



<http://www.abc.net.au/pm/content/2008/s2314981.htm>



Hopes captive breeding will save endangered bluefin tuna

PM - Friday, 25 July, 2008 18:50:00

Reporter: Nance Haxton

LEIGH SALES: We hear a lot about endangered whales in the Southern Ocean but quite a bit less about another seriously threatened species, bluefin tuna.

Wild stocks of the fish are rapidly disappearing and experts are investing a lot of energy into figuring out whether bluefin tuna could be sustainably farmed.

On South Australia's remote west coast, one company has now produced tuna larvae in captivity after a world first earlier this year, when it successfully fertilised bluefin tuna eggs.

The next step could be a full captive breeding program a prospect that alarms environmental groups.

From Port Lincoln, Nance Haxton reports.

(sound of marine equipment humming)

NANCE HAXTON: At the Port Lincoln marina tuna boats jostle for space with barely a berth left for the busy fleet.

The industry is booming on the back of worldwide demand for the southern bluefin tuna, which is so highly prized it can fetch up to \$50 a kilogram in Japan.

But that boom has come at a price; with the species now classified as endangered, despite strict fishing quotas.

The holy grail for the Australian tuna industry is captive breeding of the species. Or as it is known in fishing circles, closing the life cycle. So that they don't have to rely on fishing tuna from the wild.

It's a dream that tuna industry pioneer and chairman of Clean Seas Tuna Hagen Stehr never thought could become a

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reality when he first lobbed onto Australia's shores in 1962.

HAGEN STEHR: But in those days, I walked into the police station. And the police said you shouldn't have jumped the ship but you're here. They had an immigration officer came to Port Lincoln and he said well if you promise us not to get drunk you can stay. Well that was 1962 and I'm still here.

NANCE HAXTON: It took seven years of research and \$30-million, but earlier this year Clean Seas Tuna pulled off a world first by spawning southern bluefin tuna eggs in captivity.

Now the company has taken the next step - producing tuna larvae under a range of conditions at its onshore plant at Arno Bay.

HAGEN STEHR: Well a lot of people thought that we were crazy. Then we kept all that fish we thought well maybe just maybe we can get the fish to breed ourselves and people actually just laughed at us and thought this couldn't be possible.

NANCE HAXTON: Now they're honing which of the methods is most efficient, and hope to start commercial breeding of the species in the coming summer.

Hagen Stehr and other tuna fishermen have been widely criticised by environmental groups for exploiting the vulnerable southern bluefin tuna species.

Mr Stehr says they are turning that perception around, and proudly points to an award he received recently from international green group Friends of the Sea, which recognised his work developing the tuna breeding program.

HAGEN STEHR: For the successful closing (phonetic) of the southern bluefin tuna, (inaudible) ... aquaculture represents a sustainable alternative to the catch and depleted wild stocks.

NANCE HAXTON: However Australian green groups aren't as convinced, with Australian Conservation Foundation marine campaign coordinator Chris Smyth saying they are apprehensive about how the captive breeding program will operate.

CHRIS SMYTH: If you're still going to be accessing the wild stock that's a real concern to us but also the aquaculture operation which uses sea cages to grow out the fish they'll be breeding in those aquaculture tanks. In terms of feed sources, whether they're using wild fish to feed the tuna.

The issues of the potential spread of disease; issues of effects on habitat. So, there's all sorts of issues which need to be taken into account when assessing whether in fact this is a good thing or a bad thing.

NANCE HAXTON: Mr Stehr is more concerned about pending mining developments on the Eyre Peninsula, potentially exporting ore from Port Lincoln where he is based, so much so that he is now threatening to take his developments offshore.

He says captive breeding is the only way to ensure the seafood industry survives, not only in Australia, but worldwide.

HAGEN STEHR: I mean wild fishing is gone.

NANCE HAXTON: So ultimately you hope that there'll be less reliance on the wild catch for southern bluefin tuna?

HAGEN STEHR: Oh, absolutely, oh absolutely yeah. That is exactly what will happen. In years to come, in years to come there'll be a top class fish, the top class tuna. It will all come out of aquaculture. The Mediterranean (phonetic) is finished.

We have a got a sustainable fishery here in Australia, what we have to include in the life cycle is the only way for it in the future.

LEIGH SALES: That was Hagen Stehr ending Nance Haxton's report.

<http://www.thewest.com.au/default.aspx?MenuID=146&ContentID=86676>

thewest.com.au The West Australian

Fish farms offer hope of cheap easy catch

24th July 2008, 7:15 WST

A WA-based company is farming 50,000 yellowtail kingfish off the Jurien Bay coast, marking the rise of the State's fledgling fish-farming industry in response to growing pressures on stocks in the wild.

Western Kingfish executive director Andrew Mitton said WA's expansive coastline and warm temperatures made it ideally placed to capitalise on fish farming, which has become a production method for salmon in Tasmania and a key source of fish in countries including China and Norway and in South America.



Mr Mitton said while WA had not had the supply shortages of wild fish that had hit other parts of the world, the situation was beginning to change with more restrictions on commercial fishing and rising costs to operate boats, in particular fuel.

"As demand grows, I think aquaculture will be one of the key ways of shoring up a sustainable supply of fish," he said. Worldwide aquaculture had risen from 3.9 per cent of total fisheries production in 1970 to 43 per cent in 2006.

Western Kingfish will start its commercial harvest early next year.

The first commercial catch will go into the domestic market, but as production expands the company will target export markets with a focus on the lucrative sashimi trade.

The fish are grown in a six-pen pontoon stretching 86m by 56m in a marine park area zoned for aquaculture 2km from shore. Western Kingfish has an active 10ha lease. The five-month old fish weigh about 500g and will grow to at least 3kg to 4kg before they are harvested early. The project is the third major commercial fish farming venture off the WA coast. It does not clash with the operations of local commercial fishermen, who cannot fish the marine park area and who do not focus heavily on the species.

At Cone Bay, about 200km northeast of Broome, Marine Produce Australia has been commercially producing barramundi in sea cages since November 2005, and has an annual production target of 1.5 million kilograms by 2010.

Latitude Fisheries has a finfish aquaculture site near the Abrolhos Islands. Company spokeswoman Erica Starling said trials on growing mulloway began in February with the Geraldton TAFE Batavia

Coast Maritime Institute and commercial production was expected to begin next year.

WA Fishing Industry Council chief executive Graeme Stewart said balancing marine aquaculture and traditional fishing was among the organisation's great challenges.

But fish farming was a key option in the provision of affordable fish.

PERTH
JODIE THOMSON

<http://www.nbr.co.nz/article/two-bills-fix-aquaculture-problems-introduced-33362>

Two bills to fix up Aquaculture problems introduced

NZPA

Thursday July 24 2008 - 05:50pm

Two aquaculture bills aimed at helping the industry develop were introduced to Parliament today.

The industry has complained about the shambolic state of affairs since the Government first intervened in 2001 over fears a "goldrush" in marine farms would ruin the aquatic environment.

A moratorium on applications between 2001 and 2004 was lifted in 2005 with the intention that applications could only be made into designated management areas.

Since then no new aquaculture areas have been set up and also the courts threw a spanner in the works when ruling aquaculture activities could be allowed outside designated management areas.

Environment Minister Trevor Mallard said the bills aimed to confirm the original intent of aquaculture law reform and help the industry develop.

The Aquaculture Legislation Amendment Bill would clarify that applications be made in Aquaculture Management Areas (AMAs) in regional coastal plans.

The Aquaculture Legislation Amendment Bill (No 2) would amend legislation to help create new AMAs, enable experimental aquaculture, provide for aquaculture agreements in transitional processes under the old fisheries legislation and support environmental monitoring.

"Without the amendments contained in these two bills, applications for aquaculture activities would be able to be made before AMAs were defined in regional coastal plans. This was not the intention when the aquaculture legislation was first developed," Mr Mallard said.

"The bills will correct problems with the current law and improve operation for businesses, iwi and local government."

He said farmed fish and shellfish production was worth \$390 million a year and there was an industry strategy in place for that to rise to a billion dollars by 2025.

<http://www.ausfoodnews.com.au/2008/07/24/bremner-wins-top-food-science-and-technology-honour.html>



Bremner wins top food science and technology award

▪ July 24, 2008

Allan Bremner has been named the 2008 winner of the Australian Institute of Food Science and Technology (AIFST) Keith Farrer Award of Merit.

The Keith Farrer Award of Merit is the AIFST's most prestigious award bestowed on its members. It is given for outstanding achievements in contributions to food science and technology in the wide areas of research, industry and education, and recognises offerings that further the aims and objectives of the Institute.

Allan Bremner's contribution to the Australian and international food industry, food science community and the AIFST spans several decades and is particularly focussed on seafood - quality, freshness, shelf life and aquaculture harvesting.

Perhaps his greatest contribution is the development of what is now known as the Quality Index Method (QIM) that evaluates current storage life and estimates remaining shelf-life. QIM has been adopted in industry and at auctions, is recognised by the EU and is now the standard reference method in research and commerce throughout Europe.

"Allan Bremner has made significant contributions to a number of high ranking international journals, run practical courses around the world and supported the AIFST for over 30 years," advised Peter Lancaster, AIFST President.

"He's a worthy winner who has assisted in bridging the social and geographical network in the food industry between Australia, New Zealand, Japan, South East Asia, Scandinavia, the EU and the US."

Bremner's PhD work, under the auspices of the Hobart Medical School, stimulated the only book on extracellular matrix of seafoods. Other projects included papers on minced fish products, electrophoretic identification of species, modified atmosphere packaging and fisheries of the North West shelf. Between 1975 and 1990 the seeds of QIM were sown, as Bremner worked to determine a different approach to mixed fisheries in Australia.

Moving to QDPI as Seafood group leader, Bremner focussed on the prawn processing and packaging low stress harvest of aquaculture fish, particularly salmonids, barramundi and the embryonic tuna cage culture industry. Australia now leads the world in the development of automated harvest and stunning of salmonids with machines supplied worldwide.

In 1996 the Danish Technical Research Council appointed Bremner Research Professor. Here work continued on QIM in Europe, with a computer program developed for structuring knowledge about seafood quality, and for linking to other databases to provide a broader quality and safety dimension.

Since returning to Australia, Bremner has continued to promote QIM techniques, resulting in a manual for several Australian species produced through work done at QDPI&F and AMC, supported by Sydney Fish Market and FRDC. This work is being expanded into the new CRC for Seafood and an Australian Standard is planned.

Passing on his knowledge and experience through much consulting work, Bremner has covered traceability guides and workshops (Seafood Services Australia), has been involved in the Tuna Quality Project (Aquafin CRC), rock lobster post-harvest, the need for species identification (FRDC and the Australian Fish Names Committee), reviewing research planning for AZTI-Tecnalia in Bilbao, is an active member of the external advisory board for SEAFOODplus (the largest ever EC project on seafood) and continues to lecture at meetings and to students.

The Keith Farrer Award of Merit was announced at the AIFST's 41st Annual Conference 'Our Food Our Future' which is currently being held (21 July- 24 July 08) at the Sydney Exhibition and Convention Centre, Darling Harbour.

For further information about the AIFST and the AIFST Convention, visit www.aifst.com.au.

http://www.fishupdate.com/news/fullstory.php/aid/11542/NEW_AQUACULTURE_RESEACH_FACILITIES_IN_THE_NETHERLANDS.html



Wageningen IMARES, Institute for Marine Resources & Ecosystem Studies, opened its new aquaculture research facility on 3 July 2008, in Yerseke the Netherlands. These facilities allow IMARES to adequately answer present and future research questions.

IMARES' new facility is located on the shore of the Eastern Schelde in Yerseke, the location where research, education and industry active in the field of aquaculture work together on innovations, national and international.

This state of the art facility is supplied with sea water through a pipe line, delivering high quality water to the site. Intake water is mechanically filtered, skimmed and treated with ozone, and if required with UV. The new facility consists of two research halls, each with its own recirculation systems, one technical support hall for water treatment, one for climate control and a water analytical lab. Part of the facility consists of a site for outdoor experiments directly at the shoreline. This allows research with sea-water, fresh-water, flow-through, and recirculation systems in controlled climates and outdoor's exposed to seasonal influences. One advantage of the new facility is that it allows to work in heated and chilled recirculation and flow-through systems under controlled temperatures from 5 to 35 oC all year round. One of the research halls is dedicated to sole (*Solea solea*) reproduction and nursery.

The aquaculture department of IMARES uses these facilities to study the effects of interaction between fish and culture system, fish welfare, reproduction and nursery of various fish species, nutrition, sustainable aquaculture practices, shellfish reproduction, nursery and nutrition requirements, algae production, as well as the production of other invertebrates, such as ragworms. IMARES implements many of these research projects as an active partner within a wide international network and often in close collaboration with the aquaculture industry.

Through its modular construction and setup, which permits setups varying from small scale aquaria to circular tanks with a diameter of 3 meters and raceways on pilot scale level, highest flexibility and optimal experimental design are guaranteed.

The new facility completes the research options of IMARES. Next to climate rooms and different analytical laboratories in Yerseke, IMARES has meso-cosmos installation and analytical laboratories and sea- and fresh water aquaculture installations available at its other research sites in Den Helder and IJmuiden.

www.fishupdate.com is published by Special Publications. Special Publications also publish Fish Farmer, the Fish Industry Yearbook, the Scottish Seafood Processors Federation Diary, the Fish Farmer Handbook and a range of wallplanners.

<http://www.scoop.co.nz/stories/PA0807/S00465.htm>



Aquaculture NZ welcomed to NZ Fast Forward

Friday, 25 July 2008, 11:45 am

Press Release: New Zealand Government

24 July 2008 Media Statement

Aquaculture NZ welcomed to NZ Fast Forward

Aquaculture NZ has become the latest private sector group to sign up to become a cornerstone investor in the NZ Fast Forward initiative, Fisheries Minister Jim Anderton said today.

Jim Anderton said Aquaculture NZ were the seventh primary sector organisation to commit to NZ Fast Forward.

The NZ Fast Forward initiative is a joint Government-industry fund to boost research and innovation in the pastoral agriculture and food sectors. Government has allocated \$700 million to the new fund, which was set up earlier this month.

The private sector has pledged to match that funding during the 10-15 year life of the fund, meaning that about \$2 billion should be allocated to primary sector innovation during that time, the largest single boost to innovation in New Zealand history.

Cornerstone investors have signed agreements to put at least \$10 million into the initiative in its first five years. The other investors so far are: Dairy NZ, Fonterra, Meat and Wool NZ, Meat Industry Association, PGG Wrightsons, and Zespri.

Jim Anderton said Aquaculture NZ was fulfilling its leadership role by committing to research and marketing programmes, which would benefit the industry hugely.

"A commitment to research is a long term strategy and the benefits are not always immediate. But, the long term pay-off from investing in research can be enormous."

He said aquaculture was an industry with huge potential for sustainable growth.

"It builds on New Zealand's competitive advantage of being one of the most efficient food producers in the world. It is an industry that can drive economic development in our regions and small coastal towns. It is an industry important to Maori."

He said that, in New Zealand, we were lucky that we have some of the best managed aquaculture in the world, backed up by good research.

"When the World Wide Fund for Nature came earlier this year to talk about the development of international environmental standards for aquaculture they were impressed by what we do. We simply need to tell our sustainability story."

Jim Anderton congratulated the aquaculture industry for its forward-thinking sector strategy and plan for implementing that strategy, and pledged the firm, committed support of Government.

"We are entering a new era of sustainable growth toward realising the industry's true potential, and to get to that goal of being a one billion dollar business by 2025."

<http://whyalla.yourguide.com.au/news/local/news/general/kingfish-harbour-moved/1226513.aspx>



Kingfish harbour moved

25/07/2008 9:09:00 AM

It was revealed that the proposed location of Kingfish Harbour has been changed at the council meeting on Monday night.

It is likely the Harbour, to be used by the local aquaculture industry, will now be situated closer to where Fitzgerald Bay Road meets the sea.

Southern Star Aquaculture director, Lyndon Giles, said that has always been the preferred location.

"We wanted it at that site from day one," he said.

"It services the middle of the bay, away from all the industrial development proposed for Point Lowly but more importantly it is more user friendly, there's access to deep water, the tidal flow isn't as strong as it is closer to Point Lowly and there is flat land to build infrastructure."

Mr Giles said that it would have been near impossible to build infrastructure at the original location because of its hilly topography.

"We would have had to move so much ground, it just wasn't suitable," he said.

"We've been at this for seven and a half years now and it would just be nice to be able to pull up to a harbour and not get your feet wet."

There is \$1.65 million set aside in the 2008/09 draft council budget for the project.

This entails a \$1 million State Government grant, a \$150,000 grant from council, which will be tied to employment targets and a loan from the council of \$500,000.

Industry will meet the remaining costs associated with the harbour and 55 per cent of the costs of site feasibility assessment.

Council will pay an extra \$5000 for this stage of the development.

A concept engineering design of the harbour and associated facilities will be completed after a survey of the coastline is undertaken.

<http://www.thefishsite.com/fishnews/7381/oceanus-sells-noncore-business>



Wednesday, July 09, 2008

Oceanus Sells Non-core Business

CHINA - The Oceanus Group Ltd is to sell its non-core garment and lifestyle units in order to focus solely on its abalone aquaculture business.

The Singapore-listed company also said it has ramped up its abalone production capacity by adding 5,150 tanks in the second quarter, bringing its total to 12,350 at the end of June.

In a statement to the Singapore stock exchange, Oceanus said the sale of its garment and lifestyle business will add another \$5 million to the company's books.

"The garment and lifestyle business bears no synergies to the abalone aquaculture business and as such, it is best for Oceanus to dispose these non-core business units quickly and focus on growing our core business aggressively," Oceanus chairman Ng Yew said.

In the second quarter this year, Oceanus acquired 10 farms and built new tanks on existing farms for a total cost of 155 million yuan. Of the total, 130.6 million yuan was raised by a share placement on May 6, while another 24.4 million yuan came from the company's operating cash flows, the statement said.

A further 5,000 tanks are expected to be completed on the acquired farms before the end of this year.

A typical tank holds 800 cages, and the number of abalone per cage ranges from 20 to two, depending on size and age. At the end of the second quarter, Oceanus had 165 million abalone, compared with 110 million in the first quarter.

Yew noted that the abalone industry is experiencing an annual worldwide deficit of about 8,000 tons due to over-fishing and lack of enforcement of fishing regulations. Aquaculture is therefore the best alternative to cater for demand, he said.

Oceanus plans to have up to 20,000 tanks by the end of 2008, and up to 40,000 by the end of 2009.

The company said it also plans to enter downstream processing and brand marketing activities to become an integrated abalone provider.

TheFishSite News Desk

<http://www.abc.net.au/news/stories/2008/07/23/2311568.htm>



Fish Farming could ensure seafood market longevity

Posted Wed Jul 23, 2008 8:07am AEST

Updated Wed Jul 23, 2008 8:06am AEST

A Townsville aquaculture expert claims fish farming must be embraced to ensure the future of Australia's seafood market.

Professor Paul Southgate from James Cook University says fish stocks are quickly depleting as a result of growing consumer demand.

He says aquaculture could prevent a seafood shortage and the Federal Government needs to invest more in the science.

"It's really under-prioritised at the moment ... in the not too distant future food security will become a major issue for governments and part of the solution to that problem is aquaculture," he said.

<http://www.news.com.au/business/story/0,27753,24064604-31037,00.html>



Abalone company looking offshore

Article from: AAP /

July 23, 2008 12:16pm

AUSTRALIAN-GROWN abalone fish are destined to end up on Asian plates, fueling the expansion of commercial fish farming, a company says.

Adelaide-based Destiny **Abalone Group** (DAG) said today it is expanding its **South Australian** land-based operations to meet growing demand in the Asian market.

To satisfy the surging Asian appetite for its abalone, the company said it will base its abalone grow-out ship, the MV Destiny Queen, in Asian waters.

"This is an exciting and natural progression in the development of our company," DAG executive chairman, Peter Wahlqvist, said in a statement.

"It provides us with even greater opportunities to keep this Australian initiative at the forefront of abalone production in the world."

Mr Wahlqvist said Destiny will focus "even more intently" on the production of juvenile abalone for the export market, allowing the company to maintain a high level of commitment as a local employer.

Green Lip abalone will be grown and allowed to mature on board the 6500-tonne **MV Destiny Queen** in grow-out tanks.

Destiny said new technologies improves the quality and production of abalone, while markedly decreasing growing times and mortality rates, Destiny said in a statement.

"Our new agreements mean that our principal vessel, the MV Destiny Queen, currently completing her annual refit in Shanghai, will remain in Asia," Mr Wahlqvist said.

"Importantly, the bottom-line result from our expansion means that the benefits from such growth continue to flow back home to Australia."

Destiny Abalone - already the world's largest supplier of commercially farmed abalone - will maintain its headquarters in Australia with its head office at Kent Town in Adelaide.

It's been a big year for fish production in Australia, as the industry is recovering from a 5.5 per cent dip in sales four years ago.

In 2004, the [Australian Bureau](#) of Agricultural and Resources Economics said the sharp fall in fish production due to lower prices for most species, including tuna, abalone, prawns and rock lobster.

A subdued global trading environment in 2003, combined with the strengthening Australian dollar, SARS, and the drought significantly harmed fish exports.

In June, fish producer [Australis Aquaculture](#) won a license to grow barramundi in Vietnam, while expanding sales in [North America](#) and Europe.

The Perth-based company received an investment license from the [Van Phong Economic Zone](#) in central Vietnam, approving the use of 200 hectares over 25 years.

<http://www.nbr.co.nz/article/bill-fix-aquaculture-mess-be-introduced-33271>

Bill to fix up aquaculture mess to be introduced

NZPA

Tuesday July 22 2008 - 02:16pm



Acting Environmental Minister David Benson-Pope

Legislation is to be introduced shortly to fix up messy aquaculture laws that have resulted in no new areas being opened up for marine farming.

The industry has complained about the shambolic state of the industry since the Government first intervened in 2001, fearing a "goldrush" in marine farms would ruin the aquatic environment.

A moratorium on applications between 2001 and 2004 was lifted in 2005 with the intention that applications could only be made into designated management areas.

Since then no new aquaculture areas have been set up and also the courts threw a spanner in the works when ruling aquaculture activities could be allowed outside designated management areas.

The then environment minister David Benson-Pope said last year the Environment Court ruling seriously impacts on major elements of legislation such as the creation of management areas, allocation of space to iwi, testing for effects on fisheries, tendering and private plan changes.

A select committee report on the Fisheries Ministry released today said MPs were aware that aquaculture could expand from a \$300 million industry to a \$1 billion industry but it faced "major challenges".

One of these was processing applications before the moratorium was put into place.

"Since the lifting of the moratorium at the end of 2004, the ministry has been clearing away outstanding applications," the report said.

This led to a 31 percent increase in marine farms, or 1736 hectares approved by the ministry under the old law since 2006.

There are still 21 applications covering 12,000 hectares to be considered.

The report noted the lack of new areas being designated and noted that Fisheries Minister Jim Anderton was concerned the Auckland Regional Council had proposed a blanket ban on further marine farms.

The Government announced a moratorium on new marine farm consents at the end of 2001, when fears grew that existing law and planning mechanisms were not coping with a "goldrush" of applications, particularly in the Marlborough Sounds.

Then fisheries minister Pete Hodgson said the regulatory framework for marine farms was out-dated, complicated and dysfunctional. His moratorium followed a call by environmental lobbyists for a boycott of greenshell mussels in response to the race for space.

Then aquaculture was caught up in the political row over the foreshore and seabed issue -- which also sidelined the Government's Oceans Policy -- and Mr Hodgson extended the moratorium to December 2004. Marine farmers frustrated by the extension claimed their industry was being stifled.

By December 2004, the Government passed the Aquaculture Reform Act, which allocated to Maori 20 percent of marine farming allocated since 1992 and 20 percent of any new space. Maori sources said 20 percent of marine farming space allocated since 1992 was worth about \$50 million.

The mussel industry complained the Act constrained the siting of new mussel farms almost as much as if they were proposals for dumping radioactive nuclear waste.

<http://www.bendigoadvertiser.com.au/news/local/news/general/rabies-scare/1059994.aspx>



Rabies scare

19/07/2008 9:41:00 AM

CITY of Greater Bendigo councillor Greg Williams is in the clear, so far, after a rabies scare became the latest mishap to detain him in China.

Cr Williams has been absent from 12 of the last 16 council meetings.

Despite complaints that his continued non-attendance was increasing the workload for others deputising for him, councillors have repeatedly approved his leave of absence.

Cr Williams is undergoing a precautionary anti-viral course after being bitten by a watchdog at a yabby farm in Xuyi where he has been carrying out aquaculture consultancy work.

The former mayor and two-term councillor runs the Central Victorian Yabby Farm at Heathcote.

He has been pursuing a business project in the Jiangsu province in coastal northern China since last December.

Australia is one of the few countries in the world to be declared rabies free.

Cr Williams spoke yesterday from China about how the treatment would keep him from returning to Australia until August 6.

Neither he nor the dog had shown any symptoms of the deadly disease.

Cr Williams said doctors had been in two minds about the treatment, which includes a five-week course of injections.

However, they had decided to err on the side of caution.

It was a minor non-aggressive incident but it was better to be safe, given the seriousness of the disease.

The treatment precludes having coffee, tea, alcohol or chilli.

Cr Williams said he was able to continue his work.

This had recently focused on training farmers, who had the potential to earn four times their usual income.

Cr Williams took leave of absence from council duties in December and January to pursue the Chinese business, but snowstorms detained him in China over February.

The Local Government Act stipulates that an extraordinary vacancy, where a councillor's position must be filled, happens only when a councillor is absent from four consecutive ordinary meetings without leave from the council.

City of Greater Bendigo mayor David Jones said unless Cr Williams failed to meet the requirements, other councillors were not in a position to act.

"He's an elected councillor and it's essentially up to him," Cr Jones said.

"I have said all along, so long as it is legal within the Local Government Act it is a matter between him and his constituents."

<http://www.sanluisobispo.com/news/local/story/415135.html>

Posted on Thu, Jul. 17, 2008



ABALONE FARMERS BANK ON A REVIVAL

Once near extinction, the abalone is coming back thanks to aquafarms on California's coast

Once near extinction, the abalone is coming back thanks to aquafarms on California's coast



ASSOCIATED PRESS PHOTOS

Matt Steinke, a manager at the Carlsbad Aquafarm, points out characteristics of green-red abalone hybrids, also pictured up close below, cultured at his aquafarm north of San Diego.

Carlsbad Aquafarm is growing a multimillion-dollar investment in a row of tanks alongside a tidal lagoon just outside San Diego.

In a process that has taken years to complete, microscopic abalone larvae have finally grown into fist-sized mollusks that can fetch \$30 a pound from top-shelf restaurants and other buyers.

The operation is one of a dozen or so aquafarms along the California coast betting on the culinary comeback of the puck-shaped mollusks that were led to the brink of extinction by overfishing.

"It's very slow, growing abalone. You spend two or three years of work until you have something large enough to sell," said Matt Steinke, a manager at Carlsbad Aquafarm.

But the wait has its reward.

"It's more or less an endless market," Steinke said.

Abalone production in the U. S.—most of it in California — roughly doubled to about 522,000 pounds in 2005 from about 254,000 pounds in 1999, the last year Ray Fields, owner of the Cayucos-based grower, Abalone Farm, surveyed the nation's output for the International Abalone Symposium. The rapid growth came as abalone consumers expanded from a core group of older Californians, nostalgic for the days when the delicacy could be gathered by the sack-full along the beach or ordered as steaks or burgers at fish shacks, to today's adventurous, well-heeled diners hungry for something different and quintessentially Californian said H. Roy Gordon, president of the abalone consulting firm Fishtech Inc.

"From a flavor standpoint, it's hard not to like it," said Corey Lee, executive chef at the French Laundry in Napa Valley. "We're talking about a sweet, clammy shellfish."

Along California's coast

Decades ago, abalone could be found littering beaches at low tide or clinging to rocks in underwater coves. These days, however, most of the nation's abalone grows in sea water- filled tanks amid the hum of pumps and generators.

At Carlsbad Aquafarm, thousands of abalone cling to vertical plastic panels stacked in waist-deep tanks the size of large kiddie pools.

The complex also houses gurgling tubs where workers clean and process oysters, clams and mussels raised in the nearby lagoon. The shellfish sales bankrolled the company's abalone operation as the mollusks reached marketable size, Steinke said.

In Cayucos, the Abalone Farm grows and sells nearly 1 million abalone annually, much of which is exported to Asia.

Farther north along the coast, Monterey Abalone Co. grows the mollusks in cages suspended from a municipal wharf into Monterey Bay. The company hopes to add as many as 70 new cages next year to the roughly 200 it currently uses, co-owner Trevor Fay said.

Fay said the biggest challenge has been securing a year-round supply of the wild kelp that it feeds the creatures. Experiments are under way to preserve kelp harvested in summer for use during winter, he said.

"If there's a lot of demand and you've got a good outlook, which we currently do for growing abalone, then you've got to take advantage," said Art Seavey, Fay's partner.

Popularity, depletion

Abalone was helped into the California culinary culture by late 19th century Japanese immigrants who dove for the mollusks and exported them to their home country, where they had long been a delicacy, said Tim Thomas, a historian at the Maritime Museum of Monterey.

In the early 1900s, a German restaurateur in Monterey known as "Pop" Ernest Doelter began experimenting with the exotic catch. He devised a recipe that involved prying the meat from the shell and pounding it into steaks that were breaded and pan-fried, Thomas said.

The mollusk's popularity grew and eventually led to its near-depletion.

In 1997, California Department of Fish and Game officials imposed a complete ban on abalone harvesting south of the San Francisco Bay and severely restricted diving for the mollusks north of the bay.

The first abalone farms appeared in the early 1970s, as the natural supply diminished. Since then, farmers have been experimenting to find the best ways to breed them in captivity.

In recent years, abalone has slithered onto the menus of a number of pricey restaurants.

"I am so surprised that so many people are ordering it, and the feedback is so beautiful," said Mo Tabib, chef at the Fish Hopper in Monterey, which sells potato chip-sized disks of seared abalone as an appetizer for \$22. "It's a luxury."

<http://www.saipantribune.com/newsstory.aspx?cat=1&newsID=81740>

Local

Friday, July 18, 2008

New shrimp farm starts operations on Rota

By Stefan Sebastian

Business Editor

A new shrimp farm on Rota began raising its first crustacean crop ever Thursday with the aide of staff from Northern Marianas College, a debut that comes as lawmakers and local business leaders are eyeing the aquaculture industry as a prospective economic boon for the Commonwealth.

The new farm's opening comes after a landmark aquaculture conference on Saipan last week aimed at spurring the development of new businesses, and as legislators are weighing a bill to establish import restrictions on Rota to safeguard future aquaculture operations against disease.

Aquaculture is a multi-million dollar business according to statistics from the National Oceanic and Atmospheric Administration. Worldwide aquaculture production nets an estimated \$70 billion annually with significant potential for growth in the U.S. market, NOAA says.

Owned by Taga Diversified Products LLC, the new farm has already released its first batch of shrimp larvae into tanks after their arrival on a flight from Guam. The farm's first harvest, according to NMC aquaculture specialist Michael Ogo, who was on hand there Thursday to provide technical assistance, could be ready by December.

“Christmas shrimp, just in time for the holidays,” he said with a laugh during a phone interview, adding the farm, with a staff of 4, could produce up to 100,000 shrimp in each crop.

With one shrimp farm already seeing early success on Saipan and another planned on Tinian, Ogo added that aquaculture could eventually become a significant industry in the Commonwealth.

“We're certainly moving in that direction,” Ogo said. “We could one day have shrimp farms on all three of those islands.”

Guam and Rota are the new farm's primary targets for marketing its shrimp crops, according to Vincent Hocog, one of the farm's owners. Hocog is hopeful, given the economic downturn much of the Commonwealth has seen in recent years, that shrimp farming could be a booming business in the future.

“We do hope business will move in that direction with the economy and how that is going,” Hocog said. In addition, Hocog thanked NMC's Cooperative Research Extension and Education Service program, an outreach service the college operates, for its assistance with launching the farm.

http://www.gazette.net/stories/071808/businew185207_32370.shtml

Gazette.Net

Researchers get boost from UM

University program awards \$1.8M to companies

by Lindsey Robbins | Staff Writer

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Marylanders love their oysters, and a University of Maryland program is doing its part to make them healthier and taste even better.

Ocean Equities of Annapolis hopes to develop a recirculating aquaculture system for oysters, using the aquarium facility at the University of Maryland Biotechnology Institute in Baltimore. The facility produces its own aquatic environments by recycling tap water and adding the necessary minerals.

The project is among the 22 recently selected to receive a total of \$1.8 million in grants under the university's Maryland Industrial Partnerships Program, in which companies team up with university researchers. The grants will be matched by the individual companies.

While similar aquaculture ventures have sparked controversy over their environmental impact, UMBI provides filters and recirculates algae so that little waste is left, said Dorothy Leonard, president of Ocean Equities. She said the process is used for farming fin fish at the facility, and the oyster system will be more simplified.

Because this system allows researchers to monitor what oysters eat and the salinity of their environment, they will also be able to adjust the oyster's taste, Leonard said.

A project by AviTech of Salisbury is getting the largest slice of the MIPS pie during this round of funding, with \$407,685 for poultry research.

Maxion Technologies and Zymetis, both in the university's Technology Advancement Program incubator in College Park, received funding. Maxion is refining lasers to detect chemical levels, and Zymetis is maximizing the conversion of yeast sugar into fuel alcohol.

<http://www.abc.net.au/rural/news/content/200807/s2307397.htm>

Prawn disease could prompt action from Asia

Friday, 18/07/2008

The seafood industry fears five countries could claim damages against Australia for blocking their prawn imports.

Asian countries have been banned from importing prawns with the exotic strain of IHNV virus.

But now it's been confirmed on two prawn farms in Queensland and may have been here long before the ban.

Australia's chief veterinary officer, Dr Andy Carroll, says it doesn't pose a threat to consumers, and it's too early to lift bans.

"We've notified the World Organisation for Animal Health, as we're obliged to do under our treaties," he says.

"At the moment, all we have is that it was found on one species of prawn on two prawn farms.

"There's still a way to go before we know what the real situation is."

<http://www.businessspectator.com.au/bs.nsf/Article/UPDATE-1-INTERVIEW-Abalone-breeder-Oceanus-to-boos-GMDKA?OpenDocument>

Oceanus to boost production

By Charmian Kok of Reuters

SINGAPORE -- Singapore's Oceanus Group, which breeds premium Japanese abalones, plans to spend 600 million yuan (\$US88 million) in a bid to increase production 20-fold in just two years.

The firm expects to supply 4,000-5,000 tonnes of abalone by 2010, up from just 250 tonnes last year, Oceanus's Executive Chairman Ng Cher Yew told Reuters in an interview.

Abalone is a rare and expensive shellfish eaten as a delicacy in parts of Asia and is regarded as a symbol of wealth in Chinese society.

Mr Ng believes this year's target of 750 tonnes will be surpassed by a third with supply to rise to about 1,000 tonnes.

At its production peak in 2013, the firm will be able to ramp up supply to 12,000 tonnes, bringing sales to over 3 billion yuan.

To fund its aggressive growth, Oceanus may need to borrow \$S50 million (\$US37.1 million), depending on the pace of its growth, said Mr Ng.

"The Chinese already see abalone as a luxury and prestigious product so I don't have to educate people to like abalone. As income in China increases and more people can afford to eat abalone, demand will likewise increase."

King Of Seafood

Oceanus is poised to ride on the growth of China's middle class, with over 70 per cent of the world's abalone consumption coming from the country.

Ng also plans to move into processing, sales and distribution, where profit margins are potentially higher, and the firm is in talks to form a joint venture with several industry leaders.

Oceanus is looking to acquire key sales channels to tap onto the Chinese abalone gift market. Skylight Abalone, a Singapore-based abalone processor, is a strategic investor in the firm.

"Chinese give gifts for almost all holidays like Chinese New Year and Mid-Autumn Festival. What better gift than abalone since it is the King of seafood," added Mr Ng.

Abalone processors and sellers mainly relied on small farms or wild-catch in the past for supply, which was often unstable and affected by seasonal factors.

"Because we are a large-scale breeder, once we have control over the entire value chain, we smoothen the flow of abalone stock from farms to distributors, making it like just-in-time delivery with Dell."

Mr Ng sees abalone demand outstripping supply over the next five years, although overall worldwide supply is expected to grow at 5 per cent year-on-year till 2013. Supply from the aquaculture of abalone, on the other hand, will rise least 10 per cent year-on-year over the same period, said Mr Ng.

Oceanus, which is worth \$US491 million on the stock market, reported net profit of 169.3 million yuan (\$US24.8 million) in 2007, up from 13 million the year before.

Shares of Oceanus were trading at \$S0.38 at 1804 AEST, up 56 per cent since the start of the year, while Singapore's Straits Times Index has declined 17 per cent.