Jelly balls may slow global warming

Geoff Strong 17 November 2008 <u>The Sydney Morning Herald</u> First edition, p3

VAST numbers of marine "jelly balls" now appearing off the Australian east coast could be part of the planet's mechanism for combating global warming.

The jellyfish-like animals are known as salps and their main food is phytoplankton (marine algae) which absorbs the greenhouse gas carbon dioxide in the top level of the ocean. This in turn comes from the atmosphere.

Mark Baird of the CSIRO said salps were notoriously difficult for scientists to study in the laboratory and consequently little attention has been paid to their ecological role until recently.

Dr Baird was part of a CSIRO and University of NSW marine survey last month that found a massive abundance of salps in the waters around Sydney. They were up to 10 times what they were when first surveyed 70 years ago.

Different salp species are found around the world and attention is now being paid to what effect they might have on global warming.

They are also of interest because in the Southern Ocean near Antarctica they are thought to be displacing krill which is a key food source for many marine animals, including filter-feeding whales like the southern right and humpback. By eating the algae, the salps turn the algae and their carbon dioxide into faeces which drops to the ocean floor. They also take carbon to the floor with them when they die after a life cycle as short as only a couple of weeks.

This is thought to be a natural form of carbon sequestration similar to what scientists are trying to do with carbon capture from emission sources such as power stations.

Dr Baird said Australian salps, which grow to about half a centimetre, are biologically closer to vertebrates such as humans than to jellyfish because they have the rudiments of a primitive nervous system.

"They are interesting because they are the fastest reproducing multi-celled animal on the planet and can double their numbers several times a day."

Salps had in the past been considered of little interest because they had fairly low nutrient value and were insignificant as a food source.

He said this was a concern because as the Antarctic ice melts, they were replacing krill which is a high-nutrient food.