.

2. Valley of Lakes (Boon Tsagaan Nuur, Taatsiin Tsagaan Nuur, Adgiin Tsagaan Nuur and Orog Nuur). A chain of four saline lakes at the foot of the Gobi Altai, totalling 45,600 ha in area and ranging from 1100 m to 1235 m in altitude. The lakes are shallow, with a saucer-shaped depth profile, and vary considerably in size both seasonally and from year to year. As the lakes shrink in summer, they leave areas of salt marsh. These lakes are known to be an important staging area for migratory waterfowl, and it has been suggested that they might be a breeding area for the rare Relict Gull Larus relictus. The lakes provide grazing land for domestic livestock in an otherwise arid region.

**3. Ogii Nuur.** 2,510 ha freshwater lake located in the valley of the Orkhon River. It has an extensive alluvial area of grassland, river channels, pools and marshes at the western end and is

surrounded by grassy steppe. The maximum depth of the lake is 16 metres, but about 40% of the lake is less than 3 m deep. The lake supports an intensive fishery dominated by cyprinids, pike and perch and livestock grazing. It is a very important breeding and staging area for a wide variety of waterfowl, particularly Anatidae.

Dwight Peck, Executive Assistant for Communications, Convention on Wetlands (Ramsar, Iran, 1971), Rue Mauverney 28, CH-1196 Gland, Switzerland. E-mail dcp@hq.iucn.org, Web http://ramsar.org/

### THE STILT

The Stilt is the twice-yearly journal of the Australasian Wader Studies Group (AWSG), a special interest group of Birds Australia, edited by David Milton. The aims of the AWSG include the study and conservation of the waders, or shorebirds, of the Australasian region and the East Asian / Australasian Flyway. The April issue contains papers on the use of pre-migratory weight gain rates to predict departure weights of individual waders from north-western Australia, the identification of potentially important staging areas for long jump migrant waders in the East Asian - Australasian Flyway during northward migration, and migratory movements of Curlew Sandpipers Calidris ferruginea that spend the nonbreeding season in Australia. There are also short communications on a range of topics including cannon-neting regulations and the manufacture of legflags.

Subscription enquiries to, and further information from, the AWSG at membership@raou.com.au or the contact numbers and address below.

Hugo Phillipps, Birds Australia Conservation & Liaison, Australian Bird Research Centre,415 Riversdale Road, Hawthorn East, VIC 3123, Australia. Tel: (03) 9882 2622. Fax: (03) 9882 2677. O/s: +61 3 9882 2622. Fax: +61 3 9882 2677. Email: conservation@raou.com.au> Web Homepage: http:// www.vicnet.net.au/birdsaus/

### ASIA-PACIFIC MIGRATORY WATERBIRD CONSERVATION STRATEGY

A full html version of the Asia-Pacific Migratory Waterbird Conservation Strategy, including figures and tables, can be found in the website of Wetlands, Waterways and Waterbirds Unit of the Environment Australia Biodiversity Group at: http://www.anca.gov.au/environm/wetlands/wwwhp.htm

## TELEMETRY STUDIES AID WHSRN

The latest edition of the Western Hemisphere Shorebird Reserve News highlights the value to site conservation of radio telemetry studies. One recent telemetry study was of Western Sandpipers' spring migration in the San Francisco Bay Estuary. Researchers found that the Bay is an important refueling site and that sandpipers stay longer at San Francisco Bay to build up fat reserves during migration than at other stopover sites studied. The study demonstrated that maintaining suitable feeding and roosting habitat for Western Sandpipers in the Bay should be a management priority, as sandpipers are especially sensitive to disturbance during peak migration, 1 April through 15 May. Elsewhere within the WHSRN, radio telemetry has recently identified Controller Bay, a site not yet included with in the Copper River Delta Shorebird Unit boundaries, as the first landfall for many shorebirds arriving in the Delta. In addition, aerial surveys have found that almost 25% of the shorebirds observed each spring occur in Controller Bay.

Many other features on projects, sites and educational programmes within the WHSRN as well as an update on the US National Shorebird Plan, can be found on *WHRSNews* Web site accessed from http://www.manomet.org. The Western



Hemisphere Shorebird Reserve Network, established in 1985, is a partnership program of the Manomet Center for Conservation Sciences and Wetlands International: the Americas.

#### TIDAL FLAT PROTECTION DAY

On April 14th, 1997 at Isahaya Bay in the Ariake Sea (in Nagasaki Prefecture, Japan), 293 steel slabs were dropped into place, cutting off Isahaya Bays 3,000 hectares of tidal flats from the sea. This latest destruction of Japanese tidal flats through land-claim has prompted the declaration of a *Tidal Flat Protection Day* on 14th April.

Japan has ratified a number of international treaties such as the Ramsar Convention (Convention on Wetlands of International Importance, Especially as Waterfowl Habitat), bilateral migratory bird agreements, and the Biodiversity Convention. The international community expects Japan to live up to its promises to protect and wisely use its remaining important wetlands, particularly tidal flats. Moreover, in its National Biodiversity Strategy, the Japanese government has pointed to the need to preserve and protect wetlands.

In spite of this, and in the face of domestic and international censure, the Japanese government continues to embrace the contradictions of the Isahaya project and carry on with its construction, while pushing forward public works development destructive to natural tidal flat environments at Fujimae Tidal Flat in Ise Bay, Wajiro Tidal Flat in Hakata Bay, Sone Tidal Flat in Kitakyushu, Sanbanze Tidal Flat in Tokyo Bay, and the Yoshino River Estuary Tidal Flat in Shikoku. Tidal flat ecosystems are being threatened with extinction one after the other. If things continue in the direction they are now tending, it seems quite clear that in 50 years time nearly all the tidal flat wetlands of international importance in Japan will have been wiped out.

Isahaya Bay Emergency Rescue Task

Force would like to commemorate the date of April 14th in perpetuity, and declare this day Tidal Flat Protection Day. Every year, on or around April 14th, the Task Force intend to widen the circle of people around Japan who are taking cognizance of tidal flats, getting to know them, and working to protect and live together with them. This years events on *Tidal Flat Protection Day* included presentation of petitions, a protest march, tidal flat festivals and an International Dunlin Symposium.

If you wish to add your signature in support of the *Tidal Flat Protection Day* Declaration, please contact Isahaya Bay Emergency Rescue Task Force, Tokyo Office by post or fax.

Isahaya Bay Emergency Rescue Task Force Tokyo Office, 4-7-22-303 Kudan-minami, Chiyoda-ku Tokyo 102-0074, Japan

Tel: (+81) 3-3238-1951 Fax: (81) 3-3238-1952

Source of information: Rick Davis, Waders-l.

# KOREA WETLANDS & SUNCHON BAY

A survey whose principle aim is to identify those wetlands in South Korean of international importance, has already reported a minimum of 17 sites fulfilling Ramsar 1% criteria for one or more shorebird species. With 20% of South Korean tidal flats surveyed, more sites during this one-year project may well remain to be identified by Nial Moores and his team drawn from an alliance of Korean environmental groups. During spring 1998, surveys of these wetlands located significant numbers of Great Knot Calidris tenuirostris (80,000), Dunlin Calidris alpina (74,000), Terek Sandpiper Xenus cinereus (5,400), Black-tailed Godwit Limosa limosa (24,500), Red-necked Stint Calidris ruficollis (4,000) and Far Eastern Curlew Numenius madagascariensis (2,750). Though in much smaller numbers, the presence of up to 20

Nordmann's Greenshank *Tringa guttifer*, a globally scarce species, is of particular conservation interest.

Whilst the aforementioned appraisal is still on-going, news of threats to the existence of one major South Korean, Sunchon Bay (ca 34° 50' N,127° 30' E), has come to light. Sunchon Bay is an vast tidal wetland with more than 15,000 hectares of tidal-flat, as well as extensive beds of reed and saltmarsh. The Bay is internationally important for at least five species of shorebird, with maximum counts this spring of:

9,300 Dunlin (7% of present estimated subspecies total)

478 Common Greenshank *Tringa nebularia* (1% of present estimated flyway total)

429 Grey-tailed Tattler *Tringa brevipes* (1-2% of present estimated world total)

1,046 Ruddy Turnstone *Arenaria interpres* (3% of present estimated flyway total)

528 Eurasian Whimbrel *Numenius* phaeopus (1% of present estimated subspecies total)

Sunchon Bay also supports in winter ca. 1,000 Saunders' Gulls Larus saundersi (10-20% of the World population), Asias largest concentration of Eurasian Shelduck Tadorna tadorna (over 11,000), and South Korea's only remaining flock of Hooded Crane Grus monacha of which fewer than ten sites hold flocks in the world. Sunchon Bay clearly meets Ramsar criteria for identification and protection as a wetland of international importance. The species diversity and abundance is indicative of the wetland's enormous productivity and the quality of the remaining habitat. It is the only major bay remaining in South Korea with a largely unaltered river mouth and extensive beds of coastal reed and large saltmarsh. However, as typical of many sites in South Korea (a nation that became a Ramsar signatory only last



year) there are plans under consideration to reclaim much of the Bay. As with many other countries, international support is essential if local and national NGOs are to be able to persuade the authorities of the right course of action for conservation of the Bay and it's surroundings.

For further information in relation to either the survey of South Korean wetlands or in ways you can help with the campaign to safeguard Sunchon Bay, please contact Nial Moores (Korean NGO's for Ramsar) and Kim Choony Shi (KFEM international coordinator) at the E-mail address kimchy@kfem.or.kr or Prof. Park Ky Young (Assoc. Prof of Biology, Sunchon University plpm@sunchon.sunchon.ac.kr .

# ARMS RACE ON THE MUDFLATS?

Arms race on the mudflats? is the title of a video documentary on the activities of a joint research group of the Netherlands Institute for Sea Research (NIOZ) and the University of Groningen, whose work is focussed on the Red Knot Calidris canutus. An insight is provided of the approach taken in research by the Group, showing the techniques used in both field and laboratory, including the extensive Experimental Shorebird Facilities at NIOZ. Further details of this video which is produced by Jan van de Kam, can be obtained from the Group's Leader, Theunis Piersma, NIOZ, 1790 AB Texel, The Netherlands.

## RADIO TRACKING RESOURCES

Although some standard radio-tag designs are available, the vast majority are customised to suit the specific needs of a project. Presenting complete descriptions of this equipment in a printed catalogue is virtually impossible for a manufacturer, given the vast array of possible combinations of transmitter, battery, antenna and mounting method.

Biotrack Ltd. have now provided the customer with access via their Web site to an Interactive Computer Catalogue. It has been developed to guide you in your choice of tag, and it contains an interactive model to demonstrate the effects of pulse parameters on battery life and signal range. If you are new to radio-tracking, or wish to know more about particular aspects of the technique, the catalogue also provides background information about practical tracking and tagging. The catalogue can be accessed via Biotrack's web site http://www.biotrack.co.uk/index.html.

A list of other radio telemetry manufacturers with links to their respective Web sites can be found in the *Directory of Biotelemetry Equipment Manufacturers*.

# HOPE FOR SLENDER-BILLED CURLEW

The Slender-billed Curlew *Numenius* tenuirostris is a globally endangered shorebird. At the time of writing it is hard to make a firm estimate of the world population, but in 1994 Birdlife International (*Birds in Europe – their conservation status*, eds. Tucker and Heath) make an informal guess at 50 –270 individuals worldwide.

On May 4, Tim Cleeves found a Slender-billed Curlew at Druridge Bay in Northumberland, U.K. The bird remained in the area with a small flock of Eurasian Curlews Numenius arquata for the following three days. Full notes, video evidence and photographs of the bird show that it was likely to have been a young bird, hatched in 1997. The last proven breeding records of this species were in 1924 in Western Siberia. At least we know the species is still breeding.....somewhere. Attempts will be made this coming winter to follow up reports of Slender-billed Curlews wintering on the Gulf Coast of Iran. Our own Eurasian Curlew can be long lived, the oldest known ringed bird being 31 years of age, we can only hope that enough Slender-billed Curlews

remain alive to keep the species breeding in Siberia. Every year small numbers are seen in wetlands in southern Europe, Greece, Italy, Hungary and possibly Spain. Having migrated through these countries, birds traditionally wintered in North Africa, particularly Morocco and Algeria. Access to politically sensitive areas in the Slender-billed Curlew's wintering, migratory and breeding range are hampering comprehensive searches for the bird.

Tim Cleeves

# AUSTRALIAN BIRD RESEARCH DIRECTORY

Most of us probably do not learn about many research programs until the results are published and/or presented at conferences or public meetings. The results of many studies are never published or are presented as technical reports that are not distributed widely, so few people get to know about them. This has motivated Stephen Ambrose, Birds Australia Research Manager, to compile an annual directory of Australian bird research projects to be viewed at the Web site <a href="http://avoca.vicnet.net.au/~birdsaus/97research/97research.html">http://avoca.vicnet.net.au/~birdsaus/97research/97research.html</a>>.

In March 1997, Birds Australia published a list of funded ornithological projects that it was aware had been conducted in Australia in 1996.

Descriptions of these projects were provided by researchers on behalf of themselves or their research groups. It was the first attempt at summarising the current state of ornithological research in this country.

Many researchers from both Australia and overseas used the 1996 Directory of Australian Bird Research and encouraged Birds Australia to update it annually. The current edition aims to present an overview of ornithological research conducted on avifauna of Australia and its territories in 1997. From a total of over 127 groups/



individuals, descriptions of 339 research projects that were conducted in 1997 are described on the Web site. All projects listed were financed by a research grant or donation and/or had support (provision of resources or finances) from the host institution. The 1997 Directory of funded bird research undoubtedly provides a valuable tool to ornithologists which Birds Australia intend to continue to produce annually.

### **AWSG ACTIVITIES IN CHINA**

In a recent Waders-l listserver mailing, Mark Barter summarised the third year of involvement by the Australasian Wader Studies Group (AWSG) in training, surveying and wader counting activities at East Asian - Australasian Shorebird Reserve Network sites in China. In 1998, AWSG revisited Chongming Dao and the Huang He (Yellow River) delta, and went to the third Network site Hdat Shuangtaizihekou for the first time. The activities were conducted on behalf of Wetlands International with funding from Environment Australia.

Brief count results, reproduced from *Waders-I*, are as follows:

CHONGMING DAO (31° 31' N; 121° 56' E) - 18 to 21 April Counts were less extensive than in previous years and totalled 4,785 birds in the more important wader areas. The results confirm the view that Chongming Dao is used by most migrants as an emergency staging site for use in bad weather or by less fit birds. Discussions during the visit with Lu Jian Jian confirmed that large numbers of waders (i.e. tens of thousands) were using Jiu Duan Sha (emergent islands within the Chang Jiang estuary) but that numbers here were also higher there during bad weather.

HUANG HE DELTA (37 ° 156' N; 118° 51' E) - 27 April to 7 May The count of 78,000 birds confirmed the importance of the delta for migratory waders. Counting took place some eight days later, on average, than in 1997, when an estimated 130,000 birds were present. This year few Blacktailed Godwit, Eurasian Curlew and Kentish Plover (i.e. more southerly breeding waders) were present and numbers of Dunlin were substantially lower, accounting in total for a decline of 53,000 over last year. Coverage this year was marginally less than in 1997 and the count at one of the most important sites was significantly affected by poor visibility. Proportionally, numbers of the more northerly-breeding waders, such as Bartailed Godwit and Great Knot, had increased.

A detailed survey of Little Curlew was conducted in grassland habitat. This resulted in an estimate of 22,000 birds in an area of approximately 112 km<sup>2</sup>, which is only a small part of the apparently suitable habitat within the delta. The 1997 count found that the delta was internationally significant (using the 1% criterion) for 15 species: Black-tailed Godwit, Bar-tailed Godwit, Little Curlew, Whimbrel, Eurasian Curlew, Eastern Curlew, Spotted Redshank, Marsh Sandpiper, Common Greenshank, Nordmann's Greenshank, Great Knot, Dunlin, Eurasian Oystercatcher, Grey Plover and Kentish Plover. This count identified an additional species, Terek Sandpiper, as also being present in internationally important numbers.

SHUANGTAIZIHEKOU (41° 07 N; 122° 03' E) - 11 to 19 May The count during the visit was the first comprehensive one undertaken at this site. The total of 63,641 waders indicates that the Reserve is extremely important as a final staging area, particularly for Great Knot (46.0% of identified birds), Dunlin (30.3%), Grey Plover (7.8%) and Bar-tailed Godwit (6.4%). It is probable that more than 80,000 waders were present at the time of the count as it was not possible to visit a large offshore sand bank in the south-east of the Reserve. A much smaller sandbank was found to hold

12,530 birds. It is probable that the Reserve supports more than 200,000 waders during northward migration and maybe twice this number over a full year.

The Reserve was found to be internationally significant for six species, i.e. Bar-tailed Godwit, Whimbrel, Eurasian Curlew, Great Knot, Dunlin and Grey Plover. Previously, Eastern Curlew had been recorded in internationally important numbers on southward migration.

The Reserve accounts for less than 20% of the mudflat area in northern Liaodong Wan, implying that more than 300,000 birds are using this region in mid-May. Very large mudflat areas also exist in China close to the North Korean border and it seems that the coastline of the northern Yellow Sea (including North Korea) is of extreme importance as the final staging site for many waders on northward migration.

Six Australian leg-flagged birds were seen.

This feature largely relies upon YOU the members feeding the Compilers with your notes and news. Please send any noteworthy news, requests or relevant press releases from your organisation to:

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