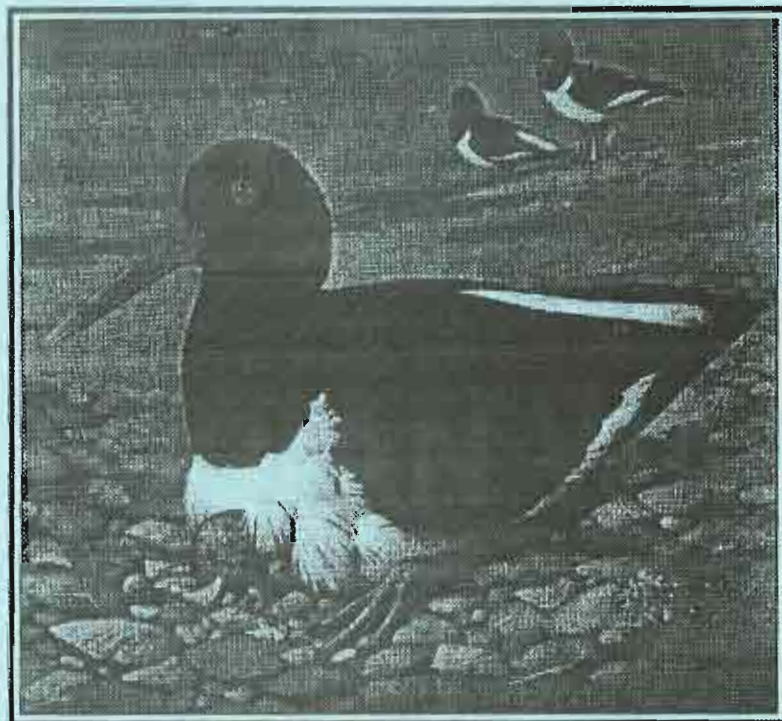


# VICTORIAN WADER STUDY GROUP



## STUDY GROUP



VICTORIAN WADER STUDY GROUP INC.

BULLETIN No 13

JULY 1989

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## EDITORIAL

It would be all too easy to write each year in praise of our individual and collective achievements. There is much that could cause us quiet satisfaction. Fieldwork which could so easily be a time-wasting disaster is almost always carried out successfully. So much so that we tend to take for granted that all necessary material will have been brought, that the nets will be set in the right place and birds will not only be caught but they will be the desired species. This comes of not only experience but also from careful planning and hard work; if we miss it is generally for the best of reasons. Waterside workers we may be but our effort and time are always put to good use.

The VWSG has always welcomed participation by the young. It is pleasing to be able to kindle or encourage an interest in birds particularly a purposeful and productive interest. We have watched over the last ten years or so the development of a number of juveniles into young adults with what will almost certainly be a lifelong fascination with ornithology. Some have made it their career. There is an account in this issue of the Bulletin of a particular success. One of our newest and youngest members with wire netting paper and paste made several lifelike decoy Pied Oystercatchers which, if they survive being cannon netted should serve us well in future. There is a temptation to place orders for other species - Eastern Curlew for example.

## WADER HIGHLIGHTS 1988

1988 was the best year ever for the VWSG. Not only were a record 10,716 birds caught but a bumper crop of overseas recoveries was reported. These reports of banded birds are at last beginning to indicate important stop-over points for our waders on their journeys to and from their Arctic breeding grounds and to delineate the migration routes. The birds reported during the last year include :

Red Knot. 1 in USSR (Australia's first), 2 in China and 2 in New Zealand. All were banded at Queenscliff.

Great Knot. Our second in China; also from Queenscliff

Sharp-tailed Sandpiper. Our first from the Arctic breeding grounds in USSR; this one was banded at Werribee Sewerage Farm.

Curlew Sandpiper. Again our first from the Arctic breeding grounds; also banded at Werribee Sewerage Farm.

Red-necked Stint. 1 in China and 1 in USSR. The latter was again our first on the Arctic breeding grounds, and at 12,435 km is one of the longest ever recorded movements of a banded bird anywhere in the world.

Mongolian Plover. A bird banded at Corner Inlet and recovered in China, again a 'first'.

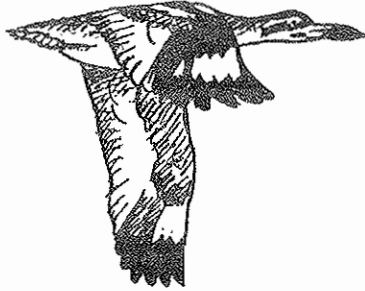
For all except the Great Knot the above contain the longest movements recorded for Australian banded birds of these species.

The record total of birds banded in 1988 - at 10,716 it was 62% above the 110 year average of 6,602 - was achieved in spite of the fact that no catching was possible during March/April when the cannon netting equipment was away being used by the AWSG North West Australia Wader Expedition (which also caught a record 6,500 waders, in three weeks).

Success can be attributed to the considerable experience now developed by the VWSG, the regular participation in fieldwork by key 'core' members, good weather and good fortune!

All three of the commoner small species were caught in record numbers: (Red-necked Stint 7,056, Curlew Sandpiper 1,823, Sharp-tailed Sandpiper 675).

Other catching highlights were 174 Red Knot, 33 Great Knot and 78 Bar-tailed Godwits - after a dearth of all three species in 1987 - and a further 530 Double-banded Plover (in spite of reduced effort). But pride of place in the 'quality' area 36 Greenshank (only 1 banded previously by the VWSG in 12 years). These were caught on a small pool in a paddock at Warneet - a site regularly observed by Peter Hermans over the previous two summers.



— S. DANIELSON —

The new Oystercatcher study commenced well with numbers caught almost doubling previous totals - 195 Pied Oystercatchers and 38 Sooty Oystercatchers. All were colour banded and some interesting sightings of Pied Oystercatchers have ensued, including a movement (within six weeks) of a bird from Werribee Sewerage Farm to Corner Inlet (177km ESE) - and back - and two birds from Port Phillip Bay to near Port Fairy (200km W). The amount of movement along the coast and between the major bays seems to be quite significant and it is hoped that further work (it is envisaged as a 10 year study) will elucidate patterns and reasons. The study will be aided by the move to individually colour marked birds from 1989.

The VWSG's ancilliary studies on terns also continued energetically in 1988, with a new aspect being introduced in early 1989 of catching and colour banding Common Terns and Little Terns at Spermwhale Head, Lakes National Park. Full details are given later in this Bulletin.

Mark Barter and a team of aides (particularly from his family) have made great progress in the last on two fronts:

(a) entering VWSG banding data onto a computer for transmission to the Banding Office in Canberra. Until this is completed, and consequent banding schedules are prepared, it is not possible to identify retraps of birds which have made interesting movements within Victoria or to and from elsewhere in Australia (hence the paucity of these in the recovery lists).

(b) analysing data generated by our studies - particularly biometric data. Often the VWSG data has been analysed in conjunction with that from elsewhere in Australia. A number of publications have ensued, particularly in the AWSG Bulletin 'The Stilt'.

At the end of this phenomenal year I would just like to thank again all those who have contributed (landowners, group members, friends and relations etc.) to our enjoyment and achievements.

May 1989 be equally productive!

Clive Minton

## WADERS OF THE MILDURA REGION

The following is not an exhaustive account of the waders of the Mildura Region, merely a brief note in order to give some idea of the, perhaps surprising to some, variety and number of waders which regularly use the district.

The area has many wader sites, the majority being drainage basins from the nearby irrigation areas, plus two sewerage works. As the main irrigation season is during the summer, the basins tend not to dry at this time, which means that they generally remain suitable for waders throughout the year. The number of sites in the region also means that if for some reason any particular basin does dry out there is almost certainly another nearby containing some water. In fact the more usual problem is that too much water may be let into the basin, thus inundating feeding areas.

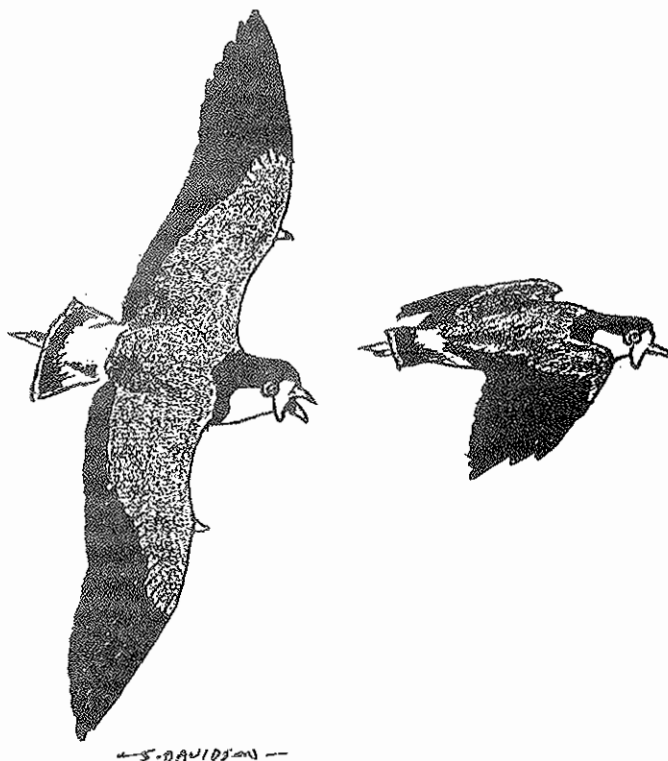
A total of ten sites in the area were covered in the biannual (summer/winter) counts for the RAOU Wader Studies Programme from 1982 to 1985. Six of these sites were in Victoria and four in New South Wales. In addition to this one site, Lake Ranfurley on the outskirts of Mildura, was counted monthly for two years from August 1983 to July 1985.

The biannual counts showed that around 1,500 to 5,000 birds used the ten sites in summer and 1,500 to 3,500 in winter; of these approximately 75% were palearctic breeding species. Sixteen species were registered in these counts.

A total of 30 species have been recorded in the region. Some of the perhaps more unexpected for an inland site are Painted Snipe, Double-banded Plover, Ruddy Turnstone, Little Curlew, Black and Bar-tailed Godwits, Red Knot, Long-toed Stint, Ruff and Broad-billed Sandpiper. As well as the typical coastal waders three dry-land species occur in the region - Bush Thick-knee, Banded Lapwing and Inland Dotterel and a species that is often found some distance from water - the Australian Pratincole is also a regular visitor.

At least nine species are known to breed in the district - Bush Thick-knee, Masked and Banded Lapwings, Red-kneed Dotterel, Black-winged Stilt and Red-necked Avocet.

Two widely held opinions on palearctic breeding waders in the inland are that these birds do not remain there through the non-breeding season, the inland being used as a staging post by birds on their way to the coast and that the majority are first year birds. In my opinion both of these assumptions may be incorrect. Although it must be said that most of the wader habitat in the Mildura region is not typical of inland wetlands, because water levels are artificially maintained, the results of the monthly counts at Lake Ranfurley in particular appear to contradict these opinions.



The monthly counts show that palearctic breeding species were more numerous during the southward migration period but present in all seasons. This may mean that some birds merely stop over during the southward migration but that many remain until the adults depart directly towards the breeding areas. It is of course possible that all the birds that arrived at Lake Ranfurley remained in the region given that there are other suitable sites nearby which were not surveyed monthly.

On the assumption that most birds using inland sites are first year birds the fact that often well over 50% of the birds present were in alternate plumage seems to disprove this. For example at Lake Ranfurley in August 1984, when the post-breeding birds first arrived, all of the Sharp-tailed Sandpipers present were in partial alternate plumage.



## A WANDERING METALLURGIST

Mark Barter

During recent years I have been fortunate to travel widely on business in the Asian region, from Pakistan in the west to Taiwan in the east, and have had the opportunity for some unforgettable birding during these trips. I'd like to share some of the highlights with you and, perhaps, entice you into going to see some of the places for yourself.

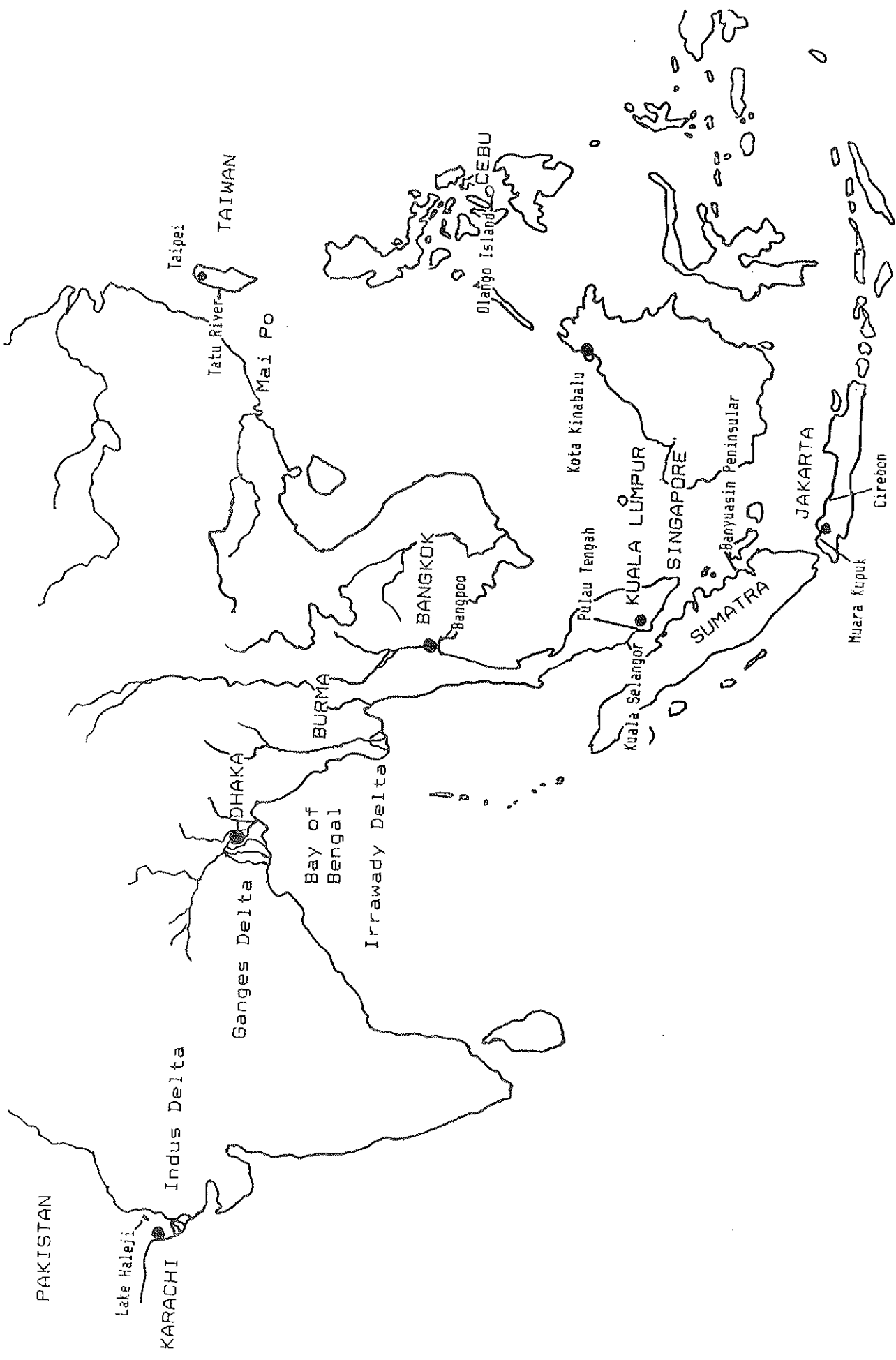
Little of what I've done could have been achieved without the friendship and assistance of many people and I'm very grateful for their help. In many countries finding the best birding spots can be a problem and difficulties with language and transport don't help. Given time these problems can be overcome, but on a business trip only weekends are available and local knowledge is of considerable value.

Pride of place must go to Mai Po, the wetland being developed and managed by WWF-Hong Kong alongside Deep Bay on the border with China. Each year WWF runs a "Big Bird Race", sponsored both privately and by big business, which raises enough money (around A\$200,000 in 1989) to buy a fish pond from local farmers. These are then managed for waterfowl - waders, herons and duck. Over the years I've watched the efforts of David Melville, the first warden, to engineer waterfowl habitat and these have been so successful that Mai Po has become a Mecca for itinerant birders. There can be up to 8,000 waders in front of the hides at peak migration times (April and early May), mostly in full breeding plumage. Mai Po is probably best known as a good spot to see Spoon-billed Sandpipers, Nordmann's Greenshank and Asian Dowitchers. Last April I saw the latter two and a further 24 species from the one hide. Particularly memorable were the Dowitchers, Spotted Redshank, Black-tailed Godwit, Great Knot and Mongolian Plovers - all in magnificent breeding plumage.

Mai Po is also excellent during the northern winter when large congregations of duck, waders and gulls are present. Those amongst us that have chosen to escape northern hemisphere winters can renew acquaintanceship with Northern Shoveler, Pintail, Common Pochard and Teal, Wigeon, Mallard, Tufted Duck, etc. or tick Ruddy Shelduck, Baikal Teal and Baer's Pochard. My favourite, though, is the magnificent Falcated Teal, with its spectacular plumed scapulars. Three Red Data Book birds often seen at this time of the year are Dalmatian Pelican, Saunder's Gull and Black-faced Spoonbill.

There have been a number of movements of banded waders between Mai Po and Australia. In September 1987, I spent a memorable night mist-netting with David when we caught Whimbrel, Bar-tailed Godwit, Asian Dowitchers and two species of Snipe. One of the Godwit was subsequently caught during the 1988 AWSG Expedition to





north-western Australia.

Whilst numbers on southward migration are lower than in April, there is the opportunity to study juvenile birds in fresh breeding plumage. This is totally different to the relatively worn plumage seen when they arrive a month or two later in Australia. I can well remember my confusion when first seeing salmon-pink Curlew Sandpipers.

Yes, Mai Po is well worth a visit - and I haven't mentioned the bitterns, herons, kingfishers and raptors!!

An hour's flight to the east of Hong Kong is Taiwan, less than half the size of Tasmania but with a population of 20 million. However, unlike our island state, Taiwan's west coast has extensive mud flats with a tidal rise and fall of around five metres. Recently, three mist netting teams have started operations there and they have been immediately successful in catching Australian-banded birds, including five during the recent northward migration season. The teams are from the Taipei, Taichung and Kaohsiung Wild Bird Societies with whom I've had many pleasant excursions.

Probably the best wader spot to visit is the Tatu River mouth, near Taichung, on the central west coast. The mixture of fresh water marshes and coastal mudflats attracts large numbers of a diverse range of waders. Duck are also common in winter. During the non-breeding season, Dunlin are the most common wader, but during migration times waders familiar to Australians, such as Red-necked Stint, Curlew Sandpiper and Sharp-tailed Sandpiper are easily found. Here one can compare the similar Dunlin and Curlew Sandpiper and see Eurasian and Eastern Curlew side-by-side.

Population and development pressures in Taiwan are acute and the Tatu River area is under continual threat, not least from illegal construction of fish ponds which have destroyed much of the marsh in recent years. Fortunately, Taipower, which is planning to build a power station near by, has agreed not to use the marsh as a fly ash dump and there is a good possibility that the whole area could be declared a Nature Reserve. The demonstrated use of the Taiwan coast by Australian waders should make us all think about what we can do to bring pressure to bear on the Taiwanese authorities to protect wader habitat. Perhaps the "sister-site" concept of linking important non-breeding sites in Australia, eg. Hobart, with major staging posts, such as Taichung (Tatu River), should be explored.

Further to the south is The Philippines and one of the nicest spots you'd ever want to watch waders at - Olango Island, near Cebu. Stay at one of the beach resorts near the airport, hire an outrigger to take you 5 km across the straits to Olango and mix with the happy villagers and watch waders. Many are very familiar to Australians, but Asian Dowitchers can often be seen and, very specially, Chinese Egrets - a Red Data Book bird. I saw 74 egrets last April, perhaps one of the largest flocks seen anywhere in the

world. Up to 40,000 waders have been counted at any one time on the Island. Terns are also plentiful. Apart from the tropical climate, the cooling sea breezes, coconut palms and the smiling people, the most memorable feature of Olango is the freedom to walk around on the coralline sand amongst the feeding birds. The waders co-exist very happily with the villagers, who are constantly walking through the foraging flocks, and they don't seem to mind visiting birders either!

Olango Island would make an excellent field station and the Asian Wetland Bureau-Philippines is actively promoting the proclamation of the site as a Wildlife Sanctuary.

The first place at which I did any serious wader-watching whilst on a business trip was the Serangoon Estuary, and the nearby sewage works, in Singapore. It was an appetite-wetting introduction to south-east Asian shorebirds with around 4000 waders of 20 species, mainly Lesser Golden Plovers and Redshank, plus many White-winged Terns and a few Chinese Egrets. Sadly, Serangoon is now only a pale shadow of its former self as the estuary has been almost completely filled in to make a leisure park. One day Singapore will be billiard-table flat if they continue to level hills to reclaim inlets and estuaries!

Fortunately, just to the north the west coast of Malaysia provides plentiful habitat for waders with wide mudflats backed by mangroves that provide the detritus that forms the beginning of the food chain supporting marine life and water birds.

There are a number of sites within easy driving distance of Kuala Lumpur - although a few need some local knowledge to find. Friends at the Asian Wetland Bureau have been very kind in taking me out on a number of occasions and we have had some memorable times. As, for example, when we went out mist netting at Pulau Tengah and the tide rose 1 metre higher than predicted just as we were setting the nets! Sheer stubbornness got a line of six nets up and the tide began to fall just as quickly as it had risen and we started catching immediately. The result was 66 birds of 12 wader species and 5 tern species, including the rare Saunders Tern. When we woke in the morning (we slept on the fishing boat hired to get to the catching site), we were surrounded by many thousands of waders, indicating that Pulau Tengah is the largest roost on the Malaysian coast. It was here that the habitat preferences of waders really came home to me. The most common large wader was the Bar-tailed Godwit, although the Black-tail is the common Godwit along the remainder of the coast. Bar-tails prefer sandy substrates and Pulau Tengah is one of the very few such areas along the Malaysian west coast, whilst Black-tailed Godwit prefer mud, of which there is plenty elsewhere. For the same reason Black-tails outnumber Bar-tails along the muddy east Sumatran coast. Mongolian Plovers prefer muddy substrates and are, therefore, more numerous than Large Sandpipers in peninsular Malaysia. Pulau Tengah is also a good place for terns and I saw my first Lesser Adjutant Storks there - standing like sentries at the tide edge.

Two places on the Malaysian west coast which are easy to reach are the Sekincan Ricefields and the nearby Kuala Selangor New Town flats.

The Ricefields cover a very large area and the trick is to find paddies in fallow, these being good spots for Wood Sandpipers, Long-toed Stints, Redshank and the occasional Painted Snipe. We've also searched the paddies with tall rice trying to find nesting Cinnamon Bitterns, which were being studied by one of the AWB TEAM. The New Town flats are what remains of the salt works - a well known wader site in the past and a prolific mist netting spot in days gone by. Waders still roost there in large numbers, with the commonest being Mongolian Plover, Red-necked Stint, Curlew Sandpiper, Black-tailed Godwit, Greenshank, Marsh Sandpiper and Eurasian Curlew. Nearby is the Kuala Selangor Nature Park which is being developed, by the Malayan Nature Society, as a wetland education centre and which will also, hopefully, attract roosting birds when the flats are eventually covered in housing.

Hedonism sometimes comes to the fore and I've enjoyed bird watching at the Tanjung Aru Beach Hotel in Kota Kinabalu, Sabah, where I've sat under palm trees beside the pool sipping a cold drink and observing Chinese Egrets and noting that Large Sandpipers, like humans but unlike Mongolians, prefer sand to mud.

Being a seafood lover, I also enjoyed visiting the restaurant on Bangpoo Pier, some 30 km south of Bangkok, where I was able to indulge my taste buds whilst watching thousands of waders pass as the tide ebbed. In late April, when I was there, these were mainly Mongolian Plovers (lots of mud as you'd expect), Redshank and Marsh Sandpipers. The nearby high-tide roost then held 5000 waders and a few thousand Whiskered and White-winged Terns, plus many Brown-headed Gulls. I chose to drive to Bangpoo, instead of taking the bus, and this enabled me to visit the fresh water swamp a few kilometres inland where Pheasant-tailed and Bronze-winged Jacanas, Yellow and Cinnamon Bitterns, Watercock and Painted Snipe were easy to find. This is yet another region under threat as the whole area is being converted into factory estates and golf courses!

I have generally found Indonesia a difficult place to get around because of language and transport problems; but persistence and good contacts have paid off. As I described in the last Bulletin, a visit to Cirebon, some 6 hours drive to the east of Jakarta, is well worthwhile. However, you really do need a guide and I was fortunate to have two old friends to go there with in Pandu Hartojo and Agus Marhadi, who went on the 1986 north-western Australia Expedition. The area is best known for market netting of birds. It is estimated that 300,000 waterbirds are caught each year, of which 100,000 are waders; mainly Oriental Pratincole, Pin-tailed Snipe and Wood Sandpiper. I was lucky to observe the very rare Milky Stork there.

Those arriving in Jakarta by air will see invitingly extensive

wetlands between the coast and the airport. I've found these to be well worth visiting, although it took me some time to work out how to gain access to them. I use a hotel car to get there now that I know the way. In the early morning, before it gets hot, the marsh and the air above it are alive with waterbirds - including Ruddy-breasted and White-browed Crakes, 4 species of egret, Black and Yellow Bitterns, Pheasant-tailed Jacanas, Little Black Cormorants and marsh terns. I've seen Milky Storks overhead on two out of four visits there. The offshore waters are good for migrating terns and I've found Christmas Island Frigatebirds a couple of times.

One interesting feature of Muara Kupuk is the way in which the fish farmers plant mangroves in their ponds in order to benefit from the recycling of nutrients and organic matter contained in the fallen leaves. Hopefully, this intelligent activity will lead in time to a reduction in the decimation of mangrove forests elsewhere in south-east Asia to produce the fish ponds in the first place!

After one visit to Muara Kupuk, Paul Andrew and I drove on to investigate a large area of fallow paddy and managed to put up around 50 snipe in very short time. Extrapolation to cover the remaining area indicated a population of some 2000 birds. There are thousands upon thousands of hectares of such habitat in northern Java alone - so what must the total snipe population on the Island be? And how would you count it?

The last place I want to tell you about is Lake Haleji which is about 60 km north east of Karachi. The Lake used to be the reservoir for Karachi and took water from the nearby Indus River. However, it silted up over time and became useless for water storage. Fortunately, the Sind Government declared the Lake and its surrounds a wildlife sanctuary and it is now under the control of WWF-Pakistan. The Lake is large having a circumference of 16 km with a surfaced road around the perimeter which is easily driven or walked. The most spectacular bird to be seen is the Greater Flamingo, which is present in large numbers in the adjacent marshes with thousands of other waterbirds. Perhaps the most numerous of these is the Coot, which in Australia is sedentary, but in Asia is highly migratory. On the lake itself there were many duck in residence when I was there in late November, these being the precursors of those fleeing the winter in Siberia. The Indus is one of the major flyways in Asia and lakes like Haleji are the non-breeding refuge for many thousands of birds. One day I plan to go back in February which would probably be the best time for duck. Also the weather would be at its mildest then. The area is excellent for raptors, as is the whole Indian sub-continent.

It's not only from the ground that you can study wader habitat; it can also be done from the air. This can be both a frustrating experience, because you can see it but can't get at it, and awe inspiring, when you observe the vastness of some of the intertidal areas. Sometimes this aerial surveying has resulted in a subsequent visit; Olango Island is an example. Also you can get a

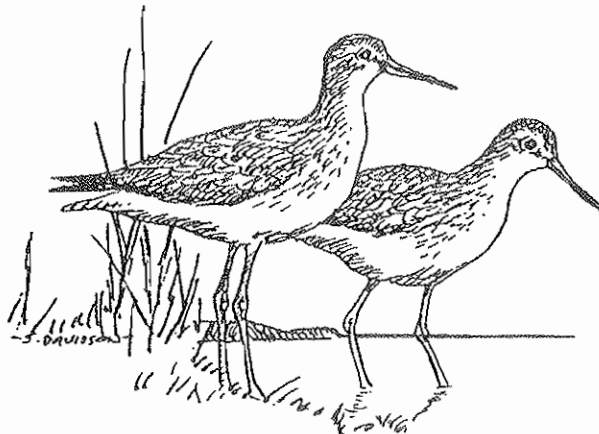
very good appreciation of the extent to which coastal south-east Asia is being converted to aquaculture, with consequent loss of waterbird habitat.

The intertidal flats in the Indus and Ganges deltas are truly vast. As far as the eye can see - which from 10 km up is a long way! How do you survey such areas? I suppose one should be thankful that waders are not under significant threat in these regions.

Between Dhaka and Bangkok the flight path is down the Burmese coastline and across the Irrawaddy Delta. Again extensive intertidal flats about which we know nothing.

I've seen some of the top known wader spots from the air also. Such as the Banyuasin Peninsular in Sumatra, at which 13000 Asian Dowitchers were seen recently, and the north east corner of the Bay of Bengal where almost 100,000 waders were counted in January, including nearly 300 Spoon-billed Sandpipers. I'll get to these one day!

But I can hardly complain about my luck to date!



## PIED OYSTERCATCHER DECOYS

When Clive received detailed instructions and excellent photographs of papier-mâché Pied Oystercatcher decoys that Priscilla Park had made for use in Tasmania he decided the VWSG should have some too, particularly as in 1989 banding of Pied Oystercatchers was to be given special attention.

So when Clive asked if I would make some decoys I thought "Why not?". After four months and many sticky hours I had finished seven and we were ready to try them out on the Australia Day long weekend at Corner Inlet.

About eight VWGS people arrived at Mann's Beach in the late afternoon of 27th January and set up camp. All hands were needed on Clive's tent and it was then that I decided to have a bit of fun. I quickly grabbed the box of decoys and ran ten metres from the tent to the mudflats by the campsite and set up the decoys. When I got back I tapped Clive on the shoulder and pointed to the decoys ; he knew exactly what was going on and said in a loud voice "Look everybody, look at the Pied Oystercatchers roosting (loafing) out there". Immediately everyone dropped what they had in their hands and reached for their binoculars, all of them desperately wanting to catch a glimpse of the oystercatchers roosting so close to the shore. Someone said "Look Clive, there's one two, three, four, five, six, seven" and another asked "Can anyone see any colour bands?"

I suppose Clive and I gave it away when we couldn't stop laughing and soon everyone knew what the joke was about. Well, we had to tell them they were decoys somehow! The decoys had fooled experienced birdwatchers but would the real Pied Oystercatchers fall for them?

The next morning the nets were set at the end of Dream Island off Mann's Beach and we waited for several hours before the birds came in. We fired but only caught two birds - both Pied Oystercatchers. Sand had blown over the nets which had not gone out well. We reset both nets knowing we only had one more chance to make a catch that weekend.

An early start next morning brought us back to Dream Island by seven a.m. The team received a rude shock when we landed as a King tide had flooded part of the island and pushed the nets back almost two feet. Once more we reset them but this time put out the decoys, placing them near the centre.

Once back in the firing position a twinkler was sent about one kilometre up the beach to fetch about 80 Pied Oystercatchers while another jumped in a boat and went over to Box Bank to send over about a dozen Pies and Sootys.

It was only a few minutes before the first Pied Oystercatchers landed - just inside the catching area and about 15 metres away from the decoys. Suddenly one bird ran as fast as it could towards the decoys. Was it

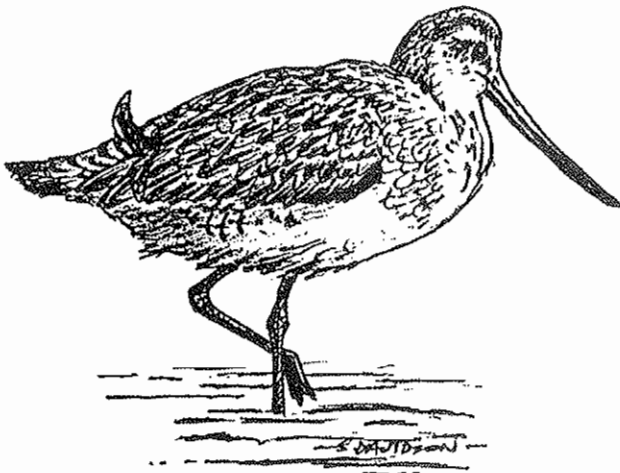


going to attack them? It had better not I thought : I had spent a lot of time on those decoys. But instead this cheeky oystercatcher stood in between the decoys and soon began to preen. Soon others joined it and before long about 80 were in or near the catching area. With a roar of thunder and a cloud of smoke the nets fired brilliantly over the oystercatchers. It was the second largest catch of Pied Oystercatchers ever made by the VWSG - 55 birds.

The decoys have proved to be highly successful in Tasmania and hopefully they will continue to bring large flocks of oystercatchers into the catching area for the VWSG in the future.

I must express my thanks to Priscilla for providing the marvellous instructions for the papier-mâché decoys.

Thomas M Putt



What Bird is *THAT*?

- 1) *Pluvialis dominicus fulva* 2) *Charadrius mongolus*  
 3) *Arenaria interpres* 4) *Calidris ruficollis*

Those not too proud to do so may care to turn to another page for the answers.

RECOVERIES OF BANDED BIRDSPied Oystercatcher

100-82004	Fullgrown Recaptured	2.5.81 12.6.88	Werribee S.F. Long Island, Hastings	63kmESE
100-82108	Juvenile Recaptured	3.7.82 12.6.88	Yallock Creek Long Island, Hastings	26kmWSW
100-82094	Adult Recaptured	14.11.81 12.6.88	Yallock Creek Long Island, Hastings	26kmWSW
100-83081	2nd year Recaptured	8.3.80 12.6.88	Werribee S.F. Long Island, Hastings	63kmESE
100-85118	Adult Recaptured Seen	29.5.88 2.7.88 1.4.89	Werribee S.F. Barry Beach Werribee S.F.	177kmESE 177kmWNW
100-85028	Adult Recaptured	4.1.87 10.7.88	Queenscliff Stockyard Point	77kmE

Note the rapid movement of 100-85118 from Werribee S.F. to Barry Beach (177 kms in 5 weeks).

These varied movements are the first fruits of the increased banding effort on Pied Oystercatchers.

Sooty Oystercatcher

100-80565	Nestling Recaptured	4.1.80 12.6.88	Phillip Island Long Island, Hastings	27kmN
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This 8 1/2 year old bird had previously been seen several times (colour banded) at Long Island.

Mongolian Plover

051-18038	Adult Captured	2.1.82 unknown	off Mann's Beach Shanghai, CHINA	8173kmNNW
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This is the Group's first overseas recovery of this species (only 65 banded) and it is the longest movement recorded for an Australian-banded Mongolian Plover.

Doublebanded Plover

New Zealand B54759	Adult F Recaptured	29.9.85 14.5.88	L.Wainono, NEW ZEALAND Inverloch	2210kmW
New Zealand B52977	Adult M Seen Recaptured	13.11.84 8.5.88 29.5.88	Twizel, NEW ZEALAND Queenscliff	2251kmW

New Zealand C42270	Juvenile Recaptured "	29.11.86 16.5.87 31.7.88	Cass River, NEW ZEALAND Queenscliff "	2249kmW
New Zealand B53690	Adult F Seen Recaptured "	12.12.85 6.6.87 12.7.87 31.7.88	Ashley River, NEW ZEALAND Queenscliff " "	2390kmW
0411-18276	Juvenile Found dead	9.6.86 9.9.88	Inverloch Twizel, NEW ZEALAND	2123kmESE
041-18268	Adult Found dead	3.8.86 14.11.88	Point Cook, Altona Colac Bay, NEW ZEALAND	2120kmSE

In addition to the above recoveries/recaptures there have been many more sightings of colour banded birds which had moved between New Zealand and Australia (both directions).

#### Rednecked Avocet

082-43562	Adult Shot	28.11.81 19.3.89	Werribee S.F. Kerang	277kmN
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This is the second Rednecked Avocet banded at Werribee S.F. which has subsequently been recovered inland in the Murray Valley. This one was 7 1/2 years after banding - the previous one was only 2 months.

#### Red Knot

051-08441	Juvenile Found dead	22.3.80 28.7.82	Queenscliff Magadan O Olyskiy region USSR	10860kmN
051-15251	Juvenile Recaptured	8.11.86 23.2.89	Queenscliff Kaipara Harbour, NEW ZEALAND	2631kmE
051-15556	Adult Recaptured	1.10.88 23.2.89	Queenscliff Kaipara Harbour, NEW ZEALAND	2631kmE
051-08452	Adult Captured	22.3.80 30.4.89	Queenscliff Shanghai, CHINA	8015kmNNW
051-18325	Juvenile Captured	19.10.85 2.5.89	Queenscliff Shanghai, CHINA	8015kmNNW

This is an excellent crop of valuable recoveries, including the Group's first from the USSR. There have now been three Red Knot from Queenscliff to China (all to the Shanghai, Yangtse Estuary, area) and eight to the Auckland region of New Zealand. These twelve foreign recoveries have arisen from 1197 banded birds.

Note the age of 051-08452, recovered 9 years after banding and therefore at least 11 years old (banded as full adult).

### Great Knot

061-37861	Juvenile Captured	30.12.84 -.-.88	Queenscliff Shanghai, CHINA	8076kmNNW
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This is the second recovery in China of a Great Knot from Queenscliff - a good return from only 304 banded. It is in the same area of China (Yangtse Estuary) as the many recoveries of Great Knot from N W Australia.

### Sharptailed Sandpiper

051-08339	Adult Found dead	26.1.80 28.5.84	Werribee S.F. Yakut, USSR	11796kmN
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This recovery in the USSR was close to the breeding grounds, north of the Arctic Circle. It is the longest movement recorded for any Sharptailed Sandpiper.

### Rednecked Stint

032-33596	Adult Shot	25.11.81 -.9.82	Werribee S.F. Khasan, Primorye USSR	9058kmN
032-34683	Juvenile Recovered	21.2.82 1.6.84	Werribee S.F. Yakut, USSR	12435kmN
032-75856	2nd Year Found dead	25.10.86 17.5.87	Pt Cook, Altona Hangu, CHINA	8979kmNNW
032-80601	Juvenile Recaptured	28.11.87 26.6.88	Inverloch Stockyard Point	34kmNW
032-75989	Adult Found dead	8.11.86 30.9.88	Queenscliff Safety Beach	29kmE
033-66318	Adult Found dead	4.12.88 19.3.89	Werribee S.F. Cundare Pool	82kmW

The VWSG has now had three recoveries of Rednecked Stints in the USSR. 032-34683 was recovered at 72 N - almost the most northerly point of mainland Siberia. The 12,435 km. movement is the longest for any Australian-banded bird and must be one of the longest ever for any species in the world.

Curlew Sandpiper

041-05283	Adult	18.2.84	Werribee S.F.	
	Recovered	3.6.84	Yakut, USSR	11690kmN

This is the Group's second recovery of a Curlew Sandpiper in the USSR. At 67 N it was close to the breeding grounds. The 11690 km. movement is the longest so far recorded for an Australian-banded Curlew Sandpiper.

Crested Tern

Further recovery (see 1988 Report for previous ones) of a chick banded at Mud Island on 13.12.87 :-

071-82514	Caught	3.7.88	Coffs Harbour, NSW	1173kmNE
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First recovery of a chick banded near Mann's Beach, Corner Inlet on 10.1.88 :-

071-83497	Caught	20.7.88	Booti Booti, NSW	866kmNE
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The following recoveries have been reported from 1050 chicks banded at Mud Island on 17.12.88 :-

071-41134	Found dead	1.3.89	Phillip Island	43kmSE
071-95440	Caught	5.3.89	Harrington, NSW	1014kmNE
071-95889	Found dying	17.3.89	McCrae Beach	19kmSE
071-41097	" "	25.3.89	Phillip Island	60kmESE
071-95706	Found dead	3.4.89	Byron Bay, NSW	1345kmNE

In addition three birds were reported from Brighton (42kmNE) between 19th March and 3rd April (see later).

The following recovery has been reported from 448 chicks banded near Mann's Beach, Corner Inlet, on 24.12.88 :-

071-96895	Found dead	14.2.89	Wynyard, Tas.	284kmSSE
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These recoveries bring to five the number reported from northern New South Wales. It seems that dispersal from the breeding colonies takes place entirely in an easterly (and then northerly) direction along the coasts of south-east Australia. The recovery rate of birds banded at Mud Island seems to be higher than that of birds from Corner Inlet. Birds seem to be particularly vulnerable in their first year of life (especially to getting tangled in fishing net) with few recoveries thereafter.

Thomas Putt read the band numbers (with a telescope) of the following Crested Terns at Brighton Beach and Rickett's Point, Beaumaris between 12th March and 7th April, 1989. Those listed below were banded as chicks in South Australia :-

071-59539	19.12.85	Beachport	446kmESE
071-02247*	23.12.67	"	"
071-03560	22.12.68	"	"
071-66196	1.12.85	Halfway Island Coorong	532kmESE

\* 21 year old bird - oldest ever for this species in Australia.

071-24254	22.12.74	Stoneywell Island Coorong	536kmESE
071-46028	13.12.81	"	"
071-34188	14.12.75	"	"
071-20194	9.12.73	"	"
071-35032	14.12.75	"	"
071-34716	14.12.75	"	"
071-3491?	14.12.75	"	"
071-55524	3.12.83	"	"
071-46305	13.12.81	"	"
071-46017	13.12.81	"	"

In addition three (071-95420, 071-95324 and 071-95315) banded as chicks on 17.12.88 at Mud Island were seen (movement 42kmNE).

Additional reports of birds sighted at Rickett's Point, Beaumaris, and banded in South Australia were :-

Seen on 7.3.87

071-07337	14.12.68	Beachport	445kmESE
070-95103	21.12.66	"	"
071-10373	29.12.69	Stoneywell Island Coorong	542kmESE
071-16122	28.12.70	"	"
071-39144	16.12.78	"	"
071-62779	14.12.86	Halfway Island Coorong	531kmESE
071-69919	8.12.85	"	"

In addition two birds (071-51362 and 071-63615) banded on 21.12.86 at Mud Island were seen (movement 42kmNE)

Seen on 5.2.87

071-20954	10.12.74	Wallaroo	809kmESE
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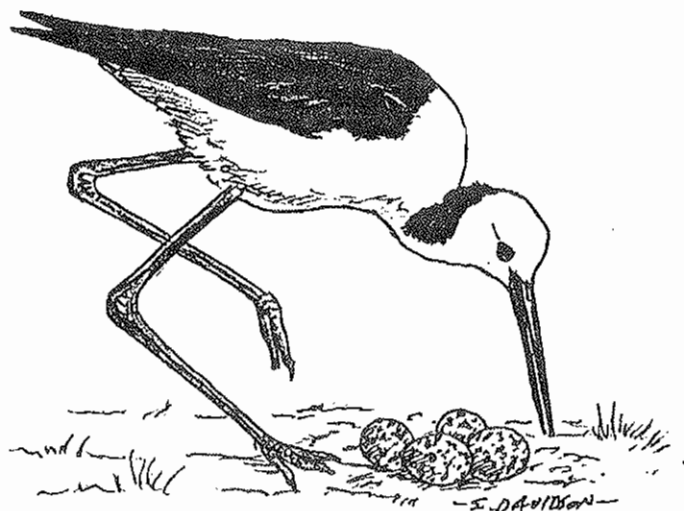
Caspian Tern

091-06190	Nestling	24.12.88	off Mann's Beach, Corner Inlet	
	Found dying	3.3.89	Wooli, NSW	1133kmNE

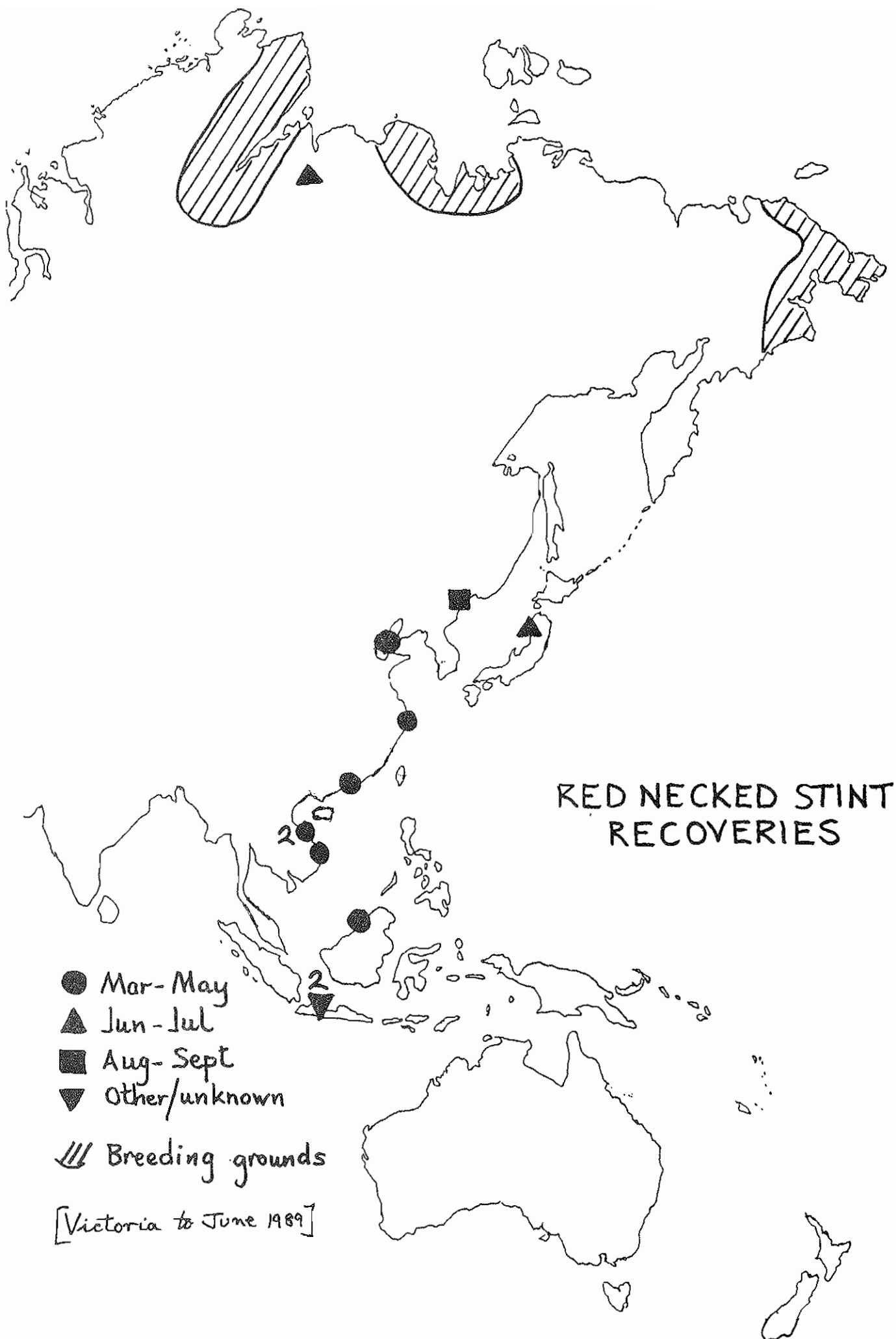
There have now been five Caspian Terns from this colony recovered in northern NSW/southern Queensland, all within their first year. It seems that this post-fledgling dispersal is quite rapid, e.g. above recovery in 2 1/2 months.

Silver Gull

082-07747	Nestling	9.10.88	Mud Island	
	Seen	11.3.89	Warneet	48kmE
081-85887	Nestling	9.10.83	Mud Island	
	Recaptured	31.1.89	Spermwhale Head	262kmE
081-90474	Nestling	14.10.84	Mud Island	
	Recaptured	31.1.89	Spermwhale Head	262kmE





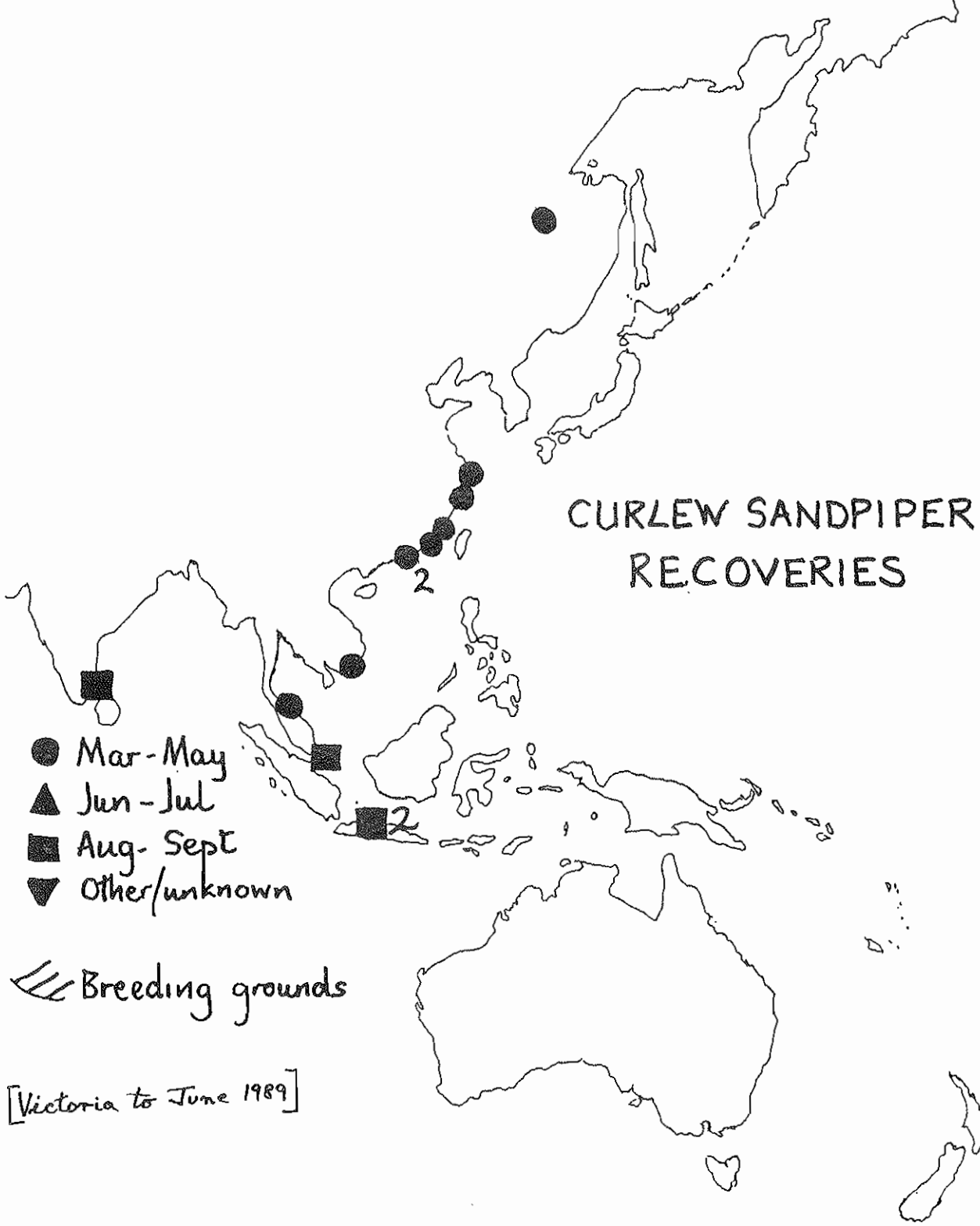


RED NECKED STINT  
RECOVERIES

- Mar-May
- ▲ Jun-Jul
- Aug-Sept
- ▼ Other/unknown

/// Breeding grounds

[Victoria to June 1989]



CURLEW SANDPIPER RECOVERIES

- Mar-May
- ▲ Jun-Jul
- Aug-Sept
- ▼ Other/unknown

▨ Breeding grounds

[Victoria to June 1989]



GREAT KNOT AND RED KNOT RECOVERIES

RED KNOT

- Mar - May
- ▲ Jun - Jul
- Aug - Sept
- ▼ Other

GREAT KNOT



Breeding grounds

RED KNOT



GREAT KNOT





FURTHER SIGHTINGS OF COLOUR-MARKED BIRDS

This list of sightings of colour-banded birds away from their banding locations follows that in the Bulletin No. 12 of July 1988.

Pied OystercatcherSeen at Stockyard Point

13.6.88	2 from Werribee S.F. (moved 90km ESE) and 2 from Queenscliff (moved 70km E)	Eric Jones
18.6.88	1 from Werribee S.F. (banded there on 29.5.88)	per Val Curtis
10.7.88	3 from Werribee S.F. (banded on 29.5.88), 1 from Queenscliff and 1 from Long Island, Hastings (banded on 12.6.88 - moved 26km E)	VWSG
22.1.89	2 from Werribee S.F., 1 from Queenscliff and 1 from Barry Beach (banded 2.7.88 - moved 85km SE)	Eric Jones

Seen at Mud Island (excludes many birds banded at Queenscliff)

1.2.87	1 from Werribee S.F. (moved 32km SE)	Peter Menkhorst
7.9.87	1 " "	"
29.10.87	1 " "	"
11.8.88	3 " "	"
	and 1 from Stockyard Point (moved 65km W)	"
12.10.88	1 from Werribee S.F.	"

Seen elsewhere

18.6.88	Blue Gum Point French Island	1 from Queenscliff (moved 65km E)	Betty Mitchell
16.7.88	Off Mann's Beach Corner Inlet	2 banded at Inverloch on 15.5.88 (moved 85km E) (and 3 banded locally on 30.12.79 - 8 1/2 years previously)	Bob Swindley & Clive Minton
10.8.88	Corner Inlet	2 from Werribee S.F. (moved 165km SE)	Martin Schultz

25.9.88	Yallock Creek	1 from Werribee S.F. (moved 85km ESE) and 1 from Hastings (moved 25km E)	Mark Barter
17.10.88 11.11.88	Port Fairy	1 from Werribee S.F. (moved 200km WSW)	per Mick Murlis
12.11.88	Snake Island Corner Inlet	3 banded at Inverloch on 15.5.88 (moved 70km ESE)	David Cropley & Peter Haward
16.11.88	Killarney Beach	1 from Queenscliff (moved 200km W)	per Mick Murlis
24.7.88	Altona	1 (of pair) from Werribee S.F. (moved 30km NE)	Martin Schultz
1.4.89	Werribee S.F.	1 seen which had been banded there (100-85118) on 29.5.88 and then recaptured at Barry Beach on 2.7.88 (177 km ESE). Now returned 177km WNW.	Mark Barter
19.4.89	Reef Island Westernport	1 from Werribee S.F. (moved 90km SE)	Murray Portbury
1.4.89 20.5.89	Werribee S.F.	1 from Stockyard Point (moved 90km WNW)	Mark Barter, Jeff Campbell & Peter Haward
5.7.89	Corner Inlet	1 from Werribee S.F. (moved 165km SE)	Martin Schultz

Not included in the above list are records of sightings of birds with individually identifiable colour-band combinations. This type of marking was commenced in April 1989 and results will be given in next year's Bulletin.

#### Hooded Plover

Two out of three birds colour-banded (white bands) at Inverloch on 22.6.86 were seen there again, together, on 1.5.89.

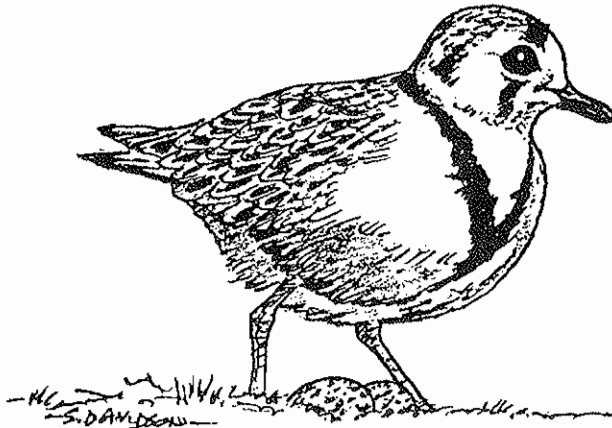
Doublebanded Plover

Details of further sightings of VWSG banded birds which had moved locations are not given here but will be included in the paper currently in preparation.

In addition many further birds colour-banded in New Zealand have been seen in Australia as follows:

1987	69
1988	59
1989	19 (reported up to 13.7.89)

Many of the above sightings were of birds already seen in previous years, i.e. repeat sightings at the same site as used in earlier winters.





TERNs IN SUMMER 1988-1989

The VWSG continued its Tern studies actively in the 1988-89 summer with further useful results.

Crested Terns had a bonanza breeding year. At Mud Island, Port Phillip Bay, the colony increased to an estimated 1500 breeding pairs (900 pairs in 1987-88). Laying started earlier than usual, in late October, and continued into December. 1050 chicks were banded during a three hour visit on 17th December.

On Box Bank, off Mann's Beach, Corner Inlet the colony was estimated at 700 pairs (350 pairs in 1987-88). First laying was a little later - mid-November - and continued until late December, with the final fledging of chicks not occurring until mid-February. 448 chicks were banded on 24th December.

Caspian Tern numbers also increased slightly - to 20 pairs on Mud Island (13 chicks banded on 17th December) and to 60 pairs on Box Bank (54 chicks banded, mainly on 24th December). Caspian Terns usually lay in October and this year fewer were inundated by high tides thus leading to a more synchronous fledging period in late December/early January.

Silver Gull numbers have built up considerably at Box Bank, from 4 pairs in 1979-80 to an estimated 400 pairs in 1988-89. These are proving an increasing menace to the Terns, with predation of Caspian Tern eggs being now quite significant. Since the Box Bank Caspian Tern colony is the only large one in Victoria - and one of the few in Australia - it is recommended that measures to control the Silver Gull population be considered.

In contrast the Crested Terns seem to be able to successfully resist predation by Gulls, due to the high density of the Crested Tern nests in the colony and their extremely diligent and bold defence of their eggs and young.

Fairy Terns were an enigma in 1988-89. A few scrapes were made on the usual island at South Spit, Werribee S.F. (which was partly cleared of vegetation in September to create a suitable nesting habitat). But no Fairy Terns actually laid eggs at South Spit Island or at other breeding locations such as Sand Island (Queenscliff) and Mud Island. It is possible that they may have bred at Avalon Saltworks as these were not visited during the normal breeding period.

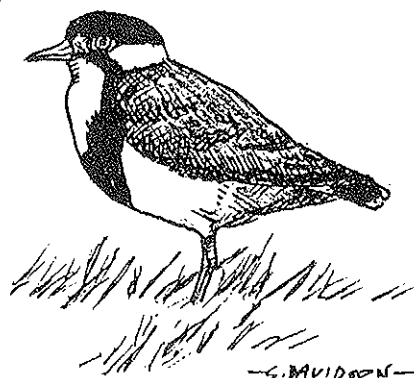
Alternatively it may be that some of the 50 pairs of Fairy Terns now nesting with the 250 pairs of Little Terns at the Lakes Entrance site, so excellently created and protected by the Department of Conservation, Forests and Lands, may have transferred from Port Phillip Bay sites.

A new departure in summer 1988-89 was two visits to Point Wilson, Spermwhale Head, Lakes National Park to catch and colour band Common and Little Terns. Details of this successful venture are given in a separate article in this Bulletin. It is likely that this will become a regular feature of the future fieldwork programme.

Recoveries of banded Crested and Caspian Terns have continued to flow in and a pattern is beginning to emerge of a rapid post-fledging dispersal for both species, around the coast of south-east Australia to as far as northern New South Wales and southern Queensland.

Thomas Putt collected some excellent information by stalking Crested Terns at Brighton and Beaumaris with a telescope. Among the band numbers he read was the oldest ever for Australia - 21 years 3 months 12 days ! Most birds had been banded at colonies in South Australia but some were juveniles from the Mud Island Colony.

C.D.T. Minton



REPORT ON TERN BANDING AT PT WILSONSPERMWHALE HEAD, LAKES NATIONAL PARKJANUARY - MARCH 1989**OBJECTIVES**

To test the practicality and efficacy of cannon netting Common Terns and Little Terns at Point Wilson, Spermwhale Head.

**DATES**

Attempts to catch the terns were made on 31st January and 4th-5th March. A catch was made on each of the three days.

**CATCHES**

Details of the catches are given below.

<u>DATE</u>	<u>SPECIES</u>	<u>NO. CAUGHT</u>
31/1/89	Common Tern	<u>38</u>
4/3/89	Common Tern	60
	Little Tern	25
	Whitewinged Black Tern	2
		<u>87</u>
5/3/89	Little Tern	106
	Common Tern	3
		<u>109</u>

The totals for each species were:

101 Common Tern	3 juveniles
131 Little Tern	33 juveniles
2 Whitewinged Black Tern	0 juveniles
<u>234</u>	

All the Common Terns were colour banded with the site code (left leg, blue over orange; right leg, metal).

51 of the Little Terns were individually colour banded, including 28 of the juveniles (lack of sufficient colour bands prevented the remainder being colour banded).

**RESULTS**

All birds were aged and fully 'processed', i.e. weight, primary moult, wing length, bill length and in some cases tarsus and depth of tail fork were measured. A combination of such data can throw considerable light on populations present in a catch, over and above any subsequent recoveries of banded birds which may ensue. A full analysis has not yet been carried out but some initial comments/conclusions are:

Common Terns

- (a) All adult Common Terns were in primary moult on 31st January. Moults were similar but complicated, with two (and sometimes three) different active moult positions in the wing. By the 4th-5th March primary moults were nearing completion, but no bird had actually completed.

The three juvenile birds were also in primary moult - a conventional moult commencing at the innermost primary and far less advanced than the adults.

- (b) Common Tern weights were typically 110 to 122 gms (range 100 to 128 gms) on both 31st January and 4th-5th March.

Little Terns

The Little Terns were all caught on 4th-5th March. There were four categories recognisable in the population:

- (i) Adult birds in non-breeding plumage but still showing some underlying yellow colour on the bill and some faint orange colour on the feet. These birds were undertaking a conventional inner to outer primary moult and typically had 2 to 5 fully grown new feathers and 4 to 6 unmoulted old feathers (i.e. a moult score of 20 to 25).

These birds appear likely to be the local breeding adults. They comprised 60% of the catch on 4th March, but only 31% on 5th March.

- (ii) Birds in full non-breeding plumage (black bills and legs). These were undertaking a complicated primary moult, with active moult in two (or even three) different places in the wing. Moult patterns were similar to the Common Terns, though less advanced (in fact the Little Terns on 4th-5th March were similar to how the Common Terns had been on 31st January).

These birds are either local birds in their second year (and which have therefore not bred) or birds which breed elsewhere (Northern Australia or the Northern Hemisphere?). These birds comprised 32% of the catch on 4th March and 26% on the 5th March.

- (iii) Birds just coming into full breeding plumage (basal half of bill already yellow) and just completing the type of moult being undertaken in (ii) above. This suggests that these are birds which are shortly going to depart for breeding grounds in Northern Australia or possibly the Northern Hemisphere. It is possible that more (or even all) of the birds in (ii) are also of this type but have not yet developed their breeding plumage.

None of these birds were noted on 4th March but they comprised 13% of the catch on 5th March.

- (iv) Juvenile birds - recognisable by retained brown juvenile feathers on their backs and wing coverts (though some had only the odd juvenile feather remaining). All but one of these birds were not in primary moult; the exception had just commenced moult of the innermost primary.

These birds could only have been locally reared juveniles from the 1988-89 breeding season - probably from the Rigby Island colony. They comprised 8% of the catch on 4th March but 29% on 5th March.

Thus the compositions of the Little Terns caught on 4th and 5th March were quite different. On 4th March the majority were local breeding adults. On 5th March there were much greater proportions of local juveniles and birds in non-breeding plumage of indeterminate (currently) origin.

#### OTHER OBSERVATIONS

The behaviour of the Terns on all three occasions confirmed their relative insensitivity to being caught on their daytime resting grounds.

On each occasion the birds returned to the spit at Pt Wilson within 20-30 minutes of the net setting operation being completed. The birds showed no suspicion of the (camouflaged) net, and stood so close to it on occasions that the safety "jiggler" had to be used to move them.

On 31st January the relatively high water level, and consequent narrow spit, made it difficult to set the net in the ideal position and it took some while to get a satisfactory number of birds into the catching area. Up to 200 Common Terns were using the spit but only small numbers of Little Terns (up to 20). In the event only Common Terns were caught. Within half an hour of the birds being removed from the net, into keeping cages 100m away on the nearby grass, the main flocks of Terns were back roosting on the spit.

The same rapid return of roosting flocks occurred after the catches on 4th and 5th March - this time with up to 150 Little Terns with the 200+ Common Terns. Furthermore the build up of numbers in the catching area after setting was so rapid that the net had to be fired quickly to restrict the catch size.

The Little Terns were mainly released in small groups rather than singly. Many individuals immediately flew over and settled with the birds which had regathered on the spit !

## CONCLUSIONS AND RECOMMENDATIONS

The Point Wilson spit is the best, and possibly the only, place where Common Terns can be banded in Victoria. It is also probably the most suitable location to band Little Terns away from their breeding colony. These experimental catches demonstrated that cannon netting can be successfully used to catch Terns roosting there without any apparent detrimental effects on the birds caught or on others using the area.

Some useful initial biometric and moult data was collected on the birds caught and some tentative thoughts have been expressed on the various components present in the Little Tern population. It is hoped that subsequent recoveries and sightings of colour banded birds will start to throw more light on their movements and their returns in subsequent years.

It is recommended that further experimental catches of Terns at Point Wilson be made in the 1989-90 season.

## ACKNOWLEDGEMENTS

The following are gratefully thanked:

- (a) The Department of Conservation, Forests and Lands for permission to band at Pt Wilson.
- (b) The Bird Banding office of the National Parks and Wildlife Service for the provision of bands and colour bands.
- (c) The wardens of the RAOU Rotamah Bird Observatory for regular recces and for overnight accommodation on 4th March.
- (d) The staff of the Department of Conservation, Forests and Lands at Bairnsdale and at the Lakes National Park office at Lochsport for considerable help, including in all the fieldwork.
- (e) Those members of the Victorian Wader Study Group who participated in the fieldwork (especially taking into account the short notice - 36 hours - for the second visit.)

CLIVE MINTON  
10th March, 1989

WADER BANDING TOTALS - VICTORIA - 1988

	<u>NEW</u>	<u>RETRAP</u>	<u>TOTAL</u>
Pied Oystercatcher	164	31	195
Sooty Oystercatcher	37	1	38
Masked Lapwing	1	-	1
Grey Plover	16	1	17
Mongolian Plover	-	1	1
Doublebanded Plover	364	166	530
Redcapped Plover	33	17	50
Ruddy Turnstone	4	-	4
Greenshank	36	-	36
Terek Sandpiper	4	-	4
Bartailed Godwit	75	3	78
Red Knot	154	20	174
Great Knot	26	7	33
Sharptailed Sandpiper	636	39	675
Rednecked Stint	5051	2005	7056
Curlew Sandpiper	1417	406	1823
Broadbilled Sandpiper	1	-	1
	<u>8019</u>	<u>2697</u>	<u>10716</u>



ANNUAL WADER BANDING TOTALS BY VWSG IN VICTORIA

<u>CALENDAR YEAR</u>	<u>NEW</u>	<u>RETRAPS</u>	<u>TOTAL</u>
1975	9	-	9
1976	616	4	620
1977	482	12	494
1978	1296	42	1338
1979	7436	486	7922
1980	6121	1206	7327
1981	4561	869	5430
1982	3774	796	4570
1983	2875	628	3503
1984	4272	1045	5317
1985	4073	1051	5124
1986	7144	2057	9201
1987	5350	1559	6909
1988	8019	2697	10716
Total catches in Victoria to end 1988	<u>56028</u>	<u>12452</u>	<u>68480</u>

Average annual total for 1979 to 1988 period of 6,602.

LOCATION OF WADERS CAUGHT IN VICTORIA

	To Dec 1987	1988	TOTAL
Werribee	27049	4082	31131
Westernport Bay	11598	3300	14898
Queenscliff/Pt Lonsdale	11297	1930	13227
Anderson's Inlet (Inverloch)	4329	1137	5466
Corner Inlet	2435	57	2492
Altona	727	210	937
Bendigo (Sewage Farm)	143	-	143
Seaford Swamp	98	-	98
Mud Island	35	-	35
Geelong (Point Henry)	25	-	25
Seaspray (Lake Reeve)	18	-	18
Toowong	10	-	10
	<u>57764</u>	<u>10716</u>	<u>68480</u>

Totals include 56,028 newly banded birds and 12,452 retraps of 31 species.

From ASIA WETLAND NEWS

## WETLAND RECLAMATION AND CONSERVATION: THE KOREAN DILEMMA

*Colin Poole*

South Korea is one of East Asia's smallest and most densely populated countries, yet has one of the fastest growing economies in the region. It is a mountainous country with 80% of the land over 100m, but the western and southern slopes of the peninsula are gentle, with broad coastal plains and well developed river systems terminating in the extensive intertidal mudflat areas of the Yellow Sea.

As the population continues to grow, the pressures upon these intertidal areas are increasing for conversion to industrial or agricultural land. The Government sees reclamation as the answer to the country's problems. By the year 2001 the South Korean Government plans to reclaim 66.5% of the coastal wetlands along the south and west coasts. This would involve 155 estuaries and bays, and a total area of 420,000 ha of intertidal wetland would be lost.

Much of this reclamation has already begun; the sad demise of the Nakdong Delta being a particularly tragic blow. In view of this, in Spring 1988 a team of three graduate students from the University of East Anglia, Norwich, UK, in conjunction with Dr Won Pyong-Oh and students from the Institute of Ornithology, Kyung Hee University, Seoul, Korea and with the support of the Asian Wetland Bureau, set out to attempt to evaluate the importance of these wetlands to conservation and the extent of the reclamation threat.

The results of the survey were startling, and identified the coastal wetlands of western South Korea as being the most important area yet known in East Asia for migratory shorebirds. 150,000 shorebirds of thirty species were counted, 80% of which were at four locations in the northern provinces of Kyonggi-do and Ch'ung Ch'ongnam-do. These four sites; South Kanghwa Island, South Yong Song Island, Namyang Bay and Asan Bay are shown on Map 2. All these sites are earmarked for further reclamation and development.

Much of Asan Bay has already been reclaimed, yet is still one of South Korea's major sites for migratory shorebirds. In Spring 1988, the survey showed the area to be used by 40,000 shorebirds, predominantly Great Knot, (*Calidris tenuirostris*) Dunlin (*C. alpina*) and Bar-tailed (*Limosa lapponica*) and Black-tailed Godwit (*L. limosa*), which all roost in the inner bay at high tide. Asan was formed by the damming of two river estuaries and the bay is now embanked on all sides. Development is still continuing with a large part of the southern shore of the outer bay undergoing reclamation that will destroy the feeding area for 5000 shorebirds. Further plans for Asan include other reclamation projects and the development of an industrial port. Clearly this would be disastrous for populations of migratory birds, and if conservation is to advance in South Korea it is at sites such as Asan that a compromise must be reached. Asan is already very popular with tourists from Seoul and would be suitable for development as an environmental showpiece and education centre, displaying how development and conservation can advance hand in hand.

In addition to the importance of these areas to large numbers of birds, they were also found to hold significant populations of several rare or endangered species. A major discovery was large numbers of the rare Nordmann's Greenshank (*Tringa guttifer*), listed in the ICBP Red Data Book (see Asian Wetland News 1). A minimum of 98 birds was counted, which represents one of the largest counts of this species in the world. The birds recorded in Korea were on passage north to Sakhalin Island, USSR, where the whole world population, estimated at less than 1000 birds, is thought to breed.

The Great Knot is a species that winters almost exclusively in North Australia and breeds in North East Siberia. A minimum of 30,000 Great Knot was counted in Korea, representing the largest number ever recorded in Asia and approximately 10% of the known world population.



Breeding Chinese Egrets on Shin Island – Dr. Won Pyong-Oh.

Ringed and weight data from Australia, and the lack of large numbers elsewhere in Asia, suggests that this species flies direct from North West Australia to the Yellow Sea coasts of Korea and China, a distance of over 5000 km. A minimum total of 1300 Eastern Curlew (*Numenius madagascariensis*) represents over 10% of the world population.

A major outcome of the survey was the discovery of a Chinese Egret (*Egretta eulophotes*) colony of previously unknown magnitude. In August 1987 Dr. Won located a number of Chinese Egrets on Shin Islet, a small 0.7 ha rock in the Yellow Sea 54 km west of the city of Incheon. The birds were nesting on the rock amongst a large colony of Black-tailed Gulls (*Larus crassirostris*). Most of the Egrets were fully fledged and he was unable to make an accurate estimate of numbers present. In June 1988 the islet was revisited with Dr. Won and a full survey revealed a total of 429 nests and approximately 1000 Chinese Egrets, as well as 5000 Black-tailed Gulls. Shin Islet therefore holds over 50% of the known world population of Chinese Egret, listed as "vulnerable" in the ICBP Red Data Book. The major feeding areas for these birds were the intertidal mudflats surrounding Kanghwa and Yong Jong Islands, where over 200 birds were recorded. Following recommendations made after the survey, the South Korean Government is to be commended on its quick action in recognising the significance of Shin Islet and designating both Chinese Egret and Shin Islet as Korean National Monuments, affording them protection status within the country. However unless the adjacent intertidal wetlands around Kanghwa and Yong Jong Islands are given similar protection status, the Korean population, and possibly the world population will be in severe danger.

Protection of wetlands is also vital to Korea's coastal fishery industry. Its annual yield for 1987 was 2,000,000 metric tons, representing a value of US\$1,260,000,000. Yet annual catches are decreasing, hit by increasing urban and industrial pollution combined with loss of fish breeding and feeding areas. With over 500,000 people dependent upon this industry, the socio-economic threats from reclamation and pollution are very serious. Studies have shown organic pollution in 38% of watersheds to be over an acceptable level. Levels of heavy metals in some coastal birds analysed have been found high enough to cause kidney lesions, and the effects of recent increases in pesticide use are not yet known. Clearly the introduction and enforcement of some form of effective pollution control legislation is urgently needed in South Korea.

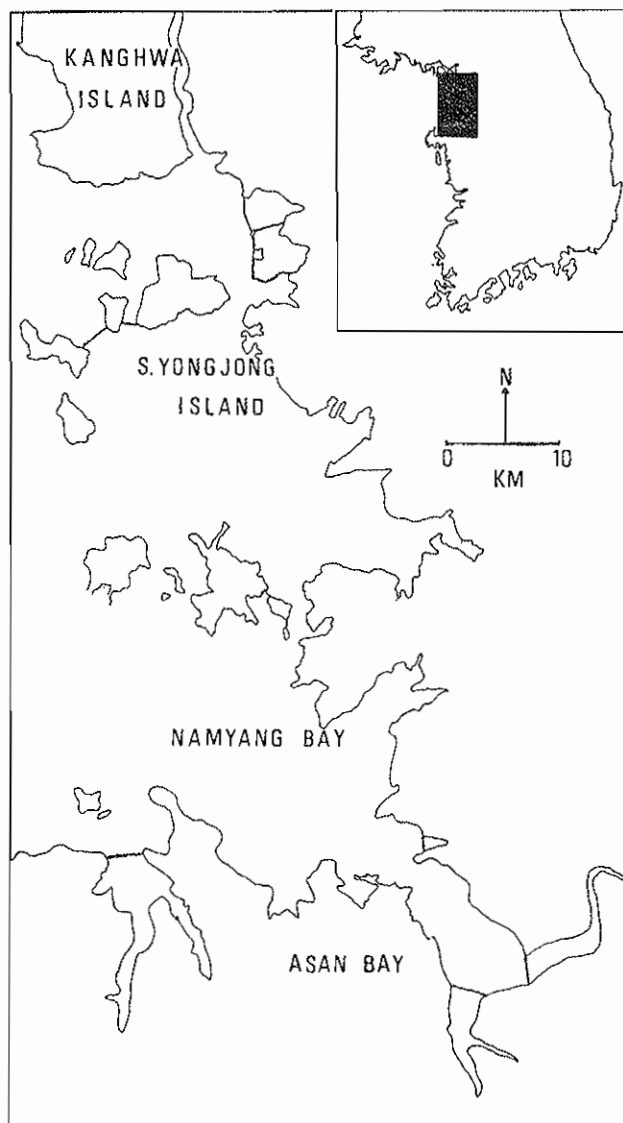
The only wetland area in South Korea of importance to waterbirds with any existing or pending protection status is the Nakdong Delta. As part of a loan from the World Bank

for the construction of the Nakdong Barrage, it was agreed that due to its ecological importance, part of the estuary should be designated a National Environmental Preservation Area (see News from the Region).

Following the exciting results from the Spring 1988 survey project in South Korea much needs to be done. It is most strongly recommended that the South Korean Government review its proposed plans for reclamation in certain areas, and grant protection status to the four key coastal wetland sites of international importance. It is also important that full environmental impact assessments are carried out prior to any future large scale reclamation projects.

Meanwhile Dr. Won and students from Kyung Hee University, with the backing of the Asian Wetland Bureau will continue surveying coastal wetlands to gather much needed baseline ecological information. In autumn 1988, whilst the attention of the world was focussed on South Korea and the Olympic games, Dr. Won and his students were at work elsewhere, revisiting sites to monitor southward migration.

A 200 page report entitled an 'A survey of Coastal Wetlands and Shorebirds in South Korea, Spring 1988' is now available from AWB.



Map 2

## LAKE CALLABONNA : A SEARCH FOR BREEDING BANDED STILTS

The ability of many species of Australian nomadic birds, particularly irruptive nomads, to find spasmodically occurring suitable breeding habitat is inadequately understood (at least by the writer). Overseas migration is fine for those born to it but nomadic movement of an irregular nature within the continent to find short-lived lakes and swamps calls for a special skill. There are those of course that, like the fresh water fish on which they may in part depend, merely follow the rivers as they flow towards the site of the ancient inland sea where scattered depressions hold them as ephemeral opaque lakes; lakes of generous size but little depth which last for weeks, perhaps months but inevitably succumb to the drying winds and absorbent ground which may then remain parched for more than a human lifespan.

This innate sense is in sharp contrast with a sad over-reliance on the lasting qualities of the lakes. The birds' ability to find water is not apparently matched by any sense that it is only transient. The result many of us have seen : poignant clusters of doomed young Pelicans on the receding shores of Lake Eyre, abandoned by their parents, are a stark illustration and hard to forget.

Of all opportunistic breeders Banded Stilts are perhaps one of the most elusive examples. The successful field ornithologist too must be prepared to be opportunistic. Last Autumn parts of central and western Queensland experienced a rare period of heavy rain. Dry creeks became swollen rivers advancing to fill the long dormant lakes. Lake Eyre, fed by Cooper Creek and the Diamantia River, filled and so too did a string of lakes lying to the east, between Lake Eyre and the Strezlecki Desert - Lake Frome, Lake Callabonna, Lake Blanche and Lake Gregory.

Over many years Ian May of the South Australian National Parks Service has sought out the Banded Stilt. This year careful scrutiny from a low flying light aircraft revealed at last what could be a nesting colony of the stilts. With great expedition a party was assembled in Melbourne :

its aim was to collect as much data as possible and to take photographs. Banding was to be left to National Parks - with 1500 bands. After a fair amount of shuffling to accommodate prior commitments such as work, two groups emerged ; one left on 19th April in Clive Minton's Toyota Landcruiser towing a trailer with instructions to collect Alan Smith from Moama on the way and to meet the rest of the party (which was to leave two days later in the Beechcraft flown up by Don Jeans) at Moolawatana Homestead, a distance of some 1490 kilometers. Moolawatana Station lies near the southern end of the Strezlecki Track and reaches out as far as the shores of Lake Callabonna. It was here at Lake Callabonna that there seemed to be a prospect of finding the Banded Stilt.

Three days later the two parties duly met at Moolawatana where the station owner Mike Sheehan provided useful local knowledge. Nothing conclusive had been seen from the air in a final reappraisal of Lake Eyre and its satellites. The last day by land had been slow, the track in parts being badly damaged by flood waters. At Arkaroola, a patient wait at the foot of ragged red cliffs had been rewarded by close sightings of the rare and endangered Yellow-footed Rock-wallaby. Nineteen adults and one rabbit-sized young emerged at dusk from the shelter of cliff-face caves and fallen rocks. This is a splendid animal. Beautifully marked and highly specialized, its thickly padded feet, long hairy tail and superb balance enable it to move with seeming unconcern over the boulder strewn slopes. It will leap without hesitation from one precarious foothold to another and, most astonishingly of all, will scale the cliffs by launching itself up near-vertical gullies that might well cause a rock climber to reach for his crampons.

Not far short of Moolawatana standing on the track was a family of Inland Dotterel : the parents watchful but composed, shepherded the three young into the shelter of tussocky grass and scattered shrubs where they quickly escaped further detection. .A most satisfactory sighting of an endemic species seldom encountered even by those of us

who devote so much attention to waders. We are accustomed to dealing with species which conveniently congregate on shores close to large cities and have little opportunity to work on this inhabitator of distant, dry and sparsely-vegetated plains. As "The Atlas of Australian Birds" so charmingly but rather indecisively says 'There are no measures of abundance' - for it is nowhere abundant.

The whole party, having camped overnight on the shores of Lake Callabonna, set out in the early light to wade a kilometre or so across to a small low lying island. The water, muddy and only faintly saline, was never more than waist deep. It was disappointing to find no signs of Banded Stilts. But a substantial breeding colony of Gull-billed Terns and small numbers of breeding Red-necked Avocets provided a good opportunity for hide photography. These terns are said to be far less discriminate in their choice of food than the stilts : they take, says the Atlas, mice, grasshoppers, fish, crabs, food from freshly ploughed ground and insects in the air and from the water surface whereas the stilts, according to the Atlas, rely mostly on dense populations of brine shrimps in salt lakes. No Banded Stilts because of a lack of brine shrimps? But they have bred before at Lake Callabonna - in 1930. And "Shorebirds in Australia" observes that they take a great variety of items including various crustacea and molluscs, insect larvae, water beetles, seeds of a salt tolerant plant and fish. Red-necked Avocets have a diet generally similar to that of the stilts. Perhaps there was better eating elsewhere.

The speedy response of the terns and avocets to the newly flooded lakes was impressive. In both colonies there were not only eggs but also newly hatched young. Clive Minton believes nesting must have started within about two weeks of the heavy rain in mid-March and before the water levels in the lake had reached their peak. Although fairly abundant in the area - at least one or two were seen each day - dingos had not apparently been through the colony. The only threat seemed to come from Silver Gulls which were present in small numbers, some nesting. Strangely no birds of prey were seen. .

Altogether, on the three small islands visited, 422 nests all with eggs, young or both were found : 360 Gull-billed Tern, 23 Red-necked Avocet and 39 Silver Gull. There was time to make further searches further south but not one Banded Stilt was seen. While we were thus engaged Ian May was still searching. From a helicopter he spotted up to 100,000 nesting on the western side of the Flinders Ranges on islands in Lake Torrens which is said to have flooded for the first time in one hundred years. Very droll. Clive Minton went out with Ian May a week later and took some stunning photographs.

Participants : John Dawson, Don Jeans, Clive Minton, Roger Minton, Chris Morris, Ira Savage and Alan Smith  
J.G.D.

DO NOT READ

these answers until you have seen the questions on another page

1) Lesser Golden Plover. *Pluvialis* (Latin), belonging to rain (i.e. spotted) : *dominicus* - (Latin), island of San Dominigo, West Indies : *fulva* - (Latin), yellowish brown

2) Mongolian Plover. *Charadrius* (Greek), valley bird : *mongolus* (Latin) - Mongolian

3) Ruddy Turnstone. *Arenaria* (Latin), belonging to sand : *interpres* (Latin), go between

4) Red-necked Stint. *Calidris* - Greek, kind of bird: *rufus* red : *collum*(Latin), neck

The translations do not spring from any undue familiarity with classical languages but rather from a quick look at Neville Cayley's 'What Bird Is That' - J.G.D.

VICTORIAN WADER STUDY GROUPDATES FOR FIELDWORK APRIL TO DECEMBER 1989

<u>DATE</u>	<u>PLACE &amp; OBJECTIVE</u>	<u>HIGH TIDE</u>	
		<u>TIME</u>	<u>HEIGHT</u>
Apr 16	<u>Werribee S.F.</u> Pied Oystercatchers, late Red-necked Stints, Doublebanded Plovers.	Sun 1018	0.7m
Apr 22	<u>Yallock Creek</u> Doublebanded Plovers & late Rednecked Stints.	Sat 1422	2.8m
May 6	<u>Inverloch</u> Pied Oystercatchers and Doublebanded Plovers.	Sat 1250	1.7m
May 20	<u>Stockyard Point</u> Pied Oystercatchers.	Sat 1304	2.7m
Jun 3-4	<u>Queenscliff</u>  Pied Oystercatchers & Doublebanded Plovers.	Sat 1116*	1.6m
		Sun 1215*	1.7m
Jun 18	<u>Long Island, Hastings</u> Pied Oystercatchers	Sun 1214	2.6m
Jul 2	<u>Yallock Creek</u> Doublebanded Plovers.	Sun 1136	2.8m
Jul 22	<u>Barry Beach</u> Pied & Sooty Oystercatchers.	Sat 1530	1.5m
<u>Jul 29</u>	<u>Annual General Meeting</u> At Clive & Pat Minton's house. From 10.30 a.m.	<u>Sat</u>	
Aug 5	<u>Queenscliff</u> Doublebanded Plovers	Sat 1449	1.5m
Aug 19	<u>Yallock Creek</u> Late Doublebanded Plovers & Early Rednecked Stints & Curlew Sandpipers.	Sat 1438	2.8m
Sep 3	<u>Stockyard Point or The Gurdies</u> Eastern Curlew	Sun 1512	2.7m
Sep 17	<u>Yallock Creek</u> Eastern Curlew	Sun 1402	2.7m



Oct 1	<u>Queenscliff</u> Red Knot	Sun	1249*	1.3m
Oct 21	<u>Inverloch</u> Eastern Curlew	Sat	1602	1.4m
Oct 28	<u>Werribee S.F.</u> Golden Plover	Sat	1339	0.7m
Nov 18-19	<u>Queenscliff</u> Large Waders.	Sat Sun	1602* 0512*	1.4m 1.5m
Dec 2	<u>Yallock Creek or Stockyard Point or The Gurdies</u> Eastern Curlew.	Sat	1604	2.5m
Dec 9	<u>Warneet</u> Greenshank	Sat	0852	2.6m
Dec 16	<u>Mud Island</u> Crested Tern Chicks	Sat	1459	1.4m
Dec 23	<u>Corner Inlet</u> Crested Tern & Caspian Tern Chicks	Sat	0742	1.3m
Dec 30	<u>Werribee S.F.</u> Large catch of small waders.	Sat	1620	0.7m

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	344 4334 (B) new
John Dawson	787 2082 (H)

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\* At Port Phillip heads - two hours later at Swan Bay.

This is the fieldwork programme covering the April-December 1989 period and already circulated to VWSG members. Some revisions occur - the addition of extra activities to meet particular needs or the occasional cancellation due to lack of availability of an adequate team.

The programme is included here primarily to illustrate the frequency and variety of the VWSG's fieldwork activities.

V.W.S.G. - FINANCIAL STATEMENT from 1/7/88 to 30/6/89

<u>INCOME</u>	\$	<u>EXPENDITURE</u>	\$
Subscriptions	1130.00 (605.00)	Printing - Bulletins	280.00 (300.00)
Donations	76.85 (1.00)	Stationery - envelopes	12.00 (20.00)
Bird Observers Club Aust.	250.00	Postage & Photocopying	129.08 (103.44)
Aust. Bird Environment Fund	483.83	Incorporation expenses	23.00 (21.00)
Re-imburement from return of Colour Bands	300.00	Firing Box	68.80
Fees for making Cannon Nets	71.35 (42.55)	Shackles	55.56 (30.09)
Proceeds of Trading Table - AGM	41.00	Trailer Repairs	25.44 (64.00)
Sale of excess food - AGM	78.39 (51.77)	Fuses	468.00
Bank Interest		Colour bands & glue	553.40 (85.00)
Cash in Bank at 1/7/88	398.50	Sheet of 2 ply rubber(cannons)	107.53
Cash/cheques in hand at 1/7/88	24.47	Plasticine & grease	38.48
		Black Powder	145.00 (261.00)
		Equipment & repairs including radios, electrics, screwdrivers, etc	89.10
		Bank Government Duty	.60 (.16)
		Cash at Bank at 30/6/89	807.80
		Cash in hand at 30/6/89	50.60
	<hr/> 2854.39		<hr/> 2854.39
	=====		=====

Brenda Murlis, Hon. Treasurer

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