

WHAT IS A FRESHWATER FISH?

Fishes have a backbone, scales, are cold blooded and have gills. The majority of freshwater fishes found in Australia have migrated from marine environments many years ago. Freshwater is critical to their survival, as all or some of their life cycle is in freshwater. Australia does not have many species of freshwater fish compared to other countries, Lake Malawi in Africa has more species than the whole of Australia.

Compared to the rest of Australia, the Kimberley is a biodiversity hotspot for freshwater fish with 52 species. There are more species of freshwater fish found in the Ord River than the entire Murray-Darling Basin!

WHAT'S IN YOUR BACKYARD?



WHAT IS A FRESHWATER FISH?

Key characteristics to look for when identifying species:

Markings and colour

Size

Shape of body

Habitat

Fins, especially shape of caudal (tail) fin and colour

There are 16 freshwater fish found only in the Kimberley.

Fish in these cards are in alphabetical order for families. Please notify kimberleytoadbusters@canetoads.com.au if any mistakes are found.

WHAT'S IN YOUR BACKYARD?

Giant Glassfish

FISH 1



Giant glassfish
Parambassis gulliveri

G. Allen

“WHAT'S IN YOUR BACKYARD?”



Giant Glassfish

Parambassis gulliveri

Size: Maximum about 24 cm

Distinguishing features: Humped forehead, relatively large mouth, small scales and distinctive lined colouration. Yellowish anal and pelvic fins.

Habitat: Large rivers, waterholes usually in turbid water

Diet: Small crustaceans and fishes

Distribution: Freshwater, relatively common across Northern Australia

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Macleay's Glassfish

FISH 2



Macleay's glassfish
Ambassis macleayi

G. Allen

“WHAT'S IN YOUR BACKYARD?”



Macleay's glassfish

Ambassis macleayi

Size: Maximum about 9 cm

Distinguishing features: Semi-transparent with dark scale edges, relatively deep body, dark patch at pectoral fin base.

Habitat: Margins of streams and swamps, likes dense aquatic vegetation

Diet: Micro-crustaceans, aquatic and terrestrial insects and algae

Distribution: Freshwater, Kimberley to Cape York

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Northwest Glassfish

FISH 3



“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Northwest Glassfish

Ambassis sp.

Size: Maximum size 5.5 cm

Distinguishing features: Semi-transparent with dark scale edges.

Spinous dorsal fin taller than other species, 28% of standard length.

Habitat: Variety of flowing and still water from rivers, creeks, irrigation channels, swamps, billabongs and semi-stagnant ponds.

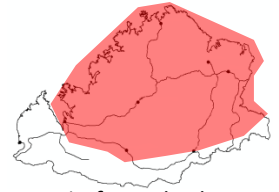
Diet: Micro-crustaceans, aquatic and terrestrial insects, algae

Distribution: Freshwater

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Freshwater Eel

FISH 4



“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Freshwater or Indian Short-finned Eel

Anguilla bicolor

Size: Maximum about 60 cm

Distinguishing features: Snake-like body, elongate and tubular head, jaws reach well past eyes, scales are indistinct.

Spawning site located off Sumatra, Indonesia. **Habitat:** Rocky pools of freshwater creeks, also in brackish estuaries and tidal flats, often buried in the mud bottom.

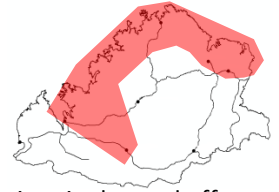
Diet: Crustaceans, fish, frogs and small birds

Distribution: Only eel occurring in freshwaters of the Kimberley

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Mouth Almighty

FISH 5



“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Mouth Almighty

Glossamia aprion

Size: Maximum about 18 cm, commonly to 12 cm.

Distinguishing features: Stout body, with large cavernous mouth. Mottled in colour, dark brown to reddish brown blotches. Diagonal stripe through eye.

Habitat: Still or slightly flowing streams, well vegetated fringes.

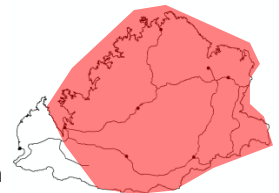
Diet: Fishes, crustaceans, aquatic and terrestrial insects

Distribution: Freshwater in Kimberley, NT, QLD and NSW

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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FISH 6

Bottle-nose Catfish



“WHAT’S IN YOUR BACKYARD?”



KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Bottle-nose Catfish

Arius graeffei

Size: Maximum about 60 cm

Distinguishing features: Forked tail.

Shape of palatal teeth, first row complete

broken in centre. Blue/grey and white underneath.

Similar to silver cobbler, smaller mouth and different palatal

teeth. Male raises young in mouth. Three spikes, very painful

when stung! **Habitat:** Freshwater rivers, lagoons and brackish

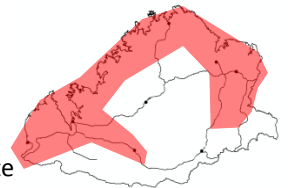
estuaries **Diet:** Omnivorous, includes small fish, plant material,

prawns insects molluscs and detritus **Distribution:** Freshwater

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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FISH 7

Silver Cobbler



“WHAT’S IN YOUR BACKYARD?”



KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Silver cobbler, shovel-nosed catfish

Arius midgleyi

Size: Maximum about 140 cm

Distinguishing features: Whiskers. Broad

truncated snout when view from above.

Colour varies, silver grey to dark. Palatal teeth in two complete

rows. Male incubates eggs and carries young in mouth. **Habitat:**

Clear or turbid freshwater lakes, rivers, reservoirs and waterholes

Diet: Fish (esp. likes bony brim), prawns, crayfish, arthropods

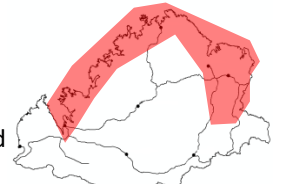
Distribution: Freshwater from Kimberley to Cape York. Lake

Argyle commercial fishery.

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Black Catfish, Butter Jew

FISH 8

Black catfish

Neosilurus ater



“WHAT’S IN YOUR BACKYARD?”



KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Black catfish, Butter Jew, Narrow-fronted Tandan

Neosilurus ater

Size: Maximum about 47 cm, common to 25 cm

Distinguishing features: Relatively

elongated snout, grey to blackish overall,

sometimes mottled with paler belly.

Habitat: Likes bottom of swift flowing sections of rivers and

streams, also found in still water

Diet: Molluscs, insects crustaceans and worms

Distribution: Freshwater, relatively common across Nth Australia

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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FISH 9

Hyrtl's Tandan



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“WHAT’S IN YOUR BACKYARD?”



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Kimberley Toad Busters

Hyrtl's Tandan

Neosilurus hyrtlii

Size: Maximum about 34 cm, commonly to 20 cm.

Distinguishing features: Evenly rounded snout and relatively short barbels are characteristic. From dark brown to pale silvery/grey, with dark brown/yellowish fins.

Habitat: Diverse range of habits including still or flowing water of streams, billabongs and pools.

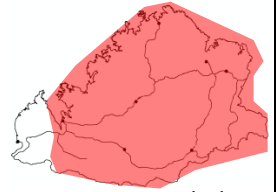
Diet: Insects, molluscs, small crustaceans and worms

Distribution: Freshwater in WA, NT, QLD and NSW

Ref: Murdoch University, 2002 "Fishes of Lake Kununurra"

Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"

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False-spined Catfish

FISH 10



Wardoo

Nyikina name

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“WHAT’S IN YOUR BACKYARD?”



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Kimberley Toad Busters

False-spined Catfish

Neosilurus pseudospinosus

Size: Maximum about 35 cm

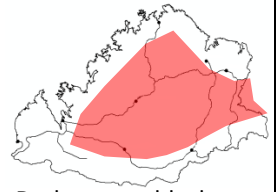
Distinguishing features: Lacks a rigid spine at the front of the dorsal and pectoral fins and has shorter nasal barbels. Dark grey to black on the body, black fins, whitish underside.

Habitat: Pools and flowing streams, swimming close to rocky or sandy substrates. **Diet:** Omnivorous, terrestrial and aquatic insects, molluscs, detritus, algae **Distribution:** Freshwater, uncommon species between Kimberley and Daly River (NT)

Ref: Murdoch University, 2002 "Fishes of Lake Kununurra"

Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"

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Rendahl's Catfish

FISH 11



Rendahl's catfish

Porochilus rendahli

M. Allen

“WHAT’S IN YOUR BACKYARD?”



KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Rendahl's catfish

Porochilus rendahli

Size: Maximum about 24 cm

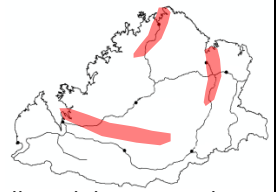
Distinguishing features: Concave head and nape profile. Eyes are in close proximity to snout. Mottled grey to pale yellowish brown, with a golden sheen. **Habitat:** Mud-bottoms, flowing creeks, backwaters near aquatic vegetation. **Diet:** Bottom feeder, aquatic insects, micro-crustaceans, molluscs and detritus

Distribution: Freshwater, patchy never common across Nth WA, NT and QLD

Ref: Murdoch University, 2002 "Fishes of Lake Kununurra"

Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"

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Toothless Catfish

FISH 12



© Mark Allen

“WHAT’S IN YOUR BACKYARD?”



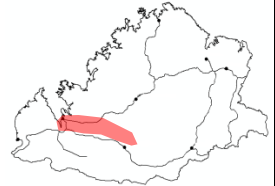
Toothless Catfish

Anodontiglanis dahli

Size: Maximum about 40cm

Distinguishing features: Different from other eel-tailed catfish by the position of the caudodorsal fin, in line with pelvic fins (further back in other species). **Habitat:** Sandy bottoms around the cover of wood debris, in clear, flowing water of rivers and streams, also found in flooded lagoons. **Diet:** Aquatic insect larvae, detritus, molluscs and prawns **Distribution:** Freshwater, not particularly common, scattered distribution from Kimberley to Cape York

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Drysdale Hardyhead

FISH 13

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“WHAT’S IN YOUR BACKYARD?”



Drysdale Hardyhead

Craterocephalus helenae

Size: Maximum about 8 cm, commonly to 5 - 6 cm

Distinguishing features: Dull, golden in colour. Dusk along back. Sliver mid-lateral stripe and silver belly. **Habitat:** Still or flowing streams over sandy channels and rocky pools.

Diet: Aquatic insects, small crustaceans and algae

Distribution: Freshwater. Drysdale River system only. Abundant near Kalumburu Road crossing.

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Prince Reagent Hardyhead

FISH 14

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Nyikina name

Karlanyjarr

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“WHAT’S IN YOUR BACKYARD?”



Prince Reagent Hardyhead

Craterocephalus lentiginosus

Size: Maximum about 8 cm, commonly to 5.5 cm

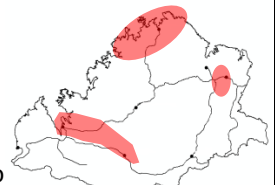
Distinguishing features: Golden-brown to greenish overall, paler on sides with a golden and black mid-lateral strip from snout through eye to pectoral fin.

Habitat: From still or flowing streams over sandy, muddy or rocky bottoms, even brackish isolated pools on tidal mud flats.

Diet: Likely aquatic insects, small crustaceans and algae

Distribution: Freshwater only in the Kimberley

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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FISH 15

Strawman



Strawman

Craterocephalus stramineus

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KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Strawman, Blackmast

Craterocephalus stramineus

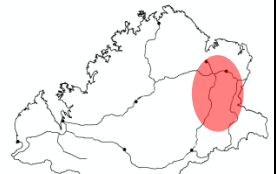
Size: Maximum about 6.5 cm, commonly to 4 cm

Distinguishing features: First dorsal fin taller (with black on anterior section) much higher than second fin. Body semi-transparent with yellowish hue. Black mid-lateral stripe. **Habitat:** Near surface of well-vegetated streams and lakes

Diet: Variety of invertebrates and algae

Distribution: Freshwater. Ord, Daly, Finnis, Katherine and Gregory rivers

Ref: Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”
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Freshwater Longtom

FISH 16



Freshwater longtom

Strongylura krefftii

© M. Allen

“WHAT’S IN YOUR BACKYARD?”



KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Freshwater longtom

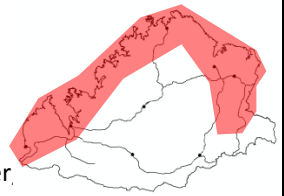
Strongylura krefftii

Size: Maximum about 85 cm, commonly to 30-40 cm

Distinguishing features: Long and slender, elongated jaws of equal length, sharp spiky teeth.

Habitat: Still or flowing waters of large rivers, from tidal to far inland. Shelters in vegetation. **Diet:** Small fish, insects, crustaceans **Distribution:** Freshwater, widespread across northern Australia, not abundant

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”
Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”
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Bull shark

FISH 17



Nyikina name

Ngawoonkoo

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“WHAT’S IN YOUR BACKYARD?”



KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Bull Shark

Carcharhinus leucas

Size: Maximum about 300 cm

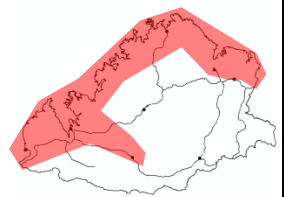
Distinguishing features: Large broad-headed shark, grey above and white underneath. Young sharks have black tip dorsal and tail fin. Can travel up to 180 km in 24 hours. Takes 10-15 years before bull sharks reach sexual maturity.

Habitat: Occurring in estuaries and major coastal rivers, can become stranded in large river pools

Diet: Carnivore, crabs, urchins, fish

Distribution: Marine/estuaries worldwide, not abundant

Ref: Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”
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Northern River Shark

FISH 18



“WHAT’S IN YOUR BACKYARD?”



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Kimberley Toad Busters

Northern River Shark

Glyphis sp.

Size: Maximum 150 cm

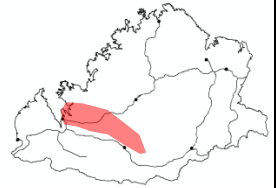
Distinguishing features: Small eye, large dorsal and pectoral fins, well defined sensory organs. Grey, no distinctive markings.

Habitat: Coastal turbid environments

Diet: Carnivorous

Distribution: Marine/estuaries. Rare: Adelaide River (NT), Fitzroy River (WA) and Bizant River (QLD)

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Barramundi

FISH 19



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Kimberley Toad Busters

Barramundi

Lates calcarifer

Size: Maximum about 180 cm, commonly to 120 cm

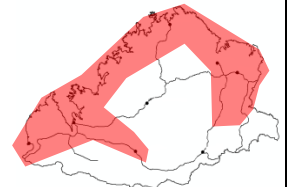
Distinguishing features: Distinct shape, Silvery in colour. Juveniles, mottled brown with three white stripes on head.

Habitat: Young found in upper reaches of freshwater rivers, favouring undercut banks, debris. Adults in or near estuaries.

Diet: Carnivorous, eating only fish and crustaceans

Distribution: Marine and estuary species, common and widespread across northern Australia

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Bony Bream

FISH 20



Bony bream

Nematalosa erebi

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KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Bony bream

Nematalosa erebi

Size: Maximum 32 cm, commonly to 15–20 cm.

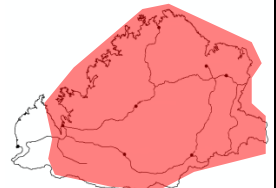
Distinguishing features: Deep body, blunt snout. Long filament on dorsal fin. Silver in colour.

Habitat: Variety, most common in shallows or slow flowing streams, likes turbid conditions.

Diet: Benthic algae, detritus and small invertebrates

Distribution: Freshwater Australia wide

Ref: Murdoch University, 2002 "Fishes of Lake Kununurra"
Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Freshwater Whipray

FISH 21



“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Freshwater Whipray

Himantura chaophrya

Size: Maximum disc width 200 cm

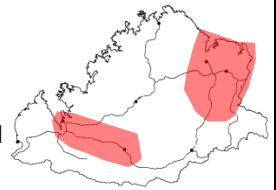
Distinguishing features: Easily recognised on the basis of shape, the only freshwater stingray in Australia.

Habitat: Bottom dwellers, fresh and brackish water, lie motionless in shallow water, partially buried in the mud.

Diet: Unknown

Distribution: Marine/estuaries, unknown. Daly and Sth Alligator, Fitzroy, Ord and Pentecost Rivers. Travels inland, has been found in Geikie George.

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Barnett River Gudgeon

FISH 22



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Kimberley Toad Busters

Barnett River Gudgeon

Hypseleotris kimberleyensis

Size: Maximum about 6 cm

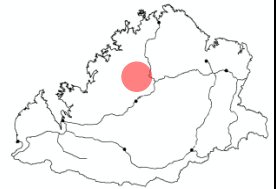
Distinguishing features: Small, slender, compressed gudgeon. Tan/brown overall with dusky brown irregular blotches on the sides.

Habitat: Streams and pools with moderate flow in clear water, with aquatic vegetation and large sandstone boulders.

Diet: Little known

Distribution: Freshwater, only found in upper Barnett River, Manning Creek and Calder River.

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Prince Regent Gudgeon

FISH 23

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“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Prince Regent Gudgeon

Hypseleotris regalis

Size: Maximum about 5 cm

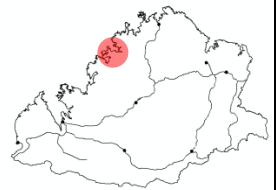
Distinguishing features: Small, slender, compressed gudgeon. Dark brown head; dark edge to each scale. Fins speckled with whitish spots, clear towards ends.

Habitat: Rocky pools in slow flowing streams. Found near crevices, woody debris or plants.

Diet: Little known

Distribution: Freshwater, only found in Roe and Prince Regent Rivers

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"
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Mitchell Gudgeon

FISH 24

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“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Mitchell Gudgeon

Kimberleyeleotris hutchinsi

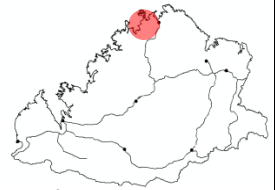
Size: Maximum about 4 cm

Distinguishing features: Small, slender, compressed gudgeon. Pale orange brown, with dark spots scattered on sides. First dorsal fin is blackish with blue to white edge and orange base, second fin is orange with blue to white spots. Anal fin orange with white blue edge. Similar to Drysdale Gudgeon but does not have stripes/bars. **Habitat:** Rocky streams and pools in still or flowing streams near boulders.

Distribution: Freshwater, only found upstream of Mitchell Falls

Ref: Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Drysdale Gudgeon

FISH 25

Searching for photo!



“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Drysdale Gudgeon

Kimberleyeleotris notata

Size: Maximum about 4 cm

Distinguishing features: Small, slender, compressed gudgeon. Light brown to purplish brown. Distinctive set of narrow vertical bars at front of body. Fins are clear to grey, base of dorsal fins are blackish.

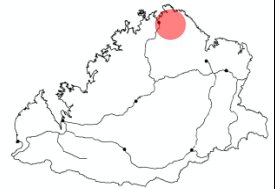
Habitat: Clear pools of slow flowing streams over sand or rock

Diet: Not known

Distribution: Rare. Only found short distance upstream of junction of Drysdale and Forest Creek in Drysdale National Park.

Ref: Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Northern Trout Gudgeon

FISH 26

Northern trout gudgeon

Mogurnda mogurnda



D. Morgan

“WHAT’S IN YOUR BACKYARD?”



Kimberley Toad Busters

Northern Trout Gudgeon

Mogurnda mogurnda

Size: Maximum about 12 cm

Distinguishing features: Dark brown to purplish along back. White/cream belly with tinge of blue/purple. Dark brown/red spots all over body and base of fins. Head has 3 bands radiating from eye across cheek and gills. **Habitat:** Quiet sections of rivers, creeks, billabongs. Often amongst vegetation or rocks.

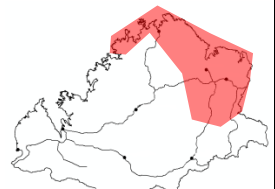
Diet: Insects, larvae, worms, gastropods and sometimes algae

Distribution: Freshwater, widely distributed across Nth Australia

Ref: Murdoch University, 2002 “Fishes of Lake Kununurra”

Allen, Midgley and Allen, 2002, “Field Guide to the Freshwater Fishes of Australia”

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Kimberley Morgurnda

FISH 27



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KIMBERLEY SPECIALISTS



Kimberley Toad Busters

Kimberley Morgurnda, False-spotted Gudgeon

Morgurnda oligolepis

Size: Maximum size to at least 8 cm

Distinguishing features: Similar to Northern Trout Gudgeon but has generally less and larger brown/red spots. Cheek bands also present. Protruding lower jaw.

Habitat: Quiet sections of rivers, creeks, billabongs. Often amongst vegetation or rocks.

Diet: Insects, larvae, worms, gastropods and sometimes algae

Distribution: Freshwater, common, only within the Kimberley

Ref: Allen, Midgley and Allen, 2002, "Field Guide to the Freshwater Fishes of Australia"

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