

## How To Control

Don't let them find SHELTER in your home-

- Block holes and entry points.
- Clear your yard of rubbish/ building materials.
- Keep your lawn mowed and gardens tidy.
- Keep your garage, boat and shed tidy.

Manage FOOD SOURCES-

- Keep your kitchen clean.
- All food in pantry kept sealed.
- Put garbage and food scraps in a sealed garbage or compost bin.
- Remove fallen fruit from the ground.
- Don't leave pet food out overnight.
- When camping keep food in sealed containers.



## If You See a Rat:

AROUND YOUR HOME- CALL EHW



IN THE BUSH- CALL TSRA RANGERS



## 3 STEPS TO PROTECT YOUR ISLANDS

1. Control rats at home.
2. Check Your load. Do not give them a ride to another island.
3. Report sightings to TSRA rangers as soon as possible.

## Further Information

Contact your local TSRA ranger or TSIRC Environmental Health Worker (EHW)

Website:

Phone:

Illustrated by Rebecca Stevens

# TORRES STRAIT INVASIVE SPECIES FERAL RATS



## General Information

### RATS ARE THE ULTIMATE COLONISER

Rats are the biggest cause of local extinction to native animals on tropical Islands!



- Feral rats came on the first fleet and have been a problem in Australia ever since.
- Feral rats eat and outcompete native animals.
- Feral rats carry disease that can cause serious illness and death.
- All rats cause damage to your home.
- All rats bites cause infection.
- All rats breed very fast.
- Rats eat and contaminate your food.



# PROTECT UNINHABITED ISLANDS

Feral rats are already a problem on islands where you live. But we can STOP them from moving to uninhabited islands. If you are going to visit or camp on an uninhabited island-

## CHECK YOUR LOAD!

- Rats can nest in camping or boating gear.
- Rats can jump or climb into your boat.
- If found whilst boating do not throw overboard- Rats can swim 800 metres and tread water for 3 days!



## RATS CAN ALSO:

- Climb wires like a tightrope
- Climb inside vertical pipes
- Drop 15 metres without serious injury
- Get through a 15mm hole (the size of the tip of your thumb)
- Chew through wood, sheet metal and electrical wire

## RATS EAT ANYTHING AND EVERYTHING!

They are the MAIN CAUSE of local native animal extinction on tropical islands



Rubbish



Turtle Eggs

RAT

KAI KAI



CEREAL



PET FOOD

Household Food



Lizards & Their Eggs



Bird Eggs & Babies



Vegetable Gardens/  
Fruit Trees/Compost

Feral rats become food for feral cats and dogs- which makes the problem worse for native animals.

**Q**- Why would it make the problem worse?

**A**- Rats make a reliable food source for feral cats and dogs, making them stronger and healthier to breed and to kill other native animals, they do not kill all of the rats so the problem continues.

## Native or Feral? Can you Spot the Difference ? Feral rats and native rats are VERY hard to tell apart

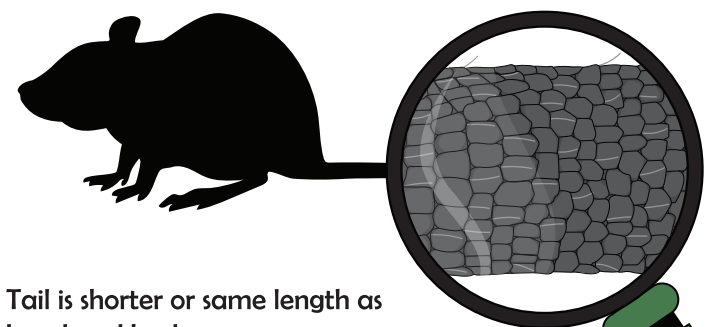
### MELOMY

Colour:  
Usually come in a variety of browns



### EARS

-A MELOMY has round, small ears



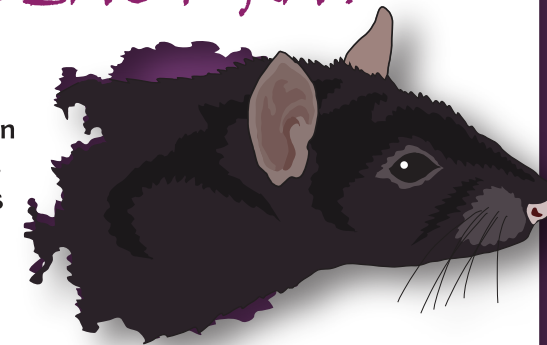
Tail is shorter or same length as head and body

### TAILS TELL TAILS

-A MELOMYS tail is almost hairless  
-Mosaic style scales that fit together and do not overlap, so it is smooth

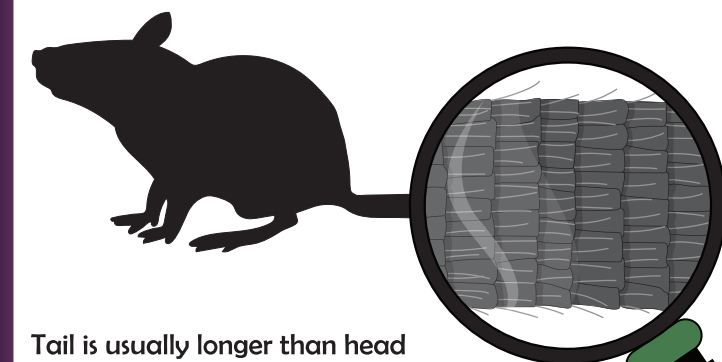
### BLACK RAT

Colour:  
Despite the name, comes in black, browns, or grey colours



### EARS

-A BLACK RAT has longer, thinner ears that could cover half their eye if bent forward



Tail is usually longer than head and body

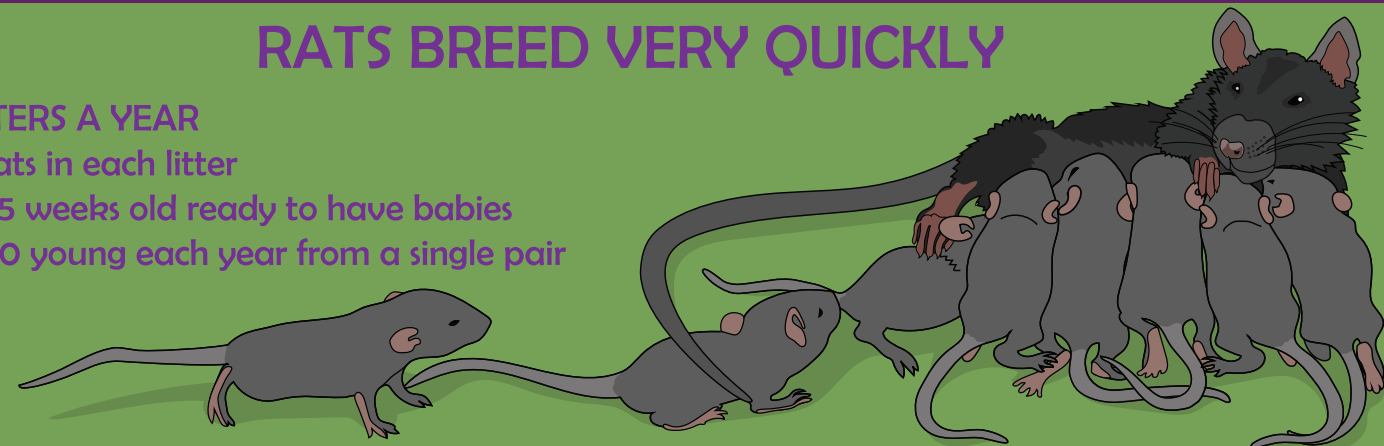
### TAILS TELL TAILS

-A BLACK RATS tail is hairy  
-Overlapping scales in rings, so it is rough

If you see anything you think is a RAT on an UNINHABITED ISLAND...  
**CALL YOUR LOCAL TSRA RANGER**

## RATS BREED VERY QUICKLY

- 5 LITTERS A YEAR
- 7-14 rats in each litter
- After 5 weeks old ready to have babies
- 60-100 young each year from a single pair

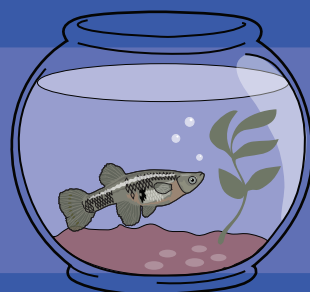




CLIMBING PERCH ARE ALREADY ON SAIBAI!  
 MOSQUITOFISH ARE ALREADY ON THURSDAY ISLAND!  
 BLACK PACU, WALKING CATFISH AND SNAKEHEAD ARE FOUND IN PNG  
 JUST OFF THE COAST FROM SAIBAI!

PROTECT YOUR WATERWAYS...  
 DO NOT LET THEM SPREAD THROUGH  
 THE TORRES STRAIT!

Some of These Invasive Fish Species Are Also Aquarium Fish...  
 If You Have These Fish as Pets Be VERY CAREFUL Not To Let  
 Them Into Natural Waterways



## What to Do

When Travelling From an Area Known to Have  
 Pest Fish DO NOT:

- Use Pest Fish as Live Bait
- Bring Invasive Fish With You

DO Tell Your Family and Friends to:

- Know Your Fish
  - Report Sightings
  - Be Careful when Travelling Between Islands
- CHECK YOUR LOAD

REPORT SIGHTINGS TO TSRA RANGERS

- Invasive Fish Can Come Over In Boats From PNG
- Big Floods May Also Spread Some Species From PNG



## Further Information

Contact your local TSRA ranger or TSIRC Environmental Health Worker (EHW)

Website:  
 Phone:

Illustrated by Rebecca Stevens

# TORRES STRAIT INVASIVE SPECIES INVASIVE FISH

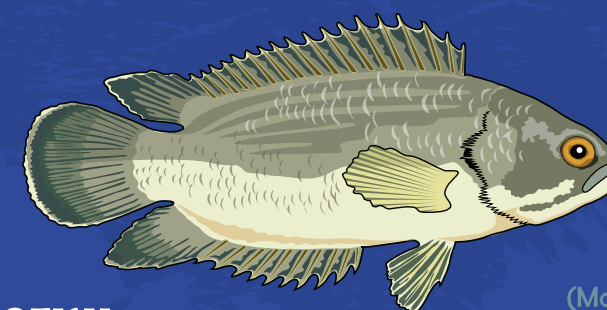


THESE FISH ALREADY THREATEN  
 LOCAL FISH & NATIVE ANIMALS!

### CLIMBING PERCH

Found on Saibai

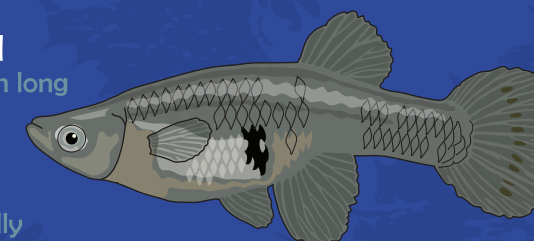
Strong serrations & spines on gills  
 Dark spots on juveniles  
 Large scales  
 Grow up to 25 cm  
 Single continuous fin  
 (Most native species have a separation)



### MOSQUITOFISH

Found on Thursday Island

Small fish- Males 3 cm, Females 6 cm long  
 Grey to olive brown colour  
 Dark spots on top and tail fin  
 Young have light belly  
 Adults have a dark patch on belly

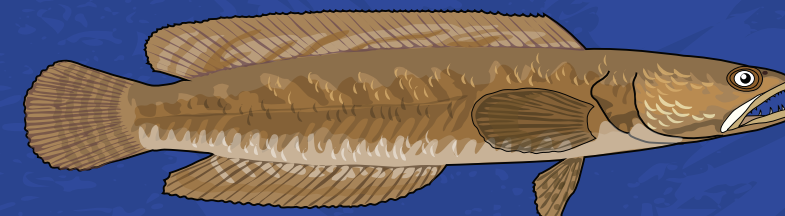


Found in PNG

THESE FISH THREATEN NORTHERN ISLANDS!  
 SOME HAVE DANGEROUS BITES!

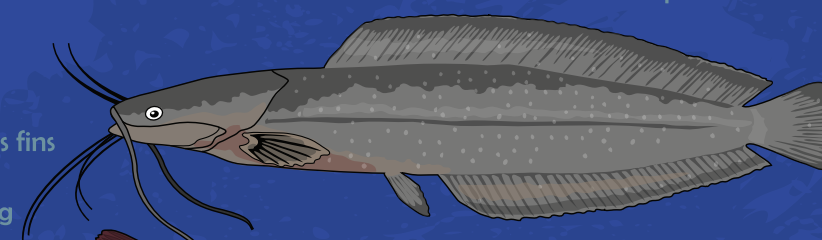
### COMMON SNAKEHEAD

Round, long body  
 Flat snake-like head  
 Sharp teeth  
 Large continuous dorsal fin  
 Grow up to 100 cm long and 3 kg



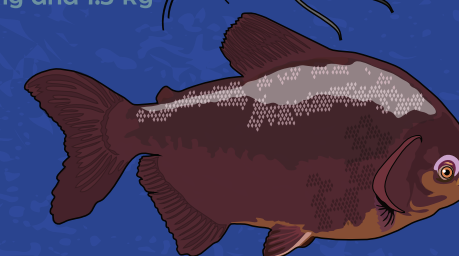
### WALKING CATFISH

Gill cover spines  
 4 pairs long whiskers  
 Lower jaw sticks out, large continuous fins  
 No scales  
 Grows up to 60 cm long and 1.5 kg



### BLACK PACU

Large Fish- Grow up to 85 cm long and 20 kg  
 Does not have scales  
 Red to orange belly  
 Powerful jaws with large teeth  
 Forked tail



The Northern Islands are the Front Line for the Spread of These Fish!  
 Report Sightings to TSRA Rangers Immediately!



## HELLO SNAKEHEAD

- Eats a lot of smaller fish, including small barramundi
- BITES PEOPLE
- Can 'walk' over land to find a new home
- Can breathe air
- Can burrow into mud and survive for 6 months, even if it has dried up
- Feeds on fish, frogs, snakes, insects, crustaceans, small birds and mammals
- Out-competes native species for space and food

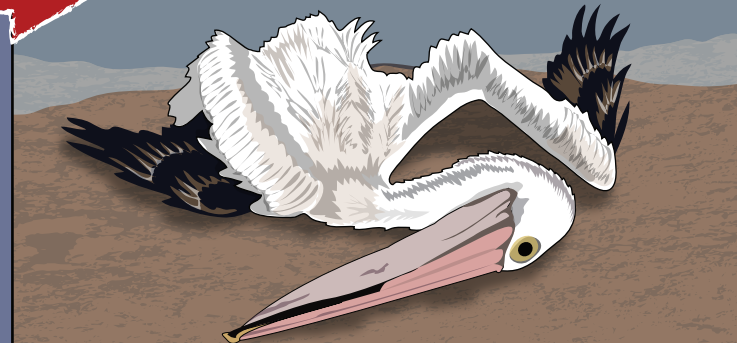
## THREATEN BARRAMUNDI



## HELLO CLIMBING PERCH

- Can 'walk' over land to find a new home & breathe air
- Can burrow into mud and survive for 6 months, even if it has dried up
- Has spines near its gills that get stuck in the throat of animals that eat it, such as birds, crocodiles, fish and snakes. Then they choke or starve to death.
- Out-competes native species for space and food
- Change water quality as they disturb the bottom
- Eats water plants, prawns, snails, insects & small fish

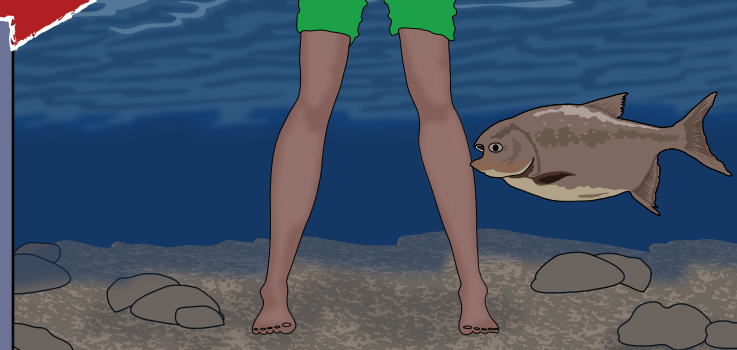
## THREATEN BIRDS



## HELLO BLACK PACU

- BITES PEOPLE- A dangerous fish with powerful jaws and teeth that can cause serious bites to people
- A big fish- It can grow up to 20 kg and 85 cm long
- Mostly eats plants
- Lives in rivers and lakes and is a very powerful swimmer

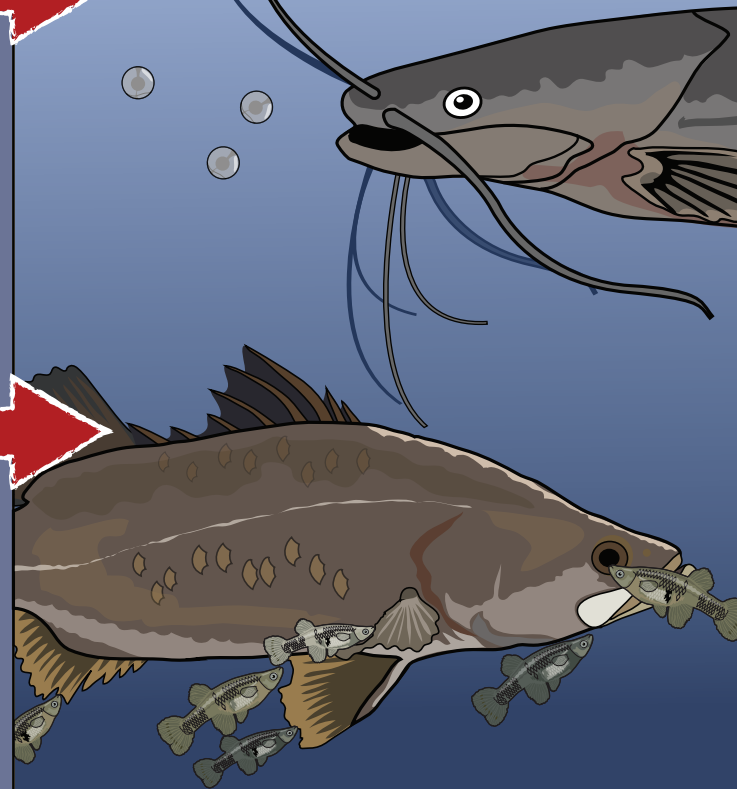
## THREATEN SAFE WATERS



## HELLO WALKING CATFISH

- Can 'walk' over land to find a new home
- Can breathe air & survive a long time without water
- Can burrow into mud and survive for 6 months after it has dried up
- Is a major predator of small native fish and eggs
- Takes over lakes and rivers, making it difficult for native fish to survive or breed
- Lives in fresh and slightly salty water. It migrates during the wet season

## THREATEN NATIVE FISH

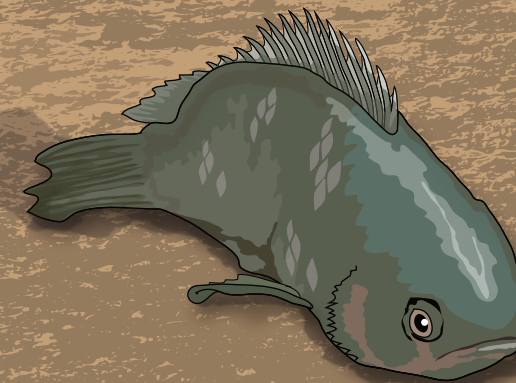


## HELLO MOSQUITOFISH

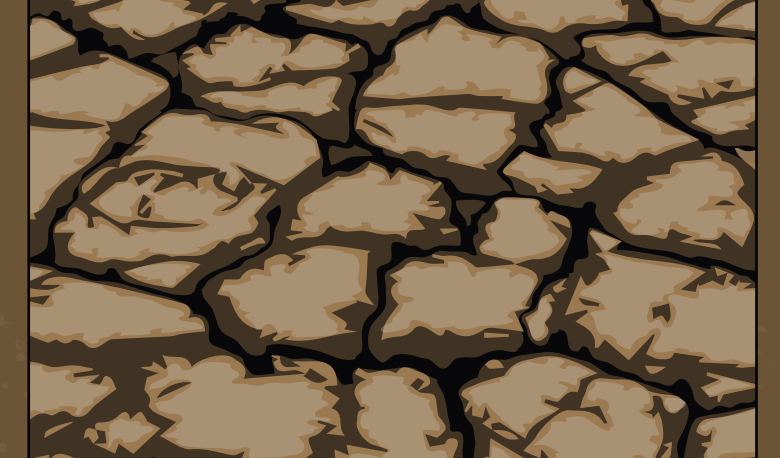
- Was introduced in an attempt to control mosquito larvae, which it does not do
- Eats the eggs and young of many native fish
- Can kill larger fish by nipping their fins and eyes
- Constantly harasses native fish
- Out-competes native fish for food
- Lives in fresh and slightly salty water
- Prefers warm, still water

## Some Invasive Fish Are Able To:

Breathe air and walk over land using gill cover spines, fins and tail



Burrow into mud and survive for a dry season







My Dog Is:  
 -De-sexed  
 -Micro-chipped  
 -Registered  
 -Loved & well looked after



## What to Do

Your council has laws around dog ownership. All dogs MUST be:

- Registered and micro-chipped.
  - De-sexed (over 3 months).
  - Given plenty of food and water.
  - Kept in a yard, on a run, no roaming around community.
  - No more than 2 dogs per household- unless you apply for a permit.
- CONSIDER OTHERS IN THE COMMUNITY!

You should also:

- Wash your hands to avoid parasites.
- Medicate your dog to kill parasites that may spread to your family.
- Use a plastic bag or gloves to pick up dog kuma and put in a bin.
- Train and care for your dog.
- Put a collar on your dog.
- Walk your dog on a lead and give your dog exercise.

If you travel or move to another island:



- Consider the quarantine zones and the house you will be moving into before taking your pet dog with you. Will there be more than 2 dogs? Can you bring your dog back with you?
- Contact your local EHW for advice when moving your pet.

## If You See:

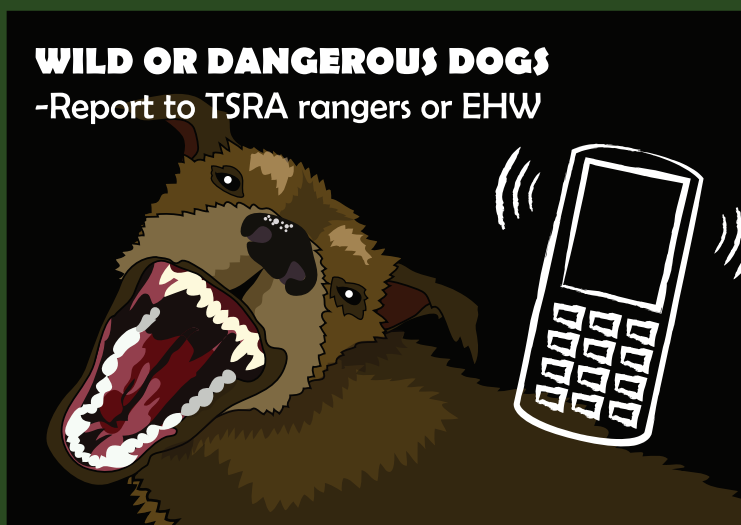
### UNWANTED LITTERS

- Report to Environmental Health Worker (EHW)



### WILD OR DANGEROUS DOGS

- Report to TSRA rangers or EHW



## Further Information

Contact your local TSRA ranger or TSIRC Environmental Health Worker (EHW)

Website:  
 Phone:

Illustrated by Rebecca Stevens

# TORRES STRAIT INVASIVE SPECIES

# DOGS



## General Information

### ARE YOU THE LEADER OF YOUR DOG'S PACK?

- Dogs that are not trained and cared for become a problem.



-Dogs are pack animals. An untrained and unrestrained dog will form a pack with other dogs. Then trouble starts.

-Dogs may eat native animals.  
 -Dogs may attack people- dog bites cause bad infections.

-Dogs spread diseases, particularly parasites such as hookworm, tapeworm and roundworm that can be spread to humans. Parasites are passed on through dog kuma.

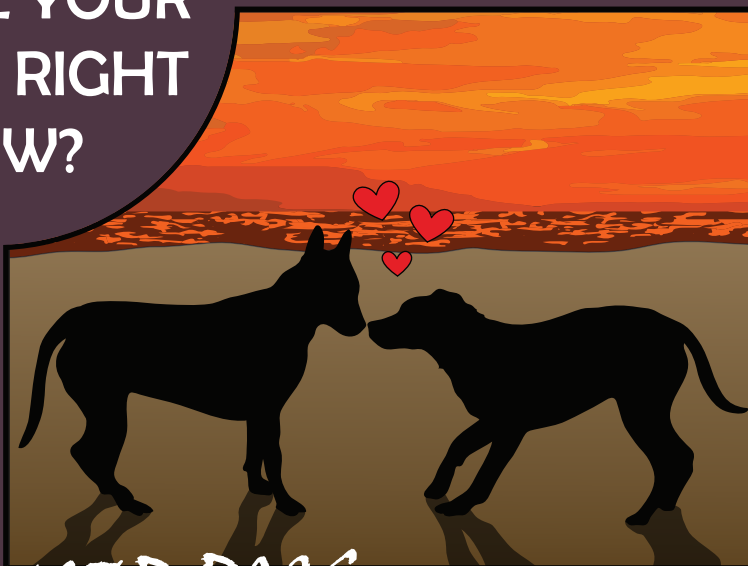
-Some fleas on dogs cause mange- which makes them itch and lose their hair. This can be spread to humans.

-Dogs can breed quickly if not de-sexed. This can be done for FREE by a visiting vet twice a year.





DO  
YOU KNOW  
WHERE YOUR  
DOG IS RIGHT  
NOW?



BORED OR UNSUPERVISED DOGS  
WILL CAUSE TROUBLE!



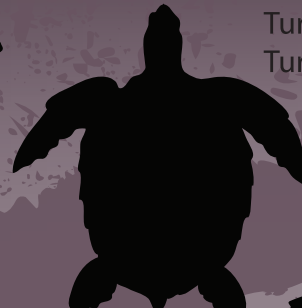
Rubbish



Turtle Eggs



Turtles &  
Turtle Hatchlings



Melomys



Ground  
Birds



DOG  
KAI KAI

Hungry dogs will eat whatever they can get...  
Some of these things include:



Frill Neck Lizards



Lizards  
& Skinks



Goannas  
& Monitors



Bandicoots



Snakes



Frogs

YOUR PUPPY IS A PET FOR LIFE!  
you MUST BE PREPARED TO:

LOVE IT



PAT IT

FEED IT



HOUSE IT



TRAIN IT



WALK IT



PLAY WITH IT

## DOGS HAVE LOTS OF PUPPIES AND REPRODUCE FAST

One female dog can have 2 litters of 6-10 puppies each year. How many offspring could come from one female dog after:

1 year =

2 years =

3 years =

4 years =

**DE-SEX YOUR DOG!**

\*Free service provided by visiting vet approx.  
every 6 months

But IMAGINE if every one of those dogs were able to have puppies? It is estimated that there could be a possible 64,000 offspring in just 6 years!



## Where to Find

- Cats should be inside at night. If they are outside at night they are probably killing native animals.
- Cats eyes reflect a bright green colour when a torch is shone at them.
- Pet cats and feral cats can be found anywhere, but feral cats may be more likely around dump sites, abandoned buildings and in the bush.
- Feral cats look similar to domestic cats but often have bigger muscles around the head, neck and shoulders.
- If you see a cat on an uninhabited island call TSRA rangers.



## What to Do

- TSIRC has LAWS around cat ownership. These include:
- No more than 2 cats per household.
  - Cats are registered and micro-chipped
  - Cats over 3 months are de-sexed.
  - Cats are well cared for- including plenty of food and water.

CONSIDER YOUR COMMUNITY - PLEASE FOLLOW THESE RULES.

It is recommended that you:

- Keep your cat inside at night.
- Put a collar and a bell on your cat.
- Wash your hands to avoid toxoplasmosis, especially if you are pregnant.

**BE AWARE OF QUARANTINE ZONES WHEN MOVING CATS** ⚠

If you travel or move to another island:

- Consider the quarantine zones and the house you will be moving into before taking your pet cat with you. Will there be more than 2 cats? Can you bring your cat back with you?
- Contact your local EHW for advice.

## If You See:

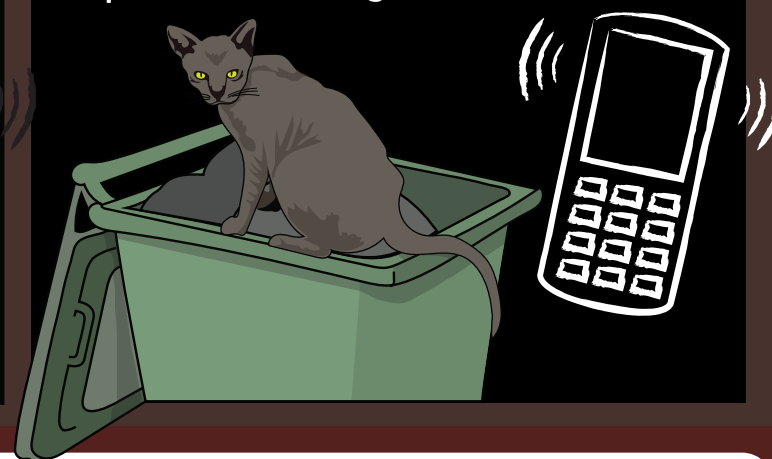
### UNWANTED LITTERS

- Report to Environmental Health Worker



### FERAL CATS

- Report to TSRA rangers or EHW



## Further Information

Contact your local TSRA ranger or TSIRC Environmental Health Worker (EHW)

Website:  
Phone:

Illustrated by Rebecca Stevens

# TORRES STRAIT INVASIVE SPECIES

# CATS



## General Information

### NOWHERE TO RUN...

Native animals lives are threatened by cats



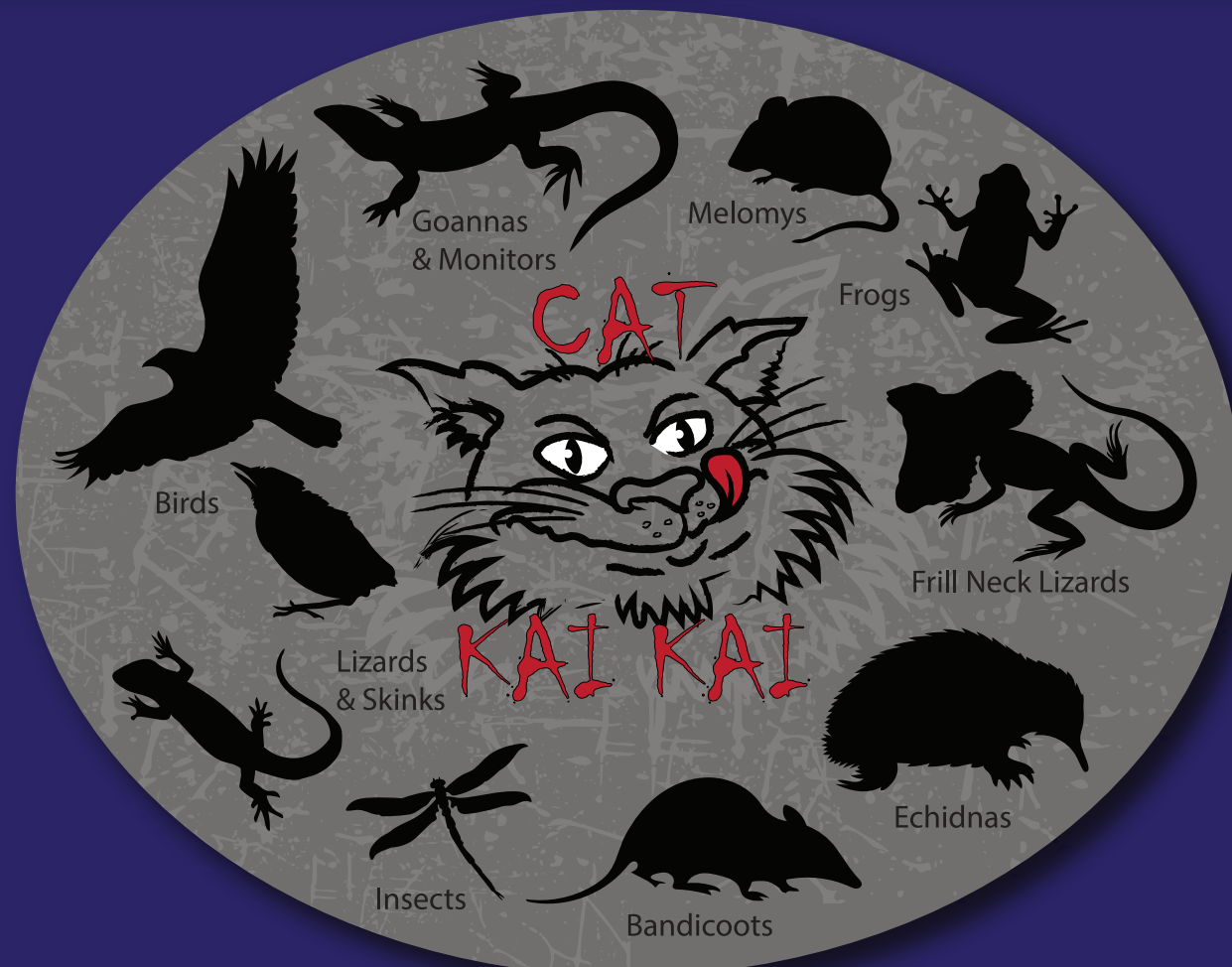
- Feral cats are domestic cats living wild.
- Pet cats keep a strong hunting instinct.
- Marsupials and reptiles are the most at risk from disappearing forever from an island because they can't escape.
- If your cat is not indoors it can kill up to 5 native animals every night.
- One bite is all it takes! Even if the cat doesn't kill the animal, it will die from infections or injury.
- Cats compete with native predators for food- such as eagles, hawks and reptiles.



## DO YOU KNOW WHERE YOUR CAT GOES AT NIGHT?



CATS THAT ARE NOT CARED FOR  
QUICKLY BECOME STRAYS!



IT IS CUTE NOW...

however your new  
cat is now your  
responsibility...



Even well fed cats kill for  
fun and can kill 5 native animals  
per night...

KEEP YOUR CAT INDOORS AT NIGHT!

Cats Breed Very Fast. Desex Your Cat Maths Challenge:

If one cat can have 2 litters of 6 kittens each year,  
how many cats will there be in:

1 year =  
2 years =  
3 years =  
4 years =

**DESEX YOUR CAT!**

\*Free service provided by visiting vet approx.  
every 6 months

BUT if each of the off-spring from the  
first cat mate and have kittens some  
experts estimate that after 8 years  
there will be over 2 million cats!

Imagine the Damage to  
Native Animals on  
Your Island...





## Where to Find

- Damp, cool areas near a water source
- Under houses
- In pot plants or vegetation
- Around buildings
- Around lights that attract insects
- Around food or water left out for pets

## Control the Spread



- Cane toads can travel from island to island on dinghies, barges or floating debris.
- Cane toads go unnoticed and travel in pot plants, boxes, camping equipment and building supplies.

*Don't Let Cane Toads Hitch a Ride!*

## What to Do

### Prevent

- Check your load, boots and bags when travelling from island to island.
- Empty containers of water that hold cane toad eggs, remove strands of eggs from local waterways

### Control

If you see a cane toad:

- REPORT IT TO TSRA RANGERS

For Identification you can:



OR



- Take a photo

- Catch the cane toad
- Keep it in a bucket

*NOTE: Cane toads are safe to handle.*

*Cane toad toxin is only dangerous if you get it in your mouth, eyes or in an open wound.*

*Their toxin is water soluble and washes away easily.*

*Cane toads only produce poison if handled roughly.*

NATIVE FROGS ARE SOMETIMES MISTAKEN FOR CANE TOADS.

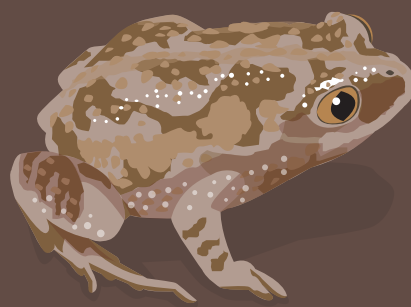
REMOVING EGG STRINGS FROM WATERWAYS IS THE EASIEST WAY TO IDENTIFY AND ERADICATE CANE TOADS!

## The Good Guys

Ornate Burrowing Frog



Mimic Toadlet



Swamp Frog



Identify carefully as there are **native frogs** that can be easily confused with cane toads.

## Further Information

Contact your local ranger or Environmental Health Worker (EHW)

Website:

Phone:

Illustrated by Rebecca Stevens

# TORRES STRAIT INVASIVE SPECIES

# CANE TOADS

## Rhinella marina



## General Information

# Cane Toads Are Here!

Cane toads have recently been spotted for the first time on three outer islands of the Torres Strait. There are already known incursions of cane toads

on Thursday Island and Horn Island. This is the first time cane toads have been spotted at Boigu, Moa and Badu Islands. All Torres Strait islands

are at risk. Cane toads are the single greatest threat to many native animals in the Torres Strait including goannas, snakes, birds and frogs.

-Cane toads are a serious threat to native wildlife, particularly wildlife that feed on frogs.

-All growth stages of a toad are toxic, including eggs, tadpoles, metamorphs and adults.

-Cane toads also compete with native animals for habitat and food, and prey on insects and other small animals.

-Cane toads spread quickly with one female producing up to 30 000 eggs in a season.



Australian Government



**TSRA**

www.tsra.gov.au



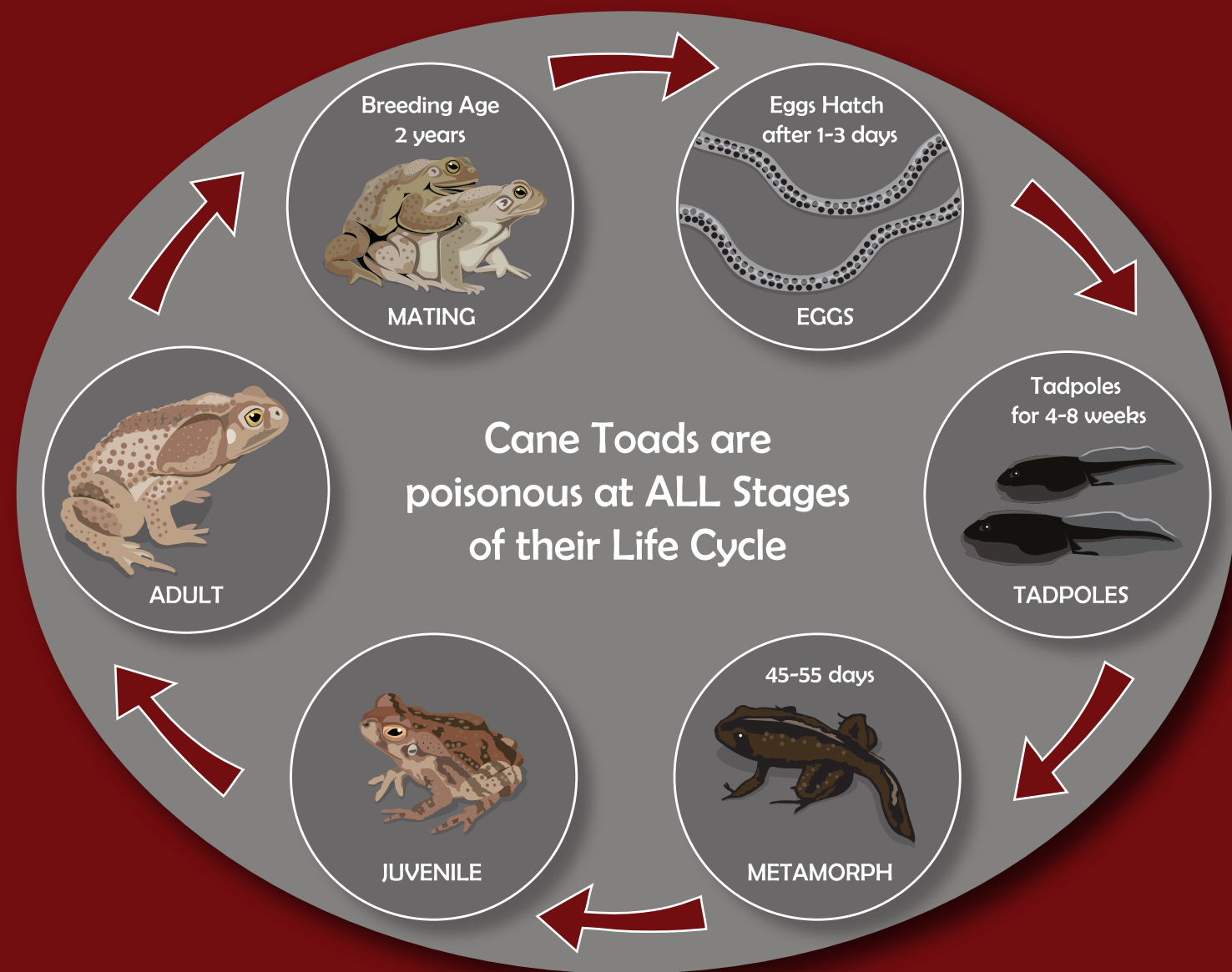
**Queensland Government**

Department of Natural Resources and Mines



**Torres Strait Island**  
REGIONAL COUNCIL





# Animals That Cane Toads Eat or Out-compete

Toads	Native Frogs
-8000 to 30,000 eggs twice a year.	-1000 to 2000 eggs per year.
-Eggs are in long spaghetti like strands.	-Eggs in single mass, smaller clumps or chains or in foam.
-Tadpoles have shiny black top and plain dark belly.	-Tadpoles are a variety of colours, rarely black.
-Stumpy in shape.	-Frogs develop slower, and are smaller (adults up to 11 cm)
-Cane toads grow faster in all growth stages and grow much bigger (adults 15 cm)	-Tadpoles need clean water to survive.
-Tadpoles can survive in brackish or slightly toxic water.	-Breeding age approx 4 years.
-Breeding age approx 2 years.	-Frogs are easily outcompeted by cane toads for insects to eat, and do not eat scraps and pet food the way cane toads do.
-Cane toads eat a lot more than frogs, up to 200 insects per night.	-Live approx 8 years.
-Live approx 5 years.	

### Animals Cane Toads Eat

-Cane toads mostly eat insects, although they will eat anything they can fit in their mouths. This includes native frogs, frog eggs and tadpoles, bird eggs and hatchlings, reptiles and small mammals.

### Animals Cane Toads Out-compete

-Cane Toads out-compete other animals for food. Especially insect eating animals like skinks, lizards, frogs and birds.

-Cane toads can destroy the nests of ground nesting animals or birds.

## ANIMALS THAT EAT CANE TOADS AND DIE

-Cane Toads have a poison gland on each shoulder. They release poison when stressed.  
-If eaten it can be fatal for pets and many native animals

### Animals That Eat Cane Toad Eggs and Tadpoles

### Animals That Eat Cane Toad Metamorphs, Juveniles and Adults

## Identification

- Distinct bony ridge over the eyes which meets the nose
- Large oval poison gland, may release poison if the toad is stressed
- Skin is dry, rough and warty
- Obvious ear
- Eye isn't perfectly round like a frogs eye
- No suckers on fingers and toes
- Unwebbed fingers, webbed toes
- Average adult is 150mm in length

Double row of black eggs in neat long strings of clear jelly.

Shiny black top

Large head

Short thin tail

Plain dark belly

Toad tadpoles are small and often stay in a group. They do not come to the surface to breathe, unlike native frog tadpoles.

Cane toads may be confused with some large native ground frogs. Frogs can have slightly rough skin however it is not dry like a cane toad. Frogs do not have the large gland on their necks or ridges above their eyes. Cane toads stay on the ground and can't climb or jump as far/ high as a frog.