

## Mad About the Spencer – The Australian Giant Cuttlefish

by Drew Holzheimer (Ecologist)

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Below the waters off Point Lowly in the Spencer Gulf, South Australia lurk gigantic and mysterious creatures of the deep... commonly known as Australian giant cuttlefish. Cephalopod scientists gather to study the annual aggregation of hundreds of thousands of these large creatures.

Unless you had been told about the amazing spectacle below the surface, you would never have suspected that these waters hosted such an event. Especially since the water's edge is framed by refineries, smelters, steel works and a desalination plant.

As a species known for its environmental sensitivities, in particular to hydrocarbons and salinity, how does it survive in an area surrounded by industry?

### Have they undergone a natural adaptation? Are they more resilient than we think?

The feeding migration of the Australian giant cuttlefish takes them into deeper, offshore waters and it is here that they come into contact with crude oil that is seeping naturally from underlying geologic strata beneath the sea floor. Could this natural exposure to hydrocarbons have increased their tolerance level over time? Quite possibly!

This opens the debate that the development of industry around our waterways may not always be as high-risk as we think. Naturally occurring tolerance to what we consider contaminants may very well allow some aquatic species to continue to successfully feed and breed in areas, even when these areas become surrounded by industry.

Whilst perhaps we should not take too much comfort from the apparent capacity of *Blinky*, the three-eyed fish from the Simpsons, to adapt to his nuclear-waste riddled bowl, assessing real-world conditions when considering likely impacts simply makes sense.

**frc environmental**

P 07 3286 3850

F 07 3821 7936

E [info@frcenv.com.au](mailto:info@frcenv.com.au)

[www.frcenv.com.au](http://www.frcenv.com.au)



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