❖ **Beach Point Processing Company, Prince Edward Island, Canada**

Earlier this year Mazzetta Company acquired the Beach Point Processing Company (BPPC) located on PEI, Canada; a strategically central location in the Canadian Maritimes to access lobster, snow crab, and pelagic species. We're extremely excited about this venture for a number of reasons. Fundamentally, it allows us to further vertically integrate ourselves, while at the same time it provides us with another platform to pack under the Seamazz brand and support in-house product development with customers.

The BPPC facility has the capacity to process significant volumes of all species and operates from May through December on both Canadian and U.S.-sourced raw material. At present, BPPC employs roughly 150 staff and is developing programs that will further provide training and support the development of its work force.

In terms of sustainability, BPPC is actively cultivating supply relationships with resource stakeholders including fishermen and fishermen cooperatives. These Canadian fisheries have a well-documented history of supporting sustainability initiatives and as BPPC further develops its' sustainability platform we intend to expand this discussion.

## *Environment Overview*

Mazzetta Company maintains a proud commitment of including environmental consciousness in its business decisions and operating practices. In this section of the Report we'll look at a few of the species that have received an elevated level of scrutiny of late within the industry, discuss what we know and what may still be uncertain, talk about some of the key policy issues in the U.S. today and outline the resulting thoughts, goals, and objectives Mazzetta Company has identified for the near term.

❖ **Sustainable Products**

Bringing sustainable products to the marketplace is just one aspect of our sustainability program. We also want to work with our suppliers to improve the sustainability of the manufacturing processes so that customers aren't forced to choose between price and reducing their impact on the environment. As 2009 was the first year Mazzetta Company published a formal Corporate Responsibility Report, this year's report still represents the

early stages of a continuous journey. Accordingly, the following represents a cross section of key products that warrant greater emphasis in terms of a discussion on sustainability. You can expect this product list to continue to grow as we work to become a better and more sustainable company.

**Chilean Sea Bass**

The international management of Chilean Sea Bass has come a long way since the 'take a pass on sea bass' campaigns were introduced earlier this century. Chilean Sea Bass is scientifically known as "toothfish", which are a long-lived species and historically the global fishery has experienced overfishing, seabird by-catch, and illegal, unregulated and unreported (IUU) harvesting.

Mazzetta however, is proud and extremely confident in its sourcing decisions and internal standards regarding the importation of sea bass.

Mazzetta Company is one of major stakeholders in the Ross Sea Fishery which is in full MSC assessment for certification. This fishery operates in two Commission for the Conservation of Antarctic Marine Living Resources (CCMALR) Subareas; 88.1 and 88.2. Under the CCMALR framework, the setting of TACs, monitoring of catches and adherence to technical (conservation) regulations are carried out by CCMALR. The enforcement of regulations and licensing of vessels that take part in the fishery is the responsibility of the flag state, or in the case of Argos vessels (flag state Ascension), via the UK Government.

The fishery takes place in international waters. While licensed vessels are regulated by the respective flag states, there is the potential for IUU fishing to take place.

IUU is however restricted, firstly by the seasonal ice cover of the Ross Sea and the difficult climate. During the austral summer, the presence of fishing vessels and fly-overs by the New Zealand air force also detects presence of IUU vessels. A final determination regarding MSC assessment for the Ross Sea toothfish fishery is expected in late October/November 2010. We will continue to monitor these developments closely and potentially make adjustments upon issuance of a final determination.

Internally, Mazzetta Company also has a second layer of requirements in place to combat IUU. For each shipment of toothfish (*Dissostichus* spp.), irrespective of its source, we require completed and validated

CCAMLR documentation per the Dissostichus Catch Documentation Scheme (CDS) 21 days prior to shipment arriving at U.S. port. By way of further background, CCAMLR is the Commission on the Conservation of Antarctic Marine Living Resources, which came into force in 1982. The aim of the Commission is to conserve marine life of the Southern Ocean. As resources assume growing economic importance, the temptation to work outside conservation or regulatory measures increased; leading to work on 'illegal, unregulated and unreported (IUU) fishing'. The introduction of the CDS by CCAMLR in 2000 to monitor landings of, as well as global trade in, toothfish constituted an unprecedented initiative aimed at combating and assessing IUU fishing for those species.

The CDS is one of a suite of CCAMLR measures aimed at eliminating IUU fishing in the Convention Area. CCAMLR also mandates strict vessel licensing requirements, at-sea and port vessel inspections, and the requirement for the continuous monitoring of each vessel's position in the Convention Area using automated satellite-linked monitoring systems (VMS).

Once completed CDS materials are received by Mazzetta, an application for preapproval of importation is made to the National Oceanic and Atmospheric Administration. When we receive certification that our importation has been approved, we forward the documents to our Customs Broker who sends them on to U.S. Customs at the port of entry.

All documentation and approvals for every pound of toothfish Mazzetta Company imports are kept on file for a minimum of 7 years.

Lastly, Mazzetta Company is a proud member of COLTO, the Coalition of Legal Toothfish Operators. COLTO works with governments, industry, conservationists and international management groups to combat IUU with a specific recent focus on the southern Indian Ocean regions, around the Exclusive Economic Zones (EEZs) of France, South

Africa and Australia. COLTOs members represent more than 50% of the total global legal production of toothfish and over 15,000 tonnes of toothfish per annum.

Given the preceding, Mazzetta Company stands firmly behind its decision to offer Seamazz® Chilean Sea Bass among its product line.

For more information on the sustainability of Ross Sea toothfish fishery please visit: http://www.msc.org/track-a-fishery/in-assessment/southern-ocean/ross-sea-toothfish-longline

For more information on CCAMLR please visit: http://www.ccamlr.org

For more information on COLTO please visit: http://www.colto.org

**New Zealand Hoki**

Mazzetta's Hoki is sourced from the only MSC-certified Hoki fishery in the world; located in New Zealand. In March 2001, New Zealand Hoki became the World's first large whitefish stock to achieve Marine Stewardship Council (MSC) certification. It has since been recertified in 2007. This eco-label independently confirms that New Zealand Hoki is a sustainable and well-managed fishery. As we in the seafood industry have come to know well, the Marine Stewardship Council is an independent, global, non-profit organization, which has developed a certification standard for sustainable and well-managed fisheries. It was set up by the World Wide Fund for Nature (WWF) and Unilever in 1997, but is now run as an independent charitable trust based in London.

The New Zealand Hoki fishery is comprised of two separate stocks: eastern and western. Hoki is a species that has received a good deal of attention over the past several years from those in the environmental movement, and accordingly Mazzetta Company has looked very closely at the management of this fishery in line with our commitment to sustainability. What we came to learn, in our opinion, satisfied the questions that were raised with respect to the management of this fishery.

Regarding *stock levels*, the 2009 scientific assessments for these stocks show that both of the eastern and western stocks are in a healthy condition with stock sizes above the level that will produce the maximum sustainable yields (BMSY). Hoki stock size is driven by recruitment fluctuations and regular scientific surveys are undertaken

to assess levels of young Hoki and to measure stock size. Since 2001, the western stock has declined in size as low recruitment levels from 1995 to 2001 flowed through the fishery. In response, the catch limit for the western stock was reduced from 137,000 t to 25,000 t. This management action was part of a determined process to promote stock rebuilding. Since 2002, higher levels of recruitment and low catches have enabled the stock to rebuild to above BMSY.

Regarding *environmental impact*, the distribution of fishing activities and catch information collected by the New Zealand Ministry of Fisheries (MFish) determines the impact on by-catch, including protected, threatened and endangered species. Measures are already in place to reduce the environmental impacts of the fishery on seabirds, on New Zealand fur seals and sensitive marine habitats. While some of the Hoki catch is taken in the mid-water, most is taken by bottom trawling and on flat ground comprised of soft sediments. The Hoki fishery does not overlap areas with sensitive benthic communities, such as corals, and the impact of fishing on the soft seabed is currently under assessment. Trawl gear is rigged to ensure as little contact with the seabed as possible to reduce drag and to optimise fuel consumption. Further developments and an Environmental Risk Assessment are underway as part of the fishery's conditions of certification.

Regarding the *fishery management plan,* the management system is legally robust, respects international law, complies with domestic law and observes customary and legal rights. Management actions are informed by clear, relevant information that draws on stakeholder input and allows managers to consider a range of management actions. The draft fisheries plan sets out the objectives and outcomes for the management of the NZ hoki fisheries. Of note, in late 2006 the Deepwater Group Ltd (the fishery client) and MFish entered into a formal partnership agreement to collaborate on the management of New Zealand's deepwater fisheries, including hoki. This has enabled co-management via a constructive and close working relationship

under an agreed vision, agreed objectives and through a collaborative work plan.

Regarding *fishery improvements*, concerns over the status of the western stock necessitated the adoption of a stock rebuilding plan. In line with the plan, management changes to date have seen a positive response in the western stock and the fishery remains on course to meet the required stock improvements.

Given the preceding, Mazzetta Company stands firmly behind its decision to offer New Zealand hoki to its customers.

For more information on the sustainability of New Zealand Hoki please visit:
http://www.msc.org/track-a-fishery/certified/pacific/new-zealand-hoki/new-zealand-hoki-1

http://www.greatestmeal.co.nz/facts

**Lobster**

Prior to our acquisition of the Beach Point Processing Company on PEI, Canada this year, Mazzetta Company was still one of the largest suppliers of frozen lobster to the U.S.

Geographically, we source our warm water lobster from the Bahamas, Brazil, and Honduras; while our cold water lobster are sourced from Maine, Australia, New Zealand, Canada, South Africa, and Tristan da Cunha.

With respect to the sustainability of each fishery, in this section of the report we're going to talk generally about the warm and cold water fisheries as a whole and highlight the high and distinct internal standards that Mazzetta Company employs when procuring lobster from each.

*Warm Water Lobster*

Warm water lobster fisheries have as a general matter experienced their largest perceived challenges related to geographical variances in management standards and recreational harvesting. To address these issues, Mazzetta Company

relies upon is own internal standards and safeguards. As a baseline we look to the NOAA/NMFS regulations governing Caribbean Spiny Lobster. Daily catch limits, permit and vessel IDs, carapace size and tail requirements are the cornerstone elements, but these management provisions also address release of undersized lobster, length of season, night diving, allowable gear, bycatch limits, trap identification and degradable panel mandates, and protocols for berried lobster.

Because the average growth rate of warm water lobster is 5 to 7 years before reaching minimum legal size, routine stock assessments, high standards, and strong enforcement are essential to ensuring the sustainability of these fisheries.

*Cold Water Lobster*

The cold water lobster fisheries Mazzetta Company sources from are among the most successfully managed lobster fisheries in the world. The Western Australian Lobster fishery was MSC certified in 2000 and then recertified in December 2006, while the Maine lobster trap fishery is currently under MSC assessment with an expected completion date in 2010. In addition, the Canadian lobster fishery is widely viewed as having embraced the notion that sustainably managing the resource today protects their livelihood and this valued ecosystem for tomorrow.

South Africa's rock lobster fishery is among the real success stories in sustainability. Viewed to have collapsed in 1981, the management plan for the South Coast Rock Lobster (SCRL) was retooled in subsequent years and completely overhauled in 2000. In the 2001 - 2002 fishing season, the SCRL TAC was set at 340 tons. Three years later, the management plan bore fruit and the TAC increased to 382 tons. In addition to the controls by Marine and Coastal management, the industry has set up a committee consisting of rights holders, who governs and manages the sector to ensure that all rights holders act responsibly.

Tristan da Cunha is a British Overseas Territory governed by an Administrator who is appointed by the UK Foreign and Commonwealth Office. While the fishery is viewed to have been subject to over exploitation in the past, those experiences lead to conservative quotas and the successful rebuilding of stocks. The fishery is controlled by quota, catch effort and size limitations. The annual rock lobster quota, presently 437 metric tons, is determined by the Tristan Fisheries Department under the auspices of the UK government based on best available scientific information and management advice provided by the Marine Resource Assessment and Management Group (MARAM) in South Africa as well as the Marine Resources & Assessment Group (MRAG) in the UK. Berried females may not be landed and all discarded lobster must be returned to the sea as close as possible to the place where caught. Stock assessments are independently carried out by Cape Town based stock assessment team, MARAM with input from MRAG in the UK.
Although different in many ways, the common elements that must be sufficiently addressed to earn Mazzetta Company's business include:

- Most aspects of the life history of the species are clearly documented and understood. The basic biology of the fishery is established early in the history of the fishery, and all basic life history parameters (fecundity, growth, natural mortality) have been studied and are well understood. These studies support a high to very high degree of confidence in the evaluation of the fishery.
- All landings, from commercial and recreational fishing, are accurately estimated and monitored. All commercial fishers have provided a comprehensive record of catch and fishing effort which provides a comprehensive picture of catch and fishing effort by location, breeding state, by-catch, undersize returned, environmental conditions, gear and bait types used.
- There is adequate knowledge of the impacts of the fishing gear on the habitat.
- The management system considers the long-term interests of people dependent on fishing for food and livelihood, in a manner consistent with ecological sustainability.
- There is a comprehensive research plan and monitoring program.

Given the preceding, Mazzetta Company stands firmly behind its decision to offer both warm and cold water lobster to its customers.

For more information on the sustainability of the lobster fisheries Mazzetta Company sources from, feel free to contact us directly or visit:

http://www.msc.org

http://www.tastelobster.ca/english/fishery.html

http://www.lobsterfrommaine.com/sustainability.aspx

http://www.nmfs.noaa.gov/fishwatch/species/car_spiny_lobster.htm

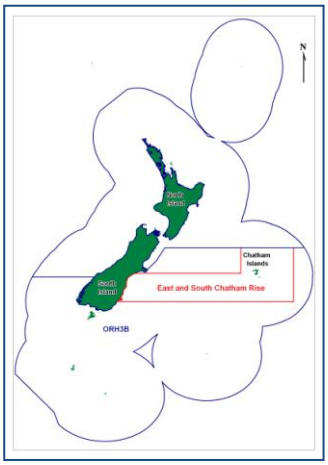
http://tristandc.com/government.php

http://www.envirofishafrica.co.za/ess/ESS2000WEBSITE/Southcoastrocklobster.htm

http://www.lobster.um.maine.edu/

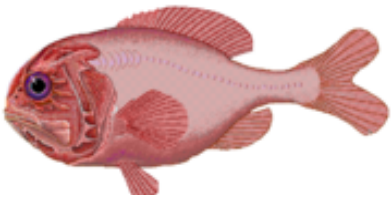
http://www.tastelobster.ca/eng_home.php

## Orange Roughy




Mazzetta Company supplies exceptionally high quality Orange Roughy fillets through its joint venture with Sealord. Sealord is the largest quota holder of Orange Roughy in New Zealand, thus our Orange Roughy is harvested from the deep pristine waters of the Southern Oceans. Because Orange Roughy has received a great deal of scrutiny in the marketplace, we sought to be especially thorough discussing the current management of this species and the sustainability of the fishery. Accordingly, we have included a great deal more technical information than other species covered in the report. We also maintain close communication with Sealord, the New Zealand Government, and various NGOs in order to have the latest scientific information and management decisions readily available. We would be happy to provide additional information and updates as requested.

By way of background, the New Zealand commercial fisheries are managed as part of the Quota Management System (QMS). This system is widely recognized internationally as one of the best for management of fisheries and the environment.



Management of Orange Roughy fisheries has continually developed over the last 20 years as scientific understanding and knowledge has grown. Approximately half of New Zealand's total Orange Roughy catch comes from the East and South Chatham Rise fisheries. East and South Chatham Rise is located to the east of New Zealand's South Island and forms part of the ORH 3B Quota Management Area.

Under the Fisheries Act 1996, the NZ Minister of Fisheries (the Minister) has responsibility for setting the Total Allowable Catch (TAC) for each fish stock managed under the New Zealand Quota Management System (QMS). The Minister also allocates the TAC between sector groups (commercial, recreational and customary Maori) and sets an allowance for other sources of fishing related mortality. As Orange Roughy are not taken by non-commercial fishers no allocation is made to the recreational or customary Maori sectors. The TAC is therefore fully allocated to the commercial sector as a Total Allowable Commercial Catch (TACC) less an allowance of 5% for other sources of fishing related mortality.

Quota Management Areas (QMAs) define stock boundaries and TACs and allowances are set at the QMA level. In some cases, where more than one biological stock exists within a single QMA, each biologically distinct stock is assessed and managed independently. Catch limits for these stocks are agreed with Quota Owners and sum to the TACC for the QMA as a whole.

The Ministry of Fisheries employs fisheries managers (responsible for advising the Minister on the appropriate level at which to set each TAC and allowances), and fisheries scientists (responsible for commissioning the collection and analysis of scientific research to inform management advice). Fisheries managers work closely with scientists to ensure advice provided to the Minister is consistent with the best available scientific information.

*Review of Stock Structure*

Stock assessments are contracted by the Ministry of Fisheries and are undertaken by independent research providers. Results are

presented to the Deepwater Fisheries Assessment Working Group (the Working Group) where they are peer reviewed. The Working Group is chaired by a Ministry of Fisheries scientist and membership includes independent scientists, fisheries managers, Industry and environmental NGO representatives. Completed stock assessments are formally peer reviewed through a scientific plenary process culminating in a final report on the status of the stocks. An annual Plenary Report is collated and is freely available on the Ministry of Fisheries website (www.fish.govt.nz)

In 2008, the stock structure of Orange Roughy on the Chatham Rise was comprehensively reviewed. The review evaluated all available data as no single dataset provided definitive information about likely stock boundaries. The data analyzed included: catch distribution and Catch per unit effort (CPUE) patterns; location of spawning and nursery grounds; inferred migrations; size, maturity and condition data; genetic studies; and habitat and natural boundaries.

Based on these analyses Orange Roughy on the East and South Chatham Rise are considered to comprise a single biological stock. Stock assessments prior to that undertaken in 2008 are no longer considered to be reliable.

*Stock Assessment Methodology*

Estimates of current biomass:

The main spawning aggregation for Orange Roughy within the East and South Chatham Rise stock forms during June-July to the north-west of the Chatham Islands. The location and structure of this spawning aggregation, which occurs over flat ground and extends up into the water column, makes it amenable to acoustic surveying. Surveys using the same vessel, equipment and survey methodology have been undertaken annually here since 2002.

Since 2008, the spawning biomass estimates from this survey series have been used as a basis for estimating the current biomass of the East and South Chatham Rise stock. The biomass of the main spawning aggregation is the key input to the assessment as most Orange Roughy on the East and South Chatham Rise are thought to spawn in this location. Smaller spawning events are known to occur in other areas and an allowance for these fish is made in the assessment. The most recent estimates of current spawning biomass across the East and South Chatham Rise are summarized in Table 1.

Spawning biomass estimates are factored up to mature biomass by the proportion of the total mature biomass that was likely to spawn each year. Following a review of the available literature, scientists agreed that a credible range for this multiplier is 1.1 to 1.91, with a mean of 1.49.

**Table 1:** Estimated current spawning biomass of Orange Roughy across the East and South Chatham Rise.

| Area | Mean |
|---|---|
| Plume | 41,400 |
| NE Flats | 5,700 |
| NE Hills | 700 |
| Mt Muck | 1,500 |
| Andes | 2,400 |
| South | 2,400 |
| **Total** | **54,100** |

*Estimates of Unfished Biomass*

In 2008, the Working Group agreed that the stock assessment models used in previous years to assess the East and South Chatham Rise Orange Roughy stock were not thought to be useful in determining recent stock status. However, model outputs from assessments undertaken in the early 1990s are believed to provide a useful estimate of the size of the likely unfished stock size ($B_0$). Based on these model outputs, $B_0$ is estimated to be between 300,000 and 450,000 tonnes. Simple stock reduction models based on catch data give similar ranges. Based on the cumulative catch and the previous stock assessments of the East and South Chatham Rise Orange Roughy stock, the Plenary considered that $B_0$ was likely to fall in the range 300,000 to 450,000 tonnes.

*Scientific Advice*

The (Ministry of Fisheries) 2009 Plenary Report describes both the process for determining the current biomass ($B_{current}$), and updates the assessment of $B_{current}$ incorporating the 2008 survey results. The 2009 Plenary report states that:

*"The acoustic estimates of Plume biomass were used as a basis for estimating the current biomass, by first adding on an allowance for spawning fish in other areas and then scaling up the estimated spawning biomass to the total mature biomass using a range of multipliers of 1.1-1.9, with a mean of 1.49. This gave a range of mature biomass for the East and South Chatham Rise of 60,000-103,000 t, with a mean of 81,000 t.*

*Combining these $B_{CURRENT}$ and $B_0$ estimates gives a current stock status range of 13–34% $B_0$. However, estimates of stock status greater than*

*30% $B_0$ are not considered likely given the 2008 Plenary conclusion that the stock was likely to have been of the order of 30% $B_0$ by 1990, continuing substantial declines in most CPUE indices, and a halving of the acoustic estimates of the spawning plume biomass over the past 6 years. It is likely that the East and South Chatham Rise stock is in the range 13-30% $B_0$."*

The current status of the East and South Chatham Rise stock is summarized in Table 2 (Ministry of Fisheries).

**Table 2:** Current biomass as a percentage of the initial biomass ($B_0$) using the range of estimates for $B_0$ and current biomass.

| Current biomass (%$B_0$) | | | |
|---|---|---|---|
| $B_0$ (tonnes) | Low $B_{current}$ (60,000 t) | High $B_{current}$ (103,000 t) | Mean (81,000 t) |
| 300,000 | 19.8% | 34.4% | 26.9% |
| 450,000 | 13.2% | 23.0% | 17.9% |

*Managers' Decisions*

As was mentioned, Orange Roughy are managed under the New Zealand Quota Management System (QMS).

The general strategy defined by the Fisheries Act 1996 requires QMS stocks to be maintained at or above a biomass that can produce the Maximum Sustainable Yield ($B_{MSY}$) – the biomass that can support the largest annual catch that is sustainable in the long-term while maintaining the stock's productive capacity. Annual TACCs are set by the Minister of Fisheries based on advice provided by the Ministry of Fisheries in consultation with stakeholders.

The Minister of Fisheries approved a Harvest Strategy Standard for New Zealand fisheries in 2008. The Harvest Strategy Standard is a policy statement which establishes best practice in relation to the setting of targets and limits for QMS fishstocks. It also provides guidance as to how fisheries law will be applied in practice, by establishing a consistent and transparent framework for decision-making to achieve the objective of providing for utilization of New Zealand's QMS species while ensuring sustainability.

An $F_{MSY}$-based harvest strategy for the East and South Chatham Rise fishery consistent with the Harvest Strategy Standard was developed

in 2008 (Ministry of Fisheries, 2008b). Fishing the East and South Chatham Rise stock at $F_{MSY}$ will, by definition, enable the stock to remain at $B_{MSY}$ or, if below, to rebuild towards $B_{MSY}$.

A phased introduction of the $F_{MSY}$-based harvest strategy over a three-year period was initiated on 1 October 2008 (the fishing year for Orange Roughy runs from 1 October to 30 September). The phased introduction will result in F equalling $F_{MSY}$ from 1 October 2010.

The strategy recognizes that implementing a phased reduction of the fishing mortality rate over 3 years may continue to reduce stock size. An acoustic survey is undertaken annually to revise the best estimate of current biomass and the $F_{MSY}$-based catch limit derived from this estimate.

The Minister's decision for the 2008-09 fishing year initiated the staged introduction of the $F_{MSY}$-based harvest strategy using the stock size reported in the 2008 Plenary Report. Management advice for the 2009-10 fishing year recommends a catch limit consistent with the phased introduction of the harvest strategy and reflecting the stock size reported in the 2009 Plenary Report.

*Compliance*

The Ministry of Fisheries maintains a comprehensive compliance program which includes both encouraging voluntary compliance through support and respect for the fisheries management regime, and creating effective deterrence through enforcement activity.

Measures to monitor fishing activity include a vessel monitoring system introduced in 1994. Under this system, all vessels over 28 metres, and vessels of any size targeting certain species including Orange Roughy, are required to carry and operate a registered automatic location communicator (ALC) at all times to identify vessel location. In addition, observers and at-sea surveillance supported by the New Zealand Navy and Air Force, assist in monitoring to verify compliance with statutory requirements.

Measures to verify reported catch are undertaken, including the auditing and reconciling of reported catch from multiple sources to identify any discrepancies. Reporting requirements for vessels include the estimated catch per tow and the landed and processed catch for each trip undertaken. Catch can only be landed to Licensed Fish Receivers (LFRs), and LFRs are required to report all catch

received. Additional quayside inspections may be undertaken to verify reported landings. There are financial penalties for catch in excess of annual catch entitlements (ACE) held and fishers face prosecution and severe penalties for breaches of legislation.

The Ministry of Fisheries also places scientific observers onboard vessels. Key tasks performed by the observers include monitoring of target catch and bycatch, recording interactions with protected species and collecting scientific information (such as length, maturity and age data) used to monitor stock status. Observers also report any observed non-compliance with fisheries legislation or voluntary agreements. Approximately 30% of all tows in the East and South Chatham Rise Orange Roughy Fishery are observed.

Measures to encourage voluntary compliance are fundamental to the New Zealand Quota Management System (QMS). Under the QMS, the Total Allowable Commercial Catch (TACC) for each fishery is split into quota shares. Quota shares are allocated in perpetuity and can be freely brought and sold. The value of quota is linked to the quantum of fish it represents which, in turn, is determined by the level at which the TACC is set. As there is little value in owning a share of a depleted fishery, quota owners have strong financial incentives to preserve the value of their quota assets by ensuring the sustainability of stocks over the long term. The New Zealand fishing industry therefore works closely with the government to ensure compliance with agreed management measures.

*Stock Status*

The following reference points have been established for the East and South Chatham Rise:

| | |
|---|---|
| $B_{MSY}$: | 30% $B_0$ |
| Management Target: | Biomass 30% $B_0$ |
| | Progressive reduction of fishing pressure to 4.5% |
| | (i.e. $F = M$) by 1 October 2010 |
| Soft Limit: | 20% $B_0$ |
| Hard Limit: | 10% $B_0$ |

Based on the best available scientific information the current biomass in 2008 ($B_{2008}$) was estimated to be in the range 13-30% $B_0$ with a mean estimate of 21.5% $B_0$. As $B_{MSY}$ is estimated to be 30% $B_0$, the stock is at approximately 72% $B_{MSY}$.

*Trends*

New Zealand's Orange Roughy fisheries have been managed under the QMS since 1986 and a TACC for Orange Roughy in ORH 3B management area has been in place since 1986. It is now recognized that there are several distinct biological stocks within the ORH 3B management area and each is now assessed and managed independently. Separate catch limits have been established for each biological stock. Together, these sum up to the TACC for ORH 3B. While the accepted biological stock structure of Orange Roughy on the East and South Chatham Rise has varied over the years as new information has became available, there has been an agreed catch limit in place for the East and South Chatham Rise since the 1992-93 fishing year.

*Recovery Plans*

As the best estimate of current biomass (21.5% $B_0$) remains above both the hard (10% $B_0$) and soft limit (20% $B_0$) reference points, development of the harvest strategy to date has focused on reducing F to $F_{MSY}$. A phased introduction of an $F_{MSY}$-based catch limit was introduced on 1 October 2008 such that the fishing mortality rate will equal $F_{MSY}$ by 1 October 2010.

Consistent with the Harvest Strategy Standard, the fishery will be considered for closure if it falls below the hard limit reference point. Work is ongoing to complete the harvest strategy by establishing a target relationship between F and $B_{current}$ for implementation should the stock fall below the soft limit reference point.

*Other Target and Bycatch Species*

New Zealand's Orange Roughy fisheries generally take little non-commercial finfish bycatch. In fact, Orange Roughy makes up approximately 65% of the total observed catch. In several locations on the East and South Chatham Rise, Orange Roughy and oreo species form a mixed fishery. Together, these species (Orange Roughy and smooth, black, spiky and warty oreo) make up over 90% of the total observed catch. In total, the commercially valuable species managed under the QMS account for approximately 93% of the total catch. The

catch of these species is restricted by a Total Allowable Commercial Catch.

*Habitat*

Bottom trawling for Orange Roughy occurs year-round over flat ground and on underwater hills and is known to impact on benthic communities. Over the 20-year duration of the New Zealand target Orange Roughy fishery it is estimated that 10% of the seafloor within the EEZ, and within the range of Orange Roughy (i.e. 750 – 1,250 m depth), has been fished by bottom trawl. Factors that mitigate the impact of the fishery on the seafloor include the relatively small size of Orange Roughy trawl nets (generally only 18 to 25 metres wide), the short duration and bottom contact time of hill tows (the trawl gear is typically only in contact with the seabed for five to ten minutes), restrictions on where bottom trawling can occur (the steepness and roughness of the terrain frequently limits the proportion of underwater features that can be trawled) and the large areas of the New Zealand EEZ now closed to bottom trawling.

As the East and South Chatham Rise fishery has been operational for over two decades there is now relatively little exploratory fishing over new grounds. Vessels engaged in the fishery typically fish over the same parts of the seafloor each time they return to the grounds and the fishery is now primarily focused on relatively small, localized areas.

*Marine Reserves*

Over 31% of the New Zealand Exclusive EEZ is now closed by law to bottom trawling, a measure promoted by industry and supported by Government. These areas are broadly representative of the range of seabed habitats within the EEZ, particularly in the deep water, and have been selected to encompass a significant percentage of pristine areas that have not been impacted by trawling, and to provide large and untouched refuges for deep water corals. These closures exclude bottom trawling from 18% of Orange Roughy's range, 52% of true seamounts (i.e. underwater features with > 1,000m elevation) and 88% of known hydrothermal vents. This constitutes the largest bottom trawl closure within any EEZ in the world.

As mentioned, we sought to be especially thorough discussing the current management of this species and the sustainability of the New Zealand Roughy fishery as a basis for our confidence in

standing firmly behind our decision to offer Orange Roughy to our customers.

References for this section of the report include:


- Abraham, E.R.; Thompson, F.N. (2009). Six monthly summary of the capture of protected species in New Zealand commercial fisheries, summer 2007-08. *New Zealand Aquatic Environment and Biodiversity Report No. 35.* 22p.

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For more information on the sustainability of NZ Orange Roughy please visit:

http://www.fish.govt.nz

http://www.fishsource.org

http://www.sustainablefish.org/

## SEAMAZZ Swai

Mazzetta Company sources its Swai from Vietnam, which is included in the native range of the species. Swai (*Pangasius hypopthalmus)*, has historically been confused with 'Basa', however this is a misnomer, as true Basa (*Pangasius bocourti*) is no longer farmed in large quantities in Vietnam. The FDA-approved market names for this species of fish (*Pangasius hypopthalmus*) are Tra, Swai and Striped Pangasius. In our view, Swai offers advantages over Basa due to its faster growth rates, more efficient conversion rates, and the generally hardy nature of the fish.

In addition to the emphasis we place on processing, Mazzetta Company takes great pride in the effort it has undertaken over the past several years at the pond level to ensure the quality of our Swai. This effort includes working with suppliers that are Global G.A.P.-approved, as well as ponds that are SQF-certified having up to 30% water circulation per day. In addition, using only superior quality feed, closely managing stocking density and employing both a comprehensive traceability and food safety regimen ensures the kind of quality Mazzetta has become known for. Following is a more

detailed breakdown of the key sustainability areas discussed in brief above.

*Ponds:*

As stated, Mazzetta sources its Swai from Vietnam. Water is pumped to our ponds directly from a fresh water source; water quality is tested and water is treated prior to being introduced into the ponds. There is a 30% water exchange each day in the ponds in which new treated water is pumped. Ponds are drained after each farming cycle and cleaned before restocking. Ponds vary in size but the average 1 hectare pond will yield approx 200mt of fish. Farming cycle is 5-6 months from fingerling to harvest weight (approx 1kg).

*Feeds:*

It has recently been mandated by National Fisheries Quality Assurance and Veterinary Directorate (NAFIQAVED) under the Ministry of Fisheries of Vietnam that all farmers switch to pelletized commercial feeds produced by approved suppliers. All feed is also third-party tested for the existence of residues or banned substances.

*Resource Size:*

1,500,000 metric tons of Swai was harvested in Vietnam in 2009 according to the Vietnamese Association of Seafood Exporters and Producers (VASEP) – for reference this is close to twice the size of the Alaskan Pollock fishery (09 TAC). The incredible growth in volume has resulted in Swai becoming the most competitively priced white fish in today's market.

*Food Safety/Traceability:*

Mazzetta Company has been at the forefront of food safety initiatives in Swai farming in Vietnam. We have been an active participant in the WWF Pangasius Aquaculture Dialogues and have implemented several 3rd party certifications for each step of the production process. As we are active promoters of the ACC's BAP certification, as

soon as these standards for Swai are finalized we will be implementing these at the APPU.

Given the preceding, Mazzetta Company stands firmly behind its decision to offer Swai to its customers.

For more information on the Agifish Pure Pangasius Union please visit: http://www.agifish.com.vn/home_en/modules/sections/index.php?op=viewarticle&artid=23

**Warm Water Shrimp**

Nearly eighty percent of the shrimp Americans consume each year is farm-raised. In recent years, worldwide shrimp production has increased at a rate of nearly 10% annually resulting in a modern shrimp aquaculture industry in excess of $10 billion annually with production numbers over 2.6 million metric tons. Numbers like those necessitate great responsibility throughout the production and distribution chain and Mazzetta Company has long embraced that responsibility.

As a Governing Member of the Global Aquaculture Alliance, and a registered Aquaculture Certification Council buyer, our commitment to best operating practices and high standards and protocols has never been in question. However it is the additional overlay of our own internal requirements and protocols that separates Mazzetta Company from its competitors.

With respect to warm water shrimp, we'd like to focus on three major areas; farms and feed, transport and processing, and environmental mitigation.

*Farms and Feed*

Any great chef will tell you, beginning with good ingredients makes all the difference. In this spirit, Mazzetta Company maintains strict guidelines regarding the use of feed. Our feed ingredients do not contain pesticides, chemical contaminants, microbial toxins, or other adulterating substances. In addition, all of our suppliers are required to have approved farms they purchase from and are inspected prior to harvest for the presence of antibiotics or banned substances.

*Transport and Processing*

As has been mentioned, Mazzetta Company maintains extremely high internal standards and no where are these standards more evident than in the production of our shrimp. We embrace strict specifications on hygiene and cleaning, water use, travel time from pond to plant, temperature limits including cooking temperatures if applicable, product recall, and internal audits. We also boast industry-low use of tripolyphosphate and soaking times, excellent uniformity ratios, color segregation and strong microbiological specifications. As you might imagine, Mazzetta Company is also extremely tough on allowable basic defects and foreign matter contamination. These specifications present significant costs, but in the end produce a superior product.

*Environmental Mitigation*

With the phenomenal growth rate of shrimp aquaculture has experienced over the last decade, it is vitally important to continue increasing the awareness of proper waste management within the shrimp farming industry and enhance protection of coastal land and water resources. Inherent in farming are activities that produce wastes. With that in mind we are adamant that our suppliers have systems of waste management for protecting lands and waters in the vicinity of their activities. These guidelines include maintaining canals and embankments to reduce erosion of above water portions, minimizing water exchange to the extent feasible, use of efficient fertilization and feeding practices to promote natural primary productivity while minimizing nutrient inputs, draining of ponds in a manner to minimize resuspension of sediment and prevent excessive water velocities in canals and at effluent outfalls, ensuring ponds are fallowed and disinfected between production cycles, having reforestation or similar programs, and of course routinely evaluating waste management procedures and continually attempting to improve upon them. We recognize that our market share positions us to have great influence in this regard and we readily embrace the opportunity to demonstrate continued leadership in sustainable production.

Mazzetta Company has also been an industry leader in requiring the replenishing of mangrove ecosystems to preserve the biodiversity of these coastal ecosystems. Specifically, Mazzetta strongly advocates that new shrimp farms are not to be developed within mangrove ecosystems. Realizing that some mangrove must be removed for canals when new shrimp farms are sited behind mangroves, a reforestation commitment of no net loss of mangroves is maintained.

Given the preceding, Mazzetta Company stands firmly behind its decision to offer Seamazz® brand raw and cooked premium shrimp, and warm water farm-raised shrimp among its product line.

For more information, please visit:

http://www.gaalliance.org/

http://www.aquaculturecertification.org/

- **Mitigating Our Footprint**

As was initially discussed in our 2009 Report, greater efficiency can be achieved through many forms. In 2009 we discussed the elimination of simple case strapping as a way to reduce our use of plastics, our emissions in transport, and even marginally lower our costs. While we didn't anticipate many would view that minor change in efficiency as monumental, it effectively demonstrated our thought process in evaluating our operations and the possibilities that may exist to streamline and mitigate our footprint.

In June 2010 Mazzetta Company took another step in this effort when it began offering iGPS pallets in place of wooden pallets to all of our customers. Making the switch to iGPS pallets, although more costly, is a really great demonstration of how a business decision can in a longer view be both sound economically as well as environmentally. Two of the chief advantages of iGPS pallets are that they're traceable and recyclable. In terms of traceability, iGPS pallets can be tracked by their RFID tag. By using iGPS's RFID-tagged pallet pool, Mazzetta Company and their customers have an improved ability to track the location of each unitized load of product throughout the supply chain. This improvement bolsters a key component in ensuring food safety and the ability to implement a necessary product recall.