

An underwater scene with three fish swimming near coral reefs. On the left is a blue tang with a yellow tail. In the center is a clownfish with orange and white stripes. On the right is a blue tang with white stripes. The background is filled with various types of coral and sea anemones.

An Overview of the Marine Ornamental Trade

Simon Ellis
MERIP

What is the Marine Ornamental Trade

- Trade consists of marine fish, corals, giant clams, live rock and other invertebrates.
- These are bought to go into home aquaria, offices and restaurants, public aquaria
- Product line is estimated at 2000 different species
- Fish make up 85% of the trade by value



How much do people spend on their tanks

- Estimated US\$103 million is spent on marine aquarium animals annually in the USA for 10 million individual specimens.
- Cost of purchasing live rock, fish and invertebrates for a 30 gallon tank is \$325 and \$1,950 for a 150 gallon tank



Where do MOA come from

- Most come from Asia, Pacific Islands, Australia, Mexico, Florida, Hawaii and Caribbean
- Indonesia and Philippines make up more than half of all fish trade
- Indonesia and Fiji are largest suppliers of live coral
- Only 2% of all MOA are aquacultured



Who is Buying Marine Ornamentals

A group of people, including a man in a purple hoodie and a woman, are looking at a large, illuminated marine aquarium tank in a public setting. The tank is filled with various marine life, including corals and fish. The background is dark, and the lighting is focused on the tank and the people.

- USA is worlds largest consumer of MOA importing half of all MOA and 80% of corals
- EU is the next largest consumer
- Estimated 600,000 tanks in the USA (1 for every 500 people)
- Most people with tanks are between age 36-50





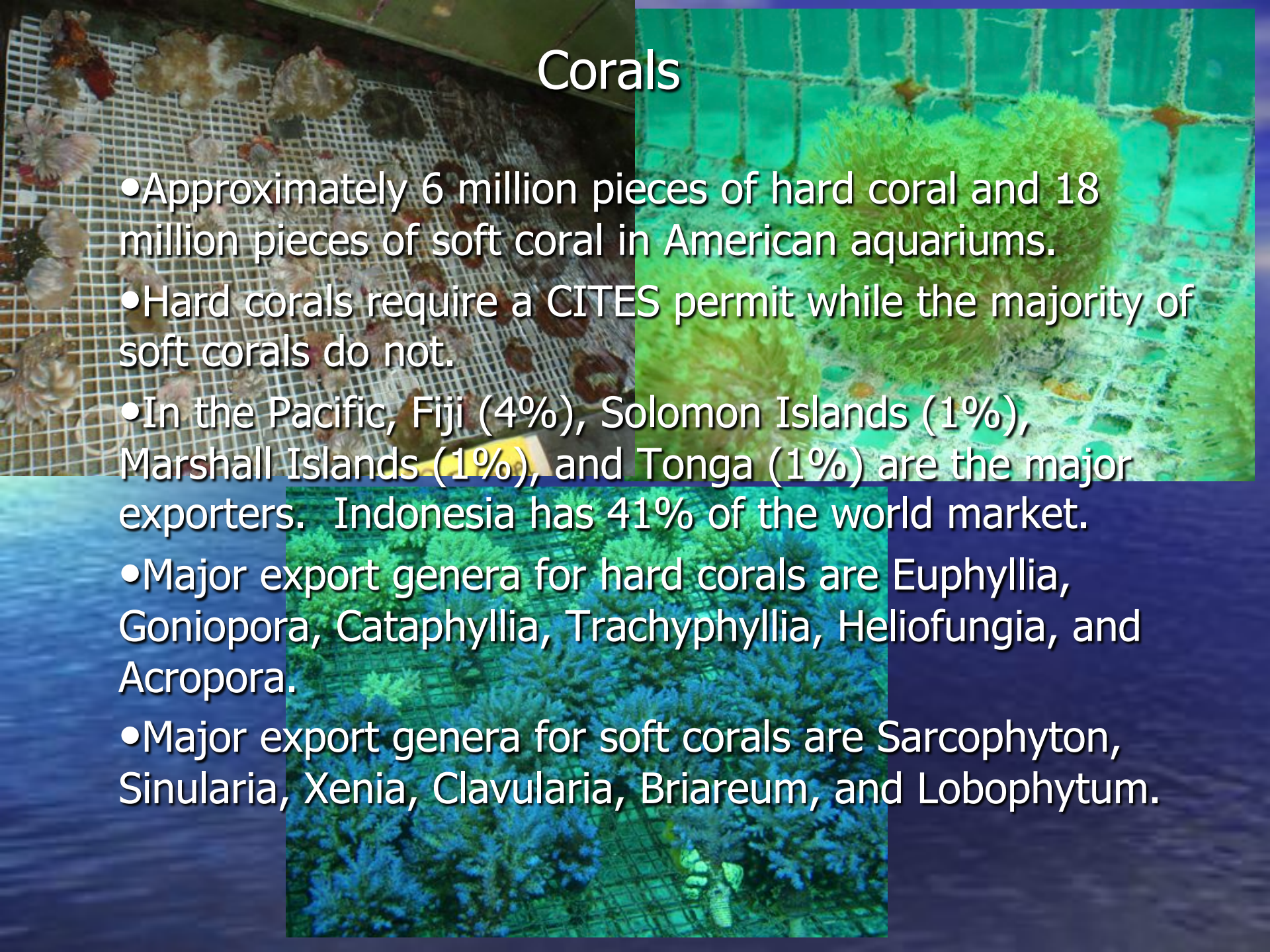
Marine Fish

- Make up 85% of the value
- Estimated about 6-10 million fish sold annually
- Main families are damselfishes, surgeon fishes, wrasses, gobies and angel fishes



Corals

- Approximately 6 million pieces of hard coral and 18 million pieces of soft coral in American aquariums.
- Hard corals require a CITES permit while the majority of soft corals do not.
- In the Pacific, Fiji (4%), Solomon Islands (1%), Marshall Islands (1%), and Tonga (1%) are the major exporters. Indonesia has 41% of the world market.
- Major export genera for hard corals are Euphyllia, Goniopora, Cataphyllia, Trachyphyllia, Heliofungia, and Acropora.
- Major export genera for soft corals are Sarcophyton, Sinularia, Xenia, Clavularia, Briareum, and Lobophytum.







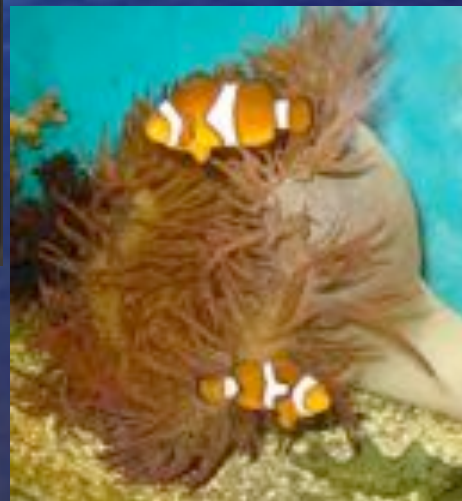
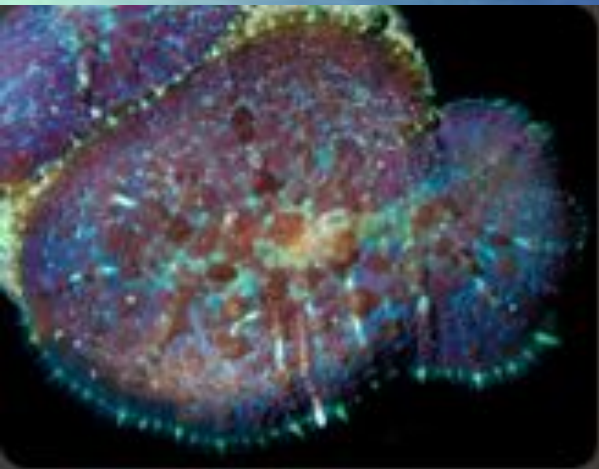
Giant Clams



- World market is about 250,000 animals per year
- Colorful clams such as *Tridacna maxima* are in high demand
- Very important species for MO trade

Other Marine Invertebrates

- Zooanthids, corallimorphs, anenomes
- High demand, generally hardy and colorful



The Average Marine Aquarium

Technology for marine aquaria has advanced rapidly over the last 20 years., especially in the fields of lighting and water filtration.

Aquarium equipment consists of a tank, water filtration system (biological, mechanical, and chemical), heating, lighting and occasionally an automatic feeder. This and supplies (salt, feed, chemicals, etc.) accounts for about 50% of sales.

Size: 200-500 liters (50-125 gallons)

Contents: Mixture of fish and invertebrates

Structure: Live Rock

Kg live rock per liter: 0.21 (1 kg per 5 liters or 1.25 gallons)

Coral colonies per liter: 0.05 (1 colony per 20 liters or 5 gallons)

Fish per liter: 0.025 (1 fish per 40 liters or 10 gallons)

Why is this important for us

- The Pacific Region has some 800 people employed in the marine ornamentals industry
- Micronesia has very large facilities for giant clam and coral production, some of the largest aquaculture facilities in the Pacific region
- There is strong potential for developing more marine ornamental export sustainably



