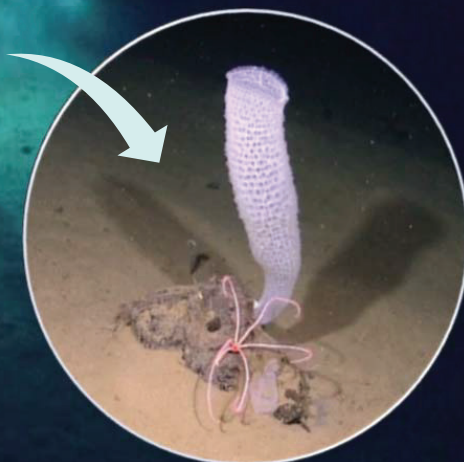


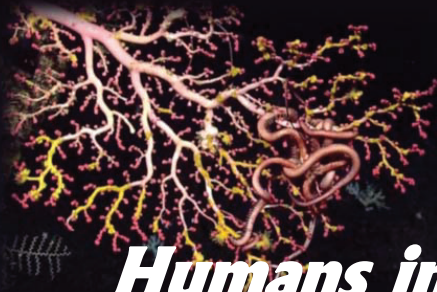
## *The Deep Ocean* ~ Biodiversity unimagined ~

- Discoveries escalating: so much to learn
- Twilight zone to sub-seafloor is 95% of Earth's biosphere
- Cold and dark: slow living
- Long lives and highly sensitive to change
- Habitat diversity: novel adaptations in extreme settings
- Interconnections mean we are strongly influenced by deep ocean processes



This world offers us great benefits – but we need to understand it better.



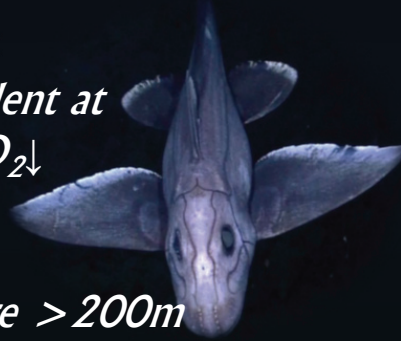


## ***Humans in the Deep*** **~ new responsibilities ~**

- Remoteness has given protection until now
- Yet services accrue: fish and nutrients, nurseries and pharmaceuticals ... and the greatest CO<sub>2</sub> sink on the planet.

- Pressures are mounting

*Climate change is evident at 4000m depth: T↑, O<sub>2</sub>↓*



- We fish deeper

*40% of fish caught are >200m*

- Seabed metals are the latest lure

*International Seabed Authority has many exploration contracts on nodule plains, seamounts and hot vents*

- Out of sight ... out of oversight

**Knowledge gaps threaten our ability to ensure the deep sea is governed for the benefit of humankind, today and tomorrow**

