MARINE ORNAMENTALS 2001

Industry Survey

RESULTS
1.0 Survey Purpose

Marine Ornamentals 2001 (MO 01) Conference and its predecessor, Marine Ornamentals 1999 (MO 99) were designed to contribute to the broad goal of creating an economically and environmentally sustainable future for all stakeholders in the marine ornamentals industry. As with the previous meeting, MO 01 organizers wanted to take full advantage of the diversity and depth of expertise of the more than 280 attendees and through an interactive process described below, develop a set of priority recommendations to guide expansion in the 21st Century.

2.0 Survey Process

In general, attendees were asked to consider the information they gained during the Conference and their own unique experiences and identify the issues that are most critical to sustainable industry development in the coming years. Issues could come from any dimension of the industry, for example: environmental impacts, industry cooperation and partnerships, social and cultural concerns, public education and outreach, international trade, regulation, economics and marketing or aquaculture research needs. Issue items were framed as industry recommendations for voting purposes.

A three part survey instrument was developed that allowed: collection of background information from respondents, Part 1; reprioritization of the 20 priority recommendations from the MO 99 Conference in Hawaii, Part 2; and collection and prioritization of new recommendations from the MO 01 participants, Part 3. Questions for Part 1 Background and Part 2 Priority Recommendation from MO 99, were distributed during the Conference for participant review. An evening, facilitated discussion with interested attendees generated 40 new priority recommendations, which were distributed before the voting.

Voting was carried out the afternoon of the last day of the Conference using an individualized, electronic voting system that allows instantaneous audience polling and immediate projection of results. Each audience member was given an electronic response pad (touch key pad) at their seats. Questions or lists of recommendations were projected on a large screen and audience members were directed to vote. Later with the help of a central computer and special software, voting results were projected and briefly reviewed. These initial results are reported here.
3.0 Survey Results

The survey results are presented in three parts.

Part 1 presents in graphic form the answers to nine questions soliciting background information from attendees. Survey questions are located at the top of each page and results are below. For questions 1 to 8 (slides 3 to 10), numbers in parentheses indicate number of votes for that response. Total number of respondents are at the bottom of the page. Note question 9 (slide 11) presents a ranked response with the higher the number to the right of the graphic, the more votes it received.

Part 2 presents the results of re-ranking the priority recommendations from MO 99 in two groups of ten each. The numbered abbreviated recommendation statements that were projected at the meeting are at the top. Full text for the recommendations for each group can be found on the following page. Participants were allowed to vote three times for items in each group of ten (applying the N items/3 technique used in facilitation to determine number of votes and create lists of priority issues). Results are presented in rank order according to number of the abbreviated recommendation (left side), with the higher the number to the right of the graphic, the more votes it received. The top three recommendations from Groups 1 and 2 were carried forward as priority recommendations from MO 01.

Part 3 presents the results of ranking the new priority recommendation statements generated at the Conference in four groups of ten each. Again, the numbered abbreviated recommendation statements that were projected at the meeting are at the top. Full text for the recommendations for each group can be found on the following page. Again, participants voted three times in each group of ten. Results are presented in rank order according to number of the recommendation (left side) with the higher the number to the right of the graphic, the more votes it received. The top three recommendations from Groups 3 to 6 were included as priority recommendations from MO 01.

4.0 Conclusions

MO 01 utilized an instantaneous electronic polling process that allowed attendees to develop a set of 18 priority recommendations that can be used by the industry at large to guide sustainable industry development in the 21st Century. The unanalyzed, “raw” results are being posted on the MO 01 web site and will be distributed to various industry publications. A more detailed analysis and consideration of the long-term implications will be published at a later date. Please utilize and refer to these results in your own work.

Questions and comments on the material found here are welcome and may be directed at John Corbin, Survey Coordinator at aquacult@aloha.com, voice (808) 587-0030, and fax (808) 587-0033. Conference organizers are very interested in improving this on-going process of the marine ornamentals industry periodically coming together and exchanging information and ideas to develop consensus on key issues. Stay tuned for information on the location of Marine Ornamentals 2003.
PART 1

Attendee Background

Survey
Which category BEST describes your role in the marine ornamentals industry?

1. Aquaculture producer
2. Research scientist
3. Retailer
4. Wholesaler/Importer
5. Collector
6. Hobbyist
7. Non-governmental organization
8. Government agency
9. Trade association
10. Other

Aquaculture producer 15% (13)
Research scientist 35% (30)
Retailer 1% (1)
Wholesaler/Importer 0% (0)
Collector 1% (1)
Hobbyist 11% (9)
Non-governmental org. 11% (9)
Government agency 9% (8)
Trade association 1% (1)
Other 15% (13)

Total: 85
Your business/organization is located in:

1. USA 74% (64)
2. Canada 3% (3)
3. Europe 11% (10)
4. Middle East 1% (1)
5. Africa 0% (0)
6. Asia 2% (2)
7. Pacific Islands 3% (3)
8. Caribbean Islands 3% (3)
9. Central America 0% (0)
10. South America 1% (1)

Total: 87
You have been involved in the marine ornamentals industry for:

1. 5 years or less  
2. 10 years or less  
3. 15 years or less  
4. 20 years or less  
5. More than 20 years

Total: 87
I attended Marine Ornamentals '99 in Hawaii.

1. Yes
2. No
I would SERIOUSLY consider attending a recurring marine ornamentals conference every two years.

1. Yes
2. No

Total: 91

Yes 87
No 4

Marine Ornaments 2001 Results
The MOST IMPORTANT consideration for me in deciding to attend a marine ornamentals conference is:

1. Location
2. Time of year
3. Cost
4. Relevance of the program/speakers
5. Length of the conference

Total: 90
I am LIKELY to attend a marine ornamentals conference held outside the United States.

1. Yes
2. No

Total: 92
Yes 57
No 35

Slide: 9

Marine Ornamentals 2001 Results
I am MOST interested in hearing knowledgeable marine ornamentals speakers in the area of:

1. Collection
2. Culture
3. Conservation
I am MOST interested in hearing knowledgeable speakers in the areas of:

1. Retail/Wholesale Sales
2. Import/Export
3. Regulation/Public Policy
4. Commercial Aquaculture
5. NGO Activities
6. Stock Certification
7. Shipping and Handling
8. Market Statistics
9. Current Research/Coral Reef Status
10. Equipment and Supplies

Slide: 11

Marine Ornamentals 2001 Results
PART 2

Re-prioritization of
Priority Recommendations from
Marine Ornamentals 99,
Hawaii, U.S.A.
GROUP 1

1. Govt. communicate ind. resource/reg issues
2. Devel. text trop. fisheries bio/man
4. Res. priority MO aquacult & reef preserv.
5. Devel. prod handl prog & res. proj.
7. Devel. MO stand. & cert. require
10. Devel. trad & bio. data

3 Science comm & MO ind partner res. 5.72
4 Res. priority MO aquacult & reef preserv. 5.20
10 Devel. trad & bio. data 4.25
9 Use market-based incent/legisl. 2.84
6 Process w/Marine Aquar Coun. 2.11
1 Govt. communicate ind. resource/reg issues 1.81
5 Devel. prod handl prog & res. proj. 1.60
2 Devel. text trop. fisheries bio/man 1.42
8 Rapid devel/impl ind. cert. 1.20
7 Devel. MO stand. & cert. require 0.85

Most Important  Slide: 12
MO 99 PRIORITY RECOMMENDATIONS

GROUP 1

1. Governments should develop better communication with the marine ornamental industry on their resource concerns and pending regulatory actions.

2. Encourage the development of a simplified text on the principles of tropical fisheries biology and management, with emphasis on marine ornamental species, to help educate the public on the basis for regulating development and use of marine resources.

3. Investigate mechanisms for the scientific community and the marine ornamentals industry to partner on research, in order to accelerate scientific progress.

4. International and federal research funding sources should give highest priority to projects involving the advancement of marine ornamental aquaculture and reef preservation and this recommendation should be forwarded to all appropriate organizations.

5. The marine ornamentals industry should develop product-handling programs and research projects aimed at reducing and minimizing handling stress and its affects on survivorship.

6. Develop a comprehensive process, through the Marine Aquarium Council, that involves the full range of stakeholders and focuses on constructive efforts to resolve national and international issues affecting the marine ornamental industry.

7. Develop marine ornamental industry standards and certification requirements with the broad input of the full range of stakeholders.

8. Rapidly develop and implement industry-wide certification programs for the marine ornamental trade.

9. Encourage through the use of market-based incentives or legislation, a process that rewards and/or acknowledges those industry members that provide a product that meets accepted best practice standards.

10. Develop reliable trade and biological data for marine ornamentals.
GROUP 2

1. Mechanism id/respond misinfo.
2. MO conf. every 2 yrs
3. Publish/directory MO ind
4. Adopt ethical methods sustain.
5. Utilize sustain collect meth.
6. Endorse sustain collect/cult sources
7. Ed prog./organizing holistic
8. Aquacult stock high value
9. Devel. demand cult/collect fish
10. Adopt/pro-environ position

Most Important

Marine Ornaments 2001 Results
MO 99 PRIORITY RECOMMENDATIONS

GROUP 2

1. Develop mechanisms to identify and respond to misinformation and disinformation about the marine ornamentals industry.

2. A conference along the lines of the Marine Ornamentals 99 concept should be held at regular intervals and no less than every two years.

3. Develop and publish a directory of all individuals and firms involved in the marine ornamentals industry to assist in communication.

4. The entire marine ornamentals industry should adopt and employ ethical methods for sustainable use of bio-resources in the 21st Century.

5. The marine ornamentals industry must adopt and utilize sustainable, environmentally friendly collection methods.

6. The marine ornamentals industry should accept and endorse sustainable collection and sustainable cultured sources and adopt a policy of expanding the market for both sources together.

7. Education programs and collector organizing efforts should be “holistic” in approach and include consideration of environmental, economic, social and cultural issues, not just technical issues.

8. The industry should encourage the notion that aquacultured animals and plants are bred to be better adapted to the aquarium environment and therefore have higher value.

9. The marine ornamentals industry must develop greater consumer demand for fish aquacultured and/or collected in a sustainable manner.

10. The marine aquarium industry should adopt a pro-environment and pro-habitat position with respect to the global pollution and destruction of the natural environment that is occurring today.
PART 3

Priority Selection of

Recommendations for

Marine Ornamentals 2001

Florida, U.S.A.
GROUP 3

1. Website MO interests exchange info
2. MAC Fast Track Aqua Cert.
5. Ecological impacts culture MO
6. Fish health and husb educ incr.
7. Increase MO res and hobbyist educ/health
8. Bibliography MO fish health
9. Standard approach spawn/rear MO
10. MO conf. marine plants

Most Important

Slide: 14

Marine Ornamentals 2001 Results
MO 01 NEW PRIORITIES

GROUP 3

1. Establish website for global marine ornamentals (MO) interests to exchange scientific and non-scientific information on breeding, species biology, economics, etc.

2. Marine Aquarium Council (MAC) should “FAST TRACK” development of certification program for aquaculture species.

3. Develop organizational and procedural mechanisms to implement/monitor progress with MO 01 recommendations.

4. Develop mechanisms to disseminate culture information for MO species (new and old), such as a centralized information base.

5. Assess potential ecological impacts of cultured MO organisms released into the wild.

6. Enhance fish health and husbandry education to increase hobbyist (customer) satisfaction.

7. Raise the level of research and hobbyist education in MO fish and invertebrate health management.

8. Create and disseminate bibliography of quality research and MO fish health.

9. Develop and publicize standardized approaches to spawning and rearing more MO fish species.

10. Future MO conferences should include sessions on marine plants (e.g., culture, marketing, economics).
GROUP 4

1. Prioritized MO Res. needs list
2. MO 03 session recom monitoring
3. Formal MO educ. programs
4. Ind. devel edu/outreach-consumers
5. Ind devel precaution doc/list species
6. More sessions culture MO 03
7. MAC cert info dist. MO equip supplies
8. Volun. assessment prog./conserv.
9. Govt. recog/cert. cult and wild MO
10. MAC-coral reef TF work habitat
MO 01 NEW PRIORITIES

GROUP 4

1. Develop a prioritized list of marine ornamentals (MO) research topics for public funding organizations.

2. Provide session at MO 03 that monitors progress in implementing previous recommendations.

3. Develop formal education programs at the undergraduate and graduate levels in MO aquaculture and aquarium science.

4. MO industry to develop education and outreach strategies to inform consumers of current issues.

5. MO industry should develop precautionary documents and lists relative to identification of aquarium species difficult to maintain or obtain.

6. At the Marine Ornamentals 2003 conference have more sessions on culture.

7. Encourage placement of Marine Aquarium Council (MAC) certification information on packaging for organisms, equipment and supplies sold to hobbyists.

8. Establish a voluntary assessment program, e.g., one cent per purchase, for hobbyists to support reef protection and sustainable MO harvest.

9. Have government recognize and certify origin of MO species, i.e., cultured and wild caught.

10. MAC and the Coral Reef Task Force should work together to identify and preserve critical habitat.
1. Create working groups, plan MO conf.
2. Research needs AQUA leases
3. MO health edu, wholesale-end consume
4. Linkages MO commun-Zoo/aquar. comm
5. Res. effects invasive algae reef
6. MAC method tell diff. cult-wild MO
7. Mech. transfer info scientist to hobbyist
8. MAC determine who exports US
9. Prog. train collectors proper methods
10. Convert FW hobbyist to SW

Most Important

Slide: 16

Marine Ornamentals 2001 Results
MO 01 NEW PRIORITIES

GROUP 5

1. Create working groups to work between marine ornamentals (MO) conferences to develop issues for discussions at the next conference.

2. Address research needs on the interaction of MO aquaculture leases (e.g., live rock) and wild caught stocks.

3. Develop MO animal health education programs targeted for wholesaler to end consumer.

4. Develop mechanisms and linkages for communication and information exchange between the MO community and the zoological and public aquarium communities.

5. Conduct research on the effects of invasive algae on reefs in the U.S.

6. Marine Aquarium Council (MAC) should promote methods that allow distinction between cultured and wild-caught MO in the marketplace.

7. Promote mechanisms to transfer technical information from the scientist to the hobbyist.

8. MAC should become the governing body determining which countries export MO to U.S. market.

9. Industry should develop comprehensive, formal program to train MO collectors in sustainable and safe methods.

10. MO industry should undertake initiative to convert freshwater hobbyists to saltwater hobbyists.
GROUP 6

1. Big importers/exporters at MO conf.
2. Ind. devel int'l trade assoc.
3. MAC lobby Congress Nat'l Res. Initiative
4. Study legal/leasing regimes
5. MO 03 session, regulatory regimes
6. Help hobbyists do research
7. MAC clearinghouse funding sources
8. MO info shared entire chain of dist.
9. MO 03 discuss. include more retail, int'l/govt.
10. Ind. goal, quality and affordable MO

Marine Ornaments: 2001 Results
MO 01 NEW PRIORITIES

GROUP 6

1. Increase attendance by world’s largest importers and exporters to marine ornamentals (MO) conferences.

2. Industry should develop an international MO trade association, that is not Marine Aquarium Council (MAC).

3. MAC should consider lobbying U.S. Congress for broad national research and development initiative for MO.

4. Study existing legal regimes around the world that successfully allocate ocean lease sites in community and reef friendly ways.

5. Have a session in Marine Ornamentals 2003 conference on regulatory regimes for MO in other countries, what works and what doesn’t.

6. Set up mechanisms to provide guidance to help hobbyists who want to conduct MO research.

7. MAC should provide a clearinghouse for sources of funding (i.e., grants) available to hobbyists, students, etc.

8. Information on MO should be shared up and down the “Chain of Distribution” by participants.

9. More governmental agencies, retailers and international representatives should be involved in the discussions at Marine Ornamentals 2003.

10. The MO industry should adopt the goal of sustainably producing a quality product at affordable prices.