



The Value of a Fish and the Importance of Marine Protected Areas in Ecotourism

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Busselton Jetty Inc.

- Membership based community organisation, formed to “Save the Jetty for future generations”
- Operate under License from the City of Busselton, 25% of profits directed to the Jetty Maintenance Fund
- Oversee tourism products – Promenading, Jetty Train, Underwater Observatory and other unique coastal experiences/events
- A Registered Environmental Organisation, BJ Inc. oversees the Busselton Jetty Environment Foundation to manage marine monitoring, community education, beach clean ups and third-party project participation

A large school of yellow tangs (Acanthurus lineatus) is swimming in clear, turquoise water. The fish are mostly oriented towards the right side of the frame. In the background, a coral reef is visible, featuring various types of coral, including purple and yellow branching corals. The lighting is bright, suggesting a sunny day at the surface.

A vivid forest created by the
jetty structure hosts over 300
marine species...

Ngari Capes Marine Park

- Park gazetted in 2012, legislated in 2018
- Extends from Capel to Augusta in the South West of Western Australia.
- Covers 1237.9km², with 25 named zones plus general purpose area.
- Jointly managed by Department of Parks and Wildlife and Department of Fisheries
- East Geographe Bay and Cape Clairault (Gracetown) sanctuary zones connect with Commonwealth sanctuaries



Marine Park Values

Environment

Conservation and protection of endangered marine species: sea dragons, cryptic fish, migratory populations

Conservation and protection of unique marine habitats: Jetty piles, sponge gardens, soft corals, seagrasses and rocky reefs

Targeted monitoring of environmental conditions – temperature, salinity, changes to coastal conditions, populations, climate change

People

Segregation of uses: exclude competing uses from coexisting

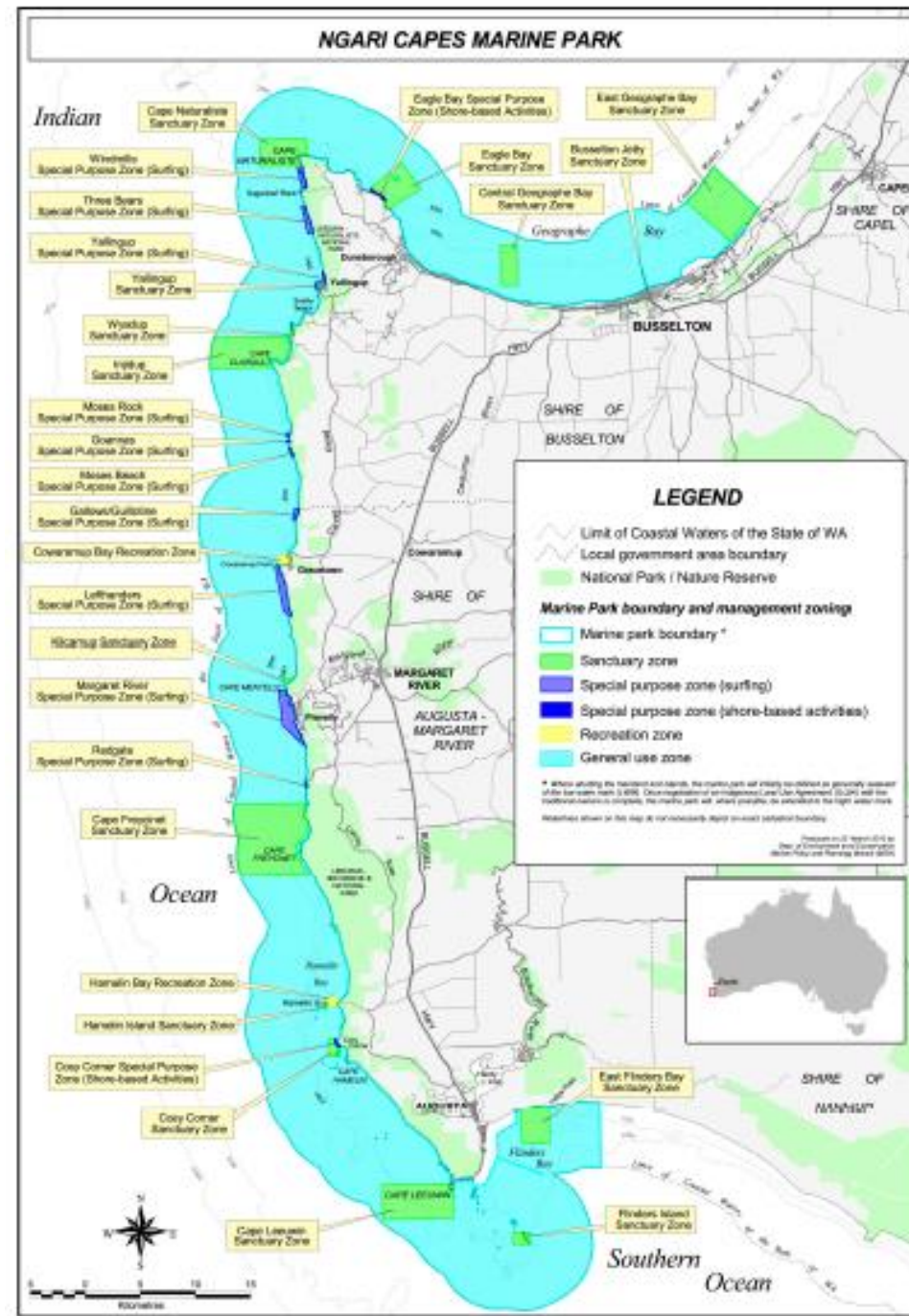
Opportunities for nature based experiences – connecting people to the marine environment in and on the water

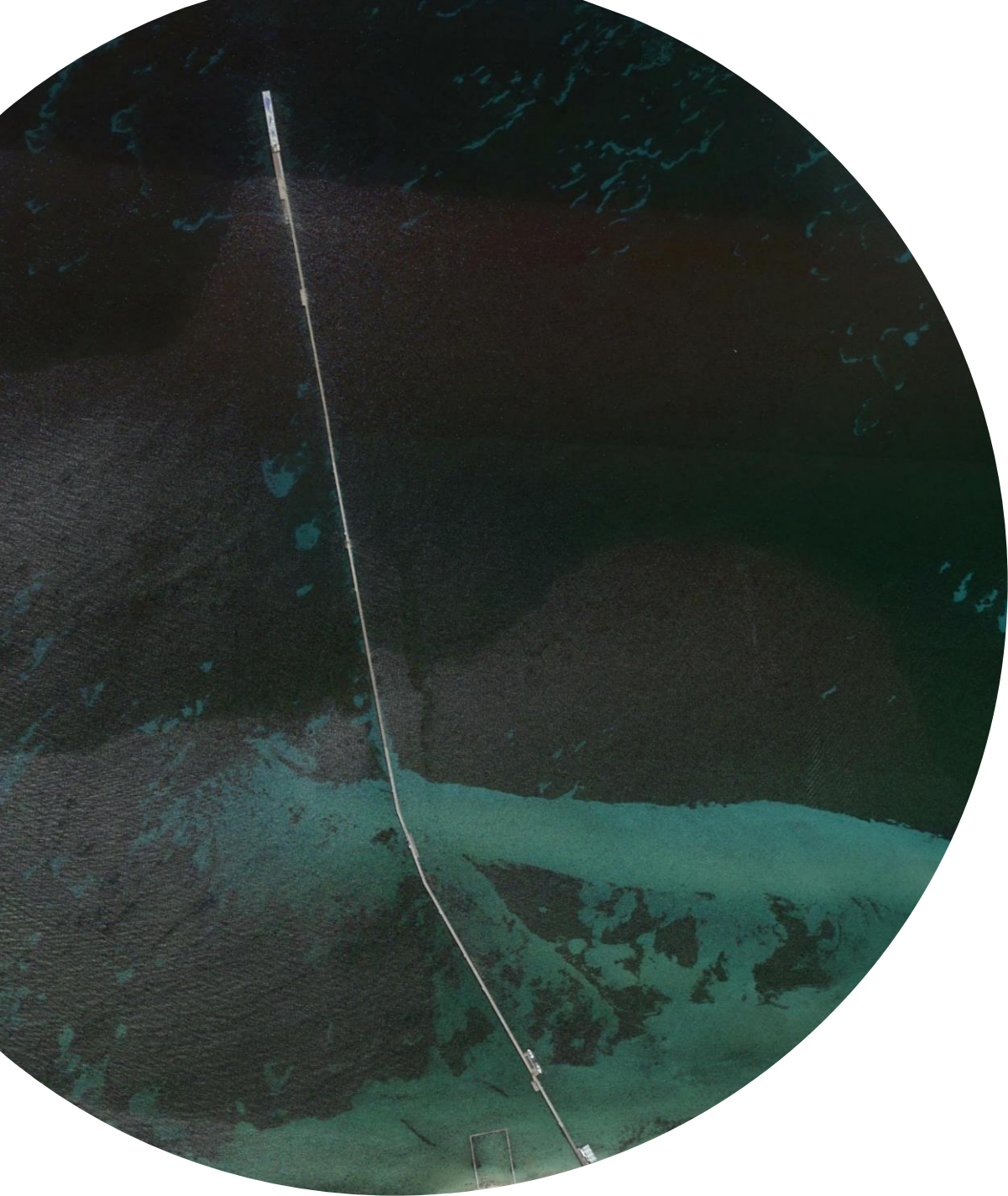
Opportunities for business/jobs: tourism, fisheries, aquaculture, science can develop knowing what planned uses are

Manage and monitor human pressures on environment

Marine Sanctuary Zones are crucial for best practise to manage Marine Parks

Ngari Capes Marine Park





Jetty Sanctuary Zone

- Located 1.65km from shore at the end of Busselton Jetty
- A relatively small (approx. 400m²) extends around the end of the jetty into the nearby seagrass meadows.
- Approximately 10% of the jetty reserve is dedicated as a marine protected area
- Originally protected as a Fish Habitat Protection Area since 2004, before forming part of the Ngari Capes Marine Park Zoning in 2012.

Marine Life Observations



Data has been collected since 2004 – includes species identification, time of day, presence/absence and abundance

Tour guides conduct marine life surveys twice daily (am/pm)

Over 100 species on the data sheet!

Categorising Marine Life



Residential

Black Spotted Wrasse

McCulloch's Scalyfin

Old Wives

Western Talma

White Barred Boxfish

Migratory

Australian Herring

Yellow-tail Scad

Samson Fish

Tailor

Humpback Whale

One-offs

Octopus

Cuttlefish

Fur Seal

Sea Lion

Cormorant

Visitors to the Underwater Observatory

2019

January	February	March	April	May	June	July	August	September	October	November	December
8771	6909	8125	6788	4358	3792	3222	2869	6326	6291	6046	8692

Total Annual Visitors = 72, 189

What is the value of a Jetty Sanctuary Zone to the business?

Vistors see nice fish?

Chance to see something extraordinary?

Being in nature?

Go to the 'seafloor'?

Economic benefits?



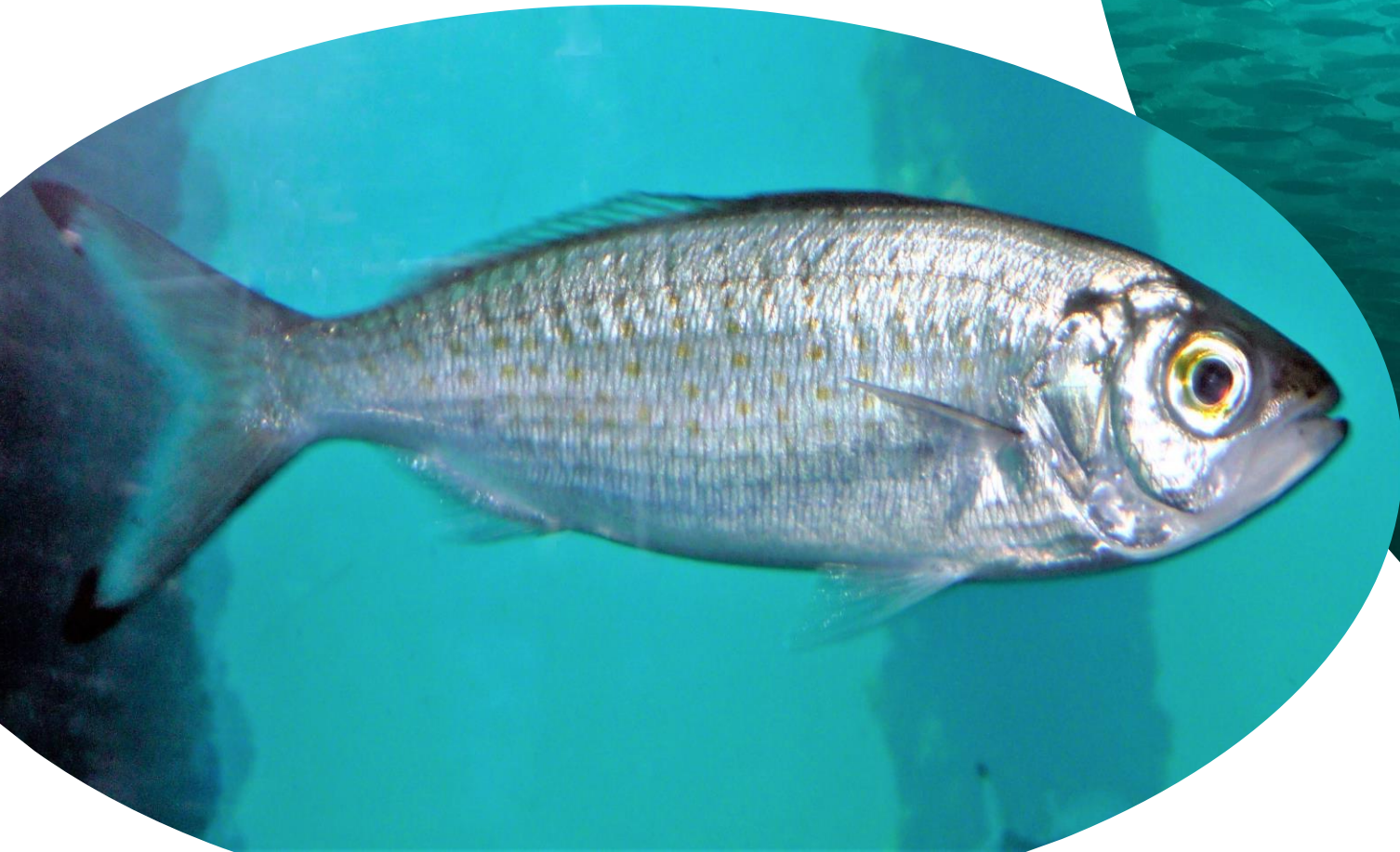
One-offs...

Gloomy Octopus:
Seen by 10,104 visitors
\$ 13, 587.82 revenue

Fur Seal:
Seen by 3301 visitors
\$ 49,276.24 revenue

Samson Fish:
Seen by 11,822 visitors
\$ 44,518.81 revenue

Migratory...



Australian Herring:
Seen by 2984 visitors
\$7,185.40 revenue

Residential...



Horseshoe
Leatherjacket:
48,651 visitors
\$ 335,821.11

McCulloch's
Scalyfin:
10,104 visitors
\$ 343,884.04



Yellow Hula fish:
44,292 visitors
\$ 245,676.26



White barred
boxfish:
43,066 visitors
\$ 248,289.64



Black spotted
Wrasse:
50,187 visitors
\$ 314,917.79



Black headed Puller:
45,801 visitors
\$ 331,209.26



These 10 species of fish generated 91% of the Underwater Observatory's income in 2019!!!

Not just about the money

Knowing these values of the Jetty Sanctuary and our marine life helps Busselton Jetty Inc. to;

- Evaluate the impacts of climate change – especially ocean warming and acidification,
- Evaluate and limit our environmental impact, &
- Advocate for better MPA's



Thank you

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