

# THE AUSTRALIAN ORNAMENTAL FISH INDUSTRY



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# Authors

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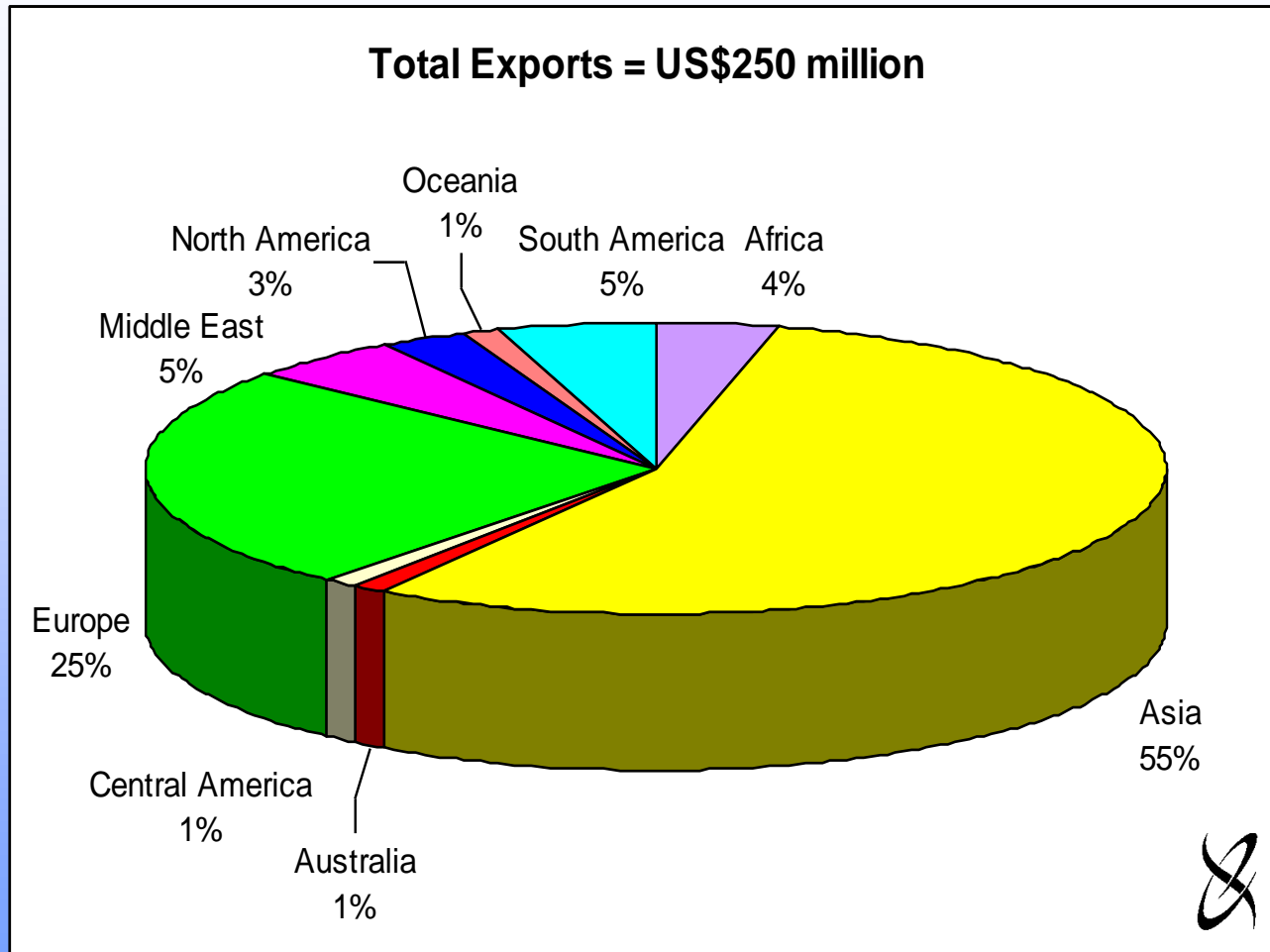
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- **Much of the data presented here is based on recent Australian government funded research project**

# World Ornamental Status

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- The keeping of ornamental fish is a tradition that goes back many years, with over 100 million hobbyists worldwide trading more than 1.5 billion ornamentals per year.
- Over 2,000 freshwater finfish species, almost 1,500 marines and up to 1,000 invertebrates are traded worldwide.
- Worldwide annual retails sales between \$3.0 and \$4.5 billion plus another \$20 billion in accessories.
- 70% of fish traded are exports from Asia.
- Major import markets are USA, Japan, Germany, UK and France.

# Major Exporting Countries



# The Australian Industry

- The ornamental fish industry is well established in Australia, with some operators more than 40 years old
- The industry has a structured distribution chain in Australia, well serviced by air and road links
- There are more than 200 licensed fish breeders, catchers and importers supplying a network of wholesalers who in turn sell to an estimated 1,500 pet shops and specialist aquarium outlets around the country.



# How popular are Ornamental Fish?

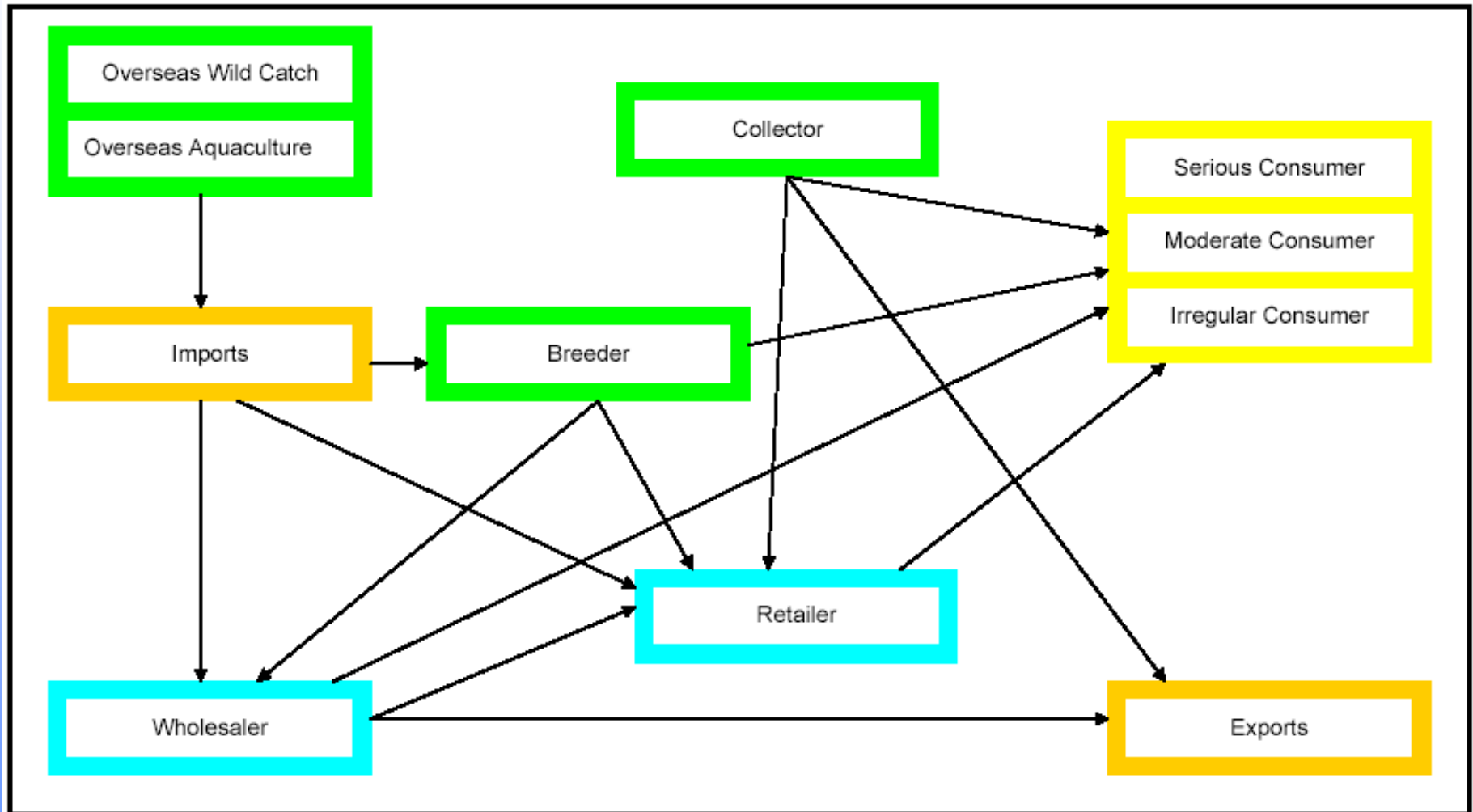
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- In Australia it is well known that fish\* keeping is popular with over 10% of the population participating in the aquarist hobby at some level.
- The importance of the industry has been confirmed by a recent major study which examined all of the sectors of the Australian ornamental fish industry.

\*For the purpose of the study 'fish' includes finfish, crustaceans & molluscs – amphibians and aquatic reptiles were not included in the survey.



# Channels for Trade in Australia





# Ornamental Fish Species

- Over 2,000 different species of marine and freshwater fish, crustaceans, molluscs and other animals are sold.
- Sales of marine species are expanding faster than the expansion in sales of freshwater species.
- Wild catch collectors are mostly based in Western Australia, Northern Territory and Queensland.
  - Many export, particularly marines
- Also increased culture of marine species, including Clownfish (*Amphiprion* spp.) and Seahorses (*Hippocampus* spp.).





# Ornamental Fish Imports

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- In 2006/07, imports of ornamental fish were higher than local production (breeding and wild catch).
- Approximately 17.7 million fish were imported in 2006/07, mostly freshwater finfish – this increased to just under 20 million in 2007/08.
- The total value of ornamental fish imports in 2006/07 was \$5.3 million, the average price was \$0.30.
- Importation of fish is highly regulated via Australian Quarantine and Inspection Service (AQIS)
  - o There is a 1-3 week quarantine period (depending on species) to prevent disease imports.
  - o There is a requirement for a range of permits and health certificates for each shipment
  - o List of species that are allowable imports

# Australian Breeders & Collectors

- Breeders and collectors supply the wholesale and retail trade sectors with fish, plants and invertebrates.
- Breeders sold an estimated 7.7 million fish worth \$5.0 million, whilst collectors sold almost 0.6 million fish worth \$5.3 million and 74 tonnes of live rock and coral worth an estimated \$1.8 million.
- Ornamental fish breeding occurs predominantly in Victoria, primarily freshwater species are produced.



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# Australian Breeders & Collectors

- Aus. Breeders could be largely classed as a 'Cottage Industry'
  - Many small family based
  - Niche products often high value
  - Lifestyle
- Breeders primarily sell to the wholesale and retail sectors whilst collectors sell directly to retailers and export product overseas.
- Collectors are based in the northern areas of Australia which reflects the supply of and demand for tropical marine species.



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# Australian Breeders & Collectors

- More than 60 exotic species are cultured in Australia, including Goldfish (*Carassius auratus*), live bearers (Mollies, Platys and Tetras), Catfish, Angel Fish and Koi Carp.
- There has been an increased interest in Australian natives in recent years including Rainbowfish, Saratoga and native food finfish (eg. Black Bream and Barramundi).
- Interest also in non finfish specimens, corals, live rock, plants and crustaceans.





# Wholesale/Import Sector

- The wholesale/import sector includes businesses that are involved in directly importing fish and/or accessories from overseas for wholesale sale primarily to retailers.
- Importation dominated by 2 major companies who import 80% of total
- It was estimated that in 2006/07 the total number of ornamental fish sold by the wholesale sector was around 18.9 million.
- The value of these sales is estimated to be almost \$27.0 million for 2006/07.
- In 2006/07. the average wholesale price was \$1.43 per fish.



# Retail Sector

- The retail sector are the interface between suppliers and consumers or hobbyists.
- Retailers can be divided into 2 types:
  - Generalists – who supply a wide range of pets and accessories including dogs, cats, birds and fish
  - Specialists – who supply only fish and fish related accessories
- Retail market is changing with more large retail groups becoming established
  - Generalist market is growing
  - Many small operations closing as they can't compete retail groups
  - Also resulting in change to mix of species, with reduced sales of high end specialist fish
- Internet based retail shops becoming popular



# Retail Sector

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- In 2006/07, the total number of ornamental fish sold through retailers was estimated to be approximately 33.9 million.
- The total value of retail sales of ornamental fish Australia wide was estimated to be \$129.1 million in 2006/07.
- The average retail price in 2006/07 was \$3.16 per fish.
- Total employment in the retail sector was estimated to be in excess of 1,500 FTEs.
- Success of stores is generally linked to their ability to provide service and quality fish
- Skills and knowledge are highly variable in the industry



# Hobbyists & Hobby Organisations

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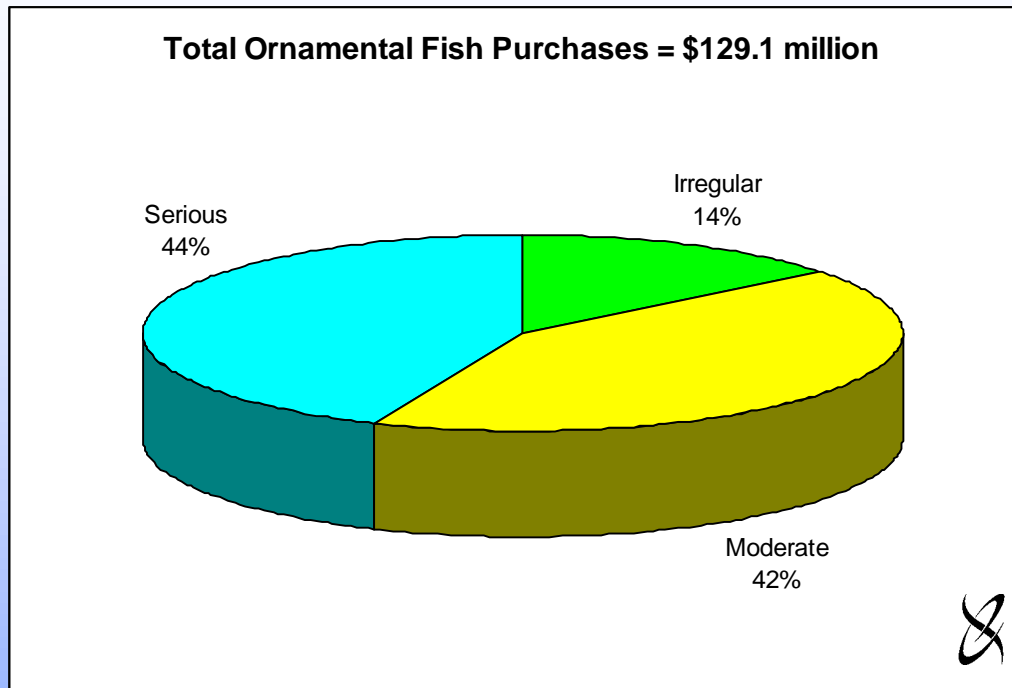
- Hobbyists primarily purchase fish from *retail outlets*. Other sources include:
  - o other hobbyists (who bred stock) or from trade
  - o Some fish are sourced from the wild – usually in small numbers and only if species can legally be collected from the wild.
  - o Trading over the internet via online forums
- There is also an active, but difficult to quantify, trade in fish between hobbyists sell fish to retailers.

# Hobbyists & Hobby Organisations

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- Hobbyists have been classified according to the following three subcategories:
  - o **Serious:** Person who spends significant time and expenditure (>\$1,000/yr) on aquatic animals. Likely to be involved in hobby organisations and regularly show their animals. They may be involved in the selling/swapping/exchange of aquatic animals for accessories, feeds or other animals without a profit focus.
  - o **Moderate:** A moderate level of annual expenditure (less than \$1,000 but greater than \$100) in animals, however no sales made of aquatic animals or accessories. These can include businesses which display aquatic animals for their customer or staff enjoyment, or individuals involved for own or family enjoyment.
  - o **Casual/Novice:** Occasional purchases of fish, total expenditure less than \$100/year.

# Hobbyists & Hobby Organisations



- Overall, serious hobbyists account for 47 per cent, moderate hobbyists account for 37 per cent and irregular hobbyists 16 per cent of the total value of purchases relating to ornamental fish.

# Gross Value of Production

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- The total Gross Value of Production (GVP) of the Australian ornamental fish industry for 2006/07 was estimated to be \$233.1 million.
- GVP for each sector (breeders, collectors, etc.) has been calculated by subtracting purchases of ornamental fish, other products and accessories from gross sales. This is done to avoid double counting in estimating GVP for the whole industry.
- The estimated GVP is based on survey responses from 97 businesses and individuals involved in the industry and excludes the value of unregulated and illegal trade.

# Potential Areas for Industry Growth

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- Comments provided during the surveys suggested the following growth areas for the ornamental industry:
  - o Demographic changes (e.g. increase in housing density).
  - o Increase in import replacement through domestic breeding.
  - o Increase in demand for marine species.
  - o Increase in domestic breeding of marine species.
  - o Potential to increase amount of coral and live rock exported.
  - o Increase in interest in Australian native species.
  - o Education and training to promote growth.

# Potential Impediments to Industry Growth

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- Comments provided during the surveys suggested the following impediments to growth in the industry:
  - o Decrease in economic viability of local production and collection (labour costs, restrictions, lack of young people entering the industry).
  - o Difficult to compete with low value imports.
  - o Increase in competition (particularly in the wholesale and retail sectors).
  - o Lack of accurate information and advice (frustrating for consumers).
  - o Inconsistency of regulations between jurisdictions.

# So what is the Potential for Asian Exporters?

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# Competent Authority Status

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- Exporting country must be recognised to export to Australia – this needs to be undertaken by your government
  - Contact AQIS: [www.aqis.gov.au](http://www.aqis.gov.au)
- Need to ensure that the required certification and disease testing is undertaken. Farms and exporters will need a regular testing program to meet Australian requirements
- Need a network of suitably qualified staff and laboratories to meet these needs

# Biosecurity and Quality

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- There are growing international pressures regarding the transfer of aquatic diseases – largely the reason for Australian Quarantine system
- Also important to have disease free fish to ensure high survival after transport – low DOA claims
- Consumers demand quality product, need to ensure that:
  - o Fish must conform to standards for that fish
  - o Colours are bright and fixed (do not fade)
  - o Tails are not ratty or stunted
  - o No damage to skin, missing scales

# Biosecurity and Quality

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- Essential to maintain export credentials to Australia and countries such as USA, and the EU
- Australian regulations will become stricter
  - Current Import Review Analysis on Iridovirus in ornamental fish
- International trade is likely to become more regulated / restricted due to disease transfer risks
  - Eg. Recent changes to import regulations to the EU
- Set up your facility as 'Disease Free'
  - Be vigilant

# Sustainability

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- There is a growing awareness of environmental issues among consumers throughout the world and a growing demand for sustainable products
  - Buy a fish and plant a tree
  - Fair Trade
- There is a small but growing demand for sustainable produced or harvested ornamental fish
  - Eg. Marine Aquarium Council



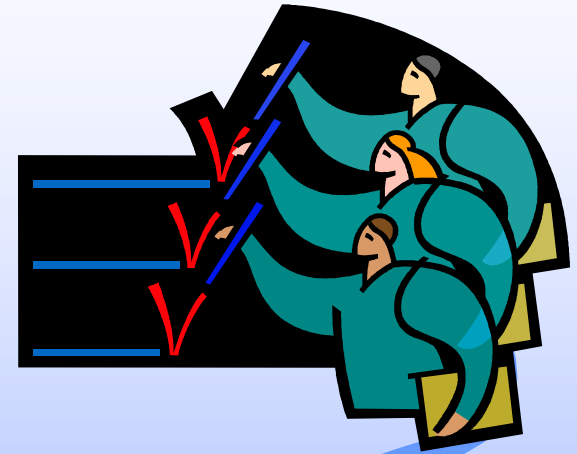
# Consistent volume of Supply

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- Must be able to meet commercial needs of importers
- Large volumes, consistent quality throughout the year
  - Avoid seasonal production, if you do not have the fish, your customers will look elsewhere
- Able to tailor supply to demand by importers throughout the year
  - Joint promotional programs for times when supplies are good
  - Tell your customers when you have large volumes of very good fish

# Quality

- Fish must be packed to ensure high survival, but minimal freight cost
  - Often a trade off
- Understand the biology of species
- Hygienic purging and packing facility
- System for health checks, including microscopes
  - Prophylactic treatments to prevent disease prior to shipping



# Freight Costs

- A major cost of importing fish is freight – this can be worth double the cost of the fish
- Fish must be packed in an economical manner, maximise packing density of fish
- R&D into improved packing methods to increase densities is needed
- Being next to a major international airport is also important
  - Reduces need for internal flights to meet international flights
  - Also reduces transit time and potential problems





# Customer Service

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- Simple things – ensuring paperwork is correct and complete
  - Shipments can be impounded if paperwork is not correct
- Easy communication – phone, email, skype or MSN etc
  - Quick response time
- Establish a working relationship with a view to the long term
- Make many small profits over a long time – do not try and make a big profit overnight!!
- Understand your product
  - Knowledge of species
  - Best conditions to keep them in – pass on to customers



# Thankyou

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Any questions?