

FinBook Mandurah

An identification catalogue for dolphins
observed in the Peel-Harvey Estuary



THIRD EDITION – 2019

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FinBook Mandurah : an identification
catalogue for dolphins observed in the
Peel-Harvey Estuary



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DEPT OF BIODIVERSITY, CONSERVATION & ATTRACTIONS



Foreword

It is with great pleasure that, as Patron of the Perth *Dolphin Watch* project and a member of the Mandurah community since 1985, I write the foreword to the new edition of the splendid *FinBook Mandurah*. This book complements the highly successful *FinBook* for the Swan Canning Riverpark dolphins, and serves as a guide to identify individual animals so that we can develop a deeper understanding of the lives and needs of the dolphin population in the Peel-Harvey Estuary – animals that are so close to many who live in or visit the Peel region. This book enables us all to become citizen scientists and add to the data collected by the Mandurah Dolphin Research Project. By becoming familiar with the dolphins and having more eyes on the estuary, our community can become more connected to the local environment and more protective of it.

I particularly compliment The Estuary Guardians team from John Tonkin College who realised that we needed a *FinBook* for the many Mandurah dolphins. The first edition was produced in 2016, working with the Mandurah Dolphin Rescue Group who have watched over the dolphins for many years, along with the Mandurah Dolphin Research Project group. The achievement has been recognised by many including the Peel-Harvey Catchment Council and the Department of Biodiversity, Conservation and Attractions.

Since 2016, far more information has been gathered about the Mandurah dolphins, hence the publication of this updated second edition. I am sure that the knowledge gained by referencing this book will continue to be crucial in ensuring the survival and wellbeing of dolphins in the Peel-Harvey Estuary. Such knowledge is essential for good policy decision making and for sound management practices. Moreover, the book is a template for those who wish to monitor and protect other endangered animal populations. I commend this book to you and congratulate again all who have worked to bring it to us.

Professor Lyn Beazley AO FTSE



Above Peel-Harvey resident female Twenty-one with her calf Nikaila, who was born in 2017. Twenty-one is Twenty-two's daughter. In March 1997, Twenty-one and Twenty-two were freeze branded then released into deeper water after they stranded with Zero-one and three other dolphins.

Front cover Piper, a calf born in January 2019 to a resident Peel-Harvey female named Prince.

Dolphin photos Krista Nicholson, Mandurah Dolphin Research Project, Murdoch University

Bird photos Bill Howard

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Welcome to FinBook Mandurah

After another exciting year, we have produced the second edition of *FinBook Mandurah*. This book will help the Mandurah community and visitors identify and learn about dolphins in the Peel-Harvey Estuary, while forming a new connection with local wildlife and the waterways.

To help identify individual dolphins, *FinBook Mandurah* includes photographs of the right side of each dolphin's dorsal fin. The unique nicks and notches on the trailing edge of the dorsal fin, most often a result of interactions between the dolphins, and other significant markings such as sunburn and rake marks, are all useful for identifying individual animals.

Estuary Guardians, a community group formed by students in John Tonkin College's Surf Science Program in 2015, collaborated with Mandurah Volunteer Dolphin Rescue Group, Mandurah Dolphin Research Project, Mandurah Cruises, Peel-Harvey Catchment Council and Professor Lyn Beazley to compile this new and improved *FinBook Mandurah*.

Taylah Shier (Estuary Guardian)

Dolphin Watch

Dolphin Watch is a collaborative, citizen science research and education project developed by the Department of Biodiversity, Conservation and Attractions (DBCA) together with Murdoch and Curtin universities in 2009 to help learn more about the resident bottlenose dolphins in the Swan Canning Riverpark. *Dolphin Watch* is now extended to the resident dolphins in the Peel-Harvey Estuary.

Researchers and DBCA staff train volunteers, who play an important role in monitoring dolphins as citizen scientists, in techniques for recording the movement and behaviour of dolphins. Volunteers play an essential role in monitoring dolphins as citizen scientists. By attending training, people become more informed about conservation issues and can participate in activities to help the waterways and the wildlife that inhabits them.

Volunteer information, photographs and videos help build a picture of the dolphin community. *Dolphin Watch* shares information and expertise so that industry, government and the community can develop effective management activities and policy to help protect dolphins and their habitats.

The *Dolphin Watch* smartphone app enables community members to record information such as location and behaviour about the dolphins they encounter. Researchers can use this information to better understand how the dolphins use the Peel-Harvey waterways. The *Dolphin Watch* app is available to download for free from the App Store (iPhone) or Google Play (Android).

Use the QR code below to visit the Estuary Guardians website and listen to interesting stories about some of the Mandurah dolphins.



To use the QR code, download a QR reader and hold your mobile phone over the code until it clicks. You will then be taken to the Estuary Guardians website where you will be able to listen to dolphin stories.



The Peel-Yalgorup Wetlands

The Peel-Yalgorup Wetlands System is located approximately 70km south of Perth and stretches more than 60km from north to south and approximately 10km east to west. Its 26,530 hectares includes the Peel Inlet, Harvey Estuary, Lake McLarty, Lake Mealup, several conservation reserves, and the lands and 10 lakes of Yalgorup National Park, including Lake Clifton and Lake Preston. The Peel-Yalgorup Wetlands System meets seven of the nine criteria against which a site may be Ramsar-listed.

The Peel-Yalgorup Wetlands System was listed as Ramsar site 482 in 1990, recognising it as an internationally significant wetland under the Convention on Wetlands of International Significance, especially as waterfowl habitat. This convention was signed in Ramsar, Iran in 1971 and is more commonly known as the Ramsar Convention. It was the first modern international agreement on the conservation and sustainable use of natural resources. Australia was among the first countries to sign the agreement, which came into force in Australia in 1975. Australia has 65 Ramsar-listed sites.



Left The curlew sandpiper is a migratory bird from the northern hemisphere that summers in the Peel-Harvey Estuary and other sites in Australia. Their breeding habitat is the lowland tundra of Siberia. Photo – Bill Howard

The agreement's mission is 'the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world'. All signatories to the Ramsar Convention commit to the wise use of all the wetlands and waters in their territory. The agreement covers all aspects of wetland conservation, recognising them as ecosystems that are extremely important for biodiversity conservation and for the wellbeing of human communities.

The international importance of the Peel-Yalgorup System

- The Peel-Yalgorup Wetlands System incorporates the largest and most diverse estuarine complex in south-west Australia.
- The Peel Inlet and Harvey Estuary are south-west Australia's most important areas for waterbirds, supporting more than 20,000 each year. More than 150,000 birds were recorded at one time in the 1970s. Shorebird 2020 Count data for 2008 to 2017 showed the Peel-Yalgorup Wetlands System supported an average of 44,268 birds (most counted was 92,665 in 2013 and least was 20,852 in 2017) and 54 shorebird species (most was 62 in 2013 and least was 40 in 2015) each year.
- The Peel-Yalgorup System regularly hosts more than one percent of the world's populations of 14 waterbird species, including at least six migratory shorebird species. These include the red-necked avocet, red-necked stint, red-capped plover, banded stilt, Caspian tern and fairy tern.
- Lake Clifton is one of only two locations in south-west Australia and among very few in the world where living thrombolites occur in inland waters. It has the largest 'lake-bound' microbialite reef in the southern hemisphere. The thrombolites were listed as critically endangered in 2010.
- The Peel-Yalgorup Wetlands System includes good examples of coastal saline lakes such as Lake Preston and freshwater marshes and lakes such as Lake Mealup.
- Australia also has international agreements with China (CAMBA), Japan (JAMBA) and the Republic of Korea (ROKAMBA) to protect migratory birds and their habitats.

Meet the Mandurah dolphins

In 1990, 10 male dolphins stranded in Lake Goegrup in the Serpentine River. Unfortunately two of the dolphins passed away but the remaining eight were freeze branded by the then Department of Conservation and Land Management with numbers 01 to 08. They were released into deeper water. Since then, there have been 35 known live dolphin strandings in the Peel-Harvey waterways involving 60 dolphins, some who have stranded on multiple occasions. The last individual to be freeze branded was Twenty-three in 1997. The names of freeze branded dolphins are taken from these numbers.

Most dolphins that have live stranded are healthy individuals who strand in areas where they spend a lot of time. For example, Zero-one has stranded at least three times since 1990, most recently in January 2018. Many live stranded dolphins are rescued by the Department of Biodiversity, Conservation and Attractions and Mandurah Dolphin Rescue Group. Others who are not found in time, or at all, often suffer extensive sunburn that results in distinct, bright white scarring.

Mandurah Dolphin Research Project

The Mandurah Dolphin Research Project (MDRP) was established to conduct a population assessment, including abundance estimation, for dolphins occupying the Peel-Harvey Estuary and adjacent coastal waters. Since research started in January 2016, more than 1000 dolphin groups have been encountered and approximately 500 individual dolphins identified. It has been discovered that there is a year-round resident community of 80 dolphins in the Peel-Harvey Estuary.

Twenty-five of these dolphins have live stranded at least once in their life. During three years of study, 24 calves have been born into the community and 17 dolphins, including five calves, have passed away or left the community. Trouble, one of the missing adult males featured in the 2018 FinBook, has been removed from this edition. FinBook Mandurah includes 29 of the well-marked resident dolphins regularly seen throughout the estuary system.

Approximately 25 coastal dolphins regularly reside in Dawesville Cut. Some of them occasionally visit the estuary and associate with the Peel-Harvey resident dolphins. Similarly, some of the Peel-Harvey resident dolphins occasionally venture out to sea and associate with some coastal dolphins. *FinBook Mandurah* includes 17 of the Dawesville Cut dolphins.

MDRP is a partnership between Murdoch University, City of Mandurah, Peel Development Commission through Royalties for Regions, Mandurah Cruises, Mandurah Dolphin Rescue Group, and John and Bella Perry.



FinBook Mandurah sections

FinBook Mandurah is divided into four sections representing different areas of the Peel-Harvey Estuary. Each individual dolphin is placed in one section only, based on where he or she is most often encountered. Individuals may also be encountered in other areas. The four sections cover the five zones in the *Dolphin Watch* smartphone app, shown on the map on the following page.

Town waters (Zone 1)

Adult females with calves often seen in town waters.

Rivers (Zone 5)

Females consistently observed in the Serpentine and Murray rivers.

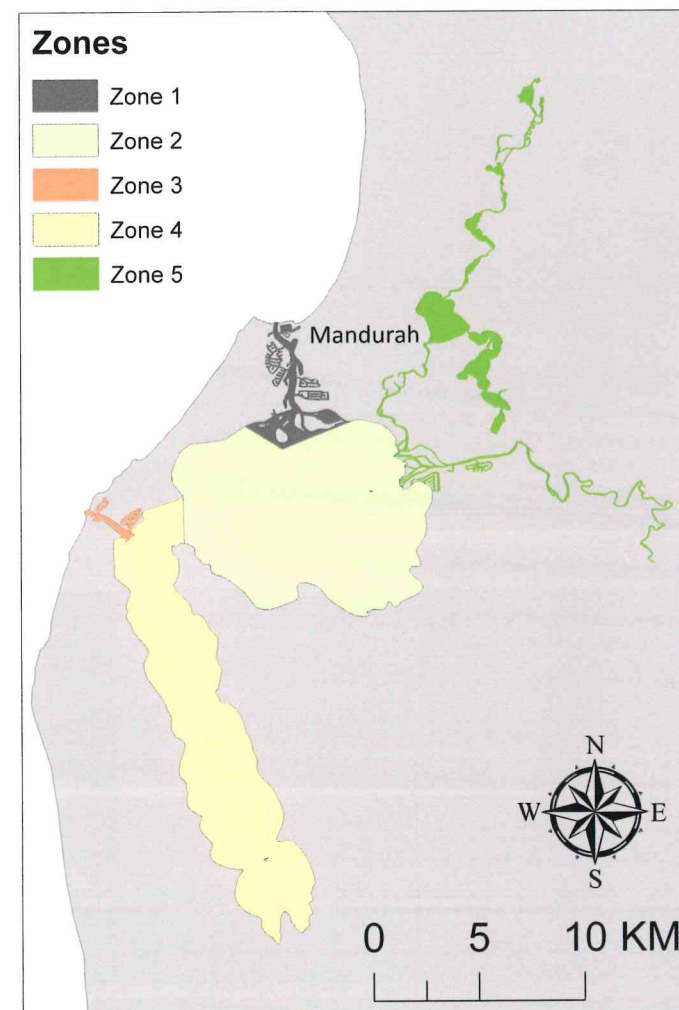
All areas (Zones 1, 2, 4 and 5)

Females and males of all ages who use the entire Peel-Harvey waterways including the Serpentine and Murray rivers.

Dawesville Cut (Zone 3)

Coastal females and males of all ages who are often seen in Dawesville Cut but do not enter the Peel-Harvey Estuary.

The nicks and notches as well as scarring you can see on the dorsal fins are mainly caused by interactions with other dolphins. Some animals, like John Edwards, have lost part of their dorsal fin due to entanglement in fishing line. Others may have deeper wounds due to being bitten by a shark or hit by a propeller. All the marks are unique and allow us to identify the individuals over time.



The *Dolphin Watch* smartphone app divides the Peel-Harvey Estuary into five zones

Town waters (Zone 1) Adult females

Name Lowblow
Sex Female
Age Adult
Stranded No

Notes
 Lowblow's calf, Benji, was born in 2015.



Name Hatrick
Sex Female
Age Adult
Stranded No

Notes
 Hatrick's calf, Halo, was born in 2016. Halo was badly entangled in rope as a small calf. Doug Coughran, a senior wildlife officer with the Department of Biodiversity, Conservation and Attractions, disentangled Halo with the help of the Mandurah Dolphin Rescue Group. Halo is fit and healthy today.



Name Nicky
Sex Female
Age Adult
Stranded Yes
Year stranded 2006

Notes
 Nicky was found stranded on tidal flats in 2006 with her calf and was released into deeper waters. Nicky's calf, Surprise, who was born in 2015 is now weaned. Nicky gave birth to a new calf, Djinda, in 2018.



Town waters (Zone 1) Adult females

Name Christmas
Sex Female
Age Adult
Stranded Yes
Year stranded 2009

Notes
 Christmas's body has white scarring from being sunburnt while stranded. She is Nicky's daughter. Her first calf, Easter, was born in 2016 but only lived for about seven months. Christmas became pregnant again almost immediately and had a new calf, Spirit, in January 2018.



Name Topnotch
Sex Female
Age Adult
Stranded No

Notes
 Topnotch's calf, Autumn, was born in 2015 and is now independent. Topnotch gave birth to a new calf, Carter, in 2018.



Name Twenty-two
Sex Female
Age Adult
Stranded Yes
Year stranded 1997

Notes
 Twenty-two and her then calf Twenty-one were stranded in 1997 and freeze-branded on both sides of their dorsal fins before being moved to deeper waters. Twenty-two's calf, Jac, was born in 2015.



Rivers

(Zone 5) Adult females

Name Bendy Wendy
Sex Female
Age Adult
Stranded Yes
Year stranded 1998

Notes

Bendy Wendy's dorsal fin is curved to the right which can make the fin look very different when observed from different angles. She has white scarring from sunburn on both sides of her body.

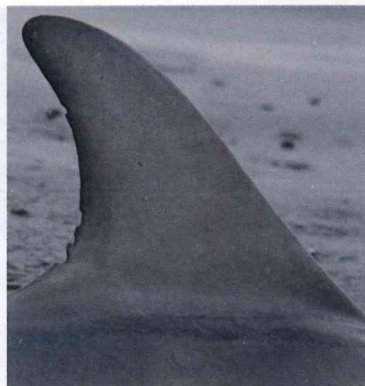
Her calf, Pan, was born in 2016.



Name River
Sex Female
Age Juvenile
Stranded Yes
Year stranded 2014

Notes

River was never observed stranded but the sunburn, now a white scar, on the left side of her body indicates she has spent time stranded.



Rivers

(Zone 5) Adult females

Name Tom
Sex Female
Age Sub-adult
Stranded No



Name Squarecut
Sex Female
Age Adult
Stranded No

Notes

Squarecut's previous calf, Lindy, stranded in 2016 and was separated from her mother. Lindy was pushed into deeper water several times before being observed with Squarecut again. Unfortunately, Lindy died in February 2017. Squarecut gave birth to a calf, PomPom, in 2018 but unfortunately PomPom did not survive but was found stranded in the Serpentine River.



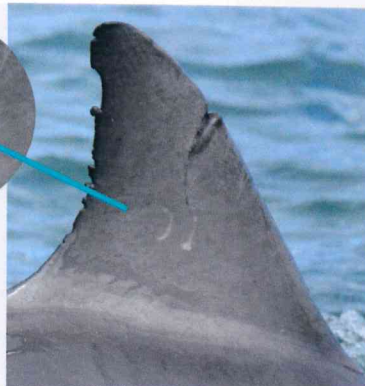
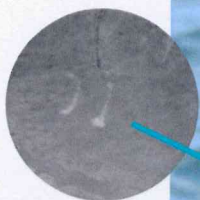
All areas

(Zones 1, 2, 4 and 5) Males

Name Zero-one
Sex Male
Age Adult
Stranded Yes
Years stranded 1990, 1997, 2018

Notes

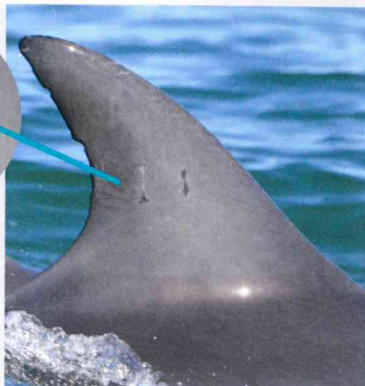
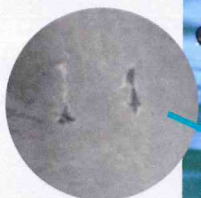
Zero-one was freeze branded in 1990 when he was found stranded with nine other male dolphins in Lake Goegrup. Zero-one is mostly seen with Fourteen and Blake. Fourteen and Zero-one were stranded in a pool surrounded by sandbanks for three days at Herron Point in January 2018.



Name Fourteen
Sex Male
Age Adult
Stranded Yes
Years stranded 1994, 2018

Notes

Fourteen was freeze branded in 1994 when he stranded with three other males at Soldiers Cove. He is mostly seen with Zero-one and Blake. Fourteen and Zero-one were stranded at Herron Point for three days in January 2018. They escaped into deeper water without human intervention.



Name Blake
Sex Male
Age Adult
Stranded No

Notes

Blake is usually seen with Zero-One and Fourteen.



All areas

(Zones 1, 2, 4 and 5) Males

Name Bitts
Sex Male
Age Adult
Stranded No

Notes

Bitts is usually seen with Frankenstein and Hook.



Name Frankenstein
Sex Male
Age Adult
Stranded No

Notes

Frankenstein is usually seen with Hook and Bitts.



Name Hook
Sex Male
Age Adult
Stranded No

Notes

Hook is usually seen with Frankenstein and Bitts.



All areas

(Zones 1, 2, 4 and 5) Males

Name Crook
Sex Male
Age Adult
Stranded Yes
Year stranded 2009

**Notes**

Crook was never observed stranded but extensive sunburn, now white scarring, is evidence of him having spent time stranded in the sun. Crook's dorsal fin is very bent to the right making him look like a smaller individual. Crook is usually seen with Ruby, Trouble and Tooth.



Name Ruby
Sex Male
Age Adult
Stranded No

Notes

Ruby is usually seen with Crook, Trouble and Tooth.



Name Tooth
Sex Male
Age Adult
Stranded No

Notes

Tooth is usually seen with Crook, Trouble and Ruby.



All areas

(Zones 1, 2, 4 and 5) Males

Name Lemmy
Sex Male
Age Adult
Stranded No

Notes

Lemmy is a younger adult male who is always seen together with another male called Yoyo.



Name Yoyo
Sex Male
Age Adult
Stranded No

Notes

Yoyo is a younger adult male who is always seen together with another male called Lemmy.



Name Kristen
Sex Male
Age Adult
Stranded Yes
Year stranded 2017

Notes

Kristen was found at the southern end of the Harvey Estuary at Herron Point in a small pool surrounded by sandbanks. Kristen was successfully released into deeper water.



All areas

(Zones 1, 2, 4 and 5) Males

Name Scarry
Sex Male
Age Sub-adult
Stranded Yes
Year stranded 2012

Notes

Scarry was not found while stranded but was observed in the Peel Inlet with sunburn to the right side of his body in 2012.



Name Beaky
Sex Male
Age Juvenile
Stranded No

Notes

Beaky is Topnotch's previous calf. His dorsal fin does not have many markings but he has a distinct deformed jaw.



All areas

(Zones 1, 2, 4 and 5) Females

Name Hayley
Sex Female
Age Adult
Stranded Yes
Year stranded 2014

Notes

Hayley and her calf stranded in 2014 at the southern end of the Harvey Estuary. They were successfully moved into deeper waters after being spotted by an aircraft pilot who raised the alarm. Unfortunately, the calf was found deceased soon after. Hayley's current calf, Comet, was born in 2016.



Name Diver
Sex Female
Age Adult
Stranded No

Notes

Diver's calf, Scuba, was born in 2016.



Name Mowgli
Sex Female
Age Adult
Stranded No

Notes

Mowgli's calf, Cathy, was born in 2016.



All areas

(Zones 1, 2, 4 and 5) Females

Name Lucy
Sex Female
Age Adult
Stranded Yes
Years stranded 2018

Notes

Lucy's calf, Luna, was born in 2016. Lucy and Luna have not been found stranded but were observed with sunburn in January 2018, indicating that they spent some time stranded. Luna is now weaned and Lucy gave birth to a new calf in January 2019.



Dawesville Cut

(Zone 3) Males

Name John Edwards
Sex Male
Age Adult
Stranded No

Notes

John Edwards is usually seen with Jack Daniels and Jim Beam.



Name Jack Daniels
Sex Male
Age Adult
Stranded No

Notes

Jack Daniels is usually seen with John Edwards and Jim Beam.



Name Jim Beam
Sex Male
Age Adult
Stranded No

Notes

Jim Beam is usually seen with John Edwards and Jack Daniels.



Dawesville Cut (Zone 3) Males

Name Sharkbite

Sex Male

Age Adult

Stranded No

Notes

Sharkbite is usually seen with Saw, Moretto, Julian, Maxwell and Ryan. His name comes from a big shark bite scar on his back and the right side of his body.



Name Saw

Sex Male

Age Adult

Stranded No

Notes

Saw is usually seen with Sharkbite, Moretto, Julian, Maxwell and Ryan.



Name Moretto

Sex Male

Age Adult

Stranded No

Notes

Moretto is usually seen with Sharkbite, Saw, Julian, Maxwell and Ryan. Moretto suffered a shark bite injury in 2018, which changed his dorsal fin substantially.



Dawesville Cut (Zone 3) Males

Name Julian

Sex Male

Age Adult

Stranded No

Notes

Julian is often seen with Maxwell, Moretto, Saw, Ryan and Sharkbite.



Name Maxwell

Sex Male

Age Adult

Stranded No

Notes

Maxwell is often seen with Julian, Ryan, Moretto, Saw and Sharkbite.



Name Ryan

Sex Male

Age Adult

Stranded No

Notes

Ryan is often seen with Sharkbite, Saw, Moretto, Julian and Maxwell.



Dawesville Cut (Zone 3) Males

Name Elly
Sex Male
Age Adult
Stranded No



Dawesville Cut (Zone 3) Females

Name Laika
Sex Female
Age Adult
Stranded No

Notes

Laika's calf, Sputnik, was thought to have been born in 2015. Sputnik is now independent but can still sometimes be seen with Laika. Laika gave birth to a new calf, Luca, in 2018.



Name Joy
Sex Female
Age Adult
Stranded No

Notes

Joy's calf, Huubster, was born in 2016. Unfortunately, Huubster has been missing since 2017. Joy gave birth to a new calf, Scout, in 2018.



Name Dylan
Sex Female
Age Adult
Stranded No

Notes

Dylan's calf, DC, was born early in 2018. DC was named after Doug Coughran, a senior wildlife officer (now retired) at the Department of Biodiversity, Conservation and Attractions. Doug has been involved in Mandurah dolphin strandings and entanglements for decades.



Dawesville Cut

(Zone 3) Females

Name Brandon
Sex Female
Age Adult
Stranded No

Notes

Brandon has a calf, Hiccup, who was born in 2016.



Name Lovis
Sex Female
Age Adult
Stranded No

Notes

Lovis' calf, Ronja, is thought to have been born sometime in 2015 as they are still consistently seen together.



Name Wild Turkey
Sex Female
Age Sub-adult
Stranded No



Dawesville Cut

(Zone 3) Females

Name Willow
Sex Female
Age Sub-adult
Stranded No



Dolphin behaviour

When observing dolphin behaviour it is important to distinguish between behavioural states and behavioural events. Dolphins are usually in one of four behavioural states: foraging, resting, socialising or travelling. Behavioural events occur within the behavioural states and are instantaneous, such as vocalisations, sudden movements or ingestion of prey. Each of the behavioural states and some commonly observed events are described below.

Foraging and feeding

Dolphins that are actively searching for prey like finfish, squid and octopus are said to be foraging. When dolphins are catching, processing and eating prey, they are said to be feeding. Generally, dolphins consume prey underwater. However, as dolphins cannot chew, they sometimes throw larger prey around the surface or drag it along the bottom to break it up into smaller pieces. In deep water, foraging dolphins are usually spread from each other (at least 10m apart), often milling and changing directions with every surfacing. You may see them surface for a few breaths, dive again for a few minutes, then surface again for a few breaths. We refer to this behaviour as '**mill forage**'.

Sometimes, when dolphins are in a hurry to get back underwater, you will see them surface for one quick breath, either by **leaping** or **porpoising** out of the water, or **rapidly surfacing** without their ventral side clearing the surface.

Foraging behaviour in shallow water often includes **fast swimming** and '**rooster tailing**' where streams of water come off the dorsal fin. This fast swim can turn into a hydroplane where most of the dolphin's body is visible above the water. Alternatively the fast swim can result in a shallow water **tail whack** with fish flying high in the air (see specific behaviours section).

Foraging and feeding



In the shallows of the Peel-Harvey Estuary we often see dolphins **bottom-grubbing**. This involves dolphins positioned vertically in the water column while poking the substrate (mud, sand, seagrass or seaweed) with their rostrum. After engaging in bottom grubbing, you can usually see the dolphin's rostrum and head, and sometimes even the dorsal fin, covered in mud.

Dolphins often travel along the edges of the shallow sandbanks or rivers while searching for fish and display a forage/travel behaviour combination. For example, dolphins often travel through marinas, canals and moorings stopping and engaging in mill forage for a little while, before moving on. In Mandurah it is common to see the dolphins herding and chasing fish along structures like canal walls.

Resting

Resting



Resting dolphins may be submerged for several minutes, and may surface pointed in another direction.

Dolphins that are engaged predominantly in a resting state are not actively foraging/feeding, travelling or socialising. In contrast to foraging dolphins, resting dolphins often form a tight group where individuals are within 2m of each other.

A resting group may move slowly, often without a clear direction. Resting dolphins often take multiple breaths at each surfacing and then dive within a few seconds of each other.

Resting dolphins may be submerged for several minutes, and may surface pointed in another direction.

Resting dolphins often **'snag'** at the surface for a few seconds, or even minutes. Snagging can be identified by a dolphin floating at the surface motionless with their fluke and often the majority of the dorsal fin beneath the water and the front part of their body exposed to the air. They look a little like sausages when they do this, hence the term.

Socialising

Socialising



Like humans, dolphins are very social animals who continuously interact with each other. Dolphins display a remarkable variety of social behaviour.

A socialising group is often a tight group of dolphins with a lot of body-to-body contact between individuals. Dolphins may rub their bellies together, or their belly against another dolphin. They may also stroke each other with their pectoral fins or nudge each other with their rostrum.

You may see leaps, porpoising, and/or fast swims while dolphins are chasing each other. You can also see calves socialising with each other while their mothers are foraging.

Not all social interactions between individuals are friendly. Some interactions, particularly among males, are antagonistic. The rake marks you see on many dolphins are caused by other dolphins' teeth as a result of unfriendly interactions.

Commonly observed behavioural events

Fast swim



Dolphins swimming at faster than normal cruising speeds. Dolphins may swim fast when chasing fish, socialising and chasing each other. You may see a spray of water come off the dolphin.

Leap



The entire body of the dolphin clears the water. Leaps may occur when dolphins are foraging (i.e. a quick breath so they can get back underwater rapidly) or when they are socialising.

Rooster tail



A fast swim along the surface in which a sheet of water trails off the dorsal fin. Typically observed in the shallows when dolphins are foraging.

Shallow water tail whack



A dolphin stops abruptly at or under the surface and wheels, swinging its fluke sharply. May be indicated by observing fish being knocked into the air. Tail-whack is often observed following a rooster tail.

Dolphins chasing fish



To record dolphins chasing fish, you must observe the fish being pursued. Dolphins regularly chase fish along the canal walls and other structures and often the fish can be seen jumping out of the water. When snacking, a dolphin swims belly-up near the surface chasing after small fish.

Dolphins with fish



Dolphins observed with fish (including cephalopods like squid and octopus) in their rostrum. Sometimes dolphins toss fish up in the air or repeatedly on the surface to immobilise or break their prey into smaller pieces. The most typical fish that dolphins are observed to toss in the Peel-Harvey are the estuary catfish. Once a resident dolphin was observed tossing a catfish 29 times in a row.

Snagging



Dolphins hanging motionless at the surface with their tail beneath the water and the front half of their body at the surface. They look like sausages when doing it, hence the term 'snagging'. Dolphins may turn their head from side to side to scan the water. Snagging most often occurs during resting bouts but may occur during pauses in other activities.

Baby position



Calves travelling just behind and to one side of their mother. When a calf surfaces in baby position (BP), its head surfaces near the mother's midsection. Travelling in BP provides a small hydrodynamic benefit for the calf and also easy access to the mammary slits for feeding. Young calves generally spend a lot of time in BP. As they grow older, they gradually spend less time in BP and venture further away from their mother until eventually they are fully weaned. In the Peel-Harvey waterways calves are weaned at approximately three years of age and are often observed in BP with juveniles and other adults who are not their mother. The best way to confirm BP (mother and calf) is to see if the calf is substantially smaller than the mother and whether the calf maintains BP for several surfacings.

Weed rub



A dolphin approaches a patch of weed and rubs into it. Most often Peel-Harvey dolphins are observed swimming with the patch of weed draped around their dorsal fin or moving it across their back, over the dorsal fin toward the tail with which they lift it out of the water. A dolphin engaging in a weed rub can be easily mixed up with an entangled dolphin. Therefore it is important to observe a dolphin with weed for a few surfacings to ensure the weed is gone and the dolphin is not entangled.

Body-to-body contact



Obvious social interaction between dolphins usually involves body-to-body contact. You will often see splashes, fast swims or leaps by dolphins interacting with each other. Socialising often occurs in tight groups.



Cobbler tossing

Many encounters with the estuary dolphins involve observations of them pursuing, catching and consuming fish and occasionally even octopus. Small fish, like garfish, are caught with rapid chases, sometimes the dolphin swimming belly-up while the fish tries to escape at the surface. Salmon is pursued against rock walls, mullet chased in the shallows and often stunned with an impressive tail whack, while an octopus gets tossed in the air.

The most common fish seen tossed up in the air by the Peel-Harvey dolphins is the estuary catfish, also known as cobbler. Dolphins feed on cobbler year-round both in estuarine and coastal waters, although our observations in the Peel-Harvey have mainly been in late spring.

Cobbler are bottom dwelling, scaleless fish that have venomous spines on their dorsal and pectoral fins. It is thought that dolphins toss cobbler to disable the use of these spines as defence, making it safer and easier to swallow. Usually cobbler get tossed anywhere between one and eight times before being consumed, or sometimes let go. However, on one occasion a dolphin called River tossed her catch 29 times within three minutes before consuming it. Another dolphin called Crook takes second place with 22 tosses.



Nugget the orphan

Since we started our research in 2016, we have seen three calves lose their mothers before the average weaning age of three. Two of these calves are now four years old and doing well. The third one, Nugget, is the most fascinating case of the three. Nugget was born in March 2016 to an estuary resident female called Gnawra and the pair was last seen together in October 2016. Shortly after, the Mandurah Volunteer Dolphin Rescue Group started getting reports of a lone calf in the Harvey Estuary. Finally, in April 2017 a lone calf was observed in the Peel Inlet and was identified as Nugget from markings on his body. Initially he was always observed on his own, or sometimes near other dolphins, but he was never considered to be part of the group by our definition. Only in October 2017, perhaps a year after being orphaned, we encountered Nugget in a group of mothers, their calves and some juveniles. Since then we have consistently seen Nugget with juveniles mainly in the Harvey Estuary and a few times now with newly weaned and even younger calves. Nugget is smaller than his peers and generally younger than his current associates. As he approaches his third birthday he seems to have found his place in the Peel-Harvey dolphin community.



If you see dolphins or other wildlife in distress, call DBCA's WILDCARE Helpline on (08) 9474 9055. The Helpline provides 24-hour state-wide referral for anyone who finds sick or injured native wildlife in Western Australia and is seeking advice on what to do and where to find care for the animal.



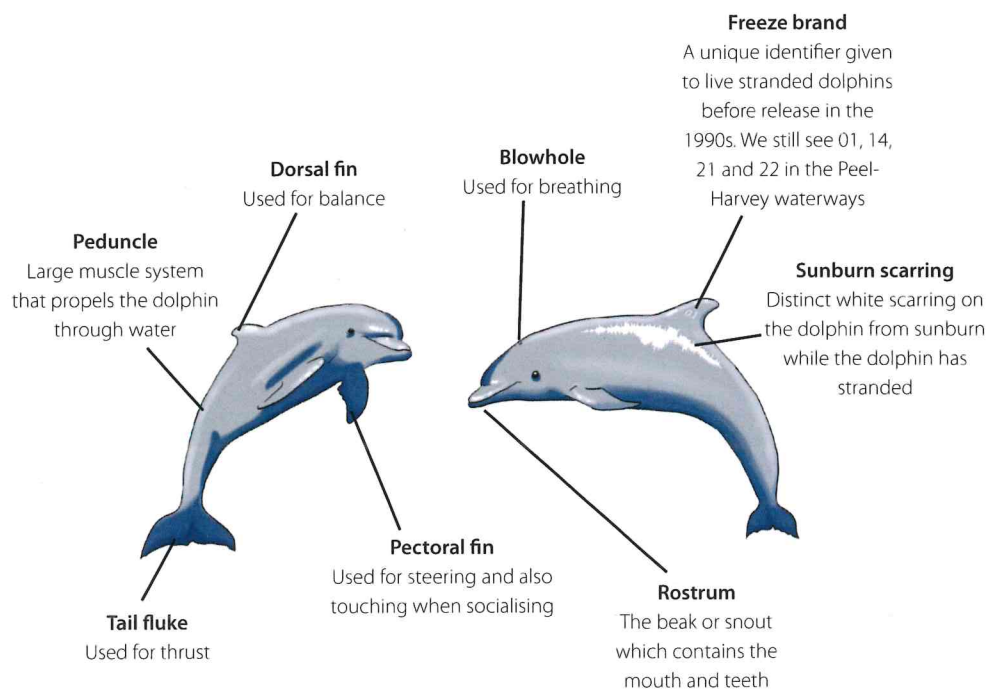
Glossary

Calf – a dolphin still dependent on its mother, usually less than five years old. The dolphins in the Peel-Harvey waterways usually become independent at three years old.

Juvenile – a young, immature dolphin, usually between four and 10 years old.

Sub-adult – a dolphin that is not quite adult-size but larger than a juvenile.

Adult – a mature, fully grown dolphin.



Freeze brand

A unique identifier given to live stranded dolphins before release in the 1990s. We still see 01, 14, 21 and 22 in the Peel-Harvey waterways

Illustration Gabrielle Goodchild

Be Dolphin Wise

It's easy to help care for dolphins in the Riverpark by following these simple rules:



Go slow for those below - slow down for dolphins – dolphins often form resting groups, so keep an eye out for them and slow down if you spot them.



Let dolphins feed themselves – feeding dolphins can leave them vulnerable to entanglement from fishing line, boat strikes and disease, and is illegal.

* Bunbury Dolphin Discovery Centre and Monkey Mia Shark Bay are licensed for supervised feeding



Support a Clean Marine environment - take your rubbish home – dolphins, particularly calves, can get tangled in fishing line. Dispose of unwanted fishing line responsibly.



Enjoy dolphins from a distance – dolphins have sensitive hearing and are easily disturbed by human activities. Maintain your distance where possible and move away if the dolphin is disturbed. Keep calves safe – young dolphins need to stay close to their mother for protection, feeding and assistance with breathing. Keep clear of mothers and calves so they are not separated.

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National
Landcare
Program



Department of Biodiversity,
Conservation and Attractions



Mandurah Volunteer Dolphin Rescue Group

Contact us

Estuary Guardians

Web: estuaryguardians.com

Email: estuaryguardians@gmail.com

Facebook: [@estuaryguardians](https://www.facebook.com/estuaryguardians)

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This publication is available in alternative formats on request.