

Giant Australian Cuttlefish - Molluscs With An IQ

by Attila Kaszo

Whyalla in South Australia seems to be a hot spot when it comes to Cuttlefish aggregation.

Visitors worldwide go there to see the Giant Australian Cuttlefish (*Sepia apama*) do their thing in huge numbers. This only occurs once a year and over the past few years numbers of these intriguing cephalopods have decreased significantly. A year ago it was thought they would never return as no sign of aggregation was recorded. The culprit was believed to have been a new desalination plant construction nearby. There was understandably an outcry from many quarters, but there weren't the facts to back up the allegations.

When I visited, numbers were certainly down on previous seasons according to some local divers, but still significant enough to present a spectacle to any underwater visitor. This season in 2015, it appears numbers are again back to previous high peak seasons. So an anomaly seems to exist but one which for the present defies explanation.

These beautiful animals belong to the same family as octopus and

squid and like the rest of their family possess a high level of intelligence and cunning. Having an ability to not only change colour but skin texture, makes them even more intriguing and challenging to work with.

They come to Whyalla in great numbers to mate and reproduce. Their habitat are shallow reef assemblages under which the female lays her eggs and uses the thick vegetation covering as camouflage.

These sorts of habitats can be particularly vulnerable to pollution: so even a relatively minor change to water conditions can trigger a range of effects which can have a dire impact on fish fauna, and in this case cuttlefish aggregation. It seems that cuttlefish numbers are tied to a range of factors, particularly environmental conditions and accordingly the biomass of the subsequent year depends on successful reproduction from the previous season.

The day I went there the sky was overcast but the water was smooth and clear. I saw cuttlefish almost immediately in water as shallow as a metre. Cuttlefish ranging from



Cuttlefish signage at Spencer Gulf, South Australia.



Male cuttlefish posturing to elevate its size and strength. Nikon D800, Nauticam housing – 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240



Male cuttlefish fertilizing the eggs held by the female. Nikon D800, Nauticam housing – 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240



Mating Cuttlefish at rest near their lair. Nikon D800, Nauticam housing – 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240



The female can just be seen under the male which is “skirting” her trying to prevent the large male cuttlefish from having any access. Meanwhile, another male lurks in the background. Nikon D800, Nauticam housing – 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240

as small as 20cm to much bigger ones well over 50cm seem to be everywhere. These are the largest species of cuttlefish in the world and can grow to a metre and weigh around the 10kg mark. These ones weren't that big but impressive just the same.

The mating season brings out the very best displays in these animals. Generally they are inquisitive and will approach divers without reservation paying particular attention to any bright

colours the diver may be wearing or handling. I had one follow me around for about fifteen minutes, clearly intrigued by my fluorescent yellow fins.

I spent two and quarter hours underwater watching some courtships take place while in other areas of the reef, eggs had already been deposited and the lifespan of the adults was coming to an end. Sadly, cuttlefish only live for about two to three years and die shortly after mating. So what I was



All these males are trying to get to a female firmly wedged under a rocky ledge and fiercely guarded by her partner: the one facing them. Nikon D800, Nauticam housing – 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240

really witnessing, was the cycle of life and death, all played out on a shallow reef in the Spencer Gulf.

I watched a male perform some amazing antics: lunging at other male suitors when they ventured too close and when that failed he covered the female with skin on its outer body, known as a “skirt”, to prevent other males from mating with her. All these manoeuvres together with flashing colours and skin texture changes made for an alluring and

mesmerising spectacle.

What I found fascinating was how tactile and gentle the courtship was. When left alone, a mating pair behaved very much like some land animals during courtship. I saw instances where a male and female embraced for a few moments then they swam in a small circle parallel to each other, all the time changing colour before moving back to their lair to lie side by side both shaded in white.



This pair are about to mate. colours that each display are truly mesmerizing. Nikon D800, Nauticam 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240

In reality of course we are talking about a mollusc, but a very sophisticated one that has tendencies very much like the ones we can clearly identify with. But unlike other molluscs, cephalopods are highly developed invertebrate group of animals which can capably defend themselves, change their colour and skin texture faster than a chameleon and propel themselves out of danger through a mass of black sepia (ink).



Male cuttlefish posturing to elevate its size and strength. Nikon D800, Nauticam housing – 16-28 lens @ f8, 1/50th ISO 200 / 2x Inon Z240

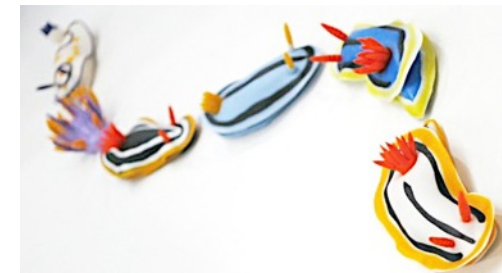
As with many marine animals, only extensive scientific studies can unravel many of the mysteries cuttlefish hold. But to assume that they are merely a creature to harvest from the food chain is a notion that should not seriously be entertained.

It was easy to lose track of time watching the cuttlefish. It felt like only about half an hour had passed since I entered the water, but actually, it was over two and friends waiting on shore soon let me know that I had them worried.

Needless to say, Whyalla has recognised the significance of this annual event and the tourism industry that it supports. But beyond that, it is also a great example of the unique wildlife we have in Australia and the fragility of the ecosystems that support them.

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