

SUBMISSION NO. 50
Inquiry into the Role of Science
for Fisheries and Aquaculture

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Committee Secretary
House of Representatives Standing Committee on Agriculture, Resources & Forestry
Inquiry Into The Role of Science for Fisheries & Agriculture.
Committee Secretary, Mr Thomas Gregory
P.O. Box 6021 Parliament House
Canberra 2600

Dear Sir,

Please find enclosed information that I have gathered on the situation regarding the demise the fish population of Australian waters, and in fact of the world.

I first sent some of this information to eight of the capital cities newspapers and to the Liberal Party through our local party member. None of the press even acknowledge receipt of my letters, but the Liberal Party did. Since then I have gathered much more information on the subject to my dismay. I am enclosing also several copies of newspaper items on the subject substantiating my claims.

I ought to have re-written this work, but am sending it with addendums etc.

It all boils down to the following in my view: We must breed fish and release them into the ocean, and we must cut out the waste from the professional fishermen Having to throw the excess of the fish they trawl over their quota back dead,

My suggestion on this is to give them weekly or monthly and yearly quotas and allow them a percentage over their quotas for that week and for it to be deducted from next weeks and monthly quota. This way there would be no waste fish and the fishermen would not go out that week when their quota is reached.

As this is a commonwealth matter, I am submitting this to you.

Sincerely,

Bruce England.

17/8/11

To Whom it may concern (most Australians, in fact the world)

We are perceiving so many needs of preserving the planet and environs from so many things, even to preserving the bird life by keeping wetlands etc for birds that are not necessarily of intrinsic value to humanity and the planet. Now let me say I am all in favour of this, as few people love birds as much as I do.

We are even going overboard to protect insects from extinction (well some people do) that are not in any way beneficial to us.

We are concerned for the Barrier Reef, as we might well be.

Well, this only the tip of the iceberg so to speak. The crisis is the whole ocean system, the demise of the fish population. Anyone who has been fishing for any length of time will know that the fish population has diminished alarmingly.

Even the governments are aware, and are trying to preserve the fish population with Marine Parks. This is stupid, as stopping fish from being caught in some areas does not stop them from travelling to other areas.

I used to be able to fish off beaches in most places and catch fish there some 40 years ago. Now it is useless to fish there. Places I used to get many schnapper, whiting and bream and other fish off the beaches are barren of fish.

At Portland where I live I sometimes drive out onto the rock pier and sit and watch and talk to Guys fishing. There will often be twenty or thirty rods out, and I will spend an hour there, watching and usually no more than one small fish is caught.

People will say to me, aren't you going to fish, and I tell them that I catch as many as them, just sitting in my car, which I mostly do. For thirty rods out for an hour, for one fish means I would have to sit there for thirty hours with one rod to catch one small fish, or ten hours with three rods out. Stupid.

Forty years ago, I used to fish at Mermaid Beach on the Gold Coast, with just a trout rod, and catch whiting and bream. Now you are very lucky to catch anything by wading in with a surf rod. The same applies where my Brother in Law and I have a beach house or shack near Robe in South Australia. You can't catch anything off the beach, and very little from a boat.

I have just come back from the Gold Coast where my wife and I would dine at the Southport Yacht Club for Sunday lunch and the drive up to the end of the spit and spend an hour watching the action on the broadwater, and I would always see two or three Osprey (Fish eagles) hovering above the Broadwater looking for fish. Due to illness we had not been there for the last three years, and now that I am on my own, I still go there on a Sunday, and I look to see the Osprey. They are still in their eerie at the start of the broad water, but in twelve trips this year I have not seen one Osprey over the Broadwater, although I have seen seven fly over South Stradbroke out to sea.

To me it can only mean that there are few if any fish for them to get there and they have to go out to sea for a feed. This is how serious the situation is.

P.2

I have seen the Portland Harbour, which is about 2 square Kilometres in area, completely full of fish, shoulder to shoulder, some 40 years or so ago: there would be billions of them. So [REDACTED] Built a cannery at Portland, and because the local fishing boats were not large enough, they got two boats and a spotter plane from Eden in N.S.W to net the fish, and within a few months they had virtually wiped out the Salmon. I was building a house for the manager, and went to see him about the job, and he was waiting for a boat to come from Tasmania with fish. They had wiped out the salmon in Victorian waters and would do the same to Tasmania. The cannery was closed and has never re-opened.

Then around fifteen or so years ago, they discovered the Orange Roughy Deep down, and of course all the fishermen went after them and nearly wiped them out. As of about five years ago they have become protected.

There used to be huge schools of what we called Haddock, which were Snot Gall Trevally, in the Portland Harbour, and they would swim up and down the pier, and hundreds of anglers would fish for them and catch them very easily whilst they were on the bight. They have not been here for the last four years, so I can only surmise that they have somehow been wiped out.

About six years ago, two men netted 70 Tonns of Snapper up the Spencer Gulf north of Adelaide, in one haul. So they would be back every day for a while later, and numerous other boats as well This is one of their breeding grounds, so they would probably be small fish, so you can imagine how many there would be.

I believe that netting has since been banned up there

So first we have the fishing pressure too much for the fish to handle.

Next, we are denuding the ocean of the fish' foodstock in the form of prawns Which are on the menu of every restaurant, and all the bait which is sold in all the bait shops and service stations . Whitebait, Prawns, Pilchards, Bluebait and whatever.

Thirdly, we are preserving the fish's Preditors, in the form of sharks, Dolfins Seals Penguins, Gannets and other seabirds, which must have an impact on the fish, Diminishing their population.

Then there is the situation where the world population is doubling in some ten Or so years, and more and more people are using fish oil as a medicine.

So the situation is that apart from the fish supply not being able to keep up With the pressure as it is, how is it going to cater for double the demand in the short term, but treble and more in the medium term.

The answer is simple. We must set up hatcheries right around the coast near the towns and breed fish and release them as fingerlings into the ocean.

And of coarse, we will also need to breed some of their foodstock and release them into the ocean. Well it has to be done.

I can foresee the day when it will be unsafe to enter the ocean at the beaches, Because when the sharks become short of fish to eat, they will be into the beaches looking for food, in the form of the two legged variety.

P.3

I will tell you a story of when I was in Port Moresby in 1950, working for the Department of Works and Housing. Six of us hired a native lakatoi (canoe with outrigger) and two natives to sail it and went to Fisherman,s Island some eight miles from Moresby,for Easter. I would run along the canoe and dive off the front and swim flat out until the outrigger caught up to me, and then pull myself up and climb back onto the canoe. The natives were concerned for sharks.

When we were close to the Island in about 3 meters of water, we could see numerous sharks on the bottom.

We would go out in the early mornings in the lee of the island and toss a hand made grenade into a school of mullet and dive and get as many fish as we wanted .

The sharks would swim between us getting dead and stunned fish. One guy had a fish taken out of his hand. The sharks were not interested in us as long as there were fish to get. I hate to think what would happen if there were no fish. Likewise you can imagine what will happen when the fish become too scarce for the sharks. They will be in to the beaches looking for food, in the two legged variety. It will be unsafe to swim there. Is this what we want for our grandchildren.?

P.4.

About forty years ago we used to catch numerous snapper from the beach at Nora Criena, near Robe in S.A.. Now you are lucky to catch any from a boat there.

Up to about three years ago we could catch numerous Sweep near the reefs there, but over the last two years they have almost vanished. I cannot supply an explanation for their demise.

I am enclosing several Newspaper cuttings showing the situation. Even Prince Charles is concerned, so the situation is evidently similar over there.

There is a photo of Coutta being court by the thousands at Portland fifty years ago. Boats would be there circling schools of couta most days for years and we could catch them in plenty from the wharf. Not any more.

I am enclosing a page from a book on Super Foods, wherein is an article saying that Atlantic Salmon are virtually extinct in U.S.A. Well twenty years ago, I was in Anchorage, Alaska, and witnessed thousands of Salmon going upstream in a creek There ,to breed. Of course there are numerous rivers and creeks (probably Thousands)in Alaska alone, so the numbers going upstream would be in the trillions.

It is hard to believe that they would be wiped out in so short a time.

We used to catch Tuna about 200 metres from the beach at Portland.

Now once a year they are caught about 42 kilometres by anglers coming from all Round Australia and even overseas, which suggests that they must be scarce elsewhere as well.

Back to the hatcheries; Imagine the situation if we were not breeding cattle, sheep deer, poultry, ducks, and other critters, and not growing fruit, vegetables Grain and other foods.

Well we need to grow fish and let them go into the oceans. We are stocking Rivers and lakes and must set up hatcheries for the Ocean We cannot cope for the present onslaught much less for a population which is doubling every ten or so years.

The stupidity of creating Marins Parks is ridiculous. As the fish further decrease, it will only lead to increasing the number and size of the parks until fishing is banned altogether. Which brings up another situation. I believe the professional fishermen have a daily quota and usually bring up sometimes tfe times that quota in one net haul, and have to throw the excess back dead. What a waste. I would suggest that they have a weekly and monthly quota wherein they could bring in their whole catch and when the limit is reached, not be able to catch any more that month. There would be no waste.

This does not in any way affect the necessity for hatcheries.

I have supplied copies of this to 8 Newspapers around Australia and have not even received a reply. They are not interested in their responsibilities to the public,

P.5. Addendum

25/4/12

I have learnt from the internet that the information that I gave about the virtual extinction of the Wild Atlantic Salmon is correct, and from a showing on Austar, that the Americans are breeding and releasing Salmon into the streams to go to sea.

Well this is what we have to do also. I am enclosing a photo from the Portland Observer showing a colony of Gannets which is an overflow from one completely covers Lawrence rock which you see in the background, thus doubling their population. As I wrote in the earlier pages, this is what we are also doing with the Sharks, Dolphins etc which are predators of the fish.

I saw a show on television (Austar) two days ago, about a beach in Northern Brazil, showing a rescue of a guy who was attacked by a shark on a surf board, and had both his hands bitten off. It said that a lot of people have stopped going to that beach because there has been eight shark deaths there in the last four years. They are at a loss to know why. Well my thoughts are that the fish Population has been diminished to the extent that the sharks are coming in to the beaches looking for food and finding it in the two legged variety. I wrote eight months ago that this would happen here. I have read that in W.A. they have had 11 shark attacks last year against 4 the year before. Needs very little imagination to say why.

We can farm fish for domestic consumption as they are doing with the Salmon in America, but where-as the Wild Atlantic Salmon are rich in Omega 3 which we are seeking, because they feed on Zooplankton which is a Jelly Fish full of Omega 3, The farmed ones will not have the Omega 3 but probably Mercury as some fish have.

However it does not matter whether we are looking at increasing the fish Population, the quality of the fish or the ravaging of the sharks, it is all three.

And then there is the question of what happens to the Zooplankton?

Do they multiply to the extent that they pollute the oceans?

Any way you look at it, the answer is the same. We must breed and release fish into the oceans as we are doing in the inland waters.

How to finance this? I would suggest that we foster Private Enterprise to do this and the Government pay for the fish released. Some or all of the cost could be recouped from added Duty on all imported fishing gear and Tax on all fishing gear, bait, boats etc and even parking meters at launching ramps. I'm sure most anglers and commercial fishermen would prefer this that going fishing for so few fish as is now the case. Nevertheless it has to be done, and the sooner the better.

I am at Surfers Paradise where I have been for two months, in a high rise building with full view of the beach and sea from the Spit at Southport to Coolangatta, and have not seen anyone fishing as far as I can see, where-as I used to walk the beach for a Kilometer or so each morning some four years ago and talk to about ten or so anglers fishing the beach each morning.

There used to be massive schools of Tailor here this time of year, but they have not been here for three or four years now.

There is an artificial reef off Main Beach and there used to be twenty or more boats there every morning of a weekend. I have not seen one boat there in the two months I have been here nor in three months last year.

The same applies to the Palm Beach reef and the Mermaid Beach Reef just south of here. There used to be three or four boats anchored there most weekends But not one this year nor last year, a total of five months?

Anglers will go in droves to wherever there are fish to be caught.

I was told on arrival here this year that you daren't swim in the Broadwater now because of the Bullsharks which are now in there. I have since read in the Press that this is so. I have a copy of that item. The writing is on the wall.

The fish are diminishing dramatically whilst the sharks, dolphins, seals and gannets Are increasing. How stupid is Humanity. We are supposed to be Managing the Planet. From my balcony 9 floors up and right on the seafront I can see everything going on in the ocean, and until four or five years ago used to see many schools of fish chasing Baitfish and breaking the surface, with the seagulls hovering above and getting in for their chop, but in five months over the last two years, have not seen one such scene.

I have mentioned this before, but can you imagine the situation in our inland waters if we were not stocking them. Well that is how the sea will be without our help.

I am enclosing an article from the Australian where-in it states that the population of Tuna is only about 3% of what it was. Well I maintain that is probably about the ratio of most of the other species of fish to what it was. Imagine in another ten years or probably much less what the ratio will be.

Fortunately we are stocking our inland waters, and in fact I have just read where they have dramatically increased the numbers stocked this year.

We have no alternative than to also stock the ocean

I rest my case.

Bruce England.



MIA FREEDMAN
 Don't bore your friends senseless
 Pages 102-103

Coles unveils new green fish stamp to hook shoppers

FISHY BUSINESS



ON THE SUSTAINABLE OK LIST

- Silver Warr
- Gummy Shark
- Flathead
- Blue Grenadier

VIC FISH ON THE RED LIST

- Calamari
- Sardines
- Garfish



Fish tale: North Carlton's Lou Campbell, with children Samuel, Jess and Dane, buys from a fishmonger but backs supermarket moves to stock sustainable fish. Picture: REBECCA MICHAEL

FRESH fish is the latest battleground in the supermarket war, with Coles vowing to strip its fridges of unsustainable breeds. After skirmishes over hormone-free beef and cut-price milk and bread, Coles aims to boost its green credentials with "Sustainable Choice" stickers on fresh, wild-caught fish. In the past year Coles and Woolworths have banned endangered fish such as yellowfin tuna and orange roughy. But now Coles will phase

WENDY HARGREAVES
 Food editor

out all unsustainable species by 2015. "We're taking the guesswork out of buying sustainable fish," Coles spokesman Jon Church said. "Customers want to do the right thing, but it's not easy to figure out what is sustainable and what isn't." The decision is timed to coincide with Lent and Easter, when fresh fish sales jump 85 per cent. The company expects the

campaign to boost sales by another 20 per cent. Coles turned to the World Wildlife Fund to set its fishery benchmarks, while Woolies joined forces with the Sustainable Fisheries Partnership Foundation. Both supermarket chains have committed to helping fisheries win international accreditation from the Marine Stewardship Council. Coles then upped the ante, asking WWF marine scientists to investigate 300 fish it sold.

The 12-month study identified a "red list" of 33. But this is where the waters get muddy. Fish species deemed unsustainable may be low in numbers one year and flourishing the next, or plentiful in one region but not another. Local snapper, calamari, garfish and sardines caught in Victoria's bays and inlets have been put on Coles' red list, not because of environmental damage, but because the local industries had no harvest

strategies or catch r After introducing fresh, wild-caught sustainability stickers, Coles will move farmed and frozen crustaceans. But fishmonger Kyzintas describes the new Coles campaign as a "big gimmick". "Their product will be as good as the first we sell at the market," says Mr Kyzintas, part-owner of stalls at Queen Victoria Market in South Melbourne. **Sunday Food, Play**

stranger.

Charlie Wilson, 25, jumped into Lake Orr searching for a wave-ski paddler who disappeared late on Thursday.

Mr Wilson (pictured) said he had watched from a bar at Varsity Towers as the paddler travelled across the lake towards him about 11pm.

He and five other friends tried to convince the man, believed to be in his mid-20s, to leave the water, but he paddled off into the darkness.

"We tried to tell him not to be stupid and get out of the water because it was really windy and cold - the conditions weren't good," he said.

"But he was incoherently intoxicated."

Mr Wilson said he turned away from the man for about two minutes, then realised he was gone.

He ran downstairs, jumped into the murky cold water and swam 30m, but could only find the man's empty ski.

He then used the ski to cross the lake and check under and around the building.

The man was described as having sandy blond hair, dressed in a bright yellow jacket, white pants and shoes.

Acting Superintendent Glenn Allen said water police searched the lake for about three hours yesterday.

Bond University is trying to ascertain if anyone from the campus is missing.

Police do not know the man's identity.

"We have had no reports of anyone being missing ... he could have actually got out on the other side of the lake and walked away," Supt Allen said.

Anyone with information should call 1800 333 000 or visit crimestoppers.com.au



Police hunt for the body of an Irish national missing after going for a late-night paddle on a wave-ski in Lake Orr.

Photo: MIKE BATTERHAM

Lake swarming With big sharks

MILENA STOJESKA & MACKENZIE RAVN

AGGRESSIVE bull sharks up to 3.5m long are living in the lake where a man went missing after going on a drunken late-night paddle.

Police say they cannot rule out that the Irish national was taken by a shark while on his wave-ski on Lake Orr on Thursday night.

Yesterday, water police used a sonar scanner to search the water and said they were surprised by the size and number of "big fish" they discovered.

Gold Coast Water Police Sergeant

Bruce Kolkka said he saw at least six bull sharks that were between 2m and 3.5m long.

He said several people had drowned in Lake Orr and Miami Lake in recent years and when their remains had been recovered police had found large chunks out of their bodies, believed to be caused by shark bites.

He said two people drowned in 2008 at Miami Lake where most of a man's calf was bitten off and another incident involved a shark biting part of a man's head.

"The sharks sit in deep, big holes during the day and feed at night," Sgt Kolkka said.

"The holes are 9m deep, created by the sand-pumping processes."

Sgt Kolkka said at high tide small sharks could easily get through weirs, locks and drainage systems, and often they stayed in the lake enclosure where they grew into big-ger sharks.

He said Lake Orr was connected to the Gold Coast's broader canal system.

Acting Superintendent Glenn Allen said they had not found any evidence to suggest a shark attack, but they were not ruling out the possibility.

Shark research scientist Jonathan Werry said there was little evidence

to show how many sharks lived in the lake enclosures. Dr Werry said their team would soon be tracking the movements of bull sharks to see how many lived in these lakes. He said people should not risk their lives by swimming in murky waters.

Water Police will resume the search for the man at first light today and patrol through the night until he is found.

Recreational fisherman Grant Goding used to spend every weekend fishing at Lake Orr and said bull sharks were common in the area.

Mr Goding has seen about 20 bull sharks and said they often travelled in schools of three and four.

STAY

The Environment Minister's dramatic clampdown on a super trawler reflects public concern as much as science

GRAHAM LLOYD
ENVIRONMENT EDITOR

THE collapse of the Atlantic cod fishery and Japanese plundering of Australia's southern bluefin tuna stocks are two fishing tales burned deeply into the psyche of an ocean-loving nation.

When such tales are combined with pictures of bloody dolphins spilling from a ripped trawl net, it is little wonder the federal government has sensed danger in its battle with the world's second biggest super trawler, which it had approved to catch 18,000 tonnes of mackerel and sardines from the Great Australian Bight to Queensland. There is something instinctively unpleasant and easy to visualise about a giant ship hovering up everything in its path.

Environmental groups have mounted a sustained and spirited campaign against the FV Margiris super trawler since it set sail for Australia, to be reflagged the Abel Tasman. Greenpeace listed 10 reasons to stop the Margiris and all super trawlers coming to Australia "before they destroy our marine environment and our coastal communities".

The group said Margiris was more than twice the size of any boat to have fished Australian waters. Compared with the average 25m commercial fishing boat, super trawlers could be up to 144m long with 600m nets. According to Greenpeace, super trawlers could catch the equivalent weight of 20 buses in fish a day. They killed turtles, dolphins, seals and other marine animals, destroyed jobs and had been known to operate in breach of international laws.

Greenpeace said super trawlers were responsible for the collapse of fish stocks in the South Pacific fishery and wiped out west Africa's commercial fishing stocks. In Australian waters, super trawlers would target important food chain species that were food for animals including the bottlenose dolphin, fur seals and larger fish such as southern bluefin tuna and sharks.

Greenpeace's message was reinforced in full-page newspaper advertisements by grassroots and social-media-savvy Get Up, in which graphic photographs

Amid rising global concerns about ocean health and fishery management, the public has shown itself to be highly receptive to the environmental message.

The super trawler campaign has gained a level of awareness that so far has eluded similar environmental campaigns against long-line fishing for tuna and billfish which has an equally appalling reputation for by-catch of marlin and top-order predators.

As a result, the federal government has struggled for several months to find the best way to respond to public concerns built up by the environmental campaign and to wriggle free of its commercial and legal obligations.

Federal Fisheries Minister Joe Ludwig found out early that he had little legal power to prohibit the super trawler from operating.

There is a clear legal precedent that would prevent the government from unilaterally banning the operation of a fishing vessel in a quota-managed fishery purely because of the size of the vessel.

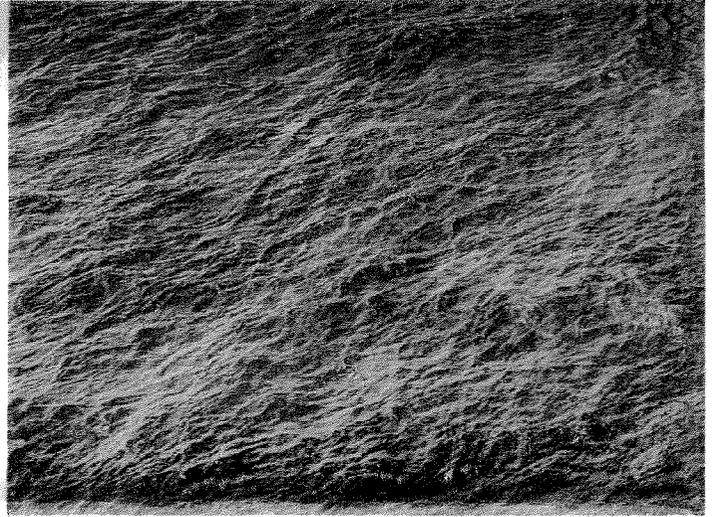
The advice from the Australian Fisheries Management Authority has been that the strict quota limits imposed on the super trawler will ensure sustainability.

"Total allowable catch levels for SPF (South Pacific Fishery) species are set at precautionary levels that take into consideration both the species' productivity and broader ecosystem impacts," the authority says.

"At the moment, the total available catch in the fishery for all species does not exceed 10 per cent of the estimated spawning fish population and, therefore, at least 90 per cent of the fish remain in the ecosystem for predator species."

AFMA's position is supported by research bodies including the CSIRO and the South Australian Research and Development Institute.

But federal Environment Minister Tony Burke repeatedly has questioned whether the super trawler would have a greater impact than smaller fishing boats on specific areas because it was



The FV Margiris super trawler off the coast of Mauritania, west Africa



AFF

Activists intercept the FV Margiris at Port Lincoln last month

last month asked his department what power he had to stop the super trawler from casting its nets. The answer was, not much.

But last week, as a stopgap, Burke imposed strict new regulations for an interim two-week period that he said would ensure the trawler had no greater impact than smaller trawlers.

Under the new conditions, if one or more dolphins were killed, then fishing activities must be suspended, an AFMA observer on board notified to review mitigation measures and the trawler must move at least 50km from the kill before resuming fishing.

If three or more seals were killed in each of three consecutive shots, the trawler must do the same as with a dolphin death.

The trawler would be banned

from Australian sea lion hunting grounds. And an onboard observer and underwater camera record of the by-catch must be used 24 hours a day.

The ship operator accepted the new rules and flew special observers from Europe to help with underwater cameras and dolphin defence strategies.

But yesterday Burke intervened dramatically as he had promised to do when he asked his department for advice.

He effectively locked the super trawler out of operating in Australia for two years while new research into its potential impact was undertaken.

"When the law falls short, you change the law," Burke said.

He told federal parliament his objective was to make sure that

Total allowable catches (TACs) for the South Pacific Fishery

Species	2011-12 (t)	2012-13 (t)	% of estimated spawning biomass in 2012-13
REDBAIT (EAST)	8600	6900	10%
REDBAIT (WEST)	5000	5000	7.5%
BLUE MACKEREL (EAST)	2500	2600	<7.5%
BLUE MACKEREL (WEST)	4200	6500	7.5%
JACK MACKEREL (EAST)	4600	10,100	<7.5%
JACK MACKEREL (WEST)	5000	5000	7.5%

The perfect storm killing our oceans

FARLY in this encyclopedic and deeply alarming book, British marine scientist Callum Roberts poses a question. How is it that we are so oblivious to the state of the oceans that an event such as the marine temperature spike of 1998, which killed 70 per cent to 90 per cent of the coral in the Indian Ocean and one-quarter of coral worldwide, can pass almost unnoticed outside the world of marine science?

After all, if one-quarter of the world's forests had withered and died in a single summer it seems safe to assume we would have demanded not just answers but action to prevent a repeat of such a disaster.

The answer is complex, of course. Part of it is undoubtedly ignorance. Part of it is, as Roberts acknowledges, symptomatic of a larger inability to comprehend the scale of the environmental crisis unfolding around us. Part of it is also, one suspects, a function of our tendency to imagine the oceans as so immense and timeless as to be by their very nature inexhaustible.

The optimist in me would like to believe *Ocean of Life* has the potential to begin to unravel some of these assumptions. Certainly it should be required reading not just for anybody with an interest in the oceans and marine ecosystems but for politicians, policymakers and business leaders around the world.

Not simply because the problems we face are so urgent, but because as well as managing to illustrate the complexity and scale of the challenges we face better than any book I have read, Roberts does something that is even more important, which is to begin to map out a program for change.

Ocean of Life is likely to prove deeply shocking to many readers. For as Roberts lays out the problems one by one, a truly frightening picture begins to emerge, one best communicated in the statistics that fill the pages of this book.

James Bradley

Ocean of Life: How Our Seas are Changing

By Callum Roberts
Allen Lane, 390pp, \$35 (Hb)

Fifty years ago, for instance, great schools of bluefin tuna chased through the waters of the Atlantic. Today, those schools are gone, with only one tuna now remaining for every 30 then. In the Pacific, similarly, the numbers of the largest and most majestic turtle, the leatherback, a creature that can grow up to 3m in length and weigh more than two tonnes, have declined 95 per cent in the same period.

These sorts of figures are representative of a larger crisis for ocean megafauna — large creatures such as whales, dolphins, sharks, rays and turtles — numbers of which are down more than 75 per cent worldwide.

But they are only the tip of the iceberg. Fish populations are also in crisis, a fact made clear by research showing that in English and Welsh fisheries the average hourly catch today is only 6 per cent of what it was 120 years ago, a number made even starker by the disparity in the technology used in the process. Or by the collapse of the population of sardines that once swarmed off the coast of Namibia each year.

Taken in isolation any of these facts would be disturbing. But as Roberts makes clear in lucid and frightening chapters on acidification, pollution, algal blooms and the spreading dead zones generated by sediment and hydrogen sulphide eruptions from stagnant water, marine ecosystems face a perfect storm of challenges. As he observes of coral (drawing on research carried out in Australia), while many reefs might survive two degrees of warming if in good health, most are already struggling with pollution, agricultural runoff and sediment, making them vulner-



umber of leatherback turtles in the Pacific Ocean has declined 95 per cent in the past 50 years

o much smaller shifts in temperature than projected.

Ocean of Life doesn't prove as depressing as might be partly down to Roberts's sheer optimism: even when confronted with the extinction of entire ecosystems he remains optimistically upbeat. It also helps that his enthusiasm is matched by a pleasing even-handedness and a preparedness to admit the limits of available research.

It is also, I suspect, a rhetorical manoeuvre. For *Ocean of Life* is not simply a lament that has been lost. Instead it is an attempt to put a manifesto for change, beginning with work of protected marine areas and bans on forms of fishing and the development of regulatory mechanisms capable of res-

ponding to the increasingly inventive — and increasingly destructive — ways we are exploiting marine environments.

How politically realistic these changes are is an open question: as Roberts acknowledges, progress to date has been slow, and even in relatively wealthy and progressive jurisdictions such as Europe political considerations continue to override scientific reality in determining fishing quotas.

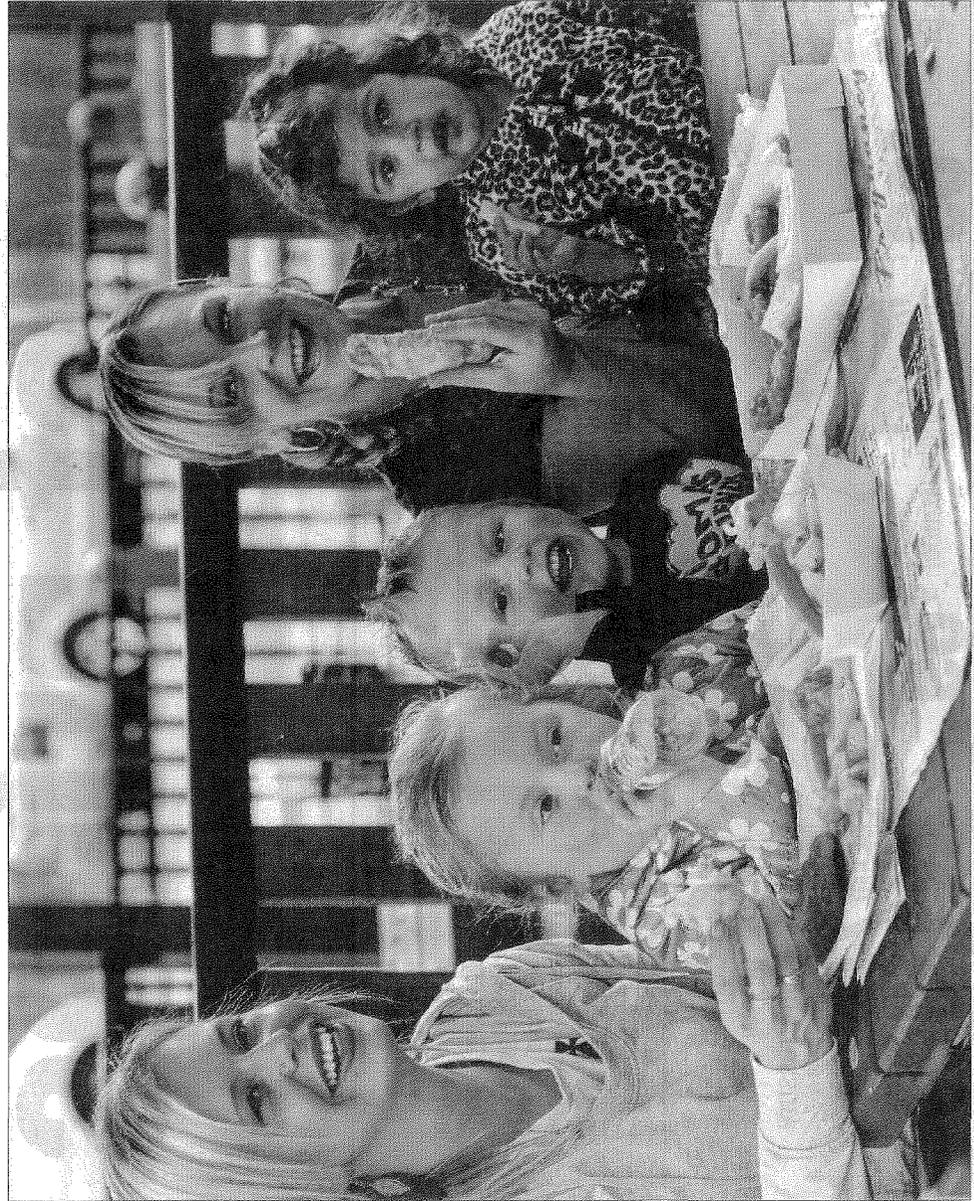
Similarly it is difficult to see how any system of reserves will protect the oceans if greenhouse gas emissions are not brought rapidly under control. But there is still reason for optimism, not least because there is evidence marine ecosystems are capable of rapid recovery if given the opportunity.

Yet as Roberts eloquently puts it, once we set aside all the uncertainty one thing is certain, and that is that

It/the world is living on borrowed time. We can't cheat nature by taking more than is produced indefinitely, no matter how fervently politicians or captains of industry may wish it. Rich nations can outsource production to poor ones, but, at some point, fish stocks will collapse there too and then there will be no fish to be had at any price.

James Bradley edited *The Penguin Book of the Ocean*. He blogs at cityoftongues.com.

Parks batter seafood source



Kate Woolley and daughter Sienna (left), Jaxon Stephens and Aleeya Gill. Picture: Gary Graham

ALISON McMEEKIN
POLITICAL REPORTER

FISH and chips will cost more and the great Aussie prawn on the barbie will be a foreign import if the government goes ahead with plans to expand marine reserves, opponents of the plan said yesterday.

Environment Minister Tony Burke said yesterday the number of marine reserves would rise from 27 to 60 over 31 million sq km — a third of Australian waters.

While Mr Burke hailed the most comprehensive network of protected marine areas in the world, the opposition said Labor had declared war on Australian fishing. Commercial and recreational fishers predicted coastal communities would be devastated by the loss of 36,000 jobs and more than \$4 billion in revenue.

Brian Jeffries from the Commonwealth Fisheries Association, representing the commercial fishing industry, said there was no scientific reason for what he called “symbolic and token closures”.

“The real tragedy of this (is) all that will happen is more and more imports from unsustainable overseas fishing industries,” he said.

An estimated 75 per cent of Australia’s seafood is already sourced from overseas.

The Australian Recreational Fishing Foundation said five million recreational anglers would be



locked out of vast areas of ocean. Australian Marine Alliance chief Dean Logan said commercial fishers would be forced to fish remaining areas “harder than they’ve fished before”.

The Woolley family from Woy Woy on the Central Coast enjoy fish and chips “about once a week” as a treat for the kids.

“You normally get it for your family for \$20, whereas other fast food can cost \$40-\$50 to feed your family,” Kate Woolley said.

The mother of two said she was all for protecting Australia’s oceans but questioned whether that should come at the cost of local jobs or higher food prices.

Australian Conservation Foundation chief executive Don Henry said the plan would make Australia a global leader in ocean protection.

The Greens accused the fishing industry of “scaremongering”.

Agriculture and Fisheries Minister Joe Ludwig said assistance of about \$100 million would begin to flow to the fishing industry before marine reserves were activated.

GOLD COAST BULLETIN 15/6/12

Marine parks job loss fear

CANBERRA: Commercial fishers are worried 36,000 jobs and \$4 billion in revenue could be lost under a Federal Government plan for a network of marine reserves.

Environment Minister Tony Burke yesterday unveiled his plan to create 44 marine parks, including the Coral Sea and the southwest coast of Western Australia.

The new reserves of 3.1 million square kilometres, or a third of Australian waters, would limit fishing and some oil and gas exploration. There would be a \$100 million compensation package for commercial fishing operators.

"This is the biggest step forward

the globe has ever seen," Mr Burke said. Australia would be a world leader in ocean protection, he said.

The minister will make a final decision after a 60-day consultation process.

Earlier, Prime Minister Julia Gillard said the plan would affect only about 1 per cent of current commercial fishing activity.

The Australian Marine Alliance, which represents commercial and recreational fishers, says 70 trawlers will go out of business. "This is devastating and those that will suffer most will be coastal communities," CEO Dean Logan said.

Commonwealth Fisheries

Association spokesman Brian Jeffriess says industry members would have liked to have seen the adjustment package.

Opposition Leader Tony Abbott said he was against anything that damaged the rights of recreational fishers and the commercial fishing and tourism industries.

Australian Conservation Foundation chief executive Don Henry warned the northwest region had been left vulnerable to the threats of oil and gas exploration.

The Australian Greens say the government has caved in to the oil and gas industry by leaving off critically important areas.



Australian Government
Department of Human Services

Customer Information - Department of Human Services

The Murwillumbah Service Centre has moved to new premises.

From Monday 18 June 2012, the office will be located at:
107 - 113 Woolumbin St, Murwillumbah

Opening hours: Monday to Friday 8:30am to 4:30pm.

For further information visit humanservices.gov.au

AG65302

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FAD0304

A farmyard story for investors to chew on

FLOAT
WATCH

TIM MORRIS
www.wise-owl.com

COMPANY: Australian Natural Proteins
ASX CODE: AYB
SHARES ON OFFER: 12.5 million
LISTING PRICE: 20c
MARKET CAPITALISATION: \$14m
LISTING DATE: TBA

AUSTRALIA'S fortunes once rode on the sheep's back. Wool was until the 1960s our nation's largest export, accounting for more than a third of overseas trade. Over the last half a century, other industries have become more prominent, although Australia is still the world's largest wool exporter.

The country has more than 10,000 specialised sheep farms and more than 60 million sheep. About 41 per cent of the flock is used for wool production. However, changing economics have led to a shift in favour of meat and live exports. The national sheep flock is recovering from its lowest levels since 1905. While competition from other textile fibres has tended to contain wool markets, saleyard prices for lamb over a decade have risen from \$2/kg to recent highs of \$5/kg.

The soon-to-list Australian Natural Proteins aims to foster renewed growth as risks of tight supply increase. The company will operate nine sheep farms in the Riverina region of NSW. The farms generate a modest operating profit, mainly from wool and crop production. Australian Natural Proteins intends to increase their meat output to capitalise on strengthening prices.

The company will join the Australian Securities Exchange via a backdoor listing through its

takeover of Millepede International. Proceeds from its capital raising are flagged for ewe acquisitions. From a current flock of 6000, Australian Natural Proteins intends to grow its ewe count to 100,000. Capacity to meet this objective is provided by existing land and infrastructure, although balance is needed to service mortgages over the properties totalling \$6.5 million.

We estimate last year's earnings result offers interest coverage in the order of 2-3 times, although historical financials appear volatile. Using industry trends as a guide, pastoral businesses in the company's targeted area of operation have generated average annual returns in the order of 10 per cent over the past 30 years, including capital appreciation.

Realising similar returns will require Australian Natural Proteins to overcome precedents set by other listed rural businesses.

However, significant participation from major shareholders in the present fundraising exercise is a positive start.



The national sheep flock is recovering from its lowest levels since 1905

A flying visit ...

POINT Danger is the perfect place for bird watching, with thousands of the Australasian gannets (*Morus serrator*) calling the clifftop area home, since overflowing from the nearby Lawrence Rocks more than 10 years ago.

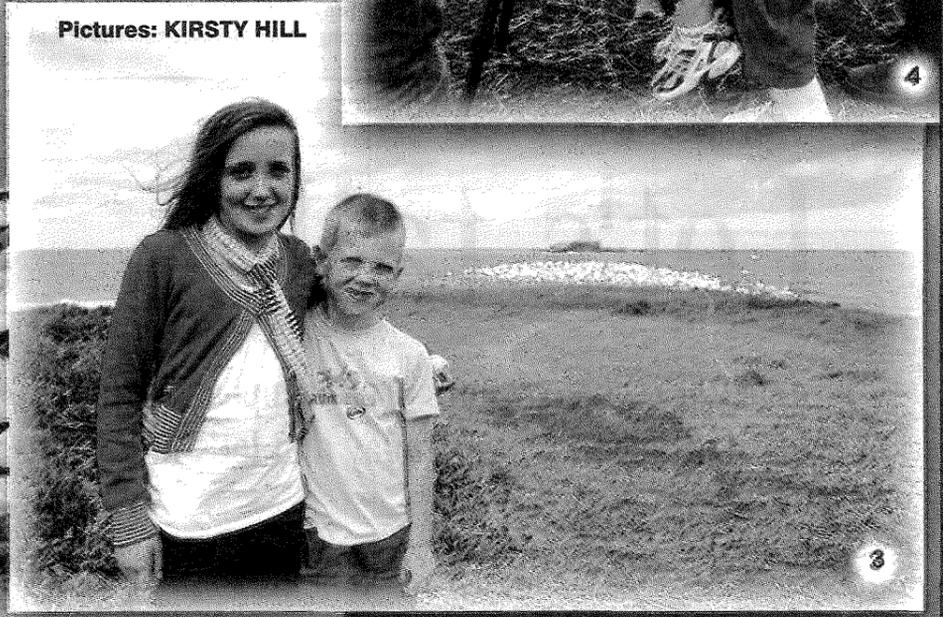
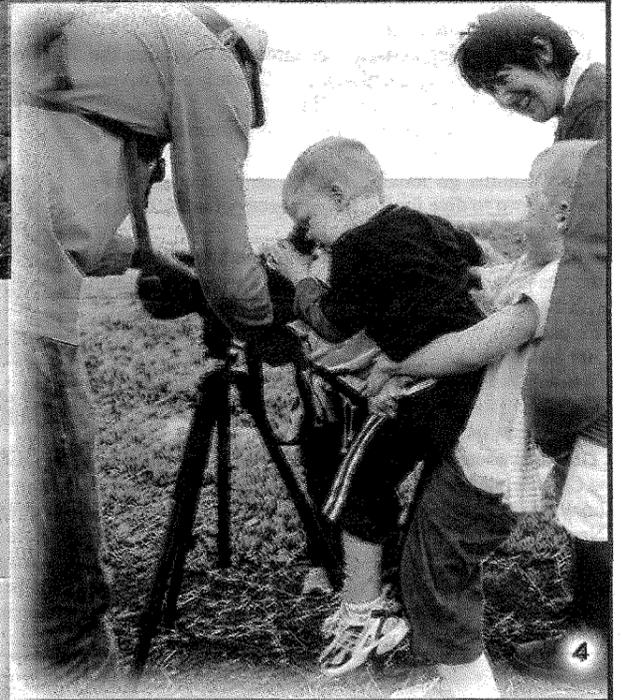
On Friday, a group of lucky people took part in a Summer by The Sea activity organised by the Department of Sustainability and Environment, and were able to experience the birds close up.

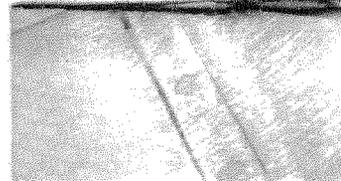
1. The gannets cover the point. Occasionally birds take off, wheeling around in the sky above the sea, and then diving into the depths at speeds of up to 100km/h to catch fish. 120113kh04/10

2. The gannets jostle for nesting space on the point, where pairs raise their chicks in relevant safety, protected from predators, such as foxes, by the resident maremma dogs, Reamma and Alma. 120113kh07

3. Grace Kearney, 9, and Max Wareham, 7, from Hamilton, enjoy their Summer by the Sea experience at the gannet colony. 120113kh05

4. Gus Wareham, 3, gets a hoist up from brother Max, 7, so he can enjoy a closer look at the gannets. 120113kh06





BLOOMBERG

Fan of phosph

ON another aspect to meet the needs growing population analyst Pieter Bru maintained his buy phosphate prod makers (MAK).

Pressure is grow of the fertiliser feed:

Apart from Chi from exporter to over the next two y mas Island and Na exhausted, Canada porter ranks, Europ be an importer, Braz about half its phosph ments and the re America — with the Peru — imports it Only Vietnam in e plies all its own ph much of the world's from North Africa ar East where civil unbr brombyr@theaustr

The writer implies no recommendation and contains material that is speculative in nature. It should seek professional investment advice. It owns shares in Rio T

ration

known previous diamond exploration has taken place.

Food or gas?

OVER the weekend, the Nikkei News Service said prices on imports into Japan of sheep intestines — used for sausage casings — were up 24 per cent year on year. Lamb from Australia is also rising in price in Tokyo stores.

Nikkei says it's a combination of falling Australian and New Zealand sheep populations and soaring demand for meat in Europe, the US and the emerging countries.

Each day the picture builds of a world running short of food, and prices climbing.

Which brings us to the raging argument now under way between those who want to preserve farmland (and Australia's food security) and the coal and coal-seam gas companies.

Meanwhile, the 60 per cent

NEWS

FOR BREAKING NEWS heraldsun.com.au

5/9/16

People in panic at popular WA beach

Surfer dies in shark attack

A MAN has been killed in a shark attack at a popular surfing spot in the southwest of Western Australia.

The man, in his early 20s, was bodyboarding with five friends yesterday afternoon when he was attacked.

They were at surfing spot The Farm, off Bunker Bay, about 3½ hours south of Perth.

A police spokesman said the man suffered significant injuries to his lower body.

He died at the scene.

Police had identified him but would not release his name until his next-of-kin had been notified.

It is understood the man, originally from Sydney, had been living in WA for several years.

An onlooker described panic moments after the attack, as two

and two young blokes came running up to us trying to get people out," said the woman, who did not want to be named.

"There were mainly surfers in the water and everyone cleared out pretty quickly.

"People were just in panic.

"They pulled him out of the water and there was a lot of blood on the beach.

"There was just no hope — he was cut in half."

In the moments after the attack, desperate onlookers ran to a nearby home to phone for police and ambulance.

Bunkers Beach Cafe manager Hamish McLeay said the water was full of people when the shark attack happened.

"There were another 20 people in the water as well," he said.

The area is a popular surfing and fishing spot known for dangerous rips and sharks.

It is understood cast and crew from the movie *Drift* had been filming at the same beach the day before.

WA shark expert Hugh Edwards, who is working on his next book, *Shark*, said that the victim had most likely been attacked by a great white shark.

"Attacks are comparatively rare but in the last 12 months there've been one at Coogee and two fatalities in Gracetown," he said.

He said the nationwide yearly average was about two fatal and half a dozen non-fatal shark attacks. But in 2010 there were about 10 attacks.

"People have stopped catching great white sharks there are

Portuguese Community Celebrates Day

By AMI HUMPAGE

HUNDREDS of bottlenose dolphins swarmed in Portland Bay for almost six hours on Thursday afternoon, delighting onlookers and causing traffic congestion on the Lee Breakwater and along Bentinck St.

The *Portland Observer* received the first call reporting the dolphins off Nuns' Beach at around 2.30pm.

Word quickly spread around the city, with hundreds of people and cars flocking to the Lee Breakwater and the Ploughed Field to witness the phenomenon.

Portland Bait and Tackle salesman Paul Benbow said there had been some big schools of salmon in the area which may have enticed the dolphins to Portland and said some fishermen had reported seeing the swarm near Lawrence Rocks earlier in the day.

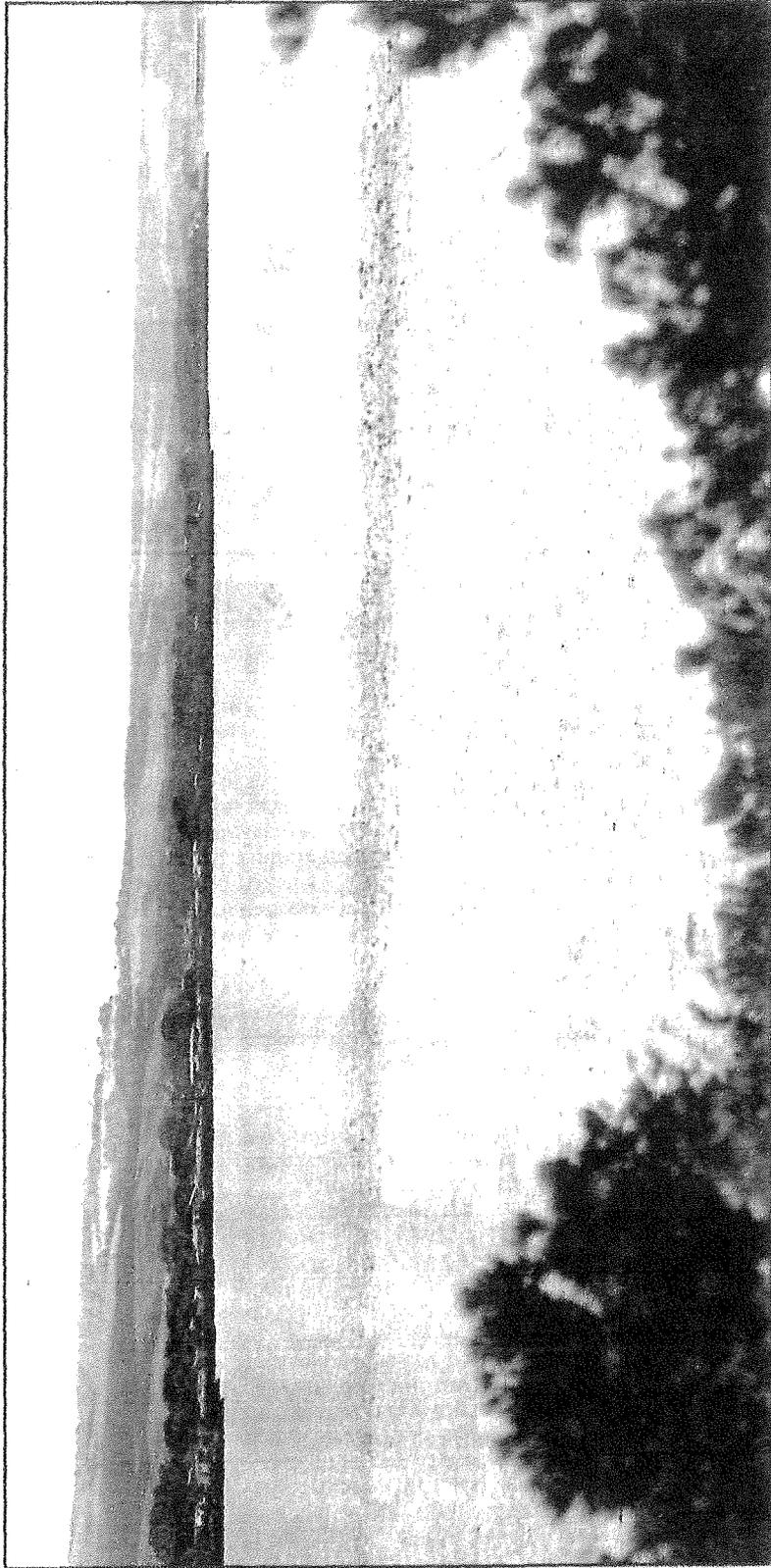
However, marine scientist and whale expert Dr Peter Gill said the dolphins could have been either playing or feeding, but if they were feeding he expected they would have been eating pilchards or redbait, not salmon.

Dr Gill estimated there were between 500 and 1000 dolphins, because (as a rule) there would be four to five dolphins under water for every one that was on the surface. He said he had often seen large groups of them at sea, but it was unusual for them to come into the bay, so close to the harbour.

Mr Benbow said it seemed the dolphins had travelled along the north shore and around to the harbour.

"They were playing in a circle for a while and slapping their tails and jumping out of the water, so some were playing and others were feeding ... About 100 or so of the dolphins were also inside the harbour near the Portland Aluminium wharf."

Mr Benbow said that when he left work at 7pm Thursday the dolphins were still near the Lee Breakwater. Department of Sustainability and



THE school of bottlenose dolphins makes its way around Portland Bay from the north shore to the harbour.

Environment wildlife officer Stan Williams said the behaviour from the dolphins was not uncommon.

"Dolphins are opportunistic feeders, they have gone past the entrance to the harbour, gone after a school of fish, possible heading in (to the harbour) and found a bonanza because the school was encapsulated and easy to catch."

He said similar behaviour had been observed in Apollo Bay and in Queenscliff harbour, albeit on a smaller scale with only a few dozen dolphins seen.

There were also reports from the public of a boat seen in the midst of the dolphins. However, it was also noted that the swarm of dolphins moved towards a number of boats that were

calls about people not being able to move on the breakwater.

"Police attended and with the assistance of a customs officer and some members of public, within 30 minutes we managed to get traffic moving again."

Leading Senior Constable Sealey said he witnessed a similar dolphin extravaganza in the Portland harbour life here in Portland and adds to the attraction of living here when we see nature paying a role like this in addition to all the other features enjoyed by people who live in our community and visit here.

A spokesperson said people were calling to see if it was true there were hundreds of dolphins and some visitors who stayed overnight returned Friday morning to say how magnificent it was

to see.

Glencig Shire mayor Geoff White was not in Portland on Thursday and missed the spectacular but welcomed the visitors and encouraged them to return.

"I certainly welcome the fact they arrived. It is just another feature of life here in Portland and adds to the attraction of living here when we see nature paying a role like this in addition to all the other features enjoyed by people who live in our community and visit here."

"We are always ready to welcome visitors to Portland, but especially ones like these, and one would hope the dolphins see fit to return from time to time."

Picture: JOSH NASH 090507jr20

JULY 11

Oceans are washed up, says report

POLLUTION and global warming are pushing the world's marine life to the brink of a mass extinction, scientists warn.

Dying coral reefs, biodiversity ravaged by invasive species, expanding open-water "dead zones", toxic algae blooms, the massive depletion of big fish stocks - all are accelerating, according to a report compiled by 27 of the world's top ocean experts.

The review of recent science found that ocean health has declined further and faster than dire forecasts only a few years ago.

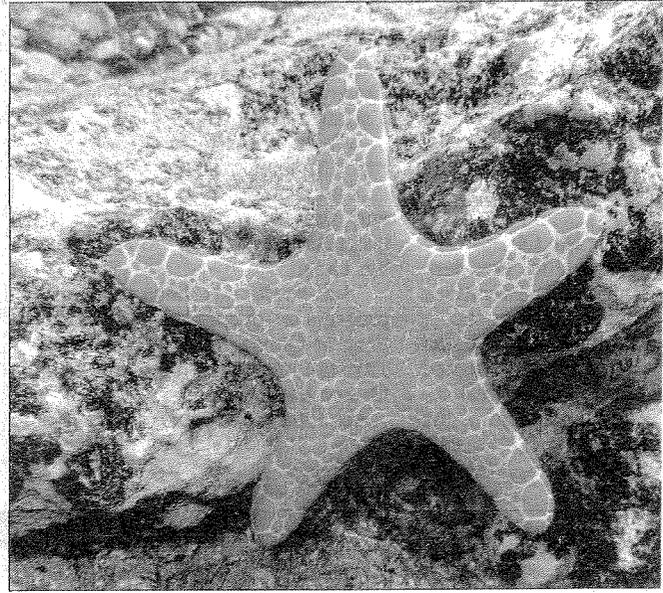
Scientists say these symptoms could be the harbinger of wider disruptions in the interlocking web of biological and chemical interactions called the Earth system.

All five mass extinctions of life on the planet, reaching back more than 500 million years, were preceded by many of the same conditions afflicting the ocean environment, they said.

"The results are shocking," said Alex Rogers, an Oxford professor who heads the International Program on the State of the Ocean and co-authored the report.

"We are looking at consequences for humankind that will impact in our lifetime."

Three main drivers are sickening the global marine environment, and all are a direct consequence of human activity: global warming, acidification and a dwindling oxygen, or hypoxia.



A new report has found that our marine life is in distress

Up to now, these and other impacts have been studied mainly in isolation. Only recently have scientists begun to understand how these forces interact.

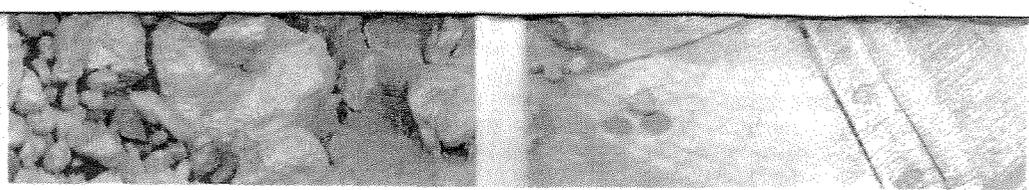
The pace of change has surpassed the worst-case scenarios laid out by the UN Intergovernmental Panel on Climate Change in its landmark 2007 report, according to the new assessment.

The chain reaction leading to acidification of the oceans begins with a massive influx of carbon into Earth's climate system.

Oceans act as a sponge, sucking up more than a quarter of the carbon dioxide humans pump into the atmosphere. When the sponge becomes saturated, it can disrupt the delicately balanced ecosystems which marine life - and ultimately all life on Earth - depends.

"The rate at which carbon is being absorbed is far greater than during the last global significant extinction of 250 million years ago - some 50 per cent of deep-sea life was wiped out," the report says.

33000 are not far from announcement, Alces (ALK) noted on demand, commencing supply, dramatic increase in zircon prices sands companies at \$US2000/tonne earlier while spot \$3200/tonne, it ranges from cerium new bathrooms in substitute in hu (all we geriatrics to the production oxychloride (all minerals are seen with rutile and ilmenite strong upward Minerals (MLM), already attracted our its scandium in new/done a deal



BLOOMBERG

Separation processes at Iluka's Douglas mineral sands mining operation

robust: a payback within 22 months, capital cost of \$84 million and cashflow after capital over the mine's life of between \$170m and \$259m. Over the planned 12-year life, the mine is projected to produce 1.39 million tonnes of ilmenite, 85,000 tonnes of rutile, 193,000 tonnes of zircon and 93,000 tonnes of leucosxene.

Meanwhile, Image has moved a drill rig to its Cyclone Extended heavy minerals project in the Eucla Basin to test several new targets.

Diamonds sparkle

diamond projects all over southern Africa. No more.

Diamond prices, however, just keep on rising. They jumped more than 15 per cent in the first quarter of 2011 (thanks mainly to buyers in China and India). A report at the weekend says that diamonds are now being seen in the same safe-haven light as gold and the Swiss franc. High-quality polished diamonds are now fetching record prices in Antwerp.

Joseph Gutnick remains one of the few remaining keepers of the diamond flame in this country: his North Australian Diamonds (NAD) has just let a contract for a

known previous diamond exploration has taken place.

Food or gas?

OVER the weekend, the Nikkei News Service said prices on imports into Japan of sheep intestines - used for sausage casings - were up 24 per cent year on year. Lamb from Australia is also rising in price in Tokyo stores.

Nikkei says it's a combination of falling Australian and New Zealand sheep populations and soaring demand for meat in Europe, the US and the emerging countries.

CSG produced.

Fan of phosphate

ON another aspect of food to meet the needs of the growing population, Intel analyst Pieter Bruinstrom maintained his buy on em phosphate producer makers (MAK).

Pressure is growing on of the fertiliser feedstock.

Apart from China swifter from exporter to net importer over the next two years, Christmas Island and Nauru are exhausted, Canada is joint importer ranks, Europe continue to be an importer, Brazil still imports about half its phosphate requirements and the rest of America - with the exception of Peru - imports its phosphate. Only Vietnam in east Asia produces all its own phosphate much of the world's supply from North Africa and the

AUSTRALIAN 29/8/11

Asia helped drag the world economy out of the financial crisis, but rising inflation brought on by food price rises means regional policymakers are putting on the brakes just as their help is needed to avoid a double dip, writes Michael Dwyer.

A couple of clever lateral thinkers at Merrill Lynch first coined the term "agflation" to describe a surge in the price of food commodities from 2007 that sparked riots in many countries and prompted stockpiling and export controls in others.

Four years (and a global financial crisis) later and there are worrying signs that the cost of some agricultural produce is once again spiralling out of control at the worst possible time for a fragile world economy.

Prices for these so-called soft commodities have weakened slightly in recent weeks as part of the turmoil that has shaken global financial markets and wiped \$US8 trillion off the value of shares worldwide, but they still remain well above the levels they were at a year ago.

The latest issue of the World Bank's Food Price Watch found global food prices in July 2011 were 33 per cent higher than a year earlier, with the cost of basic staples such as maize up 84 per cent and the price of wheat up 55 per cent.

Food inflation is running hot in Asia, prompting policymakers across the region to tighten monetary policy in a determined attempt to bring price gains under control.

Everyone knows the story of Chinese pork prices, with the state-run media this week reporting that the cost of live hogs in August is already about 50 per cent higher than it was a year ago.

That's helped push China's consumer price index to a three-year high of 6.5 per cent, while across the border in Hong Kong the inflation rate has soared to the fastest pace since 1995.

India is grappling with the same issues, with a benchmark measure of wholesale prices of farm products, including rice and wheat, surging 9 per cent in the first week of August from a year earlier.

The Reserve Bank of India has responded with a savage round of rate rises, hiking borrowing costs in the world's second-most populous nation 11 times since March last year. It's a similarly worrying picture in other Asian countries, including South Korea, Indonesia, Thailand and Malaysia.

Asia's runaway food inflation isn't welcome news for a global economy struggling to avoid a double-dip recession due to ongoing weakness in the United States and Europe's worsening debt woes.

"Uncomfortably high inflation raises the legitimate concern that policy authorities in Asia now lack the policy space to respond aggressively if downside risks in the US and Europe continue to crystallise," says Richard Iley, chief Asia economist at BNP Paribas in Hong Kong. "In other words, Asia will be unable to ride to the global economy's rescue as successfully as it did in late 2008."

That's not the first concern of the World Bank and other multilateral agencies like the United Nations Food and Agriculture Organisation, which are far more worried about the social cost of surging food prices.

Global food prices soared to record highs in 2008, with much of the increase blamed on speculation on the part of commodities traders rather than any fundamental mismatch between supply and demand.

The World Bank estimates higher food

describes as "extreme poverty". This year's rising food prices threaten to do the same for an additional 44 million people, according to the Washington-based agency.

"Persistently high food prices and low food stocks indicate that we're still in the danger zone," World Bank president Robert Zoellick said earlier this month. "There is no cushion."

Analysts claim that market fundamentals are playing a far more significant role in the current round of commodity price increases, but the consequences remain the same.

The record food prices of 2008 sparked riots in Third World nations including Haiti, Cameroon and the Philippines and prompted some nations to ban exports and hoard grain.

"International agricultural prices have risen once again, with some commodity prices equal to or exceeding peaks seen in 2008," according to a research paper released last month by agricultural economists from Purdue University in the US state of Indiana.

"Higher food prices were politically sensitive and even led to food riots in many countries at price increases much smaller than the increases in world prices," authors Philip Abbott, Christopher Hunt and Wallace Tyner write. "Poverty and hunger became worse where domestic food prices rose."

The researchers point to a number of issues that differentiate this year's bout of "agflation" from that which occurred three years ago, including two large and persistent demand shocks resulting from biofuels demand and Chinese soybean imports.

The weather is also playing a bigger role. "Poor harvests due to weather are more important in 2011 than in 2008," they write. "Price increases are now more consistent with low stocks-to-use ratios."

There are also some longer-term issues at play, with the amount of arable land in some developing economies no longer matching the dietary needs of an increasing affluent middle class. But the other worrying aspect of this year's climb in soft commodity prices, as BNP Paribas points out, is that it is forcing policymakers in Asia to increase interest rates and tighten other policy levers at a time when the world economy's recovery from the worst global downturn since the Great Depression is faltering.

Asia's dynamic economies helped drag the world economy out of the worst of the financial crisis in 2009-10 with a massive injection of monetary and fiscal stimulus.

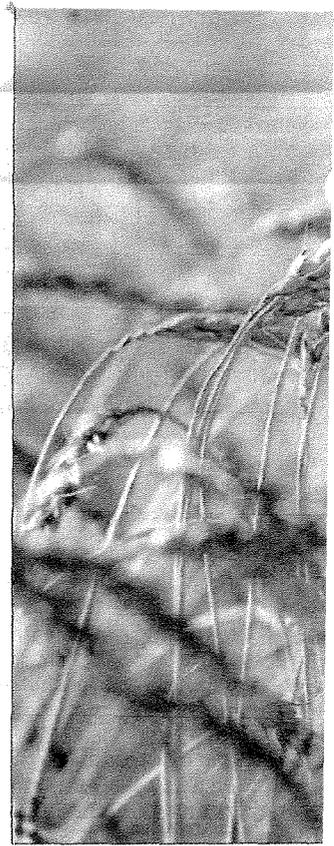
China alone unveiled a stimulus package worth a colossal 4 trillion yuan (\$600 billion) that saw its economy account for half of the global economy's total growth in 2009 and about one-third in 2010.

There are growing signs that the global economy could be falling back into recession, with Nobel laureate Michael Spence last week saying there was now a 50 per cent chance of a contraction in the world economy.

Investment banks are slashing their forecasts for global growth this year, with Citigroup last week lowering its estimate for world gross domestic product expansion in 2011 to 3.1 per cent from the 3.4 per cent it was predicting just last month.

It also slashed next year's forecast to 3.2 per cent from 3.7 per cent.

"This is the seventh biggest monthly cut in Citi's global growth forecasts over the last 10

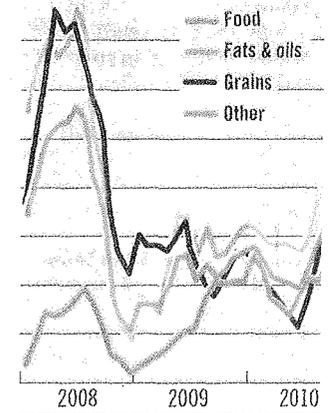


Food flight ... global wheat price

On the rise

55% 11/16

World Bank Food Price Index (points)



continues

BOTTOM LINE'S
SuperFoods
Rx

How to unlock the power of foods to
prevent and even cure disease!

STEVEN PRATT, MD AND KATHY MATTHEWS



From the Authors of the Best-Selling SuperFoodsRx™

vitamin D really acts more like a hormone in our bodies.)

Studies indicate that men who are exposed to sunlight can delay the onset of prostate cancer by more than five years, and children receiving vitamin D supplementation beginning at the age of one year had an 80 percent decreased risk of developing type I diabetes. Adequate vitamin D intake is associated with a lower risk of hip fractures due to osteoporosis in postmenopausal women. In one study on this problem, neither milk nor a diet high in calcium seemed to reduce the risk.

The most important source of vitamin D is the skin's synthesis of the vitamin from sunlight exposure. People who live far from the equator (and therefore get less sunlight), who use sunblocks, or who have heavy skin pigmentation (African Americans have high melanin concentrations, which limit vitamin D synthesis), all may be at risk for low levels of vitamin D. Sunblocks can cut vitamin D production by about 95 percent. I am not recommending discontinuing using sunscreen, but this is a good reason why you should increase your dietary sources of vitamin D.

Interestingly, vitamin D deficiency did not become a health problem until after the onset of the industrial revolution, which led to a decrease in exposure to sunlight as more and more people worked indoors. The major food sources of vitamin D include fatty fish like sardines, salmon and tuna, and fortified foods, particularly cereals and some dairy products.

How do you protect yourself from vitamin D deficiency? Add wild salmon, sardines and tuna to your diet. Try to get about 15 minutes of an exposure to your arms and face at least three times a week, before 10 A.M. and after 3 P.M., when the ultraviolet rays are not as damaging to the skin. Also check the labels of any fortified foods you eat, including cereals, milk and soy milk.

The Food and Nutrition Board has been unable to settle on an RDA for vitamin D. The current recommendations for adequate intakes are: adult males and females ages 19 to 50 should get 200 international units (IU) per day; ages 51 to 70 should get 400 IU a day; over 70 years, 600 IU per day. If you don't get enough vitamin D from all your food sources, you might consider taking a supplement, though you should be careful with vitamin D supplementation, as there is a definite risk of toxicity if you take too much.

A Fish Story

Wild salmon, and all fish for that matter, used to carry a reliable nutritional benefit. The fish, in their natural habitat, love to eat zooplankton (tiny single-celled organisms), which are a rich source of omega-3 fatty acids. People who ate the fish thus delivered this healthy fat to their eagerly awaiting cells. Sadly, as the oceans have become overfished and polluted, the picture has changed. For one thing, U.S. Atlantic salmon are virtually extinct. (Most Atlantic salmon sold in the U.S. is farm raised.) Even worse from a health standpoint, some cold-water fish are contaminated with mercury. These include swordfish, shark, tilefish and king mackerel. Avoid eating these fish.

★ Approximately eight percent of women in the U.S. between the ages of 16 and 49 have mercury concentrations higher than the U.S. Environmental Protection Agency's recommended reference dose.

In general, haddock, tilapia, salmon, cod, pollock, canned albacore tuna, sole and most shellfish are relatively low in mercury.

Today, farmed fish have come to dominate many sectors of the market. You've no doubt noticed a wide variation in the price of salmon, from very inexpensive farmed salmon to very expensive, fresh Alaskan salmon. Many environmental groups

Snapper ban sunk for good

THE State Government has vowed its deeply unpopular snapper ban will never be repeated following the announcement of new fishing regulations to ensure the long-term survival of the species.

The ban, which was in place for six weeks earlier this year, was slammed by industry and recreational anglers on

the Gold Coast, who claimed it was not backed by scientific evidence and was done at the wrong time of the year.

There had been speculation another ban would be enforced next year, as Fisheries Minister Craig Wallace studied the 712 public submissions on the survival of snapper, but that was ruled out yesterday.

P L O S S A

26/8/11

Nelson fish travel to Murray mouth and back again

HUW CUSHING

A MULLOWAY from Nelson's Glenelg River surprised Melbourne scientists by swimming to mouth of the Murray in South Australia and again.

The super-fish was one of 30 tagged by Department of Sustainability and Environment scientists at the Arthur Rylah Institute to understand distinct movements within the estuary and why the popular fish are smaller in size compared to other Victorian populations.

DSE native fish ecologist Jason Liescke says earliest belief was WA and SA had the same Mulloway population and NSW and Victoria was a separate population, but the Glenelg River fish and fish from the Portland area prove there is an overlap in separate populations.

Scientists at The University of Adelaide are looking into the genetic structure of the mulloway to see if there are sub-populations within throughout Australian species.

"This work has significantly increased our knowledge of how the mulloway behaves and the tags are expected to keep going for another six months," he said.

While the monumental effort recorded by a single fish was unexpected by the DSE team, some local anglers had their suspicions, Mr Liescke said.

"Some locals thought they might have come from the Murray mouth before they actually moved into the Glenelg River in the first place," he said.

Mr Liescke said the movements of the fish could explain the schooling population in the Glenelg River as the fish may possibly move out to sea to spawn.

Of the 30 tagged, another two made the 400-kilometre trip to the Murray mouth without returning - on their own as they were caught and reported by a local angler.

As well as internal tracker tags in the guts of the fish, external tags with an 1800 number have been applied so anglers can either return the fish to the water or contact the DSE to report the catch.

20/5/11

World must conserve marine stocks, warns Prince Charles

THE Prince of Wales has warned the public to urgently change its attitude to sustaining the world's oceans and fish reserves.

Speaking at the launch of a project to raise awareness of over-fishing and marine conservation, Prince Charles said there seemed to be an out of sight and out of mind attitude governing the public's mentality towards the ocean.

He warned that marine life has "a profound bearing" on the planet's "life-support systems" including the absorption of carbon dioxide and the production of a vast quantity of seafood.

Speaking about the importance of the ocean as a food source, he said: "This is more important than ever today, as our population continues to grow and our demand for jobs and development remains apparently insatiable."

"In other words, sustaining the oceans and the vast natural capital they sustain would enable us to meet more needs, not less."

"I find it surprising, to say the least, how in some quarters this conclusion is still regarded with evident scepticism."

His comments came after he toured the

retailer Selfridges in London to mark the opening of Project Ocean, an initiative to heighten the public's awareness of marine issues such as over-fishing, marine protection and sustainability.

The project is a partnership between Selfridges, the Zoological Society of London and the Marine Conservation Society.

The prince's comments come amid warnings by conservationists that on current levels of fishing, all major fisheries could collapse by 2050.

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He is joined in his support by a host of well-known chefs, including Mark Hix and Giorgio Locatelli, who will hold cooking demonstrations to promote the message of "voting with your fork" and avoiding consumption of unsustainably caught fish.

Fishing ideas wanted from reel Victorians

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JULY 11

Oceans are washed up, says report

POLLUTION and global warming are pushing the world's marine life to the brink of a mass extinction, scientists warn.

Dying coral reefs, biodiversity ravaged by invasive species, expanding open-water "dead zones", toxic algae blooms, the massive depletion of big fish stocks – all are accelerating, according to a report compiled by 27 of the world's top ocean experts.

The review of recent science found that ocean health has declined further and faster than dire forecasts only a few years ago.

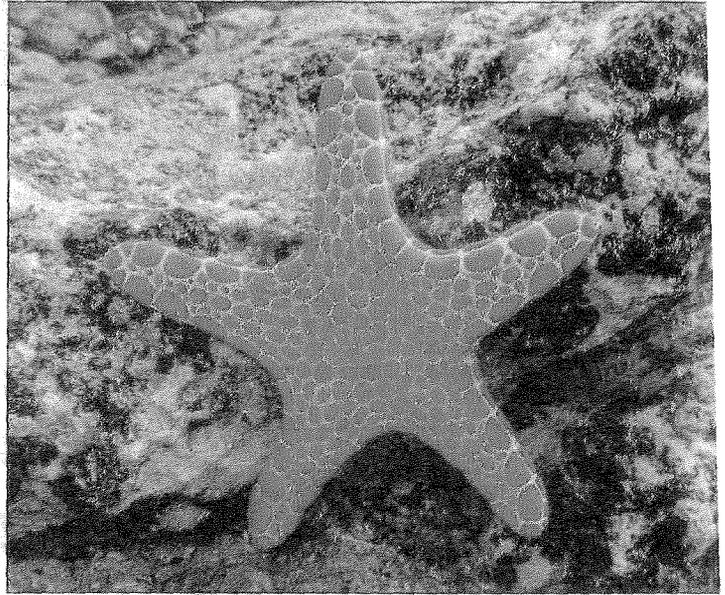
Scientists say these symptoms could be the harbinger of wider disruptions in the interlocking web of biological and chemical interactions called the Earth system.

All five mass extinctions of life on the planet, reaching back more than 500 million years, were preceded by many of the same conditions afflicting the ocean environment, they said.

"The results are shocking," said Alex Rogers, an Oxford professor who heads the International Program on the State of the Ocean and co-authored the report.

"We are looking at consequences for humankind that will impact in our lifetime."

Three main drivers are sickening the global marine environment, and all are a direct consequence of human activity: global warming, acidification and a dwindling oxygen, or hypoxia.



A new report has found that our marine life is in distress

Up to now, these and other impacts have been studied mainly in isolation. Only recently have scientists begun to understand how these forces interact.

The pace of change has surpassed the worst-case scenarios laid out by the UN Intergovernmental Panel on Climate Change in its landmark 2007 report, according to the new assessment.

The chain reaction leading to acidification of the oceans begins with a massive influx of carbon into Earth's climate system.

Oceans act as a sponge, soaking up more than a quarter of the CO₂ humans pump into the atmosphere. When the sponge becomes saturated, it can disrupt the delicately balanced ecosystems on which marine life – and ultimately all life on Earth – depends.

"The rate at which carbon is being absorbed is far greater now than during the last globally significant extinction of marine species 55 million years ago, when some 50 per cent of deep-sea life was wiped out," the report says.



Kurt Ockenfels at The Spit where he says fishermen have been consistently taking undersized fish Picture: INGA WILLIAMS

Fish reeled in

SNAPPER fishing restrictions will be overhauled from September. Fisheries Minister Craig Wallace said laws would be changed later this year to ensure the moratorium from earlier this year did not have to be repeated. "In close consultation with fishers we have come up with changes to protect some of the most popular commercial and recreational species," Mr Wallace said. "I personally oversaw the consultations to ensure community views were heard." The changes come in from September 1 and include reducing the bag limit from five to four and only one fish over 70cm will be allowed.

Anglers ignore size limits

By HARVEY FERLE
ferlen@goldcoast.com.au

FURIOUS fishermen are urging anglers to toe the line when it comes to legal fish size and bag limits.

Kurt Ockenfels from Brisbane Fishing Online said he was disgusted at what he saw during a recent fishing trip to the sand pumping jetty at The Spit.

"It angered me that people were being so blatant about not following the limits," Mr Ockenfels said.

"Most of them had their

FAST FACT

- More than 51,000 Sun readers enjoy getting outdoors and "wetting" a line on a regular basis. Roy Morgan Research

Sun

quota, but they still kept catching and keeping.

"There was no way in the world some of these fish were legal," he said.

Mr Ockenfels said something had to be done to ensure the future of the pastime.

"There are so many people out there that do not give two hoots so I'm on a

bit of a crusade at the moment," he said.

"Something has to be done, whether it is something as small as putting up a measures board to stop this kind of thing going on."

The 28-year-old has been fishing since he was five and said although it would be unpopular, introducing a recreational licensing system

might be the best way to ensure anglers followed the laws.

"With fishing, a lot of people say they didn't know, but if you had a licence to fish there would be no way of getting out of it," he said.

A Fisheries Queensland spokeswoman said size and bag limits were crucial to ensuring future fish stocks.

The spokeswoman said 16 on-the-spot fines had been issued to Gold Coast fishermen in the past three months for breaches including size and bag limits.

NEW RESTRICTIONS

- Tailor – minimum of 35cm with a bag limit of 20.
 - Pikey and Yellowfin Bream – minimum of 25cm with a combined limit of 30.
 - Luderick – minimum of 30cm with a bag limit of 10.
 - All flathead (except dusky flathead) – minimum of 30cm with a bag limit of five.
 - Dusky flathead – minimum of 40cm and maximum of 75cm with a bag limit of five.
 - Snapper (current) – minimum of 35cm with a bag limit of five.
- A complete list is available at www.dpi.qld.gov.au

From the files of yesteryear

No 168

By GWEN BENNETT

50 years ago
October 19, 1961

Large couta haul

ONE of the biggest hauls of barracouta for many years has taken place at Portland during the last nine days. One boat alone caught more than 82 dozen, equal to one and a half tons of fish, in a single day's fishing. Most of the boats in one day have caught as much as 30 dozen fish. The South Australian Fishermen's Co-operative depot at Portland has been handling between two and a half and three tons of barracouta a day. The depot is transporting the fish to its Adelaide cannery by road. Before being sent on its journey from Portland, the fish are first chilled and then iced down.

125
Oct

Jetty sheds

AN illustr additional jetty was cargoes worker be in of f tes' ce r

from reel Victorians

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Fishing for growth in aquacul^t

FINANCIAL REVIEW 5/7/11

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Shares in the \$5 million small cap company are marginally higher than this time last year, up 0.02 per cent at 11.5c.

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Clean Seas shares spiked in June after news the company had achieved a world first in transferring southern bluefin fingerlings to sea cages.

Management confirmed the company was on track in its spawning program at the maximum advised rate.

Next season's spawning program has been brought forward to December and should allow for quicker growth of juveniles during

the warmer weather and better mortality rates during winter.

Mr Welsh said that ultimately, the company would succeed because they had the research which allowed them to spawn and transfer fish to the ocean pens where they could mature.

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Mr Welsh said the company should start to make material earnings by about 2017.

With a proven production track record, Atlantic salmon and ocean trout producer Tassal provides investors with an opportunity to invest in the burgeoning aquaculture industry without the

Asia helped drag the world economy out of the financial crisis, but rising inflation brought on by food price rises means regional policymakers are putting on the brakes just as their help is needed to avoid a double dip, writes Michael Dwyer.

A couple of clever lateral thinkers at Merrill Lynch first coined the term "agflation" to describe a surge in the price of food commodities from 2007 that sparked riots in many countries and prompted stockpiling and export controls in others.

Four years (and a global financial crisis) later and there are worrying signs that the cost of some agricultural produce is once again spiralling out of control at the worst possible time for a fragile world economy.

Prices for these so-called soft commodities have weakened slightly in recent weeks as part of the turmoil that has shaken global financial markets and wiped \$US8 trillion off the value of shares worldwide, but they still remain well above the levels they were at a year ago.

The latest issue of the World Bank's Food Price Watch found global food prices in July 2011 were 33 per cent higher than a year earlier, with the cost of basic staples such as maize up 84 per cent and the price of wheat up 55 per cent.

Food inflation is running hot in Asia, prompting policymakers across the region to tighten monetary policy in a determined attempt to bring price gains under control.

Everyone knows the story of Chinese pork prices, with the state-run media this week reporting that the cost of live hogs in August is already about 50 per cent higher than it was a year ago.

That's helped push China's consumer price index to a three-year high of 6.5 per cent, while across the border in Hong Kong the inflation rate has soared to the fastest pace since 1995.

India is grappling with the same issues, with a benchmark measure of wholesale prices of farm products, including rice and wheat, surging 9 per cent in the first week of August from a year earlier.

The Reserve Bank of India has responded with a savage round of rate rises, hiking borrowing costs in the world's second-most populous nation 11 times since March last year. It's a similarly worrying picture in other Asian countries, including South Korea, Indonesia, Thailand and Malaysia.

Asia's runaway food inflation isn't welcome news for a global economy struggling to avoid a double-dip recession due to ongoing weakness in the United States and Europe's worsening debt woes.

"Uncomfortably high inflation raises the legitimate concern that policy authorities in Asia now lack the policy space to respond aggressively if downside risks in the US and Europe continue to crystallise," says Richard Iley, chief Asia economist at BNP Paribas in Hong Kong. "In other words, Asia will be unable to ride to the global economy's rescue as successfully as it did in late 2008."

That's not the first concern of the World Bank and other multilateral agencies like the United Nations Food and Agriculture Organisation, which are far more worried about the social cost of surging food prices.

Global food prices soared to record highs in 2008, with much of the increase blamed on speculation on the part of commodities traders rather than any fundamental mismatch between supply and demand.

The World Bank estimates higher food costs that year pushed up to 105 million

describes as "extreme poverty". This year's rising food prices threaten to do the same for an additional 44 million people, according to the Washington-based agency.

"Persistently high food prices and low food stocks indicate that we're still in the danger zone," World Bank president Robert Zoellick said earlier this month. "There is no cushion."

Analysts claim that market fundamentals are playing a far more significant role in the current round of commodity price increases, but the consequences remain the same.

The record food prices of 2008 sparked riots in Third World nations including Haiti, Cameroon and the Philippines and prompted some nations to ban exports and hoard grain.

"International agricultural prices have risen once again, with some commodity prices equal to or exceeding peaks seen in 2008," according to a research paper released last month by agricultural economists from Purdue University in the US state of Indiana.

"Higher food prices were politically sensitive and even led to food riots in many countries at price increases much smaller than the increases in world prices," authors Philip Abbott, Christopher Hunt and Wallace Tyner write. "Poverty and hunger became worse where domestic food prices rose."

The researchers point to a number of issues that differentiate this year's bout of "agflation" from that which occurred three years ago, including two large and persistent demand shocks resulting from biofuels demand and Chinese soybean imports.

The weather is also playing a bigger role. "Poor harvests due to weather are more important in 2011 than in 2008," they write. "Price increases are now more consistent with low stocks-to-use ratios."

There are also some longer-term issues at play, with the amount of arable land in some developing economies no longer matching the dietary needs of an increasing affluent middle class. But the other worrying aspect of this year's climb in soft commodity prices, as BNP Paribas points out, is that it is forcing policymakers in Asia to increase interest rates and tighten other policy levers at a time when the world economy's recovery from the worst global downturn since the Great Depression is faltering.

Asia's dynamic economies helped drag the world economy out of the worst of the financial crisis in 2009-10 with a massive injection of monetary and fiscal stimulus.

China alone unveiled a stimulus package worth a colossal 4 trillion yuan (\$600 billion) that saw its economy account for half of the global economy's total growth in 2009 and about one-third in 2010.

There are growing signs that the global economy could be falling back into recession, with Nobel laureate Michael Spence last week saying there was now a 50 per cent chance of a contraction in the world economy.

Investment banks are slashing their forecasts for global growth this year, with Citigroup last week lowering its estimate for world gross domestic product expansion in 2011 to 3.1 per cent from the 3.4 per cent it was predicting just last month.

It also slashed next year's forecast to 3.2 per cent from 3.7 per cent.

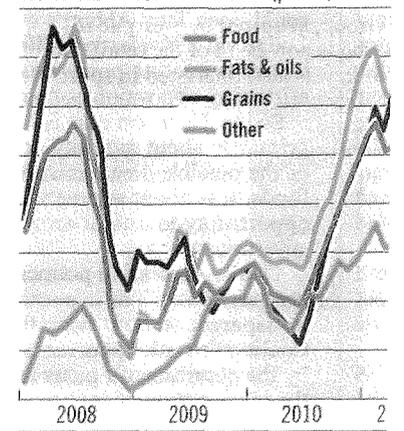
"This is the seventh biggest monthly cut in Citigroup's global growth forecasts over the last 10 years," Citigroup chief economist Willem



Food flight ... global wheat prices were

55% HIGHER
On the rise

World Bank Food Price Index (points)



continue

22/5/11

SUNDAY MAIL

Outrage over ban on use of fish nets

Kathleen Donaghey
Environment

COMMERCIAL netting will be completely banned on the Fraser and Cooloola coasts under a State Government proposal that has infuriated the seafood industry.

A discussion paper being prepared for Environment Minister Kate Jones recommends the areas should be saved for recreational fishing.

areas last year, according to fisheries data, outraging anglers who share the beaches with commercial netters.

Recreational fishers are embroiled in a war against netters who are permitted to harvest the surf zone from April 1 to September 1.

The animosity between the two groups - which has included physical violence - has escalated the harder it gets for beach fishers to catch a meal. Commercial operators are

But the Queensland Seafood Industry Association said fish stocks were being harvested sustainably.

The paper's author Lindsay Dines said netting was the "single most detrimental factor" affecting fish stocks.

He said the flow-on effect of fewer predatory fish, which chased bait fish to the surface, had depleted seabird life.

The proposed ban comes as the winter netting season starts on Fraser Island and

Fraser Island which banned netting in 1987, except for a handful of licensees.

Mr Dines warned that without intervention, fish stocks - some of which were at 30 per cent of virgin levels - would be depleted.

A Department of Fisheries spokeswoman said a restricted number of commercial netters had sustainably worked Fraser and Cooloola beaches "for generations".

"The ocean beach fishery is

and earns significant export income," she said.

"Mullet, tailor, whiting, and bream are all commercially monitored in Queensland with the most recent stock status report showing all are fished sustainably."

QSLA chief Winston Harris said "recreational fishing havens" should be considered case by case.

What do you think? Email
yournews@thesundaymail
.com.au or write to us at GPO

Snapper ban sunk for good

THE State Government has vowed its deeply unpopular snapper ban will never be repeated following the announcement of new fishing regulations to ensure the long-term survival of the species.

The ban, which was in place for six weeks earlier this year, was slammed by industry and recreational anglers on

the Gold Coast, who claimed it was not backed by scientific evidence and was done at the wrong time of the year.

There had been speculation another ban would be enforced next year, as Fisheries Minister Craig Wallace studied the 712 public submissions on the survival of snapper, but that was ruled out yesterday.

Nelson fish travel to Murray mouth and back again

HUW CUSHING

A MULLOWAY from Nelson's Glenelg Riv surprised Melbourne scientists by swimming mouth of the Murray in South Australia and again.

The super-fish was one of 30 tagged by Dept of Sustainability and Environment scientists the Arthur Rylah Institute to understand distinct movements within the estuary and why the popul fish are smaller in size compared to other Vi populations.

DSE native fish ecologist Jason Liescke said earliest belief was WA and SA had the same Mu population and NSW and Victoria was a se population, but the Glenelg River fish and the Portland area prove there is an overlap in e populations.

Scientists at The University of Adelaide are looking into the genetic structure of the mullo to see if there are sub-populations within through Australian species.

"This work has significantly increased our know of how the mullo behaves and the tags are ex to keep going for another six months," he said.

While the monumental effort recorded by a sing was unexpected by the DSE team, some local a had their suspicions, Mr Liescke said.

"Some locals thought they might have come fr Murray mouth before they actually moved in Glenelg River in the first place," he said.

Mr Liescke said the movements of the fish co explain the schooling population in the Glenelg as the fish may possibly move out to sea to spaw.

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20/5/11

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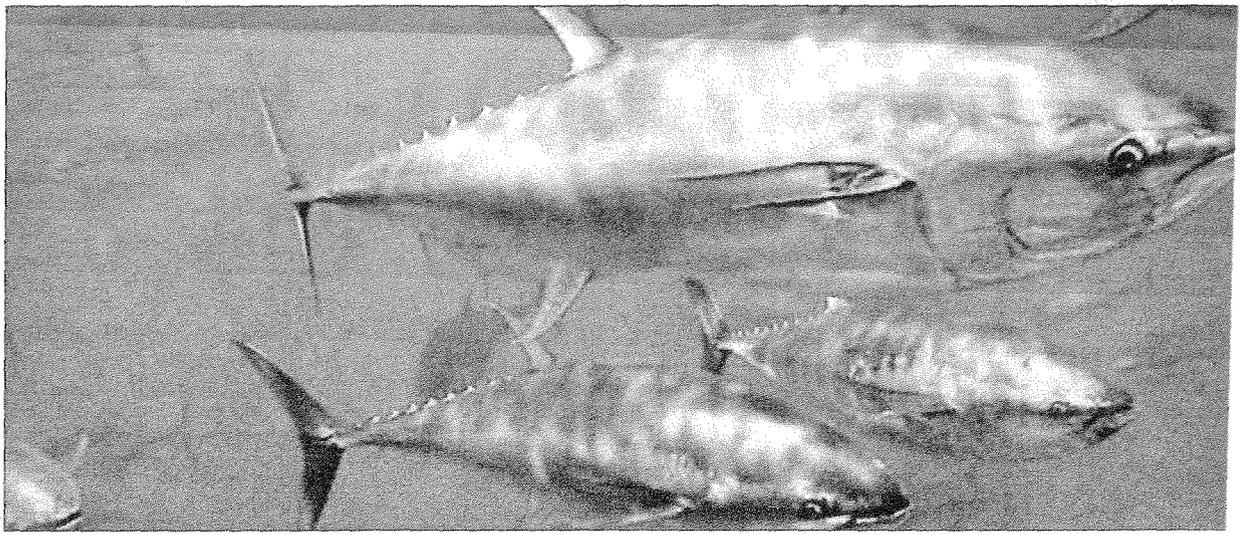
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Fishing for growth in aquacul

FINANCIAL REVIEW 8/7/11

Small caps

Claire Stewart

Depletion of global fish stocks is driving innovation and development in domestic aquafarming, spawning attractive growth opportunities for risk-tolerant investors.

Clean Seas Tuna has set itself apart as the first to edge closer to successfully farming southern bluefin tuna, an encouraging feat given bluefin are known to have quirks that make farming them difficult.

BBY analyst John Welsh expects the company to be selling bluefin "in some capacity" during the 2014 financial year before it reaches full production.

"It's up to investors when they want to dip their toe in, depending

on their risk profile. But next year, if they get the fish out into the ocean and a few more survive, the share price isn't going to stay at 10c."

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MIA FREEDMAN

Don't bore your friends senseless
Pages 102-103

Coles unveils new green fish stamp to hook shoppers

FISHY BUSINESS



ON THE SUSTAINABLE OK LIST

- Silver Wareh
- Gummy Shark
- Flathead
- Blue Grenadier

VIC FISH ON THE RED LIST

- Calamari
- Sardines
- Garfish



Fish tale: North Carlton's Lou Campbell, with children Samuel, Tess and Dane, buys from a fishmonger but backs supermarket moves to stock sustainable fish. Picture: REBECCA MICHAEL

FRESH fish is the latest battleground in the supermarket war, with Coles vowing to strip its fridges of unsustainable breeds.

After skirmishes over hormone-free beef and cut-price milk and bread, Coles aims to boost its green credentials with "Sustainable Choice" stickers on fresh, wild-caught fish.

In the past year Coles and Woolworths have banned endangered fish such as yellowfin tuna and orange roughy.

But now Coles will phase

WENDY HARGREAVES
Food editor

out all unsustainable species by 2015.

"We're taking the guesswork out of buying sustainable fish," Coles spokesman Jon Church said. "Customers want to do the right thing, but it's not easy to figure out what is sustainable and what isn't."

The decision is timed to coincide with Lent and Easter, when fresh fish sales jump 85 per cent.

The company expects the

campaign to boost sales by another 20 per cent.

Coles turned to the World Wildlife Fund to set its fishery benchmarks, while Woolies joined forces with the Sustainable Fisheries Partnership Foundation.

Both supermarket chains have committed to helping fisheries win international accreditation from the Marine Stewardship Council.

Coles then upped the ante, asking WWF marine scientists to investigate 300 fish it sold.

The 12-month study identified a "red list" of 33.

But this is where the waters get muddy.

Fish species deemed unsustainable may be low in numbers one year and flourishing the next, or plentiful in one region but not another.

Local snapper, calamari, garfish and sardines caught in Victoria's bays and inlets have been put on Coles' red list, not because of environmental damage, but because the local industries had no harvest

strategies or catch rec

After introducing fresh, wild-caught sustainability stickers, Coles will move off farmed and frozen fish crustaceans.

But fishmonger Kyzintas described new Coles campaign as big gimmick.

"Their product will be as good as the fresh we sell at the market," Mr Kyzintas, part-owner of stalls at Queen Victoria South Melbourne market, said. **Sunday Food, Play list**