



BACK2BASICS BY BEN DERECKI

KINGS and the KEY:

A two-day Intro to Aquaculture

Photos by: Ben Derecki

The aquaculture industry in Western Australia has a lot to thank Challenger TAFE for, earlier this year Ben spent two days chasing kingfish with them and getting a basic lesson in one aspect of what they do and how they do it.



A few juvenile mulloway circle around the tanks inside the Aquaculture Development Unit.



Rob with one of the prized catches back in Fremantle.

I was recently lucky to spend two days fishing with Challenger TAFE's Aquaculture Development Unit (ADU) on a project that would help their research into yellowtail kingfish. The ADU is a facility that is nationally recognised for its fish breeding and hatchery laboratories and the research they do in these fields.

If you've fished the South Mole before you would have driven past their facilities as they're located in the large sheds on your right just as you get to the Mole. Externally these look like any other old Port building you find around Fremantle but inside there is more PVC pipe and plastic liner than your local Bunnings. And despite how easy you might think it is to pass time at Bunnings, it's even easier here!

The sheds are filled with tanks full of mulloway, pink snapper, barramundi and black bream all at various stages of growth – some still eggs, some are juvenile fish and others are reaching maturity. They are all part of a program designed to help develop and grow Western Australia's marine aquaculture industry and to provide hands on experience for graduate and post-graduate students.

Assistant hatchery manager, Rob Michael, took me for a tour of the premises and explained how the process worked. The first large tank we looked in held four large healthy mulloway, three of which had been caught, tended to overnight and transported home from the S-Bend earlier on in the year. As these fish breed the eggs rise to the surface and are trapped in an overflow net. Over the coming months these eggs are hatched and the young fish are placed in a large holding tank where they are gradually thinned out into other holding tanks as their size increases. It's a bit hard to keep 10,000 mulloway in one tank.

This same process has been undertaken for black bream, pink snapper and barramundi and was now continuing into the world of yellowtail kingfish. South Australia has set the scene for kingfish aquaculture, when I lived there the industry was just starting to kick off on the heels of a booming tuna industry and there was a lot of hype about how appropriate kingfish were to this type of fishery. They breed well, they grow fast and their flesh is highly sought by local and international markets.

After the tour Rob mentioned he

was looking for people to crew the 18 metre TAFE boat Maritime Image for an overnight trip to the Key Biscayne and asked if I'd be interested in coming along. I couldn't say yes fast enough. Firstly it's virtually impossible to say no to a free overnight boat trip fishing and secondly having had my taste buds whet by the tour around the research facilities I wanted to know more about this amazing industry.

The Key Biscayne is a jack-up oil rig that sunk off the coast of Lancelin in 1983. It sits in 40 metres of water 15 kilometres off the coast and is one of Western Australia's great dive sites due to the size of the structure and the amazing amount of coral, fish and crabs that have made it their home. There is a fundamental problem to accessing the place though and that is its location on one of the windiest stretches of coastline in Australia. It turned out this was going to be the straw that broke the camel's back but prior to leaving Fremantle at 6am there was little indication this would be the case.

Our first stop was just south of Rottnest Island where we thought we may find some kingfish and pink snapper on the Duffield Ridge. After a

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few drifts across the ridge for one pink snapper and a few nor-west blowies we moved and spent the next hour fishing a number of spots for herring, ideal live bait for chasing kings. But this wasn't going to be a day for herring because we couldn't raise a scale no matter how much burley, fish oil or bait we put into the water.

After a little more fishing the engines of the Maritime Image were cranked up and we began the four hour trip north to Lancelin. As far as fishing trips go this was certainly one of the most comfortable I have experienced despite the south-westerly breeze and swell. The fully-enclosed cab kept all eight of us sheltered from the elements and had room to walk around, make coffees, read the paper or spread out over the lounges. A few of the old salts onboard made the most of the time catching up and comparing notes while some went to the bunks downstairs and caught up on some sleep.

We arrived at the Key Biscayne at around 3pm and tried for half an hour to set the anchor but the breeze had picked



ABOVE: Although not the target species big skippy provided a lot of fun in the process.

up and it was impossible to do so we had no choice but to do multiple drifts across the wreck and hope for the best. It would have been ideal to anchor just off the rig and set up a strong burley trail to bring the fish towards the surface. You can see a good illustration of the effectiveness of this style of fishing in an

early series of Fishing WA where Ryan Thipthorp and Steve Correia burley rat kings off the West End of Rottnest Island before it became a sanctuary zone.

To this end Rob had brought handlines with thick Kevlar cord and single hooks on the end hoping to skull drag any fish we could raise off the



ABOVE: Looking more like a jacuzzi store than a research department Challenger TAFE knows how to look after its fish!

RIGHT: Extracting the fish from the purpose-built livewell was undertaken with amazing care.

The guys showed an amazing amount of care treating each fish like it was made of porcelain again making sure to reduce any stress the fish might go through to an absolute minimum.





The ADU is a facility that is nationally recognised for its fish breeding and hatchery laboratories and the research they do in these fields.



LEFT: Ready for transport from the harbour to quarantine.

RIGHT: The Maritime Image training boat cut the mustard on everything required for the trip.

rig onto the boat. The reason for this method of fishing is to minimise any stress the fish go through. Immediately after bringing in the fish it would be placed in a purpose-built tank and lightly anaesthetised if required, there was still another full day of fishing and a five hour trip home for the fish to go through so all care had to be taken to keep the fish as happy as possible.

As we weren't going to be using the handlines we all pulled out our gear and prepared for the drifts under instruction not to play the fish but to get it up and into the tank as soon as possible. I had a new Lemax SeaGame which had a good fast action and was perfect for quickly stopping anything wanting to go straight back to the wreck. The Daiwa Saltist had 50lb braid and thick 80lb Penn 10X leaders were used because of the amount of sharp rusting metal beneath the surface that the sinkers were being dragged across.

By 6pm we had done 20 drifts and landed two kingfish, an uncountable amount of big skippy, one tailor (from 40m down!) and a thumping baldchin groper and it was time to find a sheltered section of reef close to shore that we could spend the night behind. Horseshoe Reef wasn't too far away and within an hour we had anchored, cooked up some baldy, skippy and snags and settled into a well deserved meal while we planned a course of action for the coming day.

It turned out that the winds were going to continue to build through the night so we all decided it would be best to be back out at first light to see if we could add to our tally of kingfish. Most of the guys turned in early but a couple of

us decided to stay up and see if we could have some fun fishing off the back of the boat and put some of our gear through its paces. I wanted to see what my new Lemax SeaGame was capable of and one of the other blokes on board, surf fishing wizard Ian Moore, had brought a mate's custom built Calstar jig rod and a Shimano Stella loaded with 100lb braid that he wanted to try and bruise. It wasn't long before the rays came in and the fun started but after two hours we were all ready to turn in, it had been a long day and we needed some sleep.

When the morning came it wasn't too hard to wake up because most people had hardly got to sleep. We'd spent the night rocking and tumbling around listening to the wind blowing through the rigging and the waves slapping against the hull. I thought it was just me but when everybody else, including the skipper, got up and complained about their night's rest I knew it was a bad one all round.

We shot back out to the wreck and dropped our baits down with plenty of hope but not much expectation. The boat was rocking more than an AC/DC moshpit and because of the speed of the drift we were letting out 100m of line to get to the bottom of 40m of water. It took less than five drifts to make the decision to pack up and start the long bumpy trip back to the sheltered waters of the Fremantle Fishing Harbour.

When we arrived the process to remove the fish from the tank and transport them to the facilities back at Challenger TAFE began swiftly. The guys showed an amazing amount of care treating each fish like it was made of porcelain again making sure to reduce

any stress the fish might go through to an absolute minimum. From here the fish would remain in quarantine for six weeks to make sure they were disease and parasite free before being brought inside and becoming officially signed up to their kingfish broodstock program.

While the trip had not been as successful as it was hoped it did provide two fish to work with and to assist in the fantastic research program being undertaken by the TAFE. This is only one area of work that is performed by the ADU, their tentacles also spread into to a range of other fascinating areas. For me, it provided enough information on the basics of what they do and how they do it. There is a lot more to catching fish for research purposes than I would have expected and now I can appreciate why and hopefully you can too.

If you want to know more information about this or other projects that Challenger TAFE runs or are interested in knowing more about the aquaculture courses they run give Rob a call on 9239 8032 or email robert.michael@challengertafe.wa.edu.au. ☺

YELLOWTAIL KINGFISH

Seriola lalandi

Habitat: Near coast, offshore coastal islands and reefs in temperate waters.

Grows to: 190cm and 70kg.

Reproduction: Matures at 50cm and two years old.

Life span: 21 years.

Features: Blue/green back with yellow stripe through midline.

Information Source: Department of Fisheries, Species Identification Guide – West Coast Region, April 2006.