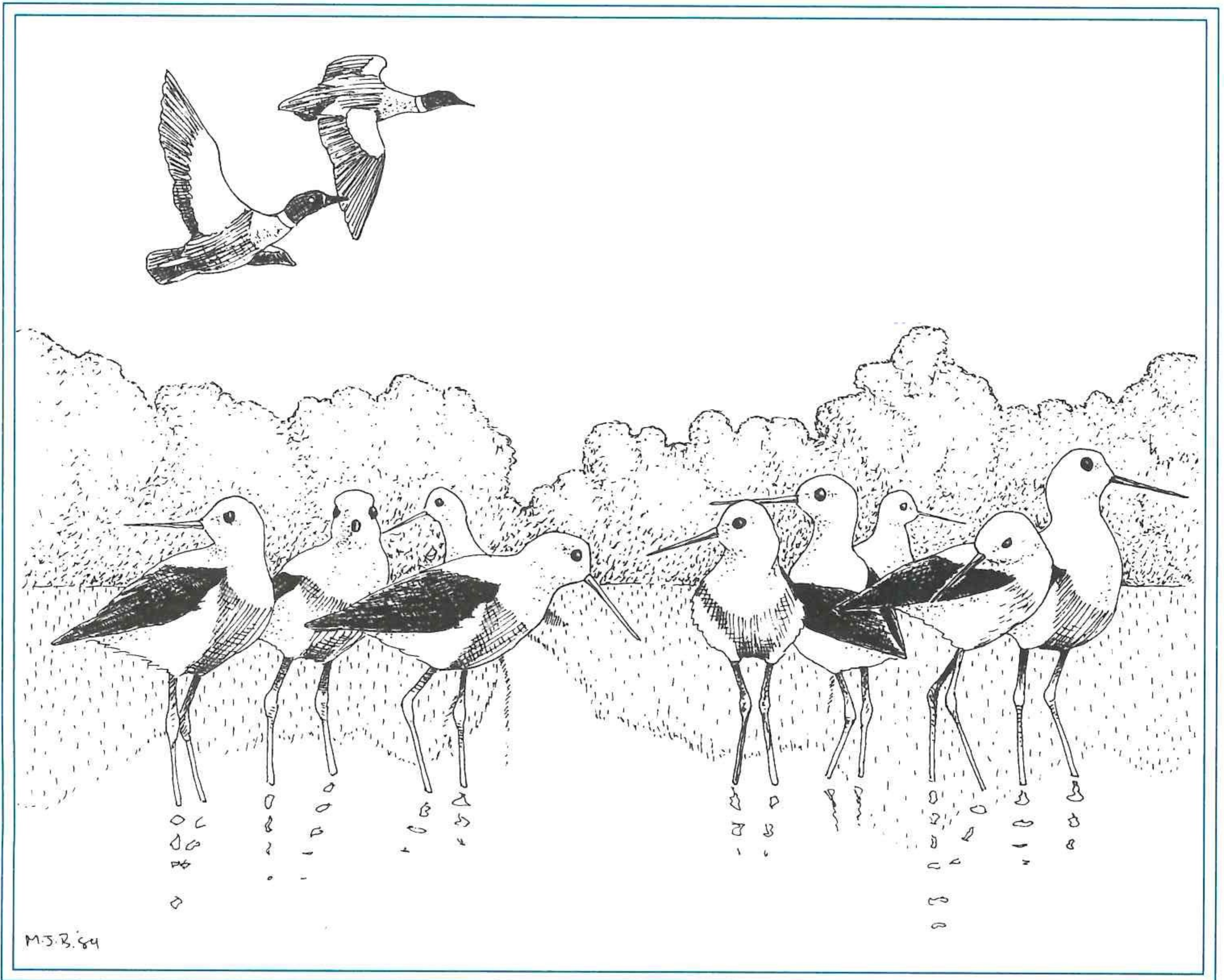


Birdlife



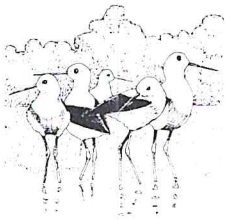
of South-West Estuaries

Waterways Information No. 3

By Dr Boyd Wykes
Illustrated by Mike Bamford



Waterways Commission, March 1990



Birdlife of South-West Estuaries

Cover picture: Banded Stilt and Australian Shelduck

INTRODUCTION

Birdlife in Western Australia's south-west estuaries is abundant and varied, ranging from the extraordinary Pelican to diminutive waders which migrate 9,000 kilometres to escape the Arctic winter. The birds take advantage of the rich pickings at the junction of river, land and sea, where microscopic plants and animals and fringing plants are the basis of a very productive food chain.

Many birds spend most of their life feeding in estuaries. Others converge there when inland water bodies dry out in summer and autumn. Freshwater swamps close-by enable colonies of waterbirds to breed near their feeding sites.

This booklet is a guide for locals and visitors, casual observers, bird-watching enthusiasts and anyone who gains pleasure from observing nature. It will help you to find the best locations for watching birds and put names to some of the many kinds to be seen. It tells a little of how waterbirds make their living, and the importance of the various habitats within an estuary for supporting birdlife.

ESTUARINE HABITATS

OPEN DEEP WATER attracts diving birds such as the Musk Duck, Great Crested Grebe and Pied Cormorant, which dive for bottom-dwelling animals, and those like Coot which dive for plant material. Others, such as the scooping Pelican and plunging Caspian Tern, feed on fish close to the surface.

SHALLOW WATER AND MUDFLATS are rich feeding areas, particularly after tidal inundation. A confusing variety of small migratory waders in dull, non-breeding plumage spend our summer in huge flocks probing the shallows and mudflats for tiny animals. Most common are the Red-necked Stint, Curlew Sandpiper and Sharp-tailed Sandpiper. Some of our rarest migrants such as Long-toed Stint and Wood Sandpiper prefer the freshwater swamps fringing the estuaries when water levels are

swamps fringing the estuaries when water levels are receding in summer. Larger birds with long legs are variously adapted bills, sieve, scoop, probe and spear for food in the shallows. These include avocet, stilt, pelican spoonbill, oystercatcher, curlew, heron and egret. Shelduck and Grey Teal swim for their food in the shallows, while Whiskered and Fairy Terns fly over the water and pluck their prey from above.

ISLANDS, SANDBARS AND SPITS are roosts for loafing waders, waterfowl and terns, particularly at high tide when they may clump tightly together in their thousands. They are also breeding sites for some species which nest on open ground.

FRINGING REEDS AND SAMPHIRE SALT MARS provide cover for skulking waterbirds such as the Spotted Crake and Buff-banded Rail. This vegetation also attracts many wading species when flooded by high tides or winter. Reed-beds in freshwater swamps near estuaries are also attractive to crakes and rails and to specialised song birds such as the Little Grassbird and Reed Warbler. Here, too, are nest sites for waterfowl such as the Blue-billed Duck and the predatory Marsh Harrier.

SEASONAL FLOODLANDS of open, shallow marshes and paddocks around the estuaries can provide seasonal abundant food (crustacea, insects, frogs) for flocks of heron, ibis, stilt and ducks.

SWAMPs with thickets of shrubs and trees are vital roosting and nesting sites for many species which feed nearby estuaries. The most valuable are freshwater swamps with live plants, although dead shrubs and trees also provide loafing perches for many waterbirds and nest sites for some herons, ducks and cormorants. Individual swamps can be favoured by colonies of particular species, for example Darter Swamp and Egret Swamp near Leschenault Inlet.

This whole range of habitats must be protected to support the rich diversity of birdlife on our estuaries for the future.

ESTUARIES OF NOTE

The PEEL-HARVEY ESTUARY is one of the largest and most important wetlands for birds in the southwest. Combined aerial, shore and boat surveys by Conservation and Land Management researchers put the total estuary count at up to 100,000 waterbirds of 75 species. Large expanses of tidal mudflats and shallows attract migratory and local waders, particularly in spring/summer. Fringing woodlands of sheoak, teatree thickets and samphire saltmarsh provide shelter and roosting sites for many other species, and are rich feeding grounds when inundated by tides and rain. Nearby freshwater swamps added to the diversity of feeding habitats and provide nesting sites for huge colonies of the larger waterbirds.

Austin Bay Nature Reserve is extremely rich in waterbird species. There are large populations compared to other south-west wetlands. Thirty-nine species have been recorded, some of which breed there. Austin Bay is the major remaining reserve for samphire flats, inhabited by little Grassbirds and roosting sandpipers. When the sea is flooded it is used by many feeding waders. The reserve provides extensive mudflat and shallows habitat for large and small wading species, and open water for the surface and aerial divers. A spectacular sight is dense flocks of pelicans, cormorants, egrets, herons, gulls and terns scrambling for fish in the shallows.

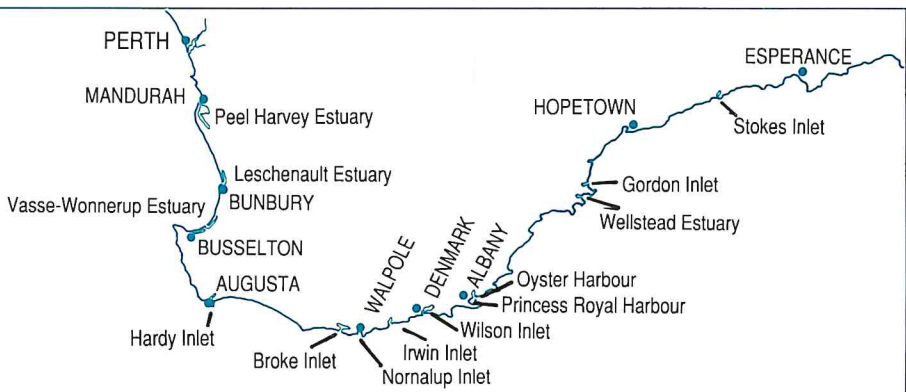
Waterfowl in the reserve regularly number over 10,000, including Black Swan, Grey Teal and Blue-billed Duck. Feeding species include twenty-two listed in the Japan-Australia Migratory Birds Agreement. Most numerous of the migratory waders are the Greenshank, Red-necked Tint, Sharp-tailed and Curlew Sandpiper, Red Knot and

Curlew. A common feature is large flocks of over 10,000 Banded Stilt. Some other regularly-observed species are found in few other south-west reserves, including the Whimbrel, Grey-tailed Tattler and White-winged Tern.

LESCHENAULT ESTUARY supports over 60 species of wetland birds on its open waters and in its fringing tidal saltmarsh. It is the principal wetland of the Bunbury region and in the top 10 of south-west wetlands, with up to 5,000 birds present at a time. Breeding colonies of egrets, cormorants, darters, spoonbills and herons commute to the estuary from nearby swamps; swans and ducks of the surrounding countryside seek refuge during summer drought; and trans-equatorial wading birds escape the northern winter on the shores around the river mouths. Wader numbers are not extensive but include 18 species which are listed in the Japan-Australia and China-Australia Migratory Bird Agreements. Some species which regularly occur here are uncommon elsewhere.

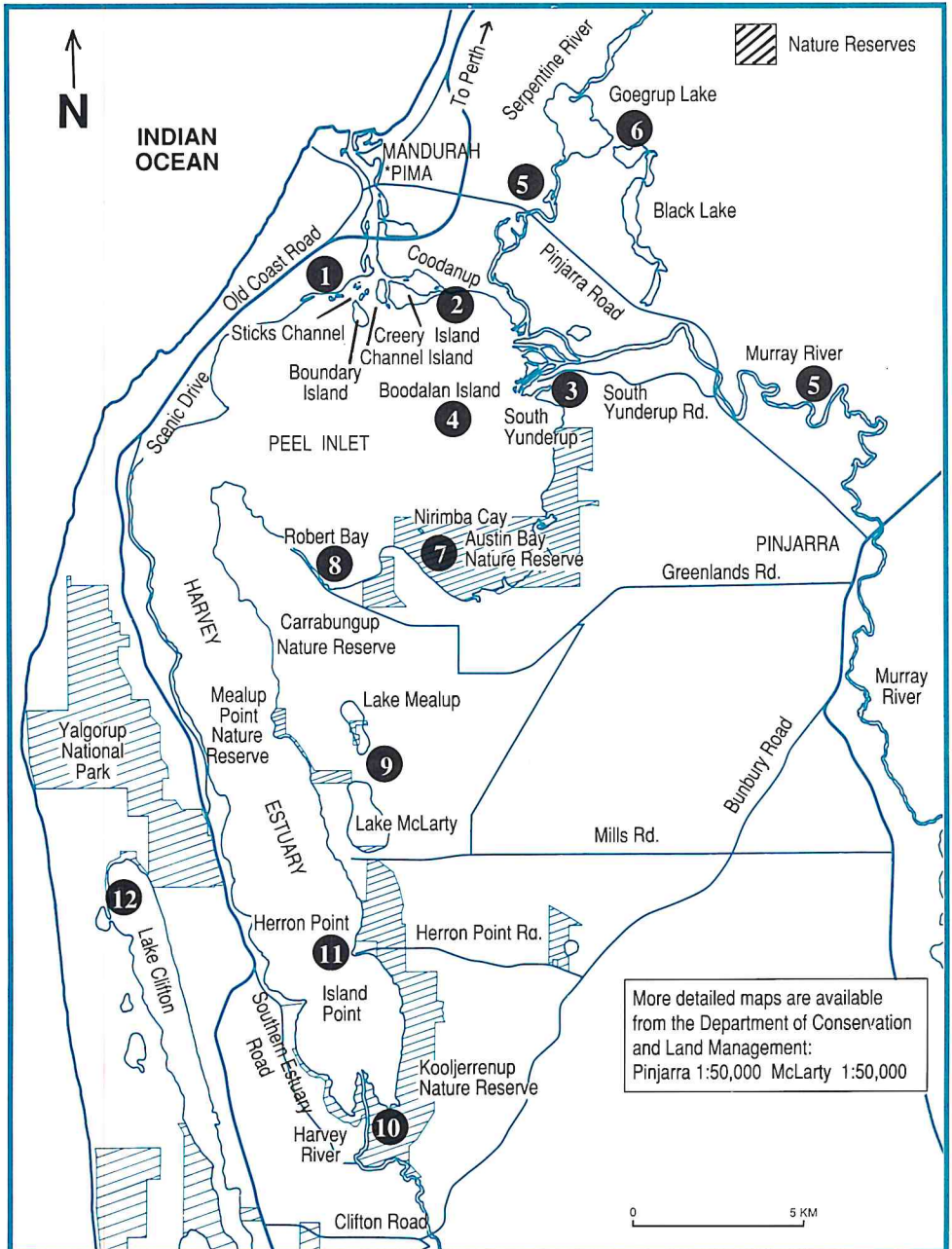
The VASSE-WONNERUP ESTUARY system near Busselton is cut off from the sea and functions more as a freshwater lake than an estuary. A large variety of local and migratory waterbirds feed on its muddy shores over spring-summer, and numerous waterfowl gather on the open water as wetlands dry up in summer-autumn. Up to 33,000 waterbirds are present at times. Low, dense fringing vegetation provides a breeding habitat for ducks and swans, while ibis, egrets and spoonbills breed in nearby swamps.

There are many smaller estuaries in the southwest which are also beautiful, rewarding areas for birdwatching. Most have particular importance as summer-autumn refuges for waterfowl.



Major estuaries of south-west Western Australia

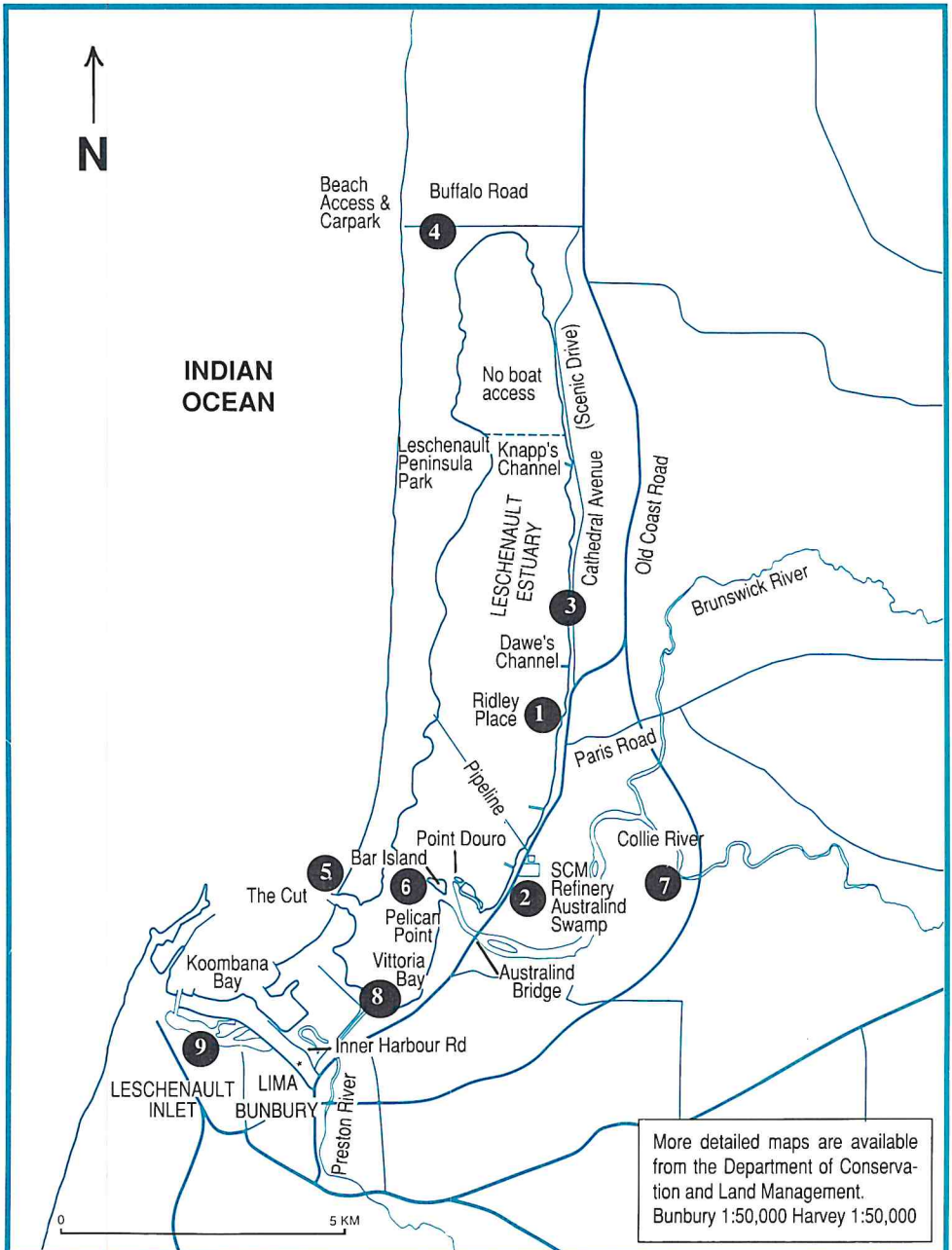
BIRDWATCHING GUIDE TO THE PEEL-HARVEY ESTUARY



- 1 The Sticks area of shores, marshes and islands at the channel entrance provides excellent birdwatching opportunities. An easy walk from the Mandurah Estuary Bridge on either shore gives good views of mudflats and shallows where most of the estuary's waterbirds can be seen feeding.
- 2 Boundary Island and nearby islets can be viewed from shore or are accessible by boat. Avoid disturbing the roosting flocks of waders such as Grey Plover and Godwits, or the nests on open sand of groups of Fairy Tern and pairs of Red-capped Plover and Pied Oystercatcher. The bay inshore of Creery Island supports particularly large numbers of Lesser Golden Plover, Banded Stilt, Bar-tailed Godwit, Eastern Curlew and Great Knot. Yellow-billed Spoonbill and Sacred Ibis come here to feed from their breeding colonies in flood-inundated trees and shrubs at nearby swamps.
- 3 South Yunderup at the mouth of the Murray River gives walking access to shallow water sites and to mudflats further south in the nature reserve, where many waterbirds feed.
- 4 Boodalan Island Nature Reserve is an important roost and breeding site.
- 5 The Serpentine and Murray Rivers can be enjoyably explored by boat. Long-legged waders such as egrets stalk the edges, and cormorants and darters gather in their hundreds to roost in trees at dusk.
- 6 Goegrup Lake and Black Lake further up the Serpentine River are important waterbird feeding and breeding areas.
- 7 Nirimba Cay is a roost for waders, terns and pelicans.
- 8 Robert Bay is readily accessible and affords excellent views of waterbirds feeding. Many come from a nearby paperbark swamp which is the breeding site for colonies of at least 1,000 pairs of Little Black Cormorant, 300 pairs of Little Pied Cormorant, and smaller numbers of other large waterbirds.
- 9 Freshwater wetlands such as Lake McLarty and Lake Mealup to the east of Harvey Estuary provide reed bed, mudflat and shallow habitat for myriad waterbirds as the wetlands dry out in summer. Some rare species which rely on these areas include Wood Sandpiper, Marsh Sandpiper, Pectoral Sandpiper, Long-toed Stint and Ruff.
- 10 Kooljerrenup Nature Reserve to the south of the Harvey Estuary is accessible by road at Herron Point. Boat access from the estuary is tricky but canoeing down river from Clifton Road is pleasant when the Harvey River water is high. Skulking birds of the reedy fringes include the Spotless Crake and Buff-banded Rail.
- 11 Islands off Herron Point provide roosts for waders and terns. Nearby Clifton Road Swamp is an important waterbird breeding site.
- 12 Lake Clifton, to the south-west of the estuary, contains a number of nature reserves. Great Crested Grebes and Musk Duck are common diving species of its deeper waters.

The Peel Inlet Management Authority (PIMA) office is open from 8.30am to 5.00pm on weekdays to answer your enquiries and provide information to help you to enjoy the estuary. Please call in!

BIRDWATCHING GUIDE TO THE LESCHENAULT ESTUARY



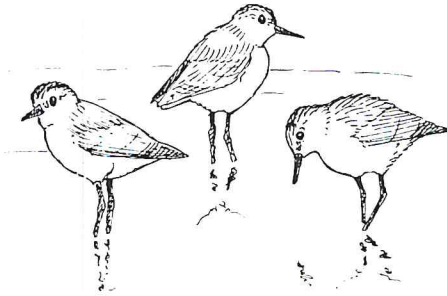
- 1 Ridley Place at Australind is a good stopping point for travellers to view at close hand cormorants, darters, ibis, pelicans, diving birds and waders.
- 2 Australind Swamp has been set aside by SCM Chemicals as a Great Egret Colony reserve. Rufous Night-heron, Little Black Cormorants, Little Egret and Great Egret breed in the paperbarks and feed in the estuary.
- 3 Cathedral Avenue is a scenic alternative to the Old Coast Road. Birds of shore and open water are readily observed from quiet picnic spots amongst paperbarks and reeds, such as at Knapp's Channel.
- 4 Waterbirds such as Black-winged Stilt and Greenshank feed in flooded saltmarsh along Buffalo Road to the north and in paddocks along Cathedral Avenue.
- 5 The Cut is being developed as a picnic and camping venue for boaters by the Department of Conservation and Land Management, as part of the Leschenault Peninsula Park. Pied Oystercatchers and Red-capped Plover breed on the beach, and many bush birds inhabit the surrounding coastal vegetation.
- 6 The Pelican Point, Bar Island and Point Douro area attracts many waterbirds to the varied habitats and rich food supply of the Collie River mouth. Osprey are regularly seen here, and occasionally at other spots along the estuary.
- 7 Exploration of the Collie River by boat provides good views of waterbirds such as cormorants, darters and night-herons roosting in paperbarks and feeding. The Collie River Queen ferry takes day trips in season and group bookings, departing from near the Australind Bridge. Contact the Bunbury Tourist Bureau for details.
- 8 The Preston River mouth is the best birdwatching site on the estuary. Access is from Inner Harbour Road (marked "to Power Station and Northern Inner Harbour"). Watch for a variety of waterfowl as you drive along the river, then walk out to the mouth. Waterbirds of all descriptions can be seen close by in the river, feeding on the samphire swamp and on the lagoon. Watch for Whistling Kite and Osprey hunting overhead. Migratory waders which specialise in estuary habitats are more frequently seen here than at most other south-west wetlands. These include the Bar-tailed Godwit, Grey Plover and Great Knot. Over 30 species of waterbird can be readily spotted on a summers day. The river mouth has been greatly altered in the past by engineering works, but the saltmarsh has recovered well and the birds have taken advantage of the variety of feeding opportunities now offered. A few species, such as Red-capped Plover and Black-winged Stilt, also breed here.
- 9 Leschenault Inlet is a discrete waterbody within Bunbury, well known as the most southern site for White Mangroves in Western Australia. Most of the waterbirds of the region can be seen here at various times, feeding on the mud and in the shallows. Black-winged Stilt breed in the reed fringes.

The Leschenault Inlet Management Authority (LIMA) office is open from 8.30am to 4.45pm on weekdays to answer your enquiries and provide information to help you to enjoy the estuary. Please call in!

ESTUARY WATERBIRDS - KEY GROUPS AND SPECIES

Waders

The worms, molluscs, insects and crustaceans of mudflats and shallows are snapped up by alert hunters such as small plover, or found by probing with sensitive bills as with the avocet. Add to this variety a range of leg-lengths and body sizes for hunting food of different sizes in various depths of water, and you get the array of wading birds which feed side by side in estuaries. Many are trans-equatorial migrants which breed during the short Arctic summer and then follow the sun to the southern hemisphere where they look confusingly similar in their cryptic non-breeding plumages.



Red-necked Stint

Red-necked Stint are the smallest of the summer migrants. They gather on estuary mudflats in thousands after travelling from northern Siberia. Plumage seen in flight is important in distinguishing waders. The Stint has a broad, white wing-bar and a dark centre to its rump. Often accompanying Stints are the Curlew Sandpiper, with a white rump, and the Sharp-tailed Sandpiper, with an indistinct wing-bar.

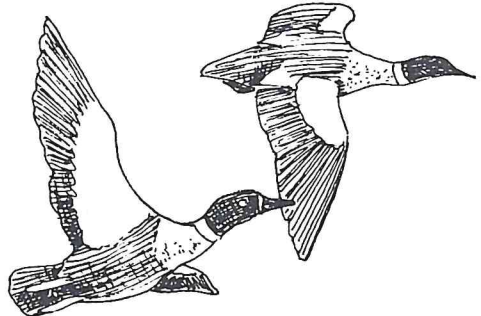
The Bar-tailed Godwit is a large wader which also migrates from the Arctic. In contrast to the Stint's short, jabbing bill, the Bar-tailed Godwit's long, straight bill (with its distinctive pink base), is thrust deep into mud and sand to feel for small animals. Godwits fly in tight flocks then spread out to feed over the mudflats of estuaries. Careful observation will also reveal the closely-related Black-tailed Godwit, which is less common on our estuaries, and breeds in Europe and Asia.

Banded Stilt gather in thousands each summer to wade and swim in shallows of south-west estuaries, sieving brine-shrimp and other crustacea with their needle-like bills. They breed only occasionally, at inland salt lakes which only contain ample water in certain years, as in 1988 when 7,000 chicks were counted at Lake King north of Ravensthorpe. Black-winged Stilt are smaller but similar birds which jab and probe in estuary shallows and nearby swamps. The Red-necked Avocet is of the same size, but with an upturned bill used for sweeping side to side, half opened, through water and mud.

Great Egret, brilliant white stalkers of small fish, crabs and prawns, have only recently established breeding colonies in the south west. Two of these are at Australind near the Leschenault Estuary. A much smaller (but similar) relative, the Little Egret, is uncommon in Western Australia but it too has begun to breed at Australind Swamp.

Waterfowl

Twelve of Australia's nineteen species of geese, swan and ducks occur in south-west estuaries. Estuaries are the strongholds for Black Swans, which graze on bank vegetation and seagrass. The large, colourful Australian Shelduck is also an estuarine grazer, and many ducks such as the common Pacific Black Duck and Grey Teal dabble and dredge for a mixture of plants, seeds and small animals. The estuaries provide summer refuge for adults and young of these and many less common species.



Australian Shelduck

The Musk Duck, alone or in pairs, is a diver for bottom-dwelling animals in open water. The smaller Blue-billed Duck, distinguished by its blue bill (in breeding season) and dark head, is both an accomplished diver and an edge-dweller, feeding on plant material and midge larvae. Over a thousand Blue-billed Duck and hundreds of Musk Duck seek refuge on the Peel-Harvey Estuary in summer.

Up to 1,500 of the distinctive, surface-feeding Australasian Shoveler also seek summer refuge on the Peel-Harvey. Usually in two's and three's, these slim ducks strain water and mud through hair-like fringes to their broad bills to obtain surface-dwelling insects, crustacea and zooplankton. As with whales that sieve in this manner, they need water teeming with food. The 'zebra striped' Pink-eared Duck, which winters on estuaries, also feeds this way.

One of the rarest ducks in the world, the Freckled Duck, is a primitive species related to swans. It breeds in freshwater swamps but seeks bodies of permanent water in summer. Up to eleven have been sighted at the bottom end of the Harvey Estuary and others on swamps around the estuary.

Rails and their allies stalk amongst reeds and marshes of wetlands and are small to medium-sized relatives of the domestic fowl. They commonly flick their upright tails while walking on long legs with stout, spread toes over soft ground and floating vegetation in search of plant and animal matter. They are best observed feeding at dawn and dusk, and can be heard calling at night.

The Western Australian subspecies of the Eastern Swamphen is a large dark blue rail with a thick red bill. It is unusually brazen for a rail and is readily seen in dense reeds around estuaries, such as at the south end of the Harvey and adjacent swamps. It feeds on animals such as frogs and vegetable matter such as roots which are ripped out with its strong bill.

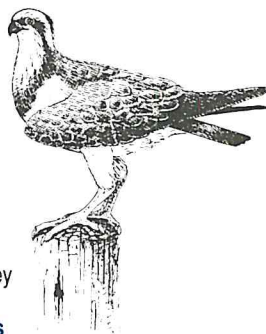
The Buff-banded Rail is one of a number of small, shy rails to be found in the reed margins of estuaries and adjacent wetlands. It is nomadic around coastal Australia. It breeds at Leschenault Estuary, where its harsh braying call is heard both day and night.

Birds of prey

Only the larger raptors which soar in search of prey are regularly associated with estuaries.

Marsh Harriers, alone or in pairs, sweep low over swamps and estuary fringes to suddenly loom over sheltered pools where waterbirds and other wetland vertebrates are plucked with long talons. Well adapted to their environment, they nest, roost and feed on the ground, but their courtships involve spectacular displays at great heights.

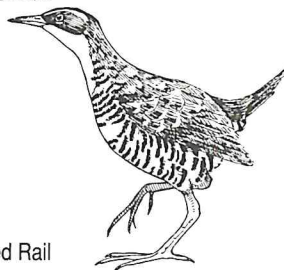
White-bellied Sea-Eagles and the smaller Osprey feed over the open-water estuaries, hunting for fish and smaller waterbirds. Both build large stick nests, used year after year, around some estuaries such as the Peel-Harvey. One Osprey has built its nest on an electric light pylon in Bunbury Inner Harbour.



Osprey

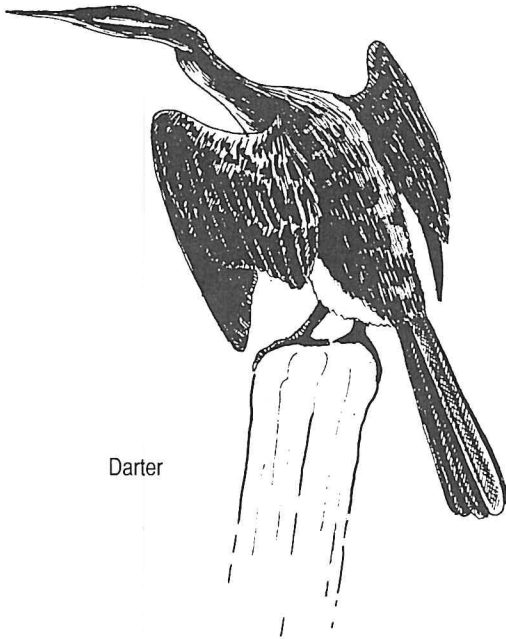
Fish eaters/divers

Who doesn't know the Pelican - soaring on a thermal, inscrutably watchful from a sandbank or herding fish into the shallows for a feast? Never diving, it dips its bill into the shallows for fish, and squeezes the accompanying water out through the corner of its mouth by pressing its bill-pouch to the breast. At least 100 pairs have bred on islands in Peel Inlet in recent years. Boodalan and Nirimba islands are named after south-west Aboriginal names for the Pelican.



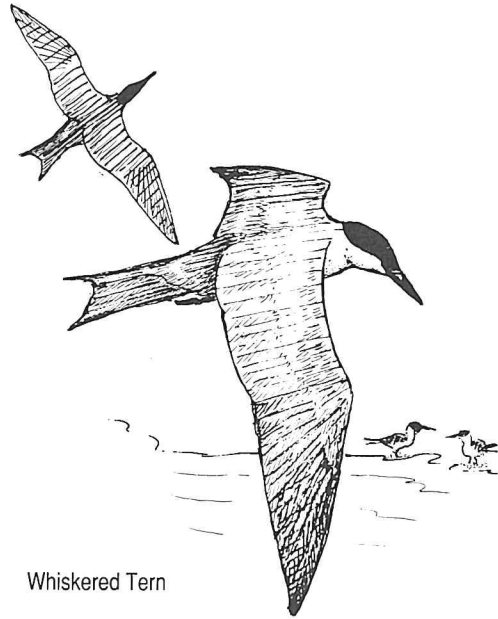
Buff-banded Rail

Cormorants and the Darter are close relatives of the Pelican and also feed on fish, supplemented by crustacea. Colonies of Darters, Little Black, Little Pied and Great Cormorants breed in a few freshwater swamps associated with the estuaries. The Pied Cormorant breeds on off-shore islands and commutes to estuaries to feed. These birds lack water-repellant plumage. They swim rapidly underwater, unhampered by trapped air, but must stand, wings out-spread to dry before they can fly. The Darter stalks its prey underwater, and spears with a rapid thrust of its long neck. The Pied Cormorant is an agile diver. Propelled by its webbed feet, and using its wings for braking and turning, it grasps large fish in its hooked bill. Little Black Cormorants work co-operatively in rafts to herd schools of fish. Little Pies, with a shorter bill, take smaller prey such as prawns in shallow water.



Darter

The larger of the three Grebes of south-west estuaries, the Great Crested Grebe, dives in open water after fish and other small animals. Grebe build floating nests attached to reeds, and piggy-back their hatchlings. Great Crested Grebes are best known for their elaborate courtship dances, in which they face each other and rise upright out of the water, necks up-stretched, through vigorous paddling of their feet.

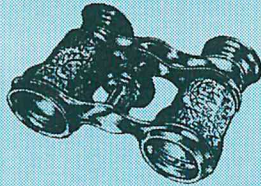


Whiskered Tern

A variety of terns hawk and skim over estuarine waters, plunging or dipping for their prey of fish and other aquatic animals. The smallest is the delicate Fairy Tern, for which there is conservation concern because nesting colonies on sandy points and islands are vulnerable to disturbance from people and their dogs. The large red-billed Caspian Tern and medium-sized Crested Tern are commonly seen in estuaries at roosts or patrolling in search of fish. Four other species periodically appear at the estuaries, particularly the Peel-Harvey, and offer a challenge to the observer. Closely related to the terns, and much more plentiful, is the Silver Gull, which visits estuaries from off-shore nesting islands to feed in the shallows for invertebrates and to scavenge. Thousands can be present at times in the Peel-Harvey.

BIRD WATCHING HINTS

BINOCULARS get you close without disturbing birds. Binoculars which magnify eight times, and have a lense of around 40mm diameter to give good light (8 x 40) are suitable for general bird-watching. More powerful binoculars (e.g. 10 x 40) or a telescope are used by waterbird specialists.



IDENTIFICATION is the fun and the frustration of birdwatching, particularly for waterbirds which may come from anywhere in the world. A field guide, of which there are many available, should have birds of similar appearance together, and should be portable and durable. Larger 'coffee table' books such as the Readers Digest "Complete Book of Australian Birds" or the RAOU "Atlas of Australian Birds" will enrich your observations with life history information. Jaensch (1988) tells you what to expect in south-west wetland nature reserves and Lane (1987) is very useful for the difficult migratory waders. Storr and Johnstone's "Field Guide to the Birds of Western Australia" is very portable and descriptive (see References).

OBSERVATION is a learnt skill for birdwatching. Use your field guide to work out which group a bird belongs to, on overall shape and size. Check for the key characteristics within that group, such as bill colour for a tern, or rump pattern in flight for a wader (your field guide gives the terminology for bird anatomy). Use a process of elimination to rule out birds it can't be! Size can be deceptive and is best estimated by comparison with a nearby bird you know. Colour can be a great help but can be difficult in poor light or from the wrong angle. With experience, you will learn to use calls and behaviour to identify birds, even from a distance. Memory is no substitute for thorough **FIELD NOTES** when you sit down with your books to identify a mystery bird. Field notes are also a means of building up a picture of birdlife in your travels, and for contributing to community studies (see 'Waterbird Research').

DISTRIBUTION MAPS will tell you which species you are likely to have seen but migratory or nomadic waterbirds move over long distances and rare or unusual species can turn up at any wetland.

MANAGEMENT TO PROTECT BIRDLIFE

Taking care of the tourists

Each year millions of wading waterbirds leave their Arctic breeding ground to follow the sun to the southern hemisphere. Stopping periodically to refuel, huge flocks travel down through Asia and funnel into Australia at Broome on high and low altitude air currents. Our south-west estuaries are a principal destination.

You may like to learn more about our international migrants as they arrive and depart from Australia by visiting the Broome Bird Observatory. The observatory is fully catered and has single unit, chalet and camping accommodation. (Phone: 091 935 600).

The migratory waders are protected on their journey under the Japan and China - Australian Migratory Bird Agreements (JAMBA and CAMBA). Thirty-seven species named in these agreements visit south-west estuaries. Their numbers are so high in summer at Austin Bay Nature Reserve on Peel Inlet and on the Vasse-Wonnerup Estuary, that these estuaries qualify as Wetlands of International Importance as defined by international agreement (the Ramsar Convention).

Australia has an international responsibility to manage and conserve these important sites.

Protecting breeding sites

Only a few species breed in estuaries, on open, dry sand or in fringing vegetation. Islands provide the safest sites from predators and from inadvertent destruction by people. Increased pressure around population centres such as Mandurah can put even island sites at risk. Fortunately, some species can take advantage of change. Hundreds of vulnerable Fairy Tern, some Red-capped Plover and Pied Oystercatcher now breed on the dredge spoils of Boundary Island in Peel Inlet.

Many of the estuarine birds that breed in Australia rely on a decreasing number of freshwater swamps with suitable inundated vegetation for nesting. Some of the most important of these wetlands, which support huge colonies of a variety of large waterbirds such as egrets, cormorants and ibis, are close to their estuary feeding grounds.

Protection of these estuary and wetland breeding sites is vital to maintaining estuarine birdlife.

Managing estuaries

Pressures on birdlife include destruction of habitat by clearing, grazing and development, and alteration of habitat, for example by raised nutrient or salt levels in the rivers. People are attracted to living close to estuaries and bring new pressures, such as the need to control insect pests. Direct human disturbance around population centres can seriously affect feeding and breeding by waterbirds.

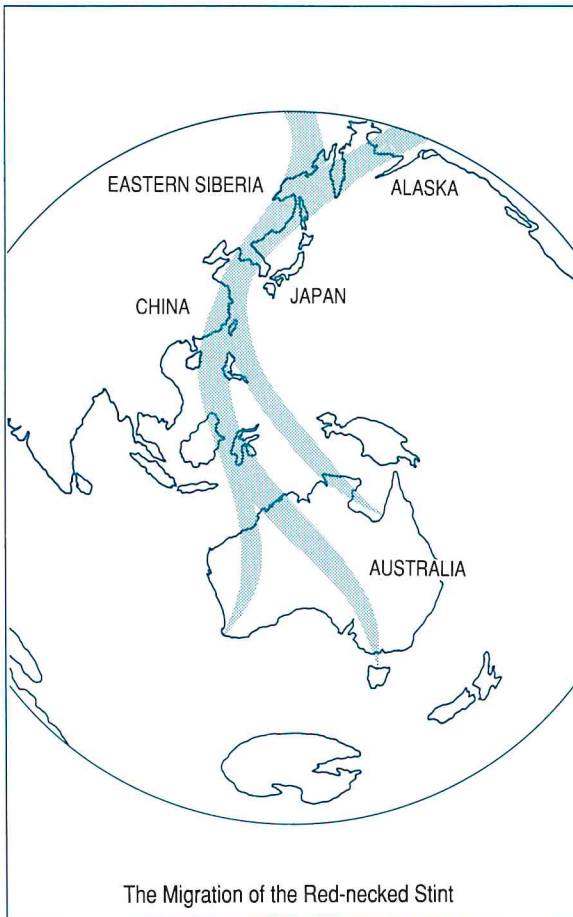
Practical management and works programmes for a number of south-west estuaries are undertaken by the Waterways Commission, working through the Peel Inlet Management Authority (PIMA) and Leschenault Inlet Management Authority (LIMA), and by the Swan River Trust. However, jurisdiction for different regions and tasks is spread between many State Government Departments including the Environmental Protection Authority, Department of Conservation and Land Management (CALM), Local Government Authorities and local management committees.

Good management relies on goodwill and co-operation between these bodies and throughout the total community of people who live around and visit the estuaries.

The continued well-being of our estuarine birdlife depends on greater understanding of the birds and their habitat needs, management to protect and restore estuarine and wetland environments, and the support of the community.

Waterbird research

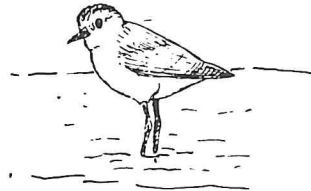
CALM, in co-operation with community birdwatchers of the Royal Australasian Ornithologists Union (RAOU), has been gathering information on waterbirds of the south-west since 1981. The information contained in this pamphlet has been obtained through thousands of hours of careful surveys by hundreds of observers. More observers are welcomed for regular visits to chosen sites. A good beginning is to join the 200+ observers who spread out over south-west wetlands for the Annual Duck Counts each spring and autumn. Your checklist records can contribute to the RAOU computer record scheme. Contact the RAOU on (09) 364 6202.



The Globe - Trotting Stint

The Red-necked Stint is the most common of the migratory waders of our estuaries. Weighing a mere 28 grams normal body weight, plus about 7 grams of fatty fuel, it travels 9,000 kilometres from the Arctic to the southwest. Adults arrive around September, while juveniles only a few months old arrive unguided two months later. Juveniles remain for a year and then make the round journey annually for up to 15 years.

Stints are active, water-edge hunters for minute but abundant crustaceans and aquatic insects. They feed whenever possible to replace their plumage and put on weight for the return journey to their breeding grounds.



YOU CAN HELP

Here are a few ways you can help:

- Be careful not to disturb birds nesting around estuaries, particularly on open sand, or in nearby swamps. Watch from a distance.
- Clear up fishing tackle and other rubbish, especially plastic which is a major hazard for pelicans and other waterbirds.
- Use powered transport thoughtfully - off-road vehicles can damage important fringing vegetation and wash from speeding boats can erode banks.
- Launch boats only at established launch sites to avoid damaging fringing vegetation and reeds.
- Keep dogs under control so that feeding and roosting birds are not harmed by repeated disturbance.

SPECIES CHECK LIST

(South-west estuaries and fringing freshwater wetlands).

Date:

Time:

Location:

Weather Conditions:

	B	I		B	I		B	I
Waders			Larger Wading Birds			Birds of Prey		
(i) regular			(i) regular			Osprey		
Pied Oystercatcher			Pacific Heron			White-bellied Sea - Eagle		
Banded Lapwing			White-faced Heron			Marsh Harrier		
Grey Plover M			Great Egret			Whistling Kite		
Lesser Golden Plover M			Little Egret			Fish Eaters/Divers		
Red-kneed Dotterel M			Rufous Night-heron			(i) regular		
Large Sand Plover M			Sacred Ibis			Great Crested Grebe		
Red-capped Plover			Straw-necked Ibis			Hoary-headed Grebe		
Black-winged Stilt			Yellow-billed Spoonbill			Australasian Grebe		
Banded Stilt			(ii) uncommon			Australian Pelican		
Red-necked Avocet			Cattle Egret			Darter		
Ruddy Turnstone M			Eastern Reef Egret			Great Cormorant		
Eastern Curlew M			Australasian Bittern V			Pied Cormorant		
Whimbrel M			Glossy Ibis			Little Black Cormorant		
Wood Sandpiper M, V			Royal Spoonbill			Little Pied Cormorant		
Grey-tailed Tattler M			Waterfowl			Silver Gull		
Common Sandpiper M			(i) regular			Whiskered Tern		
Greenshank M			Black Swan			White-winged Tern M		
Marsh Sandpiper M			Australian Shelduck			Gull-billed Tern		
Black-tailed Godwit M			Pacific Black Duck			Caspian Tern		
Bar-tailed Godwit M			Grey Teal			Fairy Tern		
Red Knot M			Australasian Shoveler			Crested Tern		
Sharp-tailed Sandpiper M			Pink-eared Duck			(ii) uncommon		
Red-necked Stint M			Hardhead			Common Tern M		
Long-toed Stint M, V			Maned Duck			Arctic Tern M		
Curlew Sandpiper M			Musk Duck			Song-birds of fringes		
(ii) uncommon			(ii) uncommon			Welcome Swallow		
Hooded Plover			Freckled Duck			Richard's Pipit		
Mongolian Plover M			Mallard (domestic)			Clamorous Reed-Warbler M		
Double-banded Plover M			Chestnut Teal			Little Grassbird		
Little Curlew M			Blue-billed Duck			White-fronted Chat		
Redshank M, P			Reed Dwellers			Australian Magpie-lark		
Terek Sandpiper M			(i) regular			Additions		
Pin-tailed Snipe M			Buff-banded Rail					
Pectoral Sandpiper M			Australian Crake					
Sanderling M			Spotless Crake					
Broad-billed Sandpiper M			Purple Swamphen					
Ruff M			Eurasian Coot					
Red-necked Phalarope M			(ii) uncommon					
Oriental Pratincole M			Black-tailed Native-hen					
Australian Pratincole M			Dusky Moorhen					

CONTACTS FOR FURTHER INFORMATION

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Busselton Naturalists Club
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Gould League, WA
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Cnr Selby Street/Moondyne Drive, WEMBLEY 6014
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Inner Harbour Road, BUNBURY 6230
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Mandurah Tourist Bureau
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This booklet is one in a free series on aspects of Western Australian waterways.

For more information contact:



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