NEWSLETTER

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AQUACULTURE ASSOCIATION OF SOUTHERN AFRICA &

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A Word from the AASA Chairman and the CEO of AISA

Etienne Hinrichsen

Once again another year is in full swing and already a number of new aquaculture initiatives have been announced. At AASA we are continuously looking at ways in which we can assist the growth and representation of the sector. In this regard I firmly believe that AASA should move toward creating "value" for its members and supporters. One way in which we have done this in the past is through the hosting of the biannual conference. We are still sorting out some administrative matters, but I feel I can safely let (some) of the cat out of the bag (out of the net) by saying the conference will be held in the early part of September this year. I hope to circulate more details on this shortly and trust that we will get the same support we got for the last (2007) conference.

The issues around the Biodiversity regulations just don't seem to go away. Look out for coverage of this on Carte Blanche in the near future (more particularly around trout). Having said this it has come to my attention that the aquaculture sector (perhaps spearheaded by AASA) will need to get more positive media coverage for the industry. The Southern African public is largely unaware of the positives that aquaculture can bring in the realms of food security, trade, relief to capture fisheries and local economic development. As I said to a colleague the other day: "bad news travels fast" and if we (all of us) don't get good news about aquaculture to the public then the regional development of our sector will be fighting an uphill battle. This is again a mater which AASA should be running with, but we are not able to do it without your support and payment of your membership fees.

Natasha Marshall in the AASA office has circulated the 2009 membership fees and she can be contacted on info@aasa-aqua.co.za for more information in this regard.

Happy fish farming in 2009.

Dr. Lizeth Botes

From Lizeth Botes lbotes@ai-sa.org.za

I would like to welcome everybody back to a New Year and may it be everything that you are hoping it would be (and more !).

The year is slowly catching speed again and I would like to inform everybody that the 2006 Benchmarking Survey will be repeated this year with an added section to obtain some interesting market information. This project is a partnership with SwissContact and AISA. The Western Cape component will be done in collaboration with the Provincial Department of Agriculture.
I would therefore also like to welcome their newly appointed Aquaculture Extension Officer Mr Ferdie Endemann, who will assist with the deployment of the survey questionnaire and information gathering in the Western Cape. You will remember that Ms Refiloe Thobejane (who has now left the department) previously made presentations on their need as department to obtain the statistics and compile a map of the Western Cape with relevant aquaculture information. The Western Cape component of the 2009 Benchmarking Survey will assist them in this regard.

The Editor's choice

Editorial

Adrian Piers newsletter@aasa-aqua.co.za

Two very contrasting news items are the subject of this issues editorial. The rapid growth of aquaculture in Asia is a testament to what is possible (see below where aquaculture production is expected to increase by 45 % in 2009 in Indonesia – in one year!). The stagnation of development of this sector in Africa shows there are serious constraints hindering progress on the continent, despite the wide acknowledgement that this is a desirable, and indeed, an essential path to follow. The Abuja declaration noted that an increase of fish production of 245% will only leave us standing still at present per capita fish consumption! Where is the way forward?

The FAO, which has a long history of aquaculture promotion in Africa, recently launched a new initiative, SPADA, (see article below) that will attempt to address some of these constraints. It is a laudable effort. Most importantly it recognises a fundamental fact and that fact is that the private sector will be the engine that drives development (see article on Western Australia under Regulatory matters below). All other entities are, by their very nature, in a supporting role, and with or without them, entrepreneurship will forge ahead driven by market demand, just as it has in Asia.

The task of these organisations, beyond the meetings and statements, is in very practical terms, to remove the hurdles and smooth the road so that the private sector can change aquaculture from moving forward at snails pace to a speed where we can make a rapid and giant leap forward in Africa.

FAO to develop a special program to accelerate aquaculture development in Africa

From the FAO meeting report

Aquaculture development in sub-Saharan Africa is at a crossroads. The challenge today is to develop a new strategy for aquaculture development. While appreciating the need to address the three major constraints identified (seed, feed, extension), the meeting called upon the Governments and cooperating partners as well as research agencies to focus on the likely development impact of investment in these areas. Furthermore, participants propose that SSA Governments should seek to develop public/private partnerships within the growing number of aquaculture enterprises, by creating cost-effective financial and institutional arrangements that can compliment government and donor resources to deliver a limited number of critical research, advisory and technological services to high potential farmers. The meeting envisages that aquaculture … will be able to provide high quality food for rural and urban consumers, generate employment and general commercial activities in otherwise impoverished local economies, and contribute to national wealth through increased revenue from markets and trade. In order to achieve this vision, the countries in the region need to work together to increase their knowledge base, exchange best practice experiences and speak with one voice in the global marketplace. (Limbé Declaration: A consensus statement by delegates to the FAO/WorldFish Workshop on Small-scale Aquaculture, 23-26 March 2004, Limbé, Cameroon).

The SPADA is a follow-up to the recommendation by the Third Session of the COFI Sub-Committee on Aquaculture in 2006 in India, and the 27th Session of the FAO Committee on Fisheries which requested FAO to develop a special programme to accelerate aquaculture development in Africa. This request was also underscored at the 2007 High-Level Event on Aquaculture during the 32nd FAO Conference. SPADA has been endorsed and launched by the FAO Fisheries and Aquaculture Department in 2008, and is implemented by the Department with multidisciplinary staff inputs, particularly through the FAO's Regional Office for Africa. It has been developed in collaboration with NEPAD and is in line with the NEPAD Action Plan for the

Development of African Fisheries and Aquaculture as well as the Millennium Development Goals.

SPADA will respond to the new political will to promote aquaculture in Africa for food security, poverty alleviation and economic development and focuses particularly on sub-Saharan African countries. The programme concentrates on stakeholders' priorities and needs as they endeavour to establish aquaculture as a significant food production sector in Africa. SPADA has been presented during a Special Event at the Fourth Session of the COFI Sub-Committee on Aquaculture in Chile, 6-10 October 2008. The Sub-Committee, and in particular all the African countries and NEPAD, expressed its appreciation to FAO for the SPADA initiative, and urged FAO to further promote and use SPADA as the coherent framework for aquaculture development in Africa, and called for the participation and support of development partners.

ftp://ftp.fao.org/docrep/fao/meeting/014/aj437e.pdf

Indonesia production to increase by 45%

Aquaculture production is expected to increase by 45 % in 2009. The Ministry of Marine Affairs and Fisheries said that aquaculture would overtake traditional fishing as the main source of Indonesia's seafood in the next year. Soen'an Hadi Poernomo, the ministry's head of information, said aquaculture production was projected to rise 45.1 percent next year to 7.4 million tons from 5.1 million tons this year. Wild fish output, the bulk of which comes from traditional small boat and platform fishing, is projected at 5.5 million tons, a 2 percent rise from this year's expected 5.4 million tons. In 2007, the fisheries industry was worth Rp 70.6 trillion.

Aquaculture production has grown from 2.2 million tons in 2005 to 3.1 million fish in 2007, a 43 percent increase over two years. He attributed the increase to government calls on fishermen to move from traditional methods to aquaculture because of high oil prices. Fuel costs comprise about 50 percent of fishermens' expenses. With oil prices soaring over the past few years, more fishermen have kept their boats at dock. "Therefore, we urged them to shift to aquaculture," Soen'an said. Arif Satria, a fisheries researcher, said that the ministry should also provide much-needed management of the sector. "Aquaculture very much depends on water quality," he said. Many local residents are using rivers and canals to farm their fish, which were at risk from pollution and overcrowding," he said.

http://www.thejakartaglobe.com/business/article/4370.html

AASA 2009 MEMBERSHIP RENEWAL –DUE

BEFORE 27 FEBRUARY 2009

Contact info@aasa-aqua.co.za for further information.

Abalone

Abalone Aquaculture Dialogue meeting in South Africa

From Fishupdate.com

The development of global standards for certifying farmed abalone will be the focus of the next meeting of the Abalone Aquaculture Dialogue, to be held February 16-17 in Cape Town, South Africa. The standards will help minimize the eight key environmental and social impacts associated with abalone production. Participants will identify people to serve on the steering committee that will manage the Dialogue process. World Wildlife Fund (WWF) coordinates the Dialogue but has an equal voice in the roundtable discussions.

"Your voice will be heard if you come to the meeting," said WWF Aquaculture Program Officer Colin Brannen. "The steering committee will use input from participants to build consensus on a set of standards that will encourage innovation and increased sustainability in the abalone industry." This will be the second meeting of the abalone Dialogue. At the inaugural meeting, held in Australia in April, producers, conservationists, academics and other abalone industry stakeholders identified the key impacts associated with abalone farming and agreed on overarching goals address those impacts. The impacts discussed relate to biosecurity, genetics and the ecosystem effects of abalone aquaculture. Dialogue participants also made significant progress in categorizing criteria, which are specific areas to focus on in order to reduce the impacts of abalone farming. For example, participants identified disease, broodstock/seed procurement, and the translocation of exotics as key criteria in addressing biosecurity issues. At the February meeting, stakeholders will refine the criteria, then begin to develop indicators. The full suite of principles, criteria and indicators will provide the framework for the final standards, which will be measurable, performance-based and grounded in sound science.

"Although the abalone Dialogue is fairly new, it is pleasing to see an emerging acceptance that international standards will, in the long run, be to the benefit of all, including producers," said Professor Peter Cook of the University of Western Australia, who has participated in several WWF Dialogues. "I applaud WWF for initiating the Dialogue process and I look forward to a time when abalone farms throughout the world subscribe to a single set of international standards." This is one of eight Dialogues coordinated by WWF to develop standards for certifying aquaculture products.

If you are interested in participating in the February meeting, which will be held at the Glen Craig Conference Center in Pringle Bay, contact Colin Brannen at colin.brannen@wwfus.org by January 21st.

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Brynn Simpson & Grant Brooker

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Catfish

No submissions

Crayfish and Lobsters

140 year old lobster to be returned to the sea

A lobster believed to be some 140 years old is to be freed from the confines of a tank at a New York restaurant. George, the giant lobster, weighing 9kg (20lb), will be returned to the ocean, from where he was caught a couple of weeks ago. The crustacean was bought for $100 (£66) by the City Crab and Seafood restaurant and quickly adopted as its mascot, posing for pictures with restaurant patrons. But animal rights group Peta sought the lobster's release, and will now put it back into the waters off of Maine, USA.

Full story at:-

http://news.bbc.co.uk/2/hi/americas/7821645.stm

Eels

British scientists research on Eel lifecycle

By Hayley Mace in the Eastern Daily Press

A £2.5m Europe-wide research programme is underway to find out more about the breeding habits of eels and slow their population decline. The Centre for Environment, Fisheries and Aquaculture Science (Cefas) in Lowestoft, UK, has been taking part in the project, launched in April, to monitor European eels as they head for breeding grounds 5,500km away in the Sargasso Sea, south of Bermuda. Scientists from Cefas and the Environment Agency have spent the year tagging elvers and eels with five-inch satellite transmitters which float away after the fish dies and will then be returned to the Pakefield-based laboratories for analysis. They spent July and August tracking yellow eels near Poole, in Dorset, and scientists across Europe have also been involved in the

project, from trapping silver eels in Ireland to monitoring the migration of eels in Spanish river basins.

A spokesman for Cefas said that all of the tagging has been completed for this year and that findings should be published in spring 2009.

The number of eels being recorded has fallen by about 95% in the last 20 years, so it is hoped that the results of the research will provide information about migration routes and the physical conditions which the eels experience on their epic journey to breed.

Thieves steal farmed eels in Australia

By Andrew Wight

Fish farmer Peter Whiddett is scratching his head after thieves stole $5000 worth of live eels from his far-north Queensland farm. The short-finned eels, which fetch $10-12 after processing and smoking, were in a holding tank at Tarzali Lakes Aquaculture Centre, near the far-north Queensland town of Millaa Millaa, when thieves cut oxygen to the tank and drained it, taking 300 eels and leaving 200 to die. Mr Whiddet believes "someone with a mate in the restaurant trade has told someone that the eels are worth some money. I don't think this is a malicious thing, because they had tried to break in before chasing the eels around the ponds without much success."

But on the morning of December 18, Mr Whiddett found the dead eels, which were being prepared for smoking. “They probably chucked them in eskies, garbage bins, anything really, because they don't need to be underwater to keep alive. Insurance premiums are as much as the price of the eels at market, so we're not covered" he said. He suspects the theft is the work of locals. "There have been thefts of crops and fuel around the area in recent times," Mr Whiddett said.

http://www.brisbanetimes.com.au/news/queensland/slippery-fingered-thieves-pinch-300-eels/2008/12/25/1229998637850.html

Ornamentals

No submissions

Oysters & Mussels

Scallops or Mussels best option for Offshore Aquaculture in US

If the State of Oregon chooses to test the waters for offshore aquaculture development to help meet a growing demand for fresh seafood and to create alternative jobs for the state's battered fishing industry, the leading candidate for a pilot project might be shellfish. And the most viable alternatives for aquaculture, experts say, could be tasty sea scallops or mussels.

Chris Langdon, an Oregon State University professor of fisheries and wildlife who coordinated a public forum on offshore aquaculture, says the development of a new shellfish industry has fewer social, political and environmental obstacles than other alternatives, and could be complementary to existing and future enterprises.

http://media-newswire.com/release_1084314.html

Shrimp and Prawns

Saudi company eyes African coast for expansion

By V.M. Sathish

Gulf investors are planning to develop aquaculture projects in the region and Asian and African countries. The scheme has been launched at a time when food security is becoming a major concern in the Gulf.

Saudi-based National Prawn Company (NPC), the world's largest integrated shrimp producer, is planning an initial investment of $300 million to start large-scale fish production in Saudi Arabia and other Gulf countries. The aim is to farm king fish, cobia, barramundi, mahi and milk fish using aquaculture installations on waste coastal desert land.

"We are looking at fish farming in various Gulf countries," said General Manager Peter Fraser. "There is lot of opportunities to develop waste desert land in coastal areas in the region. We are also looking at viable projects in African countries which have deserts adjoining coastal regions." NPC has already identified suitable coastal land and development will begin once issues regarding land ownership are resolved. The company produces 15,000 tons of shrimp per year at a facility developed on 50 square kilometre of coastal waste land 200km south of Riyadh. A second phase of the project, which will bring the cost up to $1bn, will cover a further 50 sq km. "This is a unique project utilising waste land. About 3,000 employees work at the desert shrimp farm and within the next two years 5,000 people will be working in the expanded project. By 2011 our production capacity will go up to 50,000 tons of shrimps per year. Saudi Arabia is known as an oil exporting country, but shrimp is the second-largest Saudi export to Japan after oil. We currently export to 30 countries in Europe, the Middle East and Asia."

NPC is owned jointly by the Saudi business groups Al Rahji, Al Balla and Al Subaiei. They also own Al Watania, the Middle East's largest poultry producer, which supplies a million eggs and 500,000 chickens per day.

http://www.business24-7.ae/articles/2008/11/pages/11252008_ec48cbbdc70c4850a94faf8060e07b5c.aspx

Shrimp farming "explodes" in Brazil

By Bonnie Pfister in the Express News

For Marine-Maricultura, a Brazilian Aquaculture company, business is good. The company is on course to increase its exports 50 percent from last year, to 90,000 tons. Marine has helped transform the lives of about 450 people it employs on its 500-acre farm. But it's also part of a larger change that is rippling, in painful ways, along the Texas Gulf Coast. Shrimp farming in the

developing world has altered the industry worldwide in the past two decades by producing the popular shellfish for the lowest costs on record. In the past quarter-century, imports have surged from 56 percent of the shrimp consumed in the United States to nearly 90 percent, most of it farm-raised. Since 1993, the price of shrimp imported from the top 10 foreign countries fell 16 percent. While fresh-caught Gulf Coast brown shrimp fetch at least a few dollars more per pound than their farm-raised cousins in Texas groceries, the worldwide oversupply has driven prices too low for many wild shrimp fishermen to make a profit. Many shrimpers fear this year could be their last. Some may quibble as to whether farm-raised shrimp is as tasty as that pulled from the sea, but the typical U.S. consumer remains unconcerned. In 2001, shrimp became the most popular seafood in the country, with 850 million pounds eaten, according to the National Fisheries Institute in Virginia. The average American devoured 3.4 pounds a year, outpacing tuna, the next most popular seafood.

George Chamberlain, president of the international Global Aquaculture Alliance, said the most efficient international farms can produce small shrimp for about $1 per pound. “Ten thousand years ago, we began to make the transition from the hunter-gatherer to row-crop farming. Twenty-five years ago, we began to make the transition to shrimp farming. It's just more efficient. It is international farmers who have perfected the industry's cost effectiveness.”

Thailand has for a decade has remained the largest source of U.S. imports, with 128 billion pounds sold in 2002. Picking up steam quickly is China, which increased quantity sixfold between 1998 and last year. But among the top 10 exporters to the United States, none has grown faster than Brazil. According to figures from the U.S. International Trade Commission, last year it sold nearly 40 billion pounds of shrimp to the United States, an increase in four years of a breathtaking 2,000 percent. Brazil's latecomer status also helped isolate it from the Whitespot virus that wracked Ecuador and Thailand. After several years of trial and error with native species, Brazilian shrimp farmers in the early 1990s discovered *Penaeus vannamei*, or Pacific white shrimp, as a hardy species that grows fast on a minimum of food. They relied solely on generations of local vannamei broodstock, rather than transporting it from other countries. A producer organization is funded by dues from its 250 members and a fee collected from Brazilian farmers for every ton of fish feed purchased. It has successfully leveraged that money into matching government funds supporting research, and it publishes a code of conduct under which its members are asked to operate.

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Idalvo Emerenciano, a biologist with IDEMA, the environmental protection arm of Rio Grande do Norte state said, "Right now, you have a small structure for regulation in a large country." And, he added, there is a tremendous demand for farmed fish around the world. "The industry has exploded. No one could have expected it. Not the government. Not anyone."

Full article available at:-

http://www.mysanantonio.com/news/special_reports/37028809.html

Shrimp market prospects looking gloomy

By Karine Boisset in Globefish report

Demand for shrimp is decreasing on all major European markets. Europe and Japan experienced a noticeable drop of their shrimp imports, while the US market expanded slightly. At present, demand is reportedly very low on all three major shrimp markets. Sharp cutbacks in consumer purchases are expected. Prices had already started to decline in the second half of 2008, and exporters have difficulties selling at the moment. The situation is not expected to improve in the near future.

Full report at:-

http://www.globefish.org/index.php?id=4657

Tilapia

Tilapia global supplies down in 2008

By George Joseph in the Business Standard

The global supply of Tilapia on the global seafood market was down 13 per cent during 2008 to 2.6 million tons. This was primarily caused by the extremely cold winter during early 2008 in China, wiping out whole production areas. This led to an increase in the price of Tilapia. At the same time, production in other major countries remained almost the same or slightly higher. The forecast indicates normal production in China this year and some level of softening of prices. Tilapia is finally becoming an attractive fish product in Europe, after years of reluctance by major importers. Lower export taxes prompted Metro Group to source 4,000 tonnes of Tilapia fillets from China. Spain is also starting to look for Tilapia supplies. A major Spanish company is conducting studies on the potential for Tilapia production in Mozambique and Namibia. The same company owns a huge production plant in Brazil, with a capacity to produce 10,000 tonnes of Tilapia a year.

Two different organisations, the World Wildlife Fund (WWF) and the Global Aquaculture Alliance (GAA) are about to finalise guidelines for Tilapia farm certification. The Global Aquaculture Alliance has completed Best Aquaculture Practices (BAP) standards for Tilapia. The BAP standards and guidelines for such farms, share many points with the BAP standards for other cultured species. These apply to cage and net pen farming as well as pond culture. Whatever the system, farms must comply with regulations regarding the use of non-native species. WWF released a draft of Tilapia aquaculture standards in September 2008. WWF is seeking public comment on the sustainable farming standards, which were developed through the group's Tilapia dialogue process over the last three years.

Meanwhile, the US tilapia market was overshadowed by the problems experienced by China last year. Total imports of tilapia during the first nine months of the year were 128,100 tonnes, some 1000 tonnes less than in the same period of 2007.

See also Globefish Tilapia market report at:-

http://www.globefish.org/index.php?id=4644

Taiwan Tilapia group receives certification

A fish farming group in the southern county of Tainan received two certifications for the quality of its Tilapia. The group, consisting of 11 fish farmers with a combined aquaculture area of 50.06 hectares, received ISO 22000 certification for food safety management from Australia and the Taiwan Good Agricultural Practice of Taiwan. The group went through strict process and standards in controlling and improving its Tilapia farming in order to get the two certifications.

Group leader Chen Lien-yi, who is also the president of the county's Nan Ying Aquaculture Association, said the aquaculturists worked very hard to get the certifications. The group will need to make continuous efforts to make sure the certifications are renewed every year, and it is also working on obtaining GlobalGAP, a certification necessary for exporting Taiwanese Tilapia to the European Union.

Hope was expressed that the two certifications will help increase the Tilapia selling price in both local and foreign markets, and the county government will help the aquaculturists with marketing to create a niche market for safe and healthy Taiwanese Tilapia that are a cut above cheaper Tilapia sold by other countries. The county has about 2,260 hectares given over to Tilapia, with annual production of 26,317 tons worth NT$791.6 million (US$23.9 million).

http://www.etaiWannews.com/etn/news_content.php?id=823147&lang=eng_news

Trout and Salmon

Fish farm escape produces world record Trout

By Mark Morical

Landed out of Lake Diefenbaker in southern Saskatchewan, Canada, the fish weighed 43 pounds, 10 ounces (nearly 20 Kg!), and measured 38¾ inches long, with a girth of 34 inches. Rick Arnold, a fishing guide from Bend, Oregon, fished with Konrad and his twin brother, Sean Konrad, in August 2007 while filming footage for a DVD. "I was somewhat sceptical, because they flat-out promised us a 20-pound rainbow on that first night," notes Arnold. "These guys are cocky, and they were pretty self-assured." In the film, the anglers are fishing at night and land big trout after big trout. While it is illegal to fish at night in most water bodies, night fishing is allowed at Lake Diefenbaker. "They can catch them round the clock, but nighttime is absolutely the best," Arnold says, noting that normally brown trout, not rainbows, are nocturnal. "But for some reason, those rainbows respond better at night." All told, Arnold and the crew caught 21 rainbow trout, 11 of the fish weighing more than 20 pounds.

Most rainbow trout in Lake Diefenbaker are triploids, trout that have three sets of chromosomes rather than the normal two, making them sterile. Because they cannot reproduce, they spend more time eating, said Arnold. About seven years ago, according to www.trophytroutguide.com, some 500,000 triploids escaped into Lake Diefenbaker from a commercial fish farm. The fish escaped through a hole in a net pen created by an ice flow. Thriving on perfect forage conditions, many of the trout currently weigh more than 20 pounds. And several fish in the 30-pound range are caught each year. Because the record fish is a triploid, there is some controversy surrounding the validity of the record, but that did not stop the International Game Fish Association (IGFA) from confirming Konrad's 43.6-pounder as the official world record.

http://www.theolympian.com/107/story/699499.html

Salmon production forecast

By Audun Lem in Globefish Report

The forecast of the Salmon supply situation in 2009 is for substantial growth in the European production and a massive reduction in Chile, with the net result being a decline, although the extent is uncertain due to the increasing severity of the Chilean problem and the range of production estimates available. In Chile ISA (Infectious Salmon Anaemia) outbreaks could cause production in 2009 to fall by as much as 40-50%, a reduction from approximately 375,000 tons to about 220, 000 tons according to various estimates.

Farmed Atlantic salmon forecast 2009:

Norway	+ 90,000 tons	**(+12%)**
UK	+ 7,000 tons	**(+5%)**
Faroe Islands	+ 13,000 tons	**(+40%)**
Ireland	no change	
Total Europe	+ 110,000 tons	
Chile	- 120-175,000 tons	**(-40-50%)**

In 2009 Norway will grant 65 new salmon farming licenses resulting in new capacity of 7%. Five of the licenses will be for organic salmon production. This new capacity will only come on stream in 2010 or 2011.

See:-

http://www.globefish.org/index.php?id=4649

Other

World's largest fish market re-opens to visitors

From BBC News

Tsukiji market, in the Japanese capital Tokyo, is reversing a month-old ban on tourists at its riotous early-morning auctions. It had accused tourists of flouting hygiene rules and causing disruption with flash photography. Some tourists had been caught hugging, licking and even riding the huge frozen tuna that are Tsukiji's most arresting sight, an official said.

The daily tuna auctions often draw hundreds of visitors, many from abroad. A market local official said agency guards would start handing out strict guidelines to visitors.

"We recognise that the auctions are part of the Tokyo scenery and popular tourist attraction," he said. Tourists will be allowed to visit all areas of the market from 0500 to 0615 local time starting from 19 January. Access to the tuna auctions were restricted on 15 December, the start of the market's busiest trading period. Tsukiji is known as the source of fresh sushi and sashimi to top restaurants around the world.

http://news.bbc.co.uk/2/hi/asia-pacific/7822753.stm

Japanese Bluefin Tuna farming to expand in 2009

By Hideaki Yuri

In the Ozaki district on Tsushima island in Nagasaki Prefecture, a worker tosses Japanese sand lance and mackerel into one of the 80 round netpens set up in the sea. The calm water abruptly churns as the feeding frenzy starts among the 400 to 500 bluefin tuna splashing around. The bluefin tuna fish farm here is one of many sprouting up around Japan in response to the lowering of international catch quotas for the prized fish. Industry insiders expect the harvest to reach to about 8,000 tons in 2009, double the figure for 2007.

But farming the fish, which is one of the staples of Japanese sushi restaurants, is an expensive and risky endeavor. "While our operation has finally taken off, our money is not accumulating at home, but is rather swimming in those netpens," said Yasunori Takarabe, the head of a cooperative of seven fish farms in the Ozaki district that have named their brand "Toro no hana."

"Anyone thinking about starting anew needs to take bold steps since about 100 million yen will be needed to sell 500 tuna in the third year," he said. Tsushima is about a 30-minute plane ride from Fukuoka. "The clear waters here are suited for farming. The other necessary conditions, such as a

minimum water temperature of 13 degrees and a minimum depth of 20 meters, are also met," Takarabe said.

Fry, known locally as yokowa and measuring about 25 centimeters and weighing only a few hundred grams, grow into tuna between 70 cm and 1 meter and between 30 and 60 kilograms in about 30 to 36 months. The grown fish have fetched prices of 3,600 to 3,700 yen per kilogram in the past year, with shipments sent mainly to the Kanto region. The 80 netpens each measure about 20 meters in diameter and hold hundreds of fish. Another advantageous condition is that the yokowa fry swim from the southwest, carried by the Tsushima current. Because the fry are delicate creatures, it is difficult to transport them alive. Catching fry close to the farm reduces the number of fish that die or grow weak during transport. The Ozaki district once had about 20 farms raising yellowtail and sea bream. However, many folded due to low fish prices. The remaining farms decided to switch to bluefin tuna, which fetch higher prices. Four farms started out selling about 800 fish, but in 2009, the cooperative plans to ship 4,000 fish and double that number in 2010. It has been a trial and error process. At first, buyers said the farmed tuna was too fatty, so the farmers used leaner mackerel as feed. Fish farming has its share of risks. The price of fry in 2008 Was 4,500 yen each, about 500 yen higher than the previous year due mainly to higher gasoline prices. There are also huge swings in how much fry can be obtained. One year, only 1,000 fry were available. Farmers said a good year is when 70 percent of the fry can be eventually shipped to market. The price of mackerel used as feed has also risen about 30 percent from about three to four years ago.

In all of Japan, about 2,000 tons of bluefin tuna were shipped about five years ago. The figure is expected to grow to 8,000 tons in 2009. But farmed bluefin tuna still represents a small ratio of the total sold in Japan. In the peak years of 2005 and 2006, about 44,000 tons were consumed. All marketing companies are moving into farming to secure a stable supply of bluefin tuna amid the shrinking catch quotas under international agreements.

In November, the total catch for the eastern Atlantic in 2009 Was reduced by about 20 percent from the original plan of 27,500 tons to 22,000 tons. The figure will be further cut to 19,950 tons in 2010 and 18,500 tons in 2011. Last March, the Nagasaki prefectural government announced a plan to promote bluefin tuna farming, under which the harvest would be increased fourfold in five years. One concern is the move to set international quotas for the yokowa fry, according to Fisheries Agency officials. Farming bluefin tuna from roe has still not moved to the commercial stage. "Some say domestic farming of tuna could exceed 10,000 tons," said Seiji Takahashi, who heads the Feed and Aquaculture Business Operations Department at Nippon Suisan. "However, since there will emerge problems in obtaining fry, we may face a major hurdle at around 8,000 to 9,000 tons."

http://www.asahi.com/english/Herald-asahi/TKY200901010056.html

See also a conservationist article at:-

http://www.santacruz.com/News/2009/01/06/Bluefin_Tuna_on_the_Brink

Regional Roundup

Zimbabwe Fish Farmers urged to increase productivity

By Business Reporter in the Chronicle

Small-scale fish farmers have been urged to invest in water bodies on their farms to make fish farming a year-round activity.

The Zimbabwe Parks and Wildlife Management Authority public relations manager, Ms Olivia Mufute told Business Chronicle that fish were an economic source of relish that families could rely on as a substitute to beef, which had become expensive. Fish harvesting takes between six and nine months.

"Fish farming projects can be done throughout the country provided the areas have adequate clean water. It is also advisable for farmers to build several large fish ponds at the farms. It is also imperative for them (farmers) to have enough capital to successfully execute the project."
For technical expertise, Ms Mufute said the farmers could approach specialist aquatic ecologists in fishery from either AREX or ZPWMA. "As a parks and wildlife management authority, we provide free fishery advice, harvesting regime, and expertise on the type of infrastructure to erect, among others," said Ms Mufute. She also urged the farmers who feed fish with chicken feed to be wary of diseases that emanate as a result of decomposition of feed suspended in water. "Some farmers feed their fish with chicken feed but the danger is that if the feeds remain suspended in water for long, they decompose habouring diseases," she said. The farmers were also challenged to buy hormones used to separate fish species (sic) in order to increase productivity.

The most commonly bred type of fish in the country is the tylapia (sic), an exotic breed of the bream family that Ms Mufute said was easy to raise and has a fast growth rate as well if compared to indigenous breeds.
Last year, ZPWMA assisted fish farmers on methods the farmers could use to restock fish as well as the restocking period.

http://www.chronicle.co.zw/inside.aspx?sectid=1338&cat=8

FAO Committee for Inland Fisheries and Aquaculture of Africa meets in Zambia

The 15th session of the Committee for Inland Fisheries and Aquaculture of Africa (CIFAA) of the UN Food and Agriculture Organization (FAO) took place from 9-11 December 2008, in Lusaka, Zambia. Issues on the CIFAA agenda included the Special Programme for Aquaculture Development in Africa (SPADA) and strengthening CIFAA within the framework of regional cooperation initiatives. A seminar on information tools in inland fisheries and aquaculture was also held, and participants made a field visit to an aquaculture farm. The session brought together 41 participants representing 14 member States, two States with observer status, the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), the Lake Victoria Fisheries Organization (LVFO); the Southern African Development Community, the New Economic Partnership for Africa's Development (NEPAD), the WorldFish Center, the Sustainable Aquaculture Research Networks in Sub-Saharan Africa (SARNISSA), and Swedmar.

The CIFAA's work resulted in a number of outcomes including the endorsement of the SPADA. Delegates also adopted the report of the meeting, which contains the summary of the plenary discussions and the seminar.

Full report at:-

ftp://ftp.fao.org/docrep/fao/meeting/014/aj437e.pdf

http://www.iisd.ca/africa/biodiv/acifa/

"Blue Revolution" advocated for Mozambique

African countries, including Mozambique, should consider the importance of "Blue Revolution" for mass production of fish by using simple techniques, for hunger eradication and improve people's diet. Deputy Director-General of the Worldfish Centre, Patrick Dugan stressed in Maputo the importance of fish to achieve food security and improve income of African families. He was

speaking to a group of both Mozambicans and Angolans journalists during a lecture on the theme "The importance of fisheries and aquaculture in the fight against hunger in Africa".

The Mozambican government approved its National Plan for Food Production, a strategy designed under the National Strategy for Green Revolution, adopted in June 2007.

http://allafrica.com/stories/200812080753.html

INFOSA to develop small scale Aquaculture plan for Mozambique

The fish farming currently practiced as a subsistence activity by small Mozambican producers could be transformed into a profitable household business, according to a team of consultants from INFOSA (Information Services on Fisheries in Southern Africa). This regional organisation has been hired by the Mozambican Fisheries Ministry to draw up a Development Plan for Small Scale Aquaculture.

"A Chinese proverb says that it's better to teach someone to fish than to give him fish", said the head of the INFOSA team, Satish Hanoomanjee on Monday. "But in the model for aquaculture as now practiced in Mozambique, fish is being given to people. We found people who work a year to produce five kilos of fish. Is this any way to fight hunger?" He said that the people practicing fish farming in the provinces visited by the team (Zambezia, Manica, Sofala, Gaza and Maputo) are doing so in a precarious fashion. Some began their activity with funding from local NGOs, or with loans that they have not been able to repay. To change this scenario, the consultants argue that state intervention is necessary, through allocating a package of assistance, including access to land (on which the fish tanks can be set up), access to credit and to technical support, and training of the would-be producers. The draft plan presented by the team at a Maputo workshop states that, in an initial phase, an investment of five million dollars would be required (not including the credit component), but the plan would only benefit 100 producers.

"We want aquaculture to be a household business", said Hanoomanjee, "We don't want small scale producers just to be workers. We want them to have benefits from their production"..

The draft plan, to be implemented over five years as from 2009, also suggests that the small scale producers should work closely with industries from which they would acquire the necessary inputs. Those same industries, the plan suggests, should guarantee transport and marketing facilities for aquaculture production.

According to the Director of the Institute for the Development of Aquaculture, Isabel Omar, there are currently about 7,000 small scale fish farmers in Mozambique. Their total production is just 100 tons of fish a year. On average each of these farmers produces less than 20 kilos of fish a year. Current figures for consumption are that the average Mozambican living on the coast eats 12 kilos of fish a year, but the figure drops to two kilos a year inland. It is believed that when the small producers are assisted, their annual yields will rise gradually to several hundred kilos, or even one to three tons of fish.

http://allafrica.com/stories/200812151392.html

Fish imports in bulk cause concern in Zambia

From the FishSite

The Aquaculture Association of Zambia (AAZ) has urged caution on the intended bulky importation of fish for the period that the fish ban would be in effect in the country, between now and March.
According to the Times Of Zambia, association president, David Kaunda said that the announcement by Agriculture Minister in charge of Livestock and Fisheries, Bradford Machila, to allow bulk importation of fish would have negative effects on the infant aquaculture industry in Zambia. He said massive imports of fish could affect the industry in Zambia if not carried out in a cautious manner.

Mr Machila announced recently that the Government had allowed bulky importation of fish during the breeding period.

“On the minister’s consent to bulk importation of fish, we urge caution as it will have a negative impact on the fledgling aquaculture industry,” Mr Kaunda said. He said the statement by the minister should be supported only if there would be measures to ensure that there were requisite safeguards and stimulus plans for the industry, reported the Times Of Zambia.

He also said there should be stringent measures put in place to guarantee that the fish being imported would be of good quality.

http://www.thefishsite.com/fishnews/8564/bulky-fish-imports-cause-concern-in-zambia

Aquaculture promoted in Malawi

The challenge is to expand aquaculture from "a sector to an industry". WorldFish has a program with a target of 8,000 households in Malawi - equivalent to 40,000 people. Fortunately, there is already a healthy appetite for fish among the country's 11 million population. Malawi may be landlocked, but it has had a thriving fishing industry, based largely in Lake Malawi and Lake Chilwa.

"It may surprise you to know, that the biggest source of protein for Malawians is not chicken or beef, but fish," says Dr Jeffrey Luhanga, technical controller of Malawi's Ministry of Agriculture. "We have a policy - a fish every day." But just as staple crops are under threat from climate change and over-intensive farming practices, so too is Malawi's fishing industry.

More at:-

http://www.modernghana.com/news/196888/1/fish-farming-in-malawis-dustbowl.html

Nile Perch fish heads now too expensive for local people

By Wambi Michael

The depletion of the most traded fish from the lake, the Nile perch, is driving up prices locally, which threatens the livelihoods of close to 40 million people in East Africa. Lake Victoria Fisheries Organisation executive secretary Dickson Nyeko said the Nile perch stock in the region is suffering from uncontrolled fishing. ‘‘The Nile perch is a major traded fisheries commodity internationally. Its decline presents a special concern for the livelihoods of millions around the lake and the region.’’

Uganda fisheries department commissioner Wilson Mwanja said that year-on-year fish export earnings dropped by 19.4 million dollars to 117.3 million dollars in 2007. Fish exports for the financial year 2008/2009 have been projected to drop by over 60 million dollars from 2005. Already there is a food crisis marked by the increase of food prices to levels that are unaffordable to many. In Uganda’s capital Kampala, a kilogram of Nile perch that used to cost about 0.50 US dollars now costs 3.50 US dollars. Many people resorted to eating fish heads and bones sold at the fish factories after the fillet had been removed for export to the EU. But now even the fish skin, bones and head - commonly known as mugongowazi - are becoming scarce because traders have found new markets for these products in the Democratic Republic of Congo, Central Africa Republic and Southern Sudan.

The fish scarcity has taken on a regional dimension as a potential source of conflict. Fishers cross beyond state borders in search of fish. Kenyan fishers have in the past been arrested and detained in Uganda. It is estimated that over 300 Kenyan fishers cross to Uganda every day.

Full story at

http://www.ipsnews.net/news.asp?idnews=45434

Feeds

Biotech protein replacement for fishmeal

By Rebecca Cole

Oberon, an Idaho Springs-based biotech company is developing a renewable process to supply sustainable protein to the aquaculture industry. With global fish consumption accelerating rapidly and stocks of wild-caught fish declining, the fish-farming industry is experiencing rapid growth.
Fish ground up and turned into fish meal is the source of about 6 million tons a year of protein since the 1990s. And as wild fish stocks diminish, the cost for fish meal has skyrocketed. In 1999, the cost for a ton of fish meal Was $350, by last year, the cost had tripled to $1,050.

"When I first got involved in this, I called up a feed manufacturer and said, 'We're thinking about making this product, would you be interested?'" said CEO Randy Swenson during BioWest's Venture Showcase Competition. "The first thing he said was that he would take all we could make." Acquacopia, an aquaculture venture capital firm, provided $900,000 for research.

Oberon's model is to partner with industrial food and beverage manufacturers to capture the bacteria used to clean the excess wastewater churned out during the manufacturing process, dry it, and turn it into single-celled protein substitute for fish meal. Known as "sludge," the microbial-rich wastewater is a by-product that industries must treat and then compost or bury in landfills. Oberon's process removes sludge generation, eliminating millions of dollars in disposal costs and adding points to the manufacturer's "green card," according to Swenson. "Most large manufacturing companies are very interested in renewable programs, and we can offer them a process for that." Since last year, the company has partnered with Fort Collins craft brewer New Belgium. Oberon built a small-scale treatment plant to harvest the beer maker's sludge and has manufactured about one ton of the protein fish meal. Recently the company performed a series of tests with Aquaculture Institute of Norway, substituting their product with conventional fish feed.

"At eight weeks, in a sample where we substituted 43 percent with our product over conventional protein, we actually got accelerated growth," Swenson said. "We know that our product will work as a fish-meal replacement strategy." The company is currently in additional trials with giant feed companies Cargill and Purina to determine how the product works with their feed formulations. Plans for 2009 are to develop Oberon's first full-scale plant and obtain $10 million in financing.

Environment, Health and Disease issues

Nutrient run-off into Nile river boosts fish stocks

From BBC News

Over the past four decades, the use of fertilizers in Egypt has increased four-fold. These and sewage discharges entering the Nile delta have boosted fish stocks in Mediterranean coastal waters nearby, a study suggests.

A team of researchers found that the dramatic increase in fish populations coincided with a sharp rise in the amount of fertilisers used by farmers. Co-author Autumn Oczkowski from the University

of Rhode Island Graduate School of Oceanography said that the findings differed from the prevailing view that excess sewage or fertilisers entering bodies of water was detrimental to marine ecosystems.

"We're programmed in the West to think of nutrient enrichment of coastal systems as bad," she said. "But the Egyptians don't think it's a bad thing. For them, it's producing tonnes of fish and feeding millions of hungry people."

http://news.bbc.co.uk/2/hi/science/nature/7840034.stm

Antibiotic resistance from fish farms researched

Many different kinds of antibiotics have been used as therapeutic agents in aquaculture in Japan. Intensive work Was done until the 1980s to develop guidelines for antibiotic usage in fish farms. The guidelines regulated doses and required a period of drug-free rearing before sale of fish and succeeded in keeping the residual antibiotics in cultured fish to nondetectable levels. However, Samuelsen et al. found that antibiotic-resistant bacteria persisted in fish farm sediments for at least 18 months after chemotherapy. Since the products of aquaculture are consumed by humans and since many antibiotic resistance determinants are encoded by transferable plasmids, cultured fish may serve as a vehicle for transmission of antibiotic resistance to bacteria that are commensal or pathogenic to humans. Tetracyclines are among the therapeutic agents most commonly used in human and veterinary treatment. Oxytetracycline is permitted to be mixed with feed for fish, and food sanitation law in Japan permits certain residual levels in fish. Because of the widespread use of tetracycline, resistance to it has been disseminated to many species of marine bacteria. More than 30 different kinds of tetracycline resistance determinants have been published. Resistance genes have been mainly categorized into two major groups, those responsible for proton-dependent efflux of tetracycline and those conferring ribosomal protection by cytoplasmic proteins. Dissemination of the proton-dependent tetracycline efflux protein in aquaculture environments has been reported. Previous work has identified the relevant genes by using DNA hybridization or PCR methods , but the nucleotide sequences of these determinants remain unknown. In this study, we isolated numerous Tetr gram-negative fish farm bacteria and determined the DNA sequences of the Tetr genes. We found that these genes were identical to the Tetr genes identified in clinical isolates and that some were transferable to a laboratory *Escherichia coli* strain.

PDF paper available at

http://aem.asm.org/cgi/reprint/69/9/5336?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=transconjugant&searchid=1&FIRSTINDEX=50&resourcetype=HWFIG

Research matters, Reviews & Training

Certification of Aquaculture products

Recent years have seen markets becoming increasingly stringent towards the quality of food products. Initially quality criteria addressed mainly food safety issues. However, in response to the concerns expressed by many non-governmental organizations (NGOs) and other stakeholders, product quality increasingly began to include criteria related to environmental and socio-economic sustainability. This trend can be clearly identified by looking at the markets for sustainable products. According to the market watcher Mintel, the amount of ethical and sustainable food and drink products, including fair-trade and organic items, almost doubled in 2006. The trend towards better quality experienced by the overall food sector can also be observed in fisheries and aquaculture products. Sustainability and corporate social and environmental responsibility were key topics discussed at the 2007 Seafood Summit, and are likely to play a greater role in the sector.

PDF report available at:-

http://www.globefish.org/files/2007-25aquaculturecertification_696.PDF

Regulatory matters

Western Australia legislation blamed for lack of development

By Jodie Thomson

A looser legal net has been urged for aquaculture in Western Australia. It risks missing out on the global aquaculture boom if it does not make laws more flexible to better manage big projects, the new head of the Department of Fisheries has warned. Fisheries chief executive Stuart Smith said the growing pressure on wild fish stocks had been highlighted in recent months, with particular attention on dhufish and juvenile rock lobster stocks. Mr Smith, former deputy Director General of the Department of Industry and Resources, said aquaculture had been "underdone" in Western Australia and one of the department's focuses in 2009 would be a revamp of legislation to facilitate big projects. "Aquaculture is booming," Mr Smith said. "In coming years, it is expected to reach 50 per cent of total production. If you compare the same growth in aquaculture in Western Australia and ask how do we stack up with the rest of the world, we are lagging behind." Mr Smith said current legislation could be inhibiting the development of aquaculture projects.

"What I want the department to put in place is an environment which can facilitate a world scale aquaculture industry. Whether one emerges or not, that's up to the market," he said. "We need to have a regulatory environment that is geared up for large scale aquaculture. A lot of the activity in the past has been on very small scale projects."

"We need an open and transparent process for which these issues can be resolved," he said.

http://www.thewest.com.au/default.aspx?MenuID=77&ContentID=116181

Conferences, Upcoming events

Conferences

February 15 -18, 2009- Aquaculture America 2009 - Seattle, USA
Email: worldaqua@aol.com
Web: www.Was.org

March 15 -17, 2009 - Seafood Processing America - Boston - USA
Organised by Diversified Business Communications
Email: food@div.com
Web: www.bostonseafood.com

Western Cape Workshops

Fish Health Training workshop - 6 February 2009
Venue: Stellenbosch University
Presenter: Dr Ralph Knüsel
Facilitator: Danica Resoort, QHMP Service provider

10am-11am: Generic Fish Health Management
11am-12pm: Treatment options
12-1pm: Lunch
1-2pm: Fresh Water Fish Disease issues
2-3pm: Marine Fish Disease issues
3-4pm: Practical Dissection session

Costs: R500

Small farmer Fish Health practical training day –7 February 2009
Venue: Jonkershoek
Presenter: Dr Ralph Knüsel
Facilitator: Henk Stander, Hands-On Fish Coop

10-11am: Fish Health Management
11am-12pm: Treatment options in various systems
12-1pm: Practical Dissection session
1-2:30pm: Lunch (transport to Lourensford)
2.30-3.15pm: General farm management (Gerhard Compion)
3.15-4pm: On-farm Fish health management

Costs: R100 (no costs for Hands-On Coop members)

Limited seats available, please book & pay before
15 Jan 2009 at Dr L Botes: Lbotes@ai-sa.org.za

Employment

Abalone Consultant

One of our former Scientists is looking for a reliable abalone consultant who can work in USA for a farming and hatchery operation. If you can offer such services, please let me know about the details of it along with your requirements.

Dr T.M. Najmudeen, Senior Scientist, Central Marine Fisheries Research Institute

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