Lake Development Near City Yields Scoop for World Wildlife Fund

by B.A. and A.G. Wells (All photos copyright A.G. Wells)

Springtime in Western Australia attracts from interstate and from overseas many tourists who come to see our unique wildflowers. Almost unnoticed however, is the arrival of hundred of thousands of visiting birds from the northern hemisphere, migrants without passports, who stop-over for about six months to enjoy our Mediterranean-like climate, then to return after the summer to their far-away homes.

This prodigious migration includes about twenty-nine species of small birds of the family Charadriidae, which leave their breeding grounds in the northern and arctic regions of Europe and Asia, and fly some thousands of kilometres, to arrive in Australia about September.

These species include sandpiper, stint, plover, whimbrel, redshank, greenshank, snipe, ruff, knot, turnstone, sanderling, curlew and godwit — all names to conjure with in the mind of the bird observer.

Of these, the smallest, rarest, and the least recorded, is the Long-toed Stint *(Calidris subminuta)*, which breeds in eastern Siberia, and otherwise lives around freshwater swamps in south-east Asia. In a way which is not understood, small numbers of this species become attached to the main seasonal migration to the south. It is the only species which appears to have a preference for the south-western corner of Australia as its summer haunt.

The two colour photographs, shown here, of the Long-toed Stint, are believed to be the first ever published, probably in the entire western world, and certainly in Australia.

Perhaps of greater importance is that they were taken by the authors on drying mudflats artificially created in the development of "Floreat Waters", as part of the overall environmental plan for Herdsman Lake, which is only a few kilometres from the heart of the City.

It is also significant that the location was adjacent to the site of the Herdsman Lake Wildlife Centre, an educational study centre which is being constructed under the aegis of the World Wildlife Fund Australia, and for which currently there is an appeal for public support.

Shunning the inter-tidal saltwater zones frequented by many of its close relatives, the Long-toed Stint is likely to be found on the drying margins of mud-bottomed shallow freshwater lakes. The virtually dry summers and comparatively mild

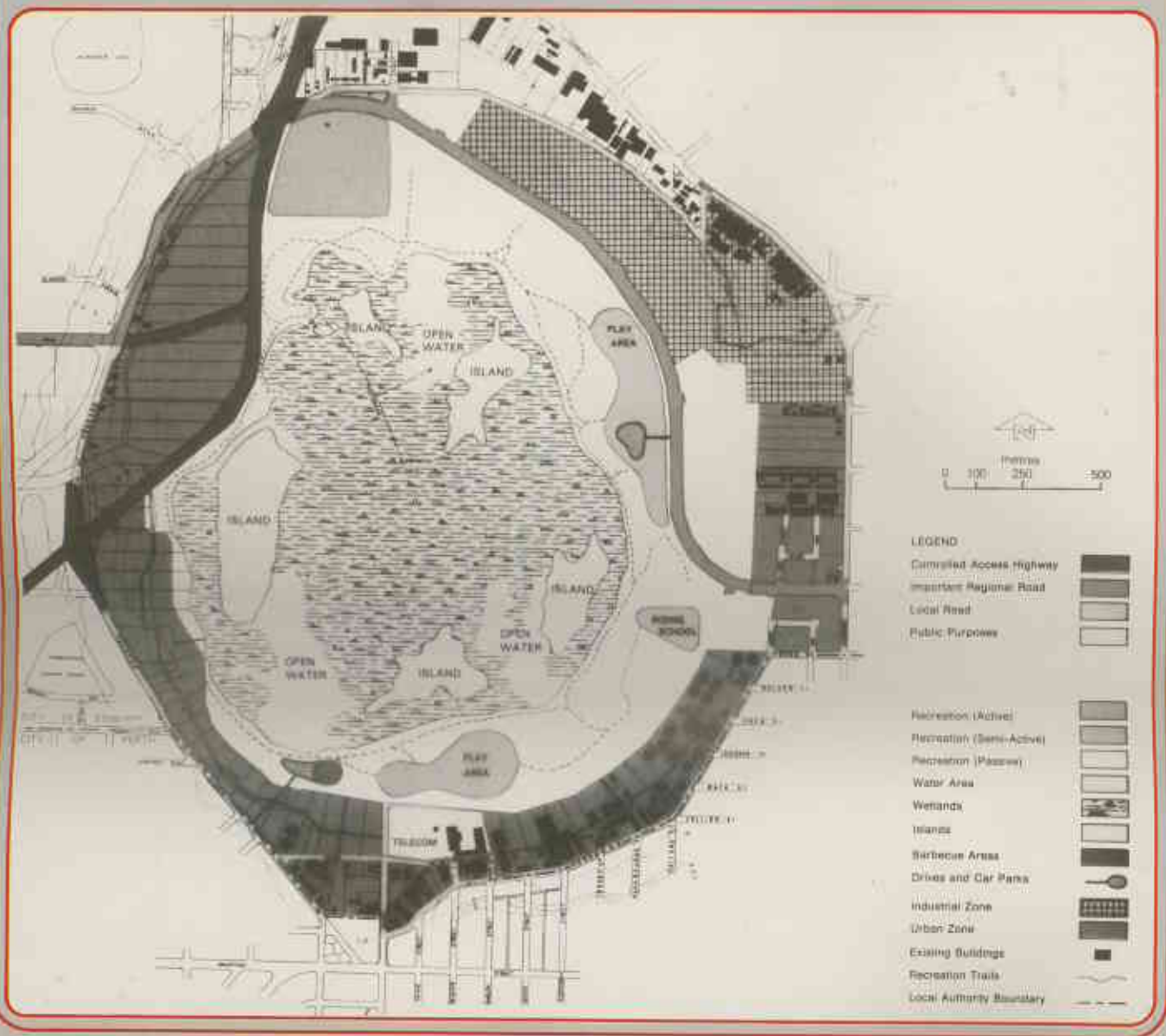
▼ Long-toed Stint *(Calidris subminuta)* characteristically in company with sharp-tailed sandpipers. Note the greenish-yellow leg.

Herdsman Lake Concept Plan

Herdsman Lake located to the north of the City of Perth is a major component in the extensive chain of wetlands running parallel to the coast. Because of its relatively close location to the city centre, its size and ease of access, and its natural attractiveness to wildlife, particularly birdlife, the lake has considerable conservation importance.

The degree of interest shown by the public in the future of the lake and the need to re-examine the road network in the area led to the formation of a Technical Advisory Committee to advise the Metropolitan Region Planning Authority on the planning and development of the lake area. The resulting concept plan which is shown below with the permission of the MRPA, provides for a total parks and recreation area of 340.7 hectares of which 178.8 hectares is made up of open water, wetlands and islands. Provision is also made for areas of passive and active recreation.

In addition, the lake will boast Australia's first nature study centre giving the public access to a new bird and wildlife sanctuary. An appeal was launched last year to raise funds for the building of the centre which is expected to cost $400 000. A spokesman for the World Wildlife Fund which organised the appeal, said the centre would provide special wildlife exhibits and a sheltered rooftop observatory would give visitors a view of the wildlife wonders of this unique wetland. The centre would complement educational facilities at the zoo in South Perth, Kings Park and other reserves.



climate of the south-west of Western Australia provide a particularly reliable area of receding lake margins during the northern winter.

Even so, this tiny, shy, cryptically coloured bird was virtually unknown until the last decade. Only occasional sightings of a few individuals had been recorded. As a result of recently increased research and studies of our diminishing wetlands, some larger numbers have been seen, including one flock of about 80 birds. Generally however, the Long-toed Stint occurs in very much smaller numbers.

Sighting and positive identification in the field can be made only with the aid of good binoculars or a field telescope. The Long-toed Stint may then be seen either as a solitary individual, or in a small group, often in the company of other members of its genus, particularly the Sharp-tailed Sandpiper *(C. acuminata)* (see plate). It bears a strong resemblance to this species, except for its smaller size, comparative lengths being 150 mm and 210 mm.

Identification is also confused by its similarity in size and profile to another close relative, the Red-necked Stint *(C. ruficollis)*, which, to make things even more difficult, migrates in enormously greater numbers.

However, the legs of the Long-toed Stint are distinctly greenish-yellow, while those of the Red-necked Stint are black. The Long-toed Stint also appears to be somewhat darker and brownish, whereas the latter species tends to be greyish, in their respective non-breeding plumages whilst in Australia.

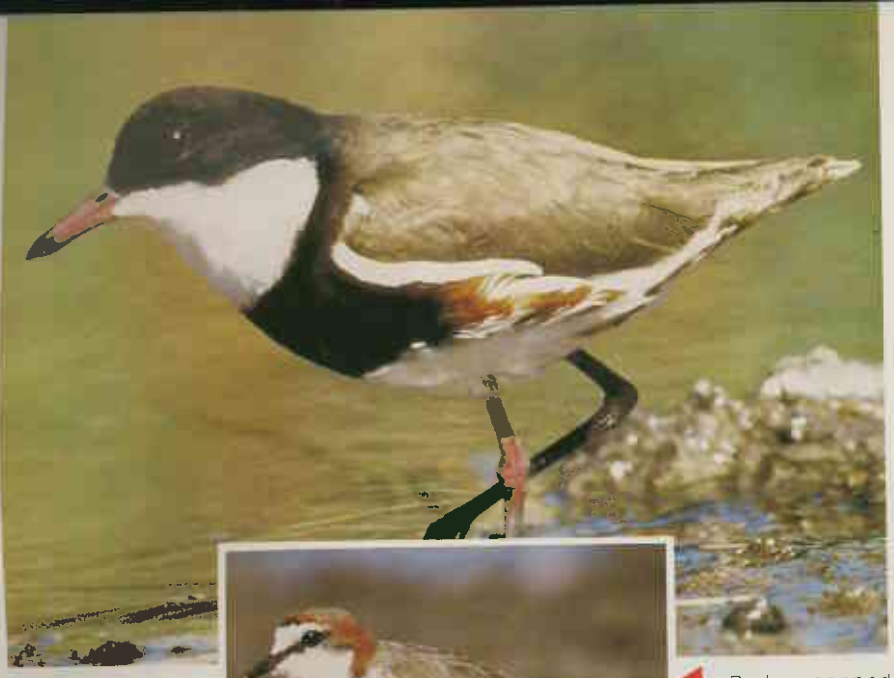
Three specimens of each of these two species were measured at the Western Australian Museum, as follows:

	length of tarsus	length of middle-toe & claw
Long-toed Stint *(C. subminuta)*	1. 22.0 mm 2. 22.0 mm 3. 22.0 mm	23.0 mm 23.0 mm 24.0 mm
Red-necked Stint *(C. ruficollis)*	1. 19.5 mm 2. 19.0 mm 3. 20.0 mm	19.0 mm 19.0 mm 20.5 mm

These figures suggest that the actual difference between the lengths of the middle-toe and claw of the two species is only marginal. However, biologist Peter Curry has observed

▼ Four long-toed stints in a typical furtive posture, behind a small tuft of dead reeds, and about to take flight.

▼ Red-necked Stint *(C. ruficollis)* Also occurs on the mudflats of Herdsman Lake and is easily confused with the Long-toed Stint. It has black legs



◀ Red-kneed Plover *(Charadrius cinctus)*. One of the three non-migratory small waders frequently seen on the margins of Herdsman Lake.

◀ Red - capped Plover *(C. ruficapillus)*. Another non-migratory wader seen on Herdsman Lake.

▲ Black-fronted Plover *(C. melanops)*.

that the combination in the Long-toed Stint of its relatively longer toes and legs with its slightly shorter body and tail, means that in flight, with legs retracted, the tips of the feet can be seen to project behind the tail, which seems to be a unique feature in the small sandpipers.

There are also noticeable differences in behaviour, which can be helpful to distinguish these two species in the field. The Red-necked Stint is usually in dense flocks, of sometimes hundreds, even thousands, either running about busily and noisily feeding on saltwater tidal mudflats or sandy shores, or flying low in tightly packed well-disciplined groups, constantly changing direction and shape, until they land again, often not far from the observer. Examples of areas near Perth which are favoured by the Red-necked Stint, are the foreshore of the Swan River during low tides at Como, Alfred Cove and Pelican Point.

On the other hand, the Long-toed Stint, in its very much smaller numbers, is inclined to feed slowly and less industriously on freshwater mudflats (Herdsman Lake, Lake Yangebup, Thomsons Lake etc.). When disturbed it either runs quickly to cover behind a small clump of grass or reeds or it takes to the air with a fast bat-like flight, calling sharply as it flies high and often far away from the observer.

About April, the long summer holiday in Australia ends. Unseen by most people, a general exodus of migratory waders occurs and nearly all of the visitors return to their breeding grounds in the northern hemisphere.

Three other species of small waders which frequent the same location at Herdsman Lake were the Red-kneed Plover *(Charadrius cinctus)* Red-capped Plover *(C. ruficapillus)* Black-fronted Plover *(C. melanops)*.
Although these are of a genus related to the Long-toed Stint, they are non-migratory, being full-time residents throughout most of Australia.

For the camera enthusiast, the photographs of the birds shown here were taken with a Leitz Telyt 400 mm telephoto lens with extension rings fitted to a Nikon F2 camera, hand-held with a gunstock, using Kodachrome 64 colour reversal film. Only two frames of the Long-toed Stint were obtained during the exercise, which extended over three weeks, indicative of the elusive behaviour of this unusual species.

ACKNOWLEDGMENT

Encouragement, advice, and field assistance was received from:

Dr. Stephen Davies, Officer-in-Charge, Division of Wildlife Research, C.S.I.R.O., Perth.

Roger Jaensch, Field Officer, Royal Australasian Ornithologists Union.

Peter Curry, Consultant Biologist.

Grant Pearson, Technical Officer, Western Australian Wildlife Research Centre, Department of Fisheries and Wildlife.