



One Ocean Marine Forum

July 17 & 18, 2005
Maui, Hawai'i, USA

How can we work together for a healthy ocean?

Book of Proceedings

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A Letter from the Forum Organizers

Time is running out for our oceans. Pressures from a rapidly growing world population changing oceans at an unprecedented rate. From CO² concentrations that accelerates global climate change to global depletion of fishery stocks, the problems are unprecedented and will require innovative solutions. A world wide network of educators and efforts to focus on these problems is essential.

Designing a network of marine, environmental and science educators for sustainable oceans was the goal of the One Ocean Marine Forum held in Maui in July 2005. Twenty seven educators from around the Pacific Rim and beyond came together for the Forum, held in conjunction with the US National Marine Educators Association Annual Conference. Participants from the US, Canada, Australia, New Zealand, Marianas Islands, South Africa and England met to create a network. Other educators with an interest in the network but without funding to attend represented South and Central America, American Samoa and other parts of the world.

Marine environmental education for sustainable oceans is fundamentally a world wide effort and must engage a wide variety of institutions, professional associations, and individual educators. The effectiveness of the One Ocean network will depend on the strength and inclusiveness of partnerships, networks and alliances which is able to involve stake holders at all levels.

The network will foster:

- ways to identify key local ocean issues;
- links among international groups to explore the existing variety of successful programs;
- ways of integrating local knowledge and culture; and,
- foster the believe that each person has the power and responsibility to effect positive change.

The 2005 forum documents explore the work and accomplishments of the first One World Marine Forum. These formulate the first steps in organizing the One Ocean Network.




















Details of the 2005 One Ocean Marine Forum can be found at www.mesa.edu.au/inter/oomf01.asp

For further information contact Harry Breidahl at nautilused@optusnet.com.au

One Ocean Marine Forum - Vision and Values Statements -- a working draft

NOTE: See also session notes for: *Drafting a Model for Cooperation and Guiding Principles / Establishing a Network of Marine Educators*

One Ocean.

-  Fully functioning ecosystems
-  Maintaining biodiversity
-  Clean Water
-  Sustainable fisheries
-  Young people doing collaborative projects
-  Diversity of species - language - culture - viewpoints
-  Agencies and communities work together globally across our ocean planet
-  People and government show passion towards our ocean planet
-  People know how they are connected and feel connected to our ocean planet
-  People have a passion, compassion, awe, respect, understanding and appreciation for our ocean planet
-  We are getting our ocean planet “into the recovery ward and she is in remission” - our focus is on wellness
-  There is sustainable funding for our ocean planet
-  People have access to the ocean in a sustainable way
-  Everyone acts and works as one
-  Children grow up in a biologically rich, socially just, culturally diverse world with access to education about the ocean planet. We borrow the earth from our children and all future generations.
-  Humans recognize that we live in a reciprocal relationship with all plants, animals and non-living beings on our ocean planet
-  Humans are accountable and responsible for our impact on our ocean planet



One Ocean Marine Forum

...is a meeting of anyone interested in a healthy ocean planet.

This Forum exists to:

Embrace a diverse group of perspectives

Establish and nurture ways to communicate

Create a space for

- exploring opportunities for exchange and collaboration

- improving relationships

- increasing dialogue

- clarifying our thinking

- seeding / conceptualizing collaborative projects

- creating opportunities for peer review, critical critique, analysis of and reflection about our practices -- and constantly learning to improve our practices

- creating opportunities for international and cross-cultural collaborative projects such as curriculum

Provide energy and effectiveness

Be outward looking and inclusive

Coordinate resources

Integrate local knowledge with collective knowledge

We promote advocacy towards a healthy ocean planet.

Each Forum and the actions and initiatives that come of it describe our ongoing strategies and are a model for international cooperation in marine and environmental education.

We would like the 2005 Forum to be a framework and a catalyst for the next One Ocean Marine Forum.

Tema

Issue / Topic: **Human Population...Is the Topic**

La persona que haya identificado el tema de la discusión

Convener: *Barbara Mayer*

Los otros participantes

Other members: *Vicki Osis, Jody Plecas*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Population is the ultimate problem

Solutions are difficult due to cultural and religious issues.

Worrisome for kids.

1st World versus 3rd World issues

Not immediately think of; reluctance to talk about it. Off the radar screen for most people. Too big a problem to discuss

Vicki chose to work on population issues at a conference; does population talks for kids → adults and uses the (U.S.) "population data sheet" for people to just look at the facts. She has a worksheet to go with that. Then relates to local problems. End of conference, every group in Mid → High School chose to work with population.

One kid in particular was incensed that this issue had never been covered in his classes / courses.

Therefore it's our responsibility to teach this issue at some grade levels. Bush's funding cut off of "family planning" programs.

Did the worksheet bring up anti-feelings? Like anti-religion, anti-nation, anti race? No, it didn't.

Conference goal:

How can we work together to promote a healthy ocean.

- face population issue as ultimate stressor on oceans
- brainstorm how to teach / discuss issue at different age students
 - Search on Web for lessons already in existence
 - Population clock on Web
 - 2PG has a 5 minute video - very effective
 - (U.S.) "World Population Fact Sheet", published by "Population Reference Bureau"
 - ICC International Coastal Clean Up

Tally sheet for folks to go out and tally types of coastal debris
Done by volunteers - gathering data - submitted to Central Office
McDonald's stopped Styrofoam clamshell packaging because of data.

How can we encourage and make it easy to teach about population

How to educate people on needs for population control i.e. Africans believe the condoms produced by developed nations are infected with AIDS virus.

Doctors Without Borders: wealthy people to contribute & purchase birth control

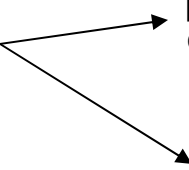
Change US voters' attitudes to support family planning to All countries.
1st World consumption patterns must change.

Tie ocean studies or sustainable lessons to population growth and its affects on oceans

Population issues CAN be taught by tracking facts of population

Eco foot print - How to calculate your Ecological foot print

Lessons:

- lily pad  paper laid down on the floor of a classroom: day #1 - 1 paper
day #2 - 2 more papers
day #3 - 4 more papers
... etc.
squares of graph paper colored in

How do we get this message out to educators?

Maybe by the Internet, a website

★ Identify, through our work, the “nodes”, “influencers”, the “vectors” (Humans) who are really “distributors” of information within their countries.

Has to be electronic, too. - - How do we put this problem into the Search Engines. - - How a website is named to be picked up by Search Engines.


Paul & Ana Ehrlich (spelling?) have a new book on human population (The old “The Population Bomb”)

Has global travel exacerbated the human population growth problem?

The year 2005 is supposed to be the peak for oil production.

Maybe could approach human population problem in a less threatening way by “graphing” the growing number of cars in our community, state, island, etc.

Resolved: devote 1 classroom lesson to human population growth.

 Our responsibility as adults / teachers

The U.S.A. is the fastest growing developed nation !!!

Tema

Issue / Topic: **Sustainable Use of Marine Resources**

La persona que haya identificado el tema de la discusión

Convener: *Sylvia Spalding*

Los otros participantes

Other members: *Sarah Schoedinger, Gloria Snively, Andrew Vance*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

70-80% of seafood in U.S. imported, so restrictions / intake on fish species just shifts the impact elsewhere because we buy from nations that are not fishing sustainably.

Textbooks don't adequately address different sides to the issue. Hard to have values-related curriculum.

Marine science seen as "soft" science in other courses.

Ocean literacy - what do you need to know by the time you leave 12th grade to be considered ocean literate?

Fisheries under social sciences. Hard versus soft sciences.

Problem of middle school disengagement. Marine Science is good for interdisciplinary work.

You need hard science in Canada to get into university.

Include cultural knowledge of sustainable use.

Move from conservation - fisheries management to ecosystem management.

How to elevate human use of oceans in Ocean literacy?

What are stories we can tell? What local stories?

Make the issue relevant to local people / students

"Conspicuous Consumption" -- How do you engage consumers with the fact that they are impacting on the ocean.

There is a lack of discussion about values. World views need to be considered...

Acknowledgement of different sometimes opposing ways to view the ocean.

How can we talk with our students about the various issues / different viewpoints on these issues.

How can we engage them.

▲ Teaching activity called "Needs & Wants" is good for this. Project Wet / Project Wild. Get kids thinking critically.

How much information do consumers have to make decisions? In the U.S. we have to engage other countries in these discussions regarding fisheries management because not enough just to have effective management on our shores and in our waters.

Sustainable use doesn't just mean fishing. Recreational use of waters as well as sustainable use of watershed areas. Seems like the "answer" is having the efforts being community-driven and regulated. Community should have input to making regulations.

Scientific analysis versus local aboriginal knowledge or working in concert.

Have people anchored in a place versus transients. Places where traditional knowledge is only fishermen who are disappearing. Losing knowledge base.

Also transient fish.

Fish travel around one big ocean.

Need a Canadian or NMEA board. Good to see NMEA becoming more international. Also more young people.

Whaling moratorium caused Australia to get into international realm.

Technology has developed so fisheries in New Zealand can now go into Australia.

Geography deals with people and places. National Geographic Society has shifted discussion to conservation / sustainability.

Make recommendations for next NMEA focus on global sustainability.

Polarization between conservation and use is a false model, maybe because how we approached science in the West. Maybe ecosystem based management on a global scale or around the globe.

Changing consumer mentality. What do you buy? How much do you buy? Etc.? Buying stuff in season?

Ecological footprints -- look at how your personal life style impacts environment. Australia has 2 web based examples kids can go to to punch in their information and get an analysis.

Tema

Issue / Topic: **Marine Education and Advocacy for Healthy Oceans**

La persona que haya identificado el tema de la discusión

Convener: *Carlos*

Los otros participantes

Other members: *Wendy Barry, Cai Douwes, Mellie Lewis, Fiona Fraser-Smith, Russell Stevens*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Healthy oceans ↔ sustainability

Experiential learning is important for encouraging advocacy and action in learners.

Advocacy = art of persuasion

Stewardship is a part of advocacy

Advocacy skills development should be part of stewardship

Experiencing marine reserves programme in New Zealand as a model of promoting advocacy in students

Over emphasis on testing of content knowledge in U.S. limits the extent to which behavior + values can change

New Zealand + Australian models of education in, about and for the environment

How can U.S. marine educators become a powerful lobby / advocacy force to challenge the limitations of the current education system that teaches unsustainability

Systemic differences between U.S., New Zealand + Australia etc.

Island culture e.g. New Zealand, Pacific means people have stronger inherent values for the ocean than those on mainland.

Tbilisi Declaration 1978

Foundation document for environmental education. Useful for marine education: skills, attitudes, values, knowledge + action

Recommendation: Encourage partnerships between environmental educators and marine educators, e.g. NAAEE + MESA (MCEN in South Africa)

Education for sustainability

Advocacy by professionals - let's sell it as education for sustainability

Need advocates for marine education

Marine arm of the United Nations Decade for Sustainable Development

Form international marine education for sustainability
→ International voice / advocate for marine education

Conferences should raise advocacy as a theme / outcome

Need a strategy that is across the oceans. There is a marine education lobby that actively lobbies governments, United Nations, etc. for the need for marine education for sustainability
e.g. United Nations World Oceans Network

United Nations Environment programme should have elected an education person who is the lobby person.

- ① Need to build capacity within OOMF members on advocacy avenues + approaches open to them
- ② Need to collaborate as members to lobby for marine education for sustainability to governments + agencies around the world
- ③ Policy that within our education programmes that advocacy is taught as part of what children learn.

Tema

Issue / Topic: **Marine Education and its Future Direction / Pathway**

La persona que haya identificado el tema de la discusión

Convener: *Shekar Bose*

Los otros participantes

Other members: *Eriko Arai, Russell Stevens*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

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Conference focus has been on marine ecology / biology (science), but not about real life resource management. Which is a multi-disciplinary topic.

Schools covering just biology do not prepare students for real life.

Lack of aboriginal culture content in elementary / middle / high school.

No grounding, no exposure, no questioning of the place for aboriginal content.

We need more generalists! -- Seeing the bigger picture.

What is the next step? No point in creating investigators -- we need people who will take action.

If you are not a biologist, you are not included in discussion (you don't know -- status)

Marine biology is often considered a "soft" science, and that gets translated into "soft" learning in youth education

Possible solutions

★ curriculum change → focus of learning on sustainability, learning (how to)

★ teaching students to question

No Child Left Behind from what?

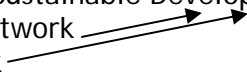
Society respecting teachers for their value in some developed countries

Marine education needs to be multi-disciplinary

United Nations -- Sustainable Development be a part of education curriculum around the world

World Oceans Network

Political Network



An Example of an integrated School Curriculum
 (Taken from the South African Revised National Curriculum statement)

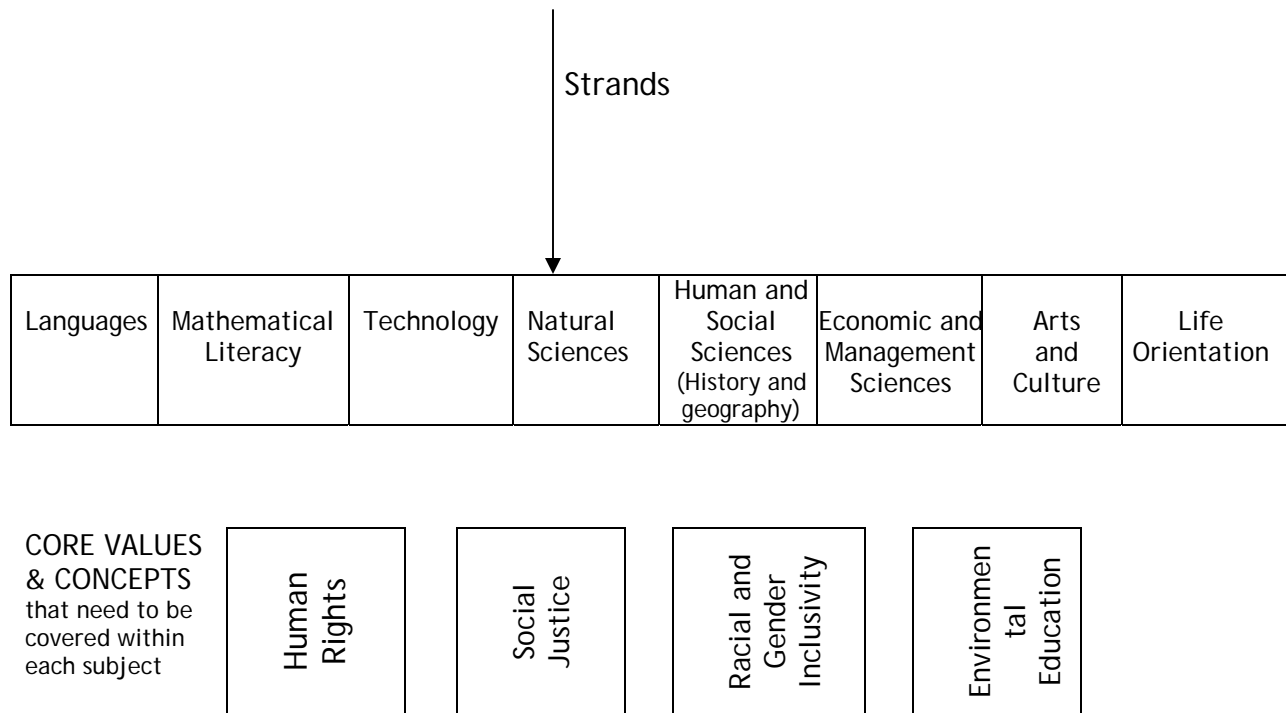


diagram by Russell Stevens

<p>Tema Issue / Topic: Appropriate to Place</p>
<p>La persona que haya identificado el tema de la discusión Convener: <i>Kitty Simonds</i></p>
<p>Los otros participantes Other members: <i>Qamar Schuyler, Sherwood Maynard, Derek Esibill</i></p>
<p>Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión: <i>Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:</i></p> <p>In Pacific (Samoa) try to do things appropriate to culture surveys → → What do people think BY drafting management WESTPAC</p> <p>Develop statement? This topic is a part of all of the other topics too.</p> <p>Sherwood -- course of marine education has been moving from national standards to more specifics. Now maybe pendulum has swung too far -- too many individual curriculums? Way to evaluate is whether it works in the particular locale</p> <p>Kitty -- Stuff is very east-cost centric</p> <p>Derek -- Similar key concepts, but implementation is different.</p> <p>Sherwood -- DC doesn't always remember Pacific. We are different.</p> <p>Qamar -- Need a repository for curricula, or modules that could be developed for different countries.</p> <p>Derek -- NMEA is a good central source, also BLOBE. globe.gov -- NASA-funded. Connecting classrooms worldwide. Not just Marine. Students can log on and look at data worldwide.</p> <p>Qamar -- also includes linkages with scientists - data</p> <p>Kitty -- so how to make it a central repository? How do we act on this, to take it to the next level? Will OOMF continue as a body? Who will do the work? We should investigate costs, feasibility. WESTPAC willing to fund projects.</p> <p>Use funds from different grants</p> <p>Derek -- NMEA could use their website to keep people in contact Who is the president?</p> <p>Kitty -- what is the structure?</p> <p>Sherwood -- Board of Directors</p> <p>Qamar -- what is the vision?</p>

Derek -- Matrix of contacts. Educator, funding agency, etc. can find out what's going on, where. Link educators, projects, scientists, scientific agencies

★ Sherwood -- Also UNESCO. Setting up register of pacific scientists
scientists, www.pacificscience net There are lots of overlapping networks but also big
teachers, gaps. You could go to meetings full time already. If we propose something new,
educators, needs to o fill gap. Listserv from SOPAC.
etc.

Kitty -- Honolulu advertiser -- teacher education. Set up by WESTPAC? Various fisheries activities. These things happen all the time but hard to get the word out. Maybe need to get more folks involved (scientists, etc.). Example: Kid science → TV program. Funded people to go to other places (Samoa, Guam) and mainland. Kids could send in questions. National program.

Sherwood -- Patty Miller was head for Department of Environment for kid science

Qamar -- this stuff is out there, but all over.

Sherwood -- most comprehensive list -- NOAA's (National Oceanic and Atmospheric Administration) MPA program. Email listserv. But pretty US-centric.

Kitty -- it's not out there for other countries

Sherwood -- might not be place-appropriate

Kitty -- whole new study. How to influence other countries. Example: Japan eats whale meat.

Derek -- because they introduce it at a very young age.

How to change within constricts of local culture? (for example: Japan - lack of marine policy / commerce-driven; American Samoa - traditional chief-down management).

Getting factual info to teachers

HaSTA (Hawai'i Science Teachers Association) meeting workgroups for teachers. More needed. What are other teachers doing?

Local / regional / international get togethers for sharing.

Online meetings.

Resource uploads / downloads.

Share what worked / what didn't. Costs?

Different time zones. Pacific Resources Education & Learning ...

UN organizations

UNDP = \$

UNEP, UNESCO, FAO = marine programs
compete for funds, turf

Tema

Issue / Topic: **How Can We Get Our Organizations Fully Engaged in Efforts**

La persona que haya identificado el tema de la discusión

Convener: *Dana Sitzler*

Los otros participantes

Other members: *Mark Schreffler, Harry Breidahl, Noriko Imamiya, Kazuya Hirai, Jody Plecas*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Intros of group participants -- some key questions during intros:

How do we network and know about what is going on

Starting a non-profit educational organization associated with a for-profit

Getting organizations engaged more widely

Program that may help -- sea exchange program through NMEA & MESA

Another program in Australia connecting school groups to try to promote stewardship of oceans (hands across the water) -- doesn't have funding sources but gave a personal profile to increase ability to influence

Organizations 20 years ago used to let people work on "projects" that were beneficial without really having the funding.

Organizations can put "project work / volunteer work" as part of the performance planning for their employees.

Education doesn't have a lot of clear evaluation of whether things are effective or not

Have to get the organization leaders and politicians engaged in marine education - to help to get the organizational commitment

Amazed that the "big guys" (bosses, leaders, etc.) don't see that the ocean education piece is important -- organizational leaders (even aquarium directors) don't care about the schools -- "as long as I get a million paying customers..."

There are organizations that only care about making \$

Some like Monterey Bay have as part of their mission to support and educate

Seaworld - doesn't give straws [in the drinks they sell] - model that "makes money" but gives the education message (straws increase litter on the beach).

Have to be able to tell people the benefits of supporting the education programs

Hard to get money out of schools for programs

Providing the programs to schools -- sometimes there is a "perceived value" problem -- if they don't pay anything -- easy not to show up.

Have to pay attention to standards with schools

There are no education standards for ocean education

In Australia, US, Japan -- schools pay attention to the standards. That's what they have to teach

70% of the earth is ocean but there are no guidelines

are there credibility issues with organizations -- what kind of organizations do people believe?

In Australia have multiple organizations who have the same goals but don't work together -- the organizations don't have credibility with each other

In Japan have a very small group of marine educators - want marine educators to have a more scientific basis

Thoughts on action statements:

- Provide a listing of marine education organizations for contacts -- on a website for example (has started on MESA site - is mirrored on NMEA site -- but needs to expand)
- Put into performance appraisal for people and organizations to allow them to work on volunteer projects -- or projects that don't necessarily bring in \$ for the organization -- but have educational importance.
- How do we improve the "credibility" of our own marine science organizations with other organizations to better promote what we want?
- Build in the "support" structure in programs -- invite not only the educator / teacher but the person who controls the money or decision making so that there is support for initiative

Tema

Issue / Topic: **Changing Attitudes and Relationships with the Coasts and Oceans**

La persona que haya identificado el tema de la discusión

Convener: *Lindsey Peavey*

Los otros participantes

Other members: *Fiona Fraser-Smith, Russell Stevens, Jody Plecas, Susanna Musick, Angela Colliver*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Getting people to care

Work in Mexico changing attitudes such as eating turtles

So changing attitudes is central --- and can take 10 years to get movement

So how can we speed up this process as very time consuming to work and develop relationships with each community?

Sea turtles and your health campaign in Mexico is one approach as people can get sick if eat turtles. Teaching people that turtles are worth more alive than dead.

Slowly building links by nurturing conservation leaders within each community

Use Hawai'i as an example of how to promote turtle conservation and respect

Story about poacher in Baja California, buddies told Lindsey's organization he was sent to jail for six months. After getting out he became a spokesman, used his skill and knowledge to help conserve and promotion of conservation

★Opportunities can be taken out of a problem. The poacher knew more than anyone about local turtles so turning from poacher to researcher !!!

So the question is how to make a "criminal" (poacher" love, how to give the poacher an emotional connection to the environment not just the turtle

In developing country need to provide an alternative not just 'stop eating turtles'.

Give community something to do to be proud of

As turtles get rarer because a delicacy also considered as a fish (even though actually is red meat) so can eat during Lent. One organization actually wrote to the Pope to ask that he declare turtles as red meat -- Vatican did not to a thing!

Using ocean revolution as a tool with youth

Are we preaching to the converted though?

Go into local Mexican communities; work with leaders, key contacts such as fishermen and teachers

To achieve these relationships faster is the question: How to instill values of respect and love within the local communities?

Also trying to achieve interaction with government and enforcement officials and local communities as massive divide in Mexico.

Angela from MESA joined discussion to introduce reef guardian schools project working with schools and actively engaging communities and children to appreciate the environment and their surroundings

Program transferable to all marine-based environments...focus on education on sustainability...target from birth up to 17 years old.

Kids empowered communities to stop using plastic bags and start using cloth bags

Kids self-esteem and self-respect increased; therefore love and respect for the ocean increased

kids congress

youth week

youth hold community meetings

Reef Guardian program (Australia) can be adapted to developing and developed countries to create behavioral changes

We need to move beyond knowledge about -- to love and respect for.

Move away from making the turtle the "Panda" of the sea.

Love the ecosystem

Appropriate and sustainable attitudes

Engage in a process of

- Value, love and respect of self

- Value, love and respect of other humans and society

- Value, love and respect of an individual animal

- Value, love and respect of their ecosystems

Tema

Issue / Topic: **Kids Coastal Health Conference**

La persona que haya identificado el tema de la discusión

Convener: *Andrew Vance*

Los otros participantes

Other members: *Mellie Lewis, Jody Plecas, Kazuya Hirai, Noriko Imamiya*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Premise of project -

- Kids teach kids
- Kids work on issues important to them
 - ↳ they develop a workshop to present to their peers
- A mentor is assigned to the student group who is an expert in the issue the students wish to explore
- Students work with their teacher and mentor over 3-4 months to develop their program, fundraise and gain sponsorship
- Actual conference is a moving conference built around Port Phillip Bay so students experience and understand their interconnectedness of the watershed
- Relies on government and corporate sponsorship
- Builds on success of International Kids' River Health conference: www.riverhealth.com
- Students are empowered, take charge of their learning
- Learning is disseminated into the local communities
- Sustainable seafood banquet: students learn through eating !
- Promotes environmental stewardship

★ How the OOMF can help this project:

① Develop networks of:

- a) Educators - spread the word, "help scientists to help the world" (assist mentors" to communicate with students and the community)
- b) Mentors
scientists fishermen activists politicians?
- c) SPONSORS

② A system of communication

Tema

Issue / Topic: **How to Influence Economic Development of Oceans**

La persona que haya identificado el tema de la discusión

Convener: *Kazuya Hirai*

Los otros participantes

Other members: *Noriko Imamiya, Dana Sitzler*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

In Japan there is a need to expand airports etc....but want people to have a balanced approach to it.

Can't say "no development" but want to make people more aware of impact of development

Groups tend to be polarized -- Any and all development versus no development

Want to find a way for compromise

Lots of trash comes to beaches of Japan from elsewhere.

in Japan, the older people think the ocean is unlimited and that we can put anything into the ocean

Maybe we should find some way to make some statement of policy then talk to the government

Government tends to make some of these decisions

Maybe we can come up with a template of guidelines for communities to make them aware of the impact of development -- it's important to think about balance

Actions:

For government -- we should make recommendations for development practices that have lower impact

For education -- need to help kids and others understand the short and long term impact of development on the ocean and natural areas

Tema

Issue / Topic: **Inclusion of Non-Pacific Peoples and Countries into OOMF**

La persona que haya identificado el tema de la discusión

Convener: *Fiona Fraser-Smith*

Los otros participantes

Other members: *Susanna Musick, Vicki Osis, Jody Plecas*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

How do we connect with marine educators of all types on a global basis?

e.g. marine educators in Latin America

So where / how can we include people from beyond the Pacific?

So how can OOMF network, connect and include educators on a global basis?

Find individuals who can be invited to OOMF -- finding the right people to invite from all cultures and developed as well as developing countries

The key is communication and networking

Can find contacts through existing relationships and invite them !

Issue to consider is funding for travel especially from developing countries

How can OOMF facilitate relationships to achieve a means to work together for a healthy ocean?

BRIDGE (Ocean Sciences Education Teacher Resources Center) needs to include other global marine education groups so one central list

Susanna Musick is part of a BRIDGE

Bridge needs to list all marine education groups / global professional development groups (unless list already exists - if so, BRIDGE will link to it)

So for OOMF to evolve a contact name or names is essential for each organization to facilitate communication.

To develop a network using existing international contacts who are already motivated .. use word of mouth .. Consider how network can eliminate repetition of work, activities, expense and resources

Consider option of having web presence (honorary affiliation) and an option to pay membership to NMEA as an individual member or organization from any non-US based organization.

National sea grant is starting to support international connections

Sharing USA skill base with contacts outside of the US

e.g. Aquaculture specialist traveled overseas to share knowledge

e.g. bilingual resources developed for teachers in Mexico

NOTE work reliant on grant funding

How to use skill sets effectively of people available resources -- multibackground contributions -- ensure members of OOMF cover a cross section of marine education skills / knowledge basis / experience

- classroom teacher -- all grades K-12
- informal educator -- profit, non-profit, research institute, aquarium
- administrator -- NGO, governmental
- interested citizens
 - with complimentary skill sets
 - sales - journalism - lobbying - grant writers

Vicki discussed work ongoing with international network on NMEA web site. Consider how to give global focus and to avoid impression that being driven exclusively by USA.

Use international conferences not just NMEA to set other OOMF meetings so can control costs

Consider how to regionalize OOMF

Need mechanism to provide contact information on an international level ... without repeating work

How do we reach the individual educators? Especially if no equivalent organizations similar to NMEA, MESA, etc. -- New NMEA's are starting to be established in Taiwan, Chile, etc.

Jody Plecas discussed community stewardship, friends groups who helped to establish marine parks in Australia. Jody is starting to spread the word, their experience of using community support -- connected schools in Australia and La Jolla, California, to help stimulate stewardship in La Jolla from Australia worked with primary (elementary) children to achieve awareness with secondary (high school) - progressed to action, support

"Temporary dating service" "hands across the water", the Pacific can use concept of "hands across the water" in many ways between countries and continents e.g. ProPeninsula's work in San Diego and Baja (Mexico).

"Hands across the water"

Scuttlebutt is a means of communication ??

Seaweek (Australia) - consider a global approach to Seaweek -- a rotating Seaweek around the world which follows seasons and school years and could be followed as it travels across countries and continents !!

Tema

Issue / Topic: **Marine Education → → Education for Sustainability**

La persona que haya identificado el tema de la discusión

Convener: *Wendy Barry*

Los otros participantes

Other members: *Angela Colliver, Shekar Bose, Sylvia Spalding, Russell Stevens, Dana Sitzler, Mellie Lewis, Andrew Vance*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Form 10 year plan to complement UN Decade of Education for Sustainable Development

Challenge for this network is to empower one another with proven opportunities

Advocacy avenues and approaches need to be shared
capacity building with one another

Strategy for advocacy needs to be inclusive of social / cultural, economic, natural and political perspectives

Current conference organizing committee was limited in opportunity to be inclusive of all marine environmental aspects -- due to members' unavailability, NGO limitations to lobby, advocate, etc.

In US / Pacific Basin how do we elevate education for sustainability

Is it possible to share - inquiry approaches

To collaborate on best practice in education for sustainability

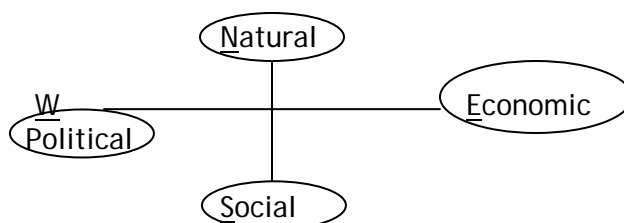
Could next NMEA conference include "Education for Sustainability" as a theme / strand in the conference

What does it mean for the network?

In Australia the 'National Environmental Education Statement' will be renamed 'National Education for Sustainability Statement for Australian Schools'

In US

Ocean literacy content is being devised .. only if it would be related to sustainability !



In Australia we engage students in actively participating in the protection and conservation of the marine and coastal environment and their plants and animals

Way forward?

- 1 Make sure NY Committee know about our concerns
- 2 Put forward abstracts for consideration in 2006
- 3 Send AIRES / ENSI case studies to Sara (pres. NMEA 2006)
- 4 Focus for 2006 needs to be multidisciplinary and multi-country.
- 5 Invite international speakers so that best practice in education for sustainability can be showcased to others
- 6 Forum representatives at the Congress encourage their respective associations i.e. MESA NMEA to consider Education for Sustainability in marine education
- 7 Extend the target audience from schooling K-12 to be inclusive of tertiary education, industry education so pathways in careers can be explicit

Potential speakers:

Projects:

Reef Guardian Schools - Great Barrier Reef Marine Park Authority
Sustainable Schools Initiative - Dept. Environment & Heritage
-- in each state and territory of Australia

Recommendation

- Design plenary sessions so that they are inclusive of Education for Sustainability
- Use "strands" for concurrent sessions
e.g.
Innovation Research Elementary School High School Higher Education Universities
- Use international eyes within OOMF to the design of the NMEA 2006 conference and how we might be involved
- An international MESA, NMEA conference could be proposed for 2009?

★ Action point for OOMF

Write a letter to New York Chapter NMEA requesting greater focus on marine education for sustainability be included in 2006 conference

- plenary international speaker
- themed session

Implementing Education for Sustainability NMEA 2006 - OOMF 2005-2006

- 1 Develop plans for ongoing work to promote members awareness and participation
 - newsletter activities
 - media
 - materials sharing
- 2 Launch members' awareness campaign and facilitate regular input to NMEA / OOMF via their communication tools and tactics
- 3 Initiate scenario development sketching out a number of scenarios about what marine environmental educators for sustainability would look like, for instance in schools of different kinds, in adult learning, within a range of aquaria, NGO programs in different geographical and socio-cultural contexts and in the framework of different subject areas. Such scenarios would be a resource for local discussion on how marine environmental education for sustainability can best be put to effect.
- 4 Examine and adapt initial in-service training for educators and teachers to include marine environmental education for sustainability approaches.
- 5 Examine and adapt curricula in schools and in non-formal setting to include marine education for sustainability approaches

Tema

Issue / Topic: **Assessing Education Needs in Remote Communities**

La persona que haya identificado el tema de la discusión

Convener: *Qamar Schuyler*

Los otros participantes

Other members: *Gloria Snively, Barbara Mayer, Sherwood Maynard, Harry Breidahl, Jody Plecas, Mark Schreffler*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

PREL, UN, USP, regional organizations - SPREP, SOPAC, SPc, Peace Corps
economic development places - tendrils into many areas

PEACESAT - communication network based in University of Hawai'i. Have satellite - can do voice communication, email

Used to cost 40,000 to set up transmit station

Send students to remote locations have conferences. Social Science Research Institute @ University of Hawai'i - Manoa

Send / receive studio usually based at college / government office. Has been used in health ed

Can link all or some countries

Jody - Also important in Australia - it's a continent with not a lot of connections (big empty interior). Have living fossils in Australia

Harry - Associated with Monish University in Western Australia. Run elective teaching unit in the Cook Islands. Students fund the program themselves. Person-based network. Resource Cook Islands with materials, equipment. Students to a 3-week teaching stint in Cook Islands. Best thing is the Δ of students over 3 weeks.

Sherwood - is that long enough:

Harry - Not really, but creates an impression

Sherwood - How received locally?

Harry - Kids love it, maybe seen as expat thing by admin. The students bring materials from Australia, work with local teacher. Local kids teach their culture.

Sherwood - We never see French colonialists at these meetings. How to bring Tahitians, New Caledonians, etc.

Harry - There are links with those places and Australia - mainly in order to learn French. Also Indo programs. Lots of "sister School" relationships

Qamar - Are we evaluating needs of community?

Harry - Probably not. Doesn't spread much further than individuals

Barbara - Hawai'i -Tahiti connection, especially when Hokulea sailed there. At Kamehameha schools, linkages with New Zealand with New Zealand (Maoris). Maybe fundraise to get poor kids to these places / opportunities.

Harry - 3x as many people who wanted to come here (to OOMF) but didn't have funds. How to identify those people? "Cultural imperialism" How do we really find needs of community? Went to Galapagos on vacation, met with education coordinator there. She asked for candy bars. Showed Harry some of the 1^o schools. Wanted books for them. Made deal with publisher, got old books from 1^o schools.

Qamar - Clearinghouse needed to connect remote communities with funding sources

Gloria - NMEA should set aside travel funding for people from underserved communities (aboriginal? poor?). I work with aboriginal coastal communities. They could be a great resource to us here, and coming here would be good for them. They do have access to some funding.

Barbara - Why were none brought to OOMF?

Gloria - No funding

Barbara - Maybe we can work on that in advance for next year

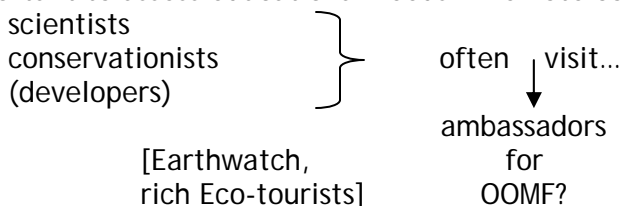
Harry - Vicki put a lot of work in US but has been running into brick walls. In Australia, Jody also. But Australia has been very inward-looking. Finally beginning to get some support. Lisa donated her time. Big grants - maybe no. But collectively in Australia, US, Canada, if each group could find \$ to "sponsor a child". How do you identify appropriate people? Use our networks. Then find \$, for particular people.

Qamar - SPREP has education network

Gloria - NMEA has been mainland-based so far, but maturing

Sherwood - Problem defining exactly what you're doing. What does OOMF mean.

Important to assess educational needs in remote communities



Clearinghouse function

Initial cause trash / pollution

Start message with kids → parents

Ambassadors can take basic checklist for classroom. Identify what's short, send / take it down

- ① Teachers Without Borders
- ② Involving indigenous people in whalewatch (POOF)

Recent "Oceans Charter" written by children at conference in Victoria, Canada
Disseminate via OOMF website

Who can continue OOMF web site (volunteer)

Could NMEA expand scholarships to bring in more aboriginal participants

Identify recipients / POC in each remote island. Arrange with airlines for free shipment of educational materials, to effectively disseminate

Pen pal / sister city / sister school concepts

Victoria NMEA meeting led to Environmental and Marine Education Society in Korea - Gloria and Michael Spranger went to their first conference and discovered many aboriginal connections (land bridge, totems, etc.)

<p>Tema Issue / Topic: How Do We Get People to Care?</p>
<p>La persona que haya identificado el tema de la discusión Convener: <i>Carlos Stepath</i></p>
<p>Los otros participantes Other members: <i>Vicki Osis, Sarah Schoedinger, Russell Stevens</i></p>
<p>Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión: <i>Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:</i></p> <p>Great Barrier Reef Park example: Came from people who were not coral reef residents. National identity issue that led to development of the park.</p> <p>Fewer and fewer opportunities for students to have experiences that are meaningful and change attitudes.</p> <p>Is caring gender-based. Women more aware of conservation needs.</p> <p>Research results. Children who grew up to be environmental advocates had an experience or became attached to that - generated the conservation ethic. Experiential activities are very important for nurturing conservation ethics.</p> <p>Stewardship is the result of caring. Can't have healthy ocean without caring for oceans.</p> <p>If there is no element of valuing loving an area it can't be preserved.</p> <p>Falk & Hungerford, researchers are exploring development of environmental psychology.</p> <p>As marine education centers - develop teachers of oceans. Focus on the beauty of the environment.</p> <p>How can I develop my educational skills for conveying not just the 'what' but 'what action can I take to make a difference'.</p> <p>Programs involving parents and children are effective for creating a sense of caring. Training the parents to lead the field experience they share with their child.</p> <p>Caring starts with caring about themselves first.</p> <p>Can't be a 1-day event → ongoing, integrated with school curriculum and / or involving the parents.</p> <p>Literature says that even a 1-day event does make a change. Which may not be long-term. However, the person's behavior may be easier to change in the future. Example - litter clean up - kids good at it but a month later are littering again. However, in future, it is easier to reach those kids about conservation issues in future as a result of 1day experience</p> <p>How do we make someone care? ↳ Families are key.</p> <p>★ Would like to see some research topics come out of this Forum on the role of the family dynamic in assisting us to understanding on learning how to care.</p>

Tema

Issue / Topic: **How to Avoid Preaching to the Converted -- Reaching New Audiences**

La persona que haya identificado el tema de la discusión

Convener: *Eriko Arai*

Los otros participantes

Other members: *Caïssa Douwes, Lindsey Peavey*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Tend to preach to the converted: talk to people with the same points of views. We need to reach new audiences.

Ocean Revolution, started as youth orientation, but the same people keep coming.

What is being said and how is the same as it always was. Wrist bands are fine, but how do we reach out.

There is a place for activism and values, G3 and APEC needs reaction. Major changes in history = revolution and activism necessary.

So. Are we scared? Look at Greenpeace...We have lost the whole revolutionary / change aspect.

We want to catch peoples' attention, without looking like crazies -- but we're too nice.

We want to be respected. Sustainable education? In Canada separate subjects versus South Africa = 4 pillars of education = Human Rights, Social Justice, Inclusivity and Environmental -or- Australia: Ecological sustainable development.

Change curriculum and system through professional development.

How do we teach sustainability? Can we do what we have been doing and teach sustainability? Scare the economists?

Using social needs to make sense - can't assume that people with "be" environmentally conscious. The choices we make reflect our own hypocrisy. Who does the message come from? If they look like crazies, then what? If it comes from BONO, is the perception different. Need famous spokesperson.

Bring marine education into larger group of "sustainability".

How do we connect to peoples' lives? in Kansas?

Disney's survey of "do you have an impact on the ocean" - 90% said no, so Disney changed to "you do have an impact" so...Perception and communication has to change.

Go inland to grocery stores to educate how your actions effect change.

Culture and advocacy - California and organic food = its better attitude is the "it" thing to do.

Envy is motivational

Social / cultural values are a part of decision and perception regarding environmental issues.
Economically-driven issues.

Educational values → teaches these things. As educators we cannot be afraid.

Community values can change as in Mexico, changing the actions of the people. Land-based conservation.

Ducks Unlimited and WaterKeepers cross the line and include environment with hunters / fishers.
Bring the "other" into the fold, invite the other side, to start a dialogue.

Coca Cola, Coppertone need to inform the public / sponsor the NMEA.

Audience needs to be specific and changed: corporate and commercial companies need to be on TV - new venues.

Can't be afraid struggling to be vocal advocates.

Marine environments and research organizations that present info that changes people's attitudes and actions.

By giving information, posing questions, people can make changes to their actions and feel empowered.

Consumer power

Fine-line between science and reactionary
Corporate sponsorship
Celebrity

Tema

Issue / Topic: **Strategies for Marine Education Centres**

La persona que haya identificado el tema de la discusión

Convener: *Russell Stevens*

Los otros participantes

Other members:

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Aquariums, Zoos and Botanical Gardens are in many cases best positioned to be the conduits of Environmental and Marine Education.

Marine Education centres need to position themselves in a way

- 1 that the correct objectives are set
- 2 that these objectives are properly evaluated
- 3 that constant reflection on these objectives occurs

In many cases aquariums are leaders of policy network groups and marine education strategy

There is a sense of urgency

Time is running out as there has been such rapid degradation of our oceans over the past 100 years that we may only have 1 chance left to develop an appropriate strategy.

Tema

Issue / Topic: **Communication Between Countries and Working for Healthy Oceans / Localized Efforts That Should Be Global**

La persona que haya identificado el tema de la discusión

Convener: *Carlos Stepath / Mark Schreffler*

Los otros participantes

Other members: *Caïssa Douwes, Vicki Osis*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

- Need to think locally act globally
- How to make it happen

- Using other websites for networking NMEA & the World Ocean Observatory (link to NMEA - OOMF sites)

- Facilitate a network of marine environmental educators

- Link educators around the world, marine education associations around the world - global science

- The World Ocean Observatory will supply OOMF a web vehicle to continue future network.

- Link other websites to the different categories established here.

- Categories established at site, Cai not the administrator for websites

- Listserv, OOMF international issues determined like *Scuttlebutt*, with presenters names next to each topic, list contact info of OOMF participants

- Aquariums in different countries.

- Seagrant, UNESCO (ocean conservation)

- PEMSEA partnerships for environmental management for Southeast Asia

- UN Development programs

- International Network of Fishing, World Ocean Network (UN), Register of Pacific Scientists, PRILL (Pacific Regional Educational Learning), Ocean Futures (J.M. Cousteau)

- Can't just depend on web. Too much information. Personal contact.

- How best can we be marine educators

- Encourage personal commitment to connecting on personal level

- Privacy of personal emails if person wants personal details kept quiet
- Pressing frontiers of understanding
- ★★Connections at a government level very important ! Don't know how, and have to investigate further.
- Personal contact important.
- This group recognizes the importance of actively committing ourselves to personal communication.

Tema

Issue / Topic: **Sustainability**

La persona que haya identificado el tema de la discusión

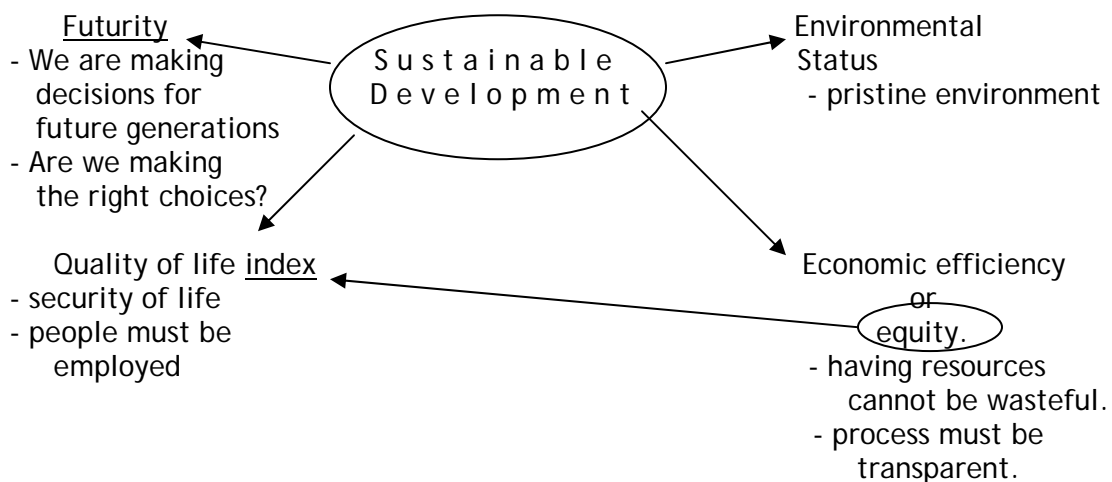
Convener: *Shekar Bose*

Los otros participantes

Other members: *Andrew Vance*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:



★ Tension between quality of life and sustainable development

- Marine Educators must link generations and highlight the positive aspects of each

→ Marine Educators are focusing attention to the concept of sustainable yield and environmental issues. There are other equally important aspects of sustainability.

Tema

Issue / Topic: **Undergraduate Student Exchange Marine Issues**

La persona que haya identificado el tema de la discusión

Convener: *Sherwood Maynard*

Los otros participantes

Other members: *Kitty Simonds, Qamar Schuyler*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Problems finding qualified and motivated students.

C O S T S - Limiting. Offer credits

Mentors - challenge just get trained

too short a posting in "lab", then depart

Difficult for undergrads to take more time

Displaces "normal" degree progress

Accept students with lower knowledge / skills base
versus

"high powered" mainland schools

Communication skills

Funding !

Tema

Issue / Topic: **Leveraging and Contributing to International Agreements**

La persona que haya identificado el tema de la discusión

Convener: *Wendy Barry*

Los otros participantes

Other members: *Eriko Arai, Dana Sitzler*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Are there international agreements about the ocean?

-- probably fishing rights
transportation

United Nations Decade for Education for Sustainable Development 2005-2014

UNESCO has an implementation plan. Reorienting education

→ use this as a starting point / model / for ideas

Getting citizens to make informed decisions

OOMF puts together recommendations for the decade, a vision, or actions, or timeline / plan (10-year), guiding principles

This process must be a several month or year-long discussion

We need to present a united front with key message

Steps:

1) Ask members, facilities, affiliations, societies for input into the vision for global marine education. What guidelines, action points are important

(6-12 months) - mixture of open and specific questions

-6 months for initial feedback → put together all findings and send back for consultation (12 months)

2) Final consultation comes back

3) Make something pretty (professional) - get consensus on final product - consultation committee

4) Communicate using publication

- put it on all websites
- send it to members

Do we want government involved?

We need a commitment of involvement from organizations and individuals

3, 6, 10 year review

- do we want to set milestones?

You'll have to measure them before we start and ongoing
or do case studies / snapshot / short survey

We'll need to have some level of assessment.

Need a "decade" team from OOMF / NMEA to head up.
→ to be defined by tomorrow!

Need for a team meeting (videoconference or in person)

Tema

Issue / Topic: **WAVES**

La persona que haya identificado el tema de la discusión

Convener: *Barbara Mayer*

Los otros participantes

Other members: *Gloria Snively, Qamar Schuyler, Lindsey Peavey*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Ocean waves from bathtub to ocean

A content topic that could link people around the world / worldwide curriculum application?

Currents that wash ashore

Wave sounds. Wave organs. Wave vibrations.

Wave art work → drawings
→ people like the soothing sound of waves

A form of energy

Waves created at ballpark -- athletic events -- "Do the Wave"

① Wind-generated waves

Surfing, playing in waves, "a wave of the future"

② Tsunami waves, a fearful element to waves

③ Tides are a wave phenomenon

④ Wind waves, electromagnetic radiation

A metaphor for getting people to think differently

A metaphor is a bridge, a connection between two dissimilar elements, metaphors precede behavior change

World Alliance for Virtual Education

WAVES

World Alliance of Voluptuous Educators of the Sea

ICC (international Coastal Cleanup)

One Ocean Marine Forum could spread the word about ICC marine debris tally -- as a curriculum

River, lakes, streams flowing to oceans -- all are part of ICC

Connections, debris

NMEA should consider a more international or global acronym

People know how to ride the wave ~ savvy

"wave of political opinion"

Waves are surface; calm underneath ~ where there are a lot of stories -- critters on ocean bottom

⑤ Boat bow wave → dolphins
→ flying fish

When we wave hello or goodbye -- it's a way of greeting, positive.

Tema

Issue / Topic: **Volunteer Work versus Paid Work for Oceans**

La persona que haya identificado el tema de la discusión

Convener: *Harry Breidahl*

Los otros participantes

Other members: *Lindsey Peavey, Fiona Fraser-Smith, Mellie Lewis, Noriko Imamiya, Kazuya Hirai*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Volunteer work - passion, dedication, devotion, motivation, build resume

Paid work = experience, knowledge, guidelines

*cross-over in both

Environmental Education Council for the Californias - ALL volunteers and professional
No administrative hoops -- just do the work and get things done.

Harry is a freelancer.

MESA used to be all volunteers.

OOMF = all volunteer (own time, own finances)

Australia & OZ: Volunteering is not prevalent because professionals expect to get paid, it's not as respected and volunteers (ex. aquariums) pose a threat to salaried staff.

Volunteering is free education.

Volunteers = advocates for the cause

Don't have the respect of giving back to the community / country or philanthropy!

Successful use of volunteers !

- value volunteers
- administrative support for volunteers
- capacity to manage volunteers

NMEA conference → volunteer-organized ♥↑, \$↓

in Australia & OZ → professional consultants organize ♥↓↑, \$↑

OOMF - volunteer-organized

Volunteerism is ♥-driven - 150%

Harry's ♥ won't be in it to organize another OOMF he doesn't think → burnt out.

All volunteer-run organizations need new blood

- revitalization
- pick-up running → not reinventing the wheel
- motivation
- new energy
- drive
- succession

* The organization needs to manage the turnover of volunteers to avoid burn-out.

Use a good model from a successful organization to adopt a good volunteer structure.

Sea exchange - professional exchange

In Mellie's school - they couldn't survive without volunteers and volunteers are highly respected.

* Volunteers meet like-minded people → social event
make friends you normally wouldn't meet

Volunteerism = pride & privilege

Japan = volunteerism isn't very respected either - a new concept

10 years ago - a big earthquake and 1000's of volunteers came out so it is a little more common, but still not professional.

Volunteerism:

- * economic
- * win-win situation

All teachers work in part volunteer!!

Tema

Issue / Topic: **Increasing the Level of Behavior Change Towards Sustainable Oceans**

La persona que haya identificado el tema de la discusión

Convener: *Russell Stevens*

Los otros participantes

Other members: *Jody Plecas, Noriko Imamiya, Mellie Lewis, Kazuya Hirai*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

- We recognize that appropriate knowledge and attitude does not necessarily lead to appropriate behavior.
- People need to take an environmental responsibility from childhood as part of their identity.
- If behavior is to change it needs to be repeated.
- Education needs to have back up support and there needs to be a penalty for unsuitable behavior.
- Reward systems can work.
- Instill an understanding that what happens in the sea effects them.
- Behavior change can change by showing example. Set an example e.g. sustainable schools programmes.
- Behavior change can work if people are able to be sympathetic to an animal.
- There needs to be an emotional connection
- Focus on the beauty could increase lasting behavior.
- Use action research among students to
 - observe
 - share their observations and
 - suggest actions
 - take part in actions
 - then communicate to others
- Family learning can be more effective in changing behavior.
- A change is more likely to change if people are aware that their health is dependant upon the healthy oceans and rivers.

<p>Tema Issue / Topic: Strategies for Increasing Ocean Awareness and Sustainable Behavior Among the Poor</p>
<p>La persona que haya identificado el tema de la discusión Convener: <i>Russell Stevens</i></p>
<p>Los otros participantes Other members: <i>Sharon Schoedinger, Kitty Simonds, Mark Schreffler, Gloria Snively, Vicki Osis, Shekar Bose, Mellie Lewis</i></p>
<p>Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión: <i>Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:</i></p> <p>The group recognizes the need to consider the poor. e.g. Washington D.C. Chesapeake Bay Native Canadian communities</p> <ul style="list-style-type: none"> ▪ There is a need to understand Aboriginal positions in poor communities. ▪ It is working in mid-Atlantic. <p>There are interesting histories amongst communities such as African Americans where people had a stronger interest in the sea. Now not.</p> <ul style="list-style-type: none"> ▪ Need to recognize that there are strong links among poor and the sea (or fisheries). ▪ Need to recognize that seafood or aquatic products are the livelihood of many poor people ▪ respect it and “not play with their food” ▪ When dealing with poor we need to be aware of facilitating a participatory process ▪ We as educators need to appreciate that as educated people we approach an issue / problem differently and with different resources than poor people. ▪ Appreciate and value the different - language <ul style="list-style-type: none"> - culture - and what is frowned upon ▪ Appreciate that many poor may see educators needing to protect a recreation area versus a place of livelihood. ▪ Recognize the need to get many different people involved from different countries and work together with them. ▪ Consider adopting communities / partnering coastal communities where a local person will use the info well.

Tema

Issue / Topic: **Where Do We Go Next with OOMF?**

La persona que haya identificado el tema de la discusión

Convener: *Harry Breidahl*

Los otros participantes

Other members: *Mellie Lewis, Andrew Vance, Lindsey Peavey, Susanna Musick*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

5 of us (3 from Australia, 2 from USA + Frannie) pulled all of this together -- now have to spread the load.

Possibly NMEA (Vicki would need to comment)

Don't think MESA (only Harry's view) -- BUT: MESA web site will still be home of OOMF website as long as we like.

Mellie → pointed out most of the initial work already done so administrative load is easier this time -- (Harry) still needs to be addressed? volunteer or paid.

→ OOMF web site can stay in Australia on the web site for next 12 months
(funding would be useful! but not essential)

Mellie → (+ Wendy earlier + Carlos) We must run the next OOMF in a sustainable way -- Recycle, etc.

→ Make that a local responsibility.

→ Make it international (that was always the intention)

↳ "I only want to fly once" Therefore YES to link it to NMEA or similar conference

→ NMEA New York

Then rolling from Nation to Nation.

(Harry talked about group flights → greatly reduces individual costs but TAKES TIME TO ORGANIZE)

That's assuming we need to meet personally

→ Yes to meeting face to face. But also develop electronic communication

MESA website has

- 1) OOMF general web site
- 2) Chat room that is underutilized
will work worldwide
- 3) Forum facility

PS if associate with NMEA



Before? middle of? or after? conference?

Tema

Issue / Topic: **Traditional Knowledge and Contributions to Sustainable Communities and Environments**

La persona que haya identificado el tema de la discusión

Convener: *Gloria Snively*

Los otros participantes

Other members: *Dana Sitzler, Lindsey Peavey*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Every culture has its own science and its function is to sustain its mother people / society

Local experts do the monitoring of sea turtles in Mexico. Field people are Mexican, scientists from US, outreach coordinator funded an elder and younger generation to oversee and do ceremonies for Leatherback turtles, 4 days, woman sing and the Leatherback comes ashore, lays her eggs, and she goes back to sea. They know the range, migration, ceremony -- festive, sing, dance lots of food

Respect for food, source, animal gave itself up (the salmon)

We go to food store to get food - removed from traditional, local food gathering

Shared stories of local traditional science knowledge of Aboriginal peoples

Western science considered the only science in school textbooks, and traditional science gets disregarded

We don't want to lose this important teaching tool

The traditional wisdom component is what gives traditional science its power -- the values component

We need to give traditional science its validity

We need a curriculum / attitudes that can be shared

Involve Aboriginal elders, etc. in the writing

Apply standards to get it in schools

Community centers can incorporate traditional knowledge

mainstream students need to learn about traditional science -- Hawai'i is a good model

Alaska knowledge Network funded Aboriginal Knowledge Curricula

Need to involve elders in teaching and curriculum writing

Involve Aboriginals in data collection

Aboriginals need to learn Western science to be successful in school, and not lose their cultural identity.

Tema

Issue / Topic: **How Can We Connect Inland Communities to the Coast and Oceans (Especially When They Have Never Seen Them)**

La persona que haya identificado el tema de la discusión

Convener: *Sarah Schoedinger*

Los otros participantes

Other members: *Shekar Bose, Sylvia Spalding*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

How do we make people in inland communities feel connected to oceans so that their behavior changes to protect the oceans?

Introduce them to the remnants of ancient oceans (fossils)
to the Dead Zone in Gulf of Mexico
having saltwater tanks in aquaria

In Australia, most people live in coastal areas.

In Hawaii moving back to old system of Ahupua'a ridge to reef management area

Public relations campaign - Coast Care

↳ educate people about their individual actions that can help

But need to educate developers about issues.

Fragmentation of management in US.

Sugar cane and banana plantations' impact in Great Barrier Reef Marine Park was huge. Farmers had no understanding of their impact; forum was held to educate

Linking in consumers minds what they buy and how that affects their decisions.

Introduce them to their "ecological footprint" on the web } kid friendly

↳ water consumption

↳ trash etc.

Separation between inland and coastal fisheries & offshore fisheries

Tension between inshore and offshore fisheries

Inland fishery in Bangladesh is slowly disappearing because moving to other forms of agriculture (e.g. rice) as well as aquaculture

In Bangladesh there is huge respect for the water. But that has not always translated into understanding other issues affecting the watershed and the ocean.

Marine Stewardship Council (MSC)

Public awareness campaign to identify sustainably fished species to consumers.
This is a way to expose non-coastal consumers to be able to make decisions.

Promotional campaigns can work well in US but broadening it to beyond our borders can be difficult.

When talking about sustainable development, realize that we are making decisions that will affect people who have no input to those decisions.

Marine educators can serve as a bridge between older generation and next generation, maintaining traditions or sharing traditional knowledge.

In Japan, a book by a fisherman on the importance of healthy forests upland to maintaining healthy oceans is very popular.

One suggestion for linking people between inland and ocean communities is to initiate pen pals between inland and (Pacific) islanders.

Public awareness campaigns with a concrete action attached is effective.

Tema

Issue / Topic: **Educational Theory in Environmental / Marine Education**

La persona que haya identificado el tema de la discusión

Convener: *Eriko Arai*

Los otros participantes

Other members: *Wendy Barry, Russell Stevens, Caïssa Douwes*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

There is limited literature on marine education for sustainability.

Discussed learning with behavior change as the outcome.

It's the social experience at a marine place that the learner most remembers and takes away.

What kinds of pedagogy do we draw from marine education?

Would like to see more marine education pedagogical theory in *Current*. *Current* is too technical, looking at activities which have their place but are not enough.

At what point are we breaking through in marine education?

We need to know whether or not what we are doing is effective.

↳ need much more research and evaluation

This group must recognize that marine education is a unique group discipline and therefore needs special research.

i.e. are we effectively teaching people how to make decisions that lead to sustainability of the marine environment.

We are in a box and we need to change the tools and problems are still prevalent

Vital to be questioning marine education

Action learning as a positive model / approach / theory for teaching marine education

We need global web based forum for

- info sharing
- critique of journals, programmes, ideas, etc.
- articles and literature
- seek feedback

How do we moderate it so it retains usefulness and relevance

Set criteria linked to themes

Needs funding for someone to manage the information

W2O - World Ocean Observatory - potential site to have some space on.

Further discussion needed.

Action point for OOMF:

Write letter to *Current* editor to ask for regular articles on each theory & evaluation.

Tema

Issue / Topic: **Educators and Scientists: How to Work Together**

La persona que haya identificado el tema de la discusión

Convener: *Noriko Imamiya*

Los otros participantes

Other members: *Barbara Mayer, Kazuya Hirai*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Scientists see their job is to answer research questions. They feel their job is to publish the results = what they do for education

Teachers see their job is to teach the textbook or the standards

How do we get them together?

- It is good for the "end users", the students to get real, up-to-date science. So scientists and teachers need to work together.
- Barb shared about the Holoholo Science -- NWHI coral bleaching -- using current science data to design a lesson.
- Research grants have a % of money that must be spent on education.

Tema

Issue / Topic: **How Can We Use Art / Creativity to Help Teach About Oceans and How to Ensure, Maintain Their health?**

La persona que haya identificado el tema de la discusión

Convener: *Fiona Fraser-Smith*

Los otros participantes

Other members:

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Sherman's Lagoon concept is a great model

Links art with concepts supporting marine education and conservation !

ICRAN = International Coral Reef Information Network

Check web site for educational resources

One project was to draw a pledge as opposed to write a pledge

Draw vision for sustainable future

How to bring art and science together -- bring artists and scientists together

Develop ideas / lesson plans that fit curriculum for specific region, country

MCC library exhibit with recycled materials -- check it out?

EcoArts Fest in Guam open to general public - cook-off with invasive species, cook a rainbow with local foods, recycled fashion show, auditory competition, recycled sculpture plus visual arts -- funded by EPA in Saipan Island (CMI Commonwealth of Mariana Islands). Focus is environment not exclusively focused on environment -- organized event by nominating committee heads for each event such as cook-off, recycled art, etc. -- so helped manage workloads.

Conservation Education in Pacific Islands -- Qamar starting to think about setting up NGO so what does community need? And what do I want to achieve?

Need and vision -- must mesh !!

Sail boat -- sail around islands delivering conservation education to remote communities on coral reef education - link to overseas students coming to learn about reefs and outreach education.

Tema

Issue / Topic: **Global Climate Change and Ocean Education**

La persona que haya identificado el tema de la discusión

Convener: *Vicki Osis*

Los otros participantes

Other members: *Sylvia Spalding*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Issues in Oceans are now related to climate change

- sea level rise
- increasing temperatures
- changing ecosystems

Emissions of CO₂ has increased by 33%

We know that CO₂ traps heat and increases temperatures.

Impacts on fisheries. Sea level rise on low lying islands.

The economic impact will be extensive for all nations.

Focus on the power of / to change values and attitudes for conservation

Tema

Issue / Topic: **Evaluations for Marine Education Pedagogy**

La persona que haya identificado el tema de la discusión

Convener: *Carlos Stepath*

Los otros participantes

Other members: *Andrew Vance, Sara Schoedinger, Harry Breidahl*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Evaluation of knowledge (K) - attitude (A) - actions (Ac).

Testing outcomes and using results to improve the programs and improve results.

Need for evaluation of Marine Education programs and articles to be put in NMEA's "Currents".

More marine education programs and articles for teachers.

Logic models to develop programs

Education strategy for educational outcomes and evaluating them

Students' lives too structured, with little goofing around

Field trips and direct nature experience are important learning strategies

Evaluation of marine education programs is key for future effective programs

How do I know my work is on cutting edge?

Tema

Issue / Topic: **Rights of the Child**

La persona que haya identificado el tema de la discusión

Convener: *Gloria Snively*

Los otros participantes

Other members:

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

I know there is a Charter on the Rights of the Child
possibly a UN or UNESCO Charter

It seemed to me that an Oceans Charter should include a statement on what every child in on this planet should be entitled to, including growing up in a world

- free from poverty
- free from war
- the right to a good education
- the right to good health and health care
- the right to a sustainable environment

Which includes healthy and diverse intact ecosystems (the right to see intact coral reefs, a rich biodiverse water planet)

- the right to have clean water and air
- the right to education without losing one's cultural identity
- the rights of future generations

I'm also quite sure that there is an Oceans Charter written in about the year 2002 by children from many countries.

The conference was held in Victoria, British Columbia, Canada. It would be interesting to get a copy of their charter.

Tema

Issue / Topic: **Using Technologies / Technology Partners for Communicating Marine Environmental Issues to General Public**

La persona que haya identificado el tema de la discusión

Convener: *Caïssa Douwes*

Los otros participantes

Other members: *Barbara Mayer, Wendy Barry, Noriko Imamiya*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

How do you get people to care?

Similar to getting people to like / relate to art:

- handheld devices, phones -- could there be inspirational / informational pictures on it -
- ("Social marketing")
- website would need partnerships
- short videos on phone
- Blackberries
- kiosks -- health department
- partnership with Public Broadcasting Station [television]
- cinemas
- subway monitors: video clips
public transportation
- World Oceans Day, World Environment Day, International Coastal Cleanup (ICC → Ocean Conservancy).
- collection of marine debris was good
- airplanes decorated

Tema

Issue / Topic: **Drafting a Model for Cooperation and Guiding Principles / Establishing a Network of Marine Educators**

La persona que haya identificado el tema de la discusión

Convener: *Vicki Osis, Jody Plecas*

Los otros participantes

Other members: *[unknown, though it was a large group - Lisa]*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

The One Ocean Marine Forum (OOMF) Network development is fundamentally cross-sectional and engages a wide variety of institutions. The effectiveness of the OOMF Network will depend on the strength and inclusiveness of the partnerships, networks and alliances which it is able to develop among stakeholders at all levels.

Indeed, something as broad-based and as long-term as the protection and conservation of our marine and coastal environments via the OOMF Network can derive its energy and effectiveness only from the partnerships and cooperative relationships -- it is too great and too complex an undertaking for any one institution -- national or international -- to promote on its own.

From the outset, therefore, the orientation of OOMF partners must be outward looking, seeking to make connections with initiatives, programmes, groupings and networks through whom OOMF and marine environmental education will be further promoted and implemented.

Particular attention must be paid to connecting with both national governments - because of their central coordinating role and resources, and with civil society networks - because their grassroots connections can enable OOMF messages and fan out and down to local levels.

Time is running out for our oceans. The impacts of a rapidly growing human population and global climate change is changing them in ways that we neither understand nor can we predict the full impact on humans and ecosystems. We must act now to slow this change.

OOMF will foster:

- Exchange information of successful programs and best practices in marine education
- awareness of resources and fragility of ocean environment and its effects on world climates and human health
- belief that everyone has power and responsibility to effect positive change to protect the marine environment
- links between international groups to explore successful programs that raise marine environmental awareness
- explore ways of integrating local knowledge and cultures

We need to identify priority areas we will address.

- OOMF will require - to be supported with grant money:
- Central coordinating office
- Web Site developers and managers (*See Caissa's offer*)
- Video conferencing
- Email lists for issue discussions
- Virtual on-line presence
- Face to face forums - with funding to bring international delegates together (every other year)

Who will make up OOMF:

- Conservation organizations
- Educator professional associations
- Education institutions, schools
- Non-formal education institutions, i.e. aquariums, museums
- Individuals
- Anyone with interest in sustainable ocean

Possible focus areas

- Sea Week programs around the globe
- Ocean Awareness Day
- Classroom to classroom exchanges

Evaluation: See Australian Publication, *Does Your Project Make a Difference?* - Australian Department of Environment and Conservation, Sydney ISBN 174137 0930 December 2004

Tema

Issue / Topic: **Funding Models to Sustain Education Efforts**

La persona que haya identificado el tema de la discusión

Convener: *Dana Sitzler*

Los otros participantes

Other members: *Sylvia Spalding, Shekar Bose*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Group tried to solve problem of creating a self-sustaining education program in Alaska in a small isolated community.

We could not figure out how to do it -- decided the center was a victim of poor up-front planning...



Tema

Issue / Topic: **Challenges of Creating Education / Outreach in a Multi-Cultural or Multi-Lingual Setting**

La persona que haya identificado el tema de la discusión

Convener: *Qamar Schuyler*

Los otros participantes

Other members: *Eriko Arai, Russell Stevens, Lindsey Peavey, Andrew Vance, Susanna Musick, Jody Plecas, Wendy Barry*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Saipan -- has lots of different nationalities, Vancouver also very similar.

South Africa -- has 11 different official languages. Indicative of a government that wants to be inclusive. In reality, English dominates.

Saipan -- Filipino community tends to be regular resource over-harvesters.

Eriko - In Washington D.C, colleague found that Filipino community tends not to pay attention to signs, but respond better to being told what to do.

Very important to understand cultural norms.

In Vancouver aquarium, have a volunteer docent program that has not adapted well to changing demographics of the audience. Bringing in external folks to train. Also have an ESL (English as a Second Language) / Marine Science program for international students.

Russell -- At Two Oceans Aquarium, hired people with different languages. What hasn't worked well is translation. The important thing in education is to bring back connection between child and educator.

Eriko -- Vancouver Aquarium does some programs in French.

Russell -- We need a strategy for the Pacific -- train people to do programs in other languages. Bring in other languages as part of the program (for example: Sesame Street television show for children does that)

Susanna -- In a few years, Spanish speakers will become largest minority [in the US] -
NSF encouraging multi-lingual curriculum development
US students have language requirement

* Don't duplicate curriculum developed (for example) in other languages

Jody -- you can express concepts physically and through art, music. Crosses language barriers. Then introduce language literacy and also ocean literacy.

Jody -- there are different learning styles - example: kinesthetic

Eriko -- at a bee museum, kids did a "bee" dance

Jody -- at the beach, you can't talk at kids too much, need to get them moving.

Qamar -- for materials (signs, comic books) can't always translate so well.

Lindsey -- Did a comic book in Mexico -- Anti-poaching message. Very popular, partnered with Defenders of Wildlife and World Wildlife Federation

Jody- you can develop soundscapes, build a story with the sound
could comic convey messages without words?

Lindsey -- Postcards work too. George Bush driving truck -- with cowboy hat -- Eating Turtle makes you slow". T-shirts are also huge.

Jody -- Imagine a collectors' card set with all the different languages. Trade them - marine trading cards

Lindsey -- need to know your audience well to craft a message

Andrew -- Food web theory. Create marine card game like a magic game.

Lindsey -- Appeal to what's popular -- the wristbands, stickers, etc.
oceanrevolution.org

with signs, use photos, drawings; not words

Andrew -- Samoan (?) website -- educate indigenous people regarding sustainable fishing. Design in class with no / few words

Lindsey -- giveaways are huge in Mexico. Print stuff with message on it.

Tema

Issue / Topic: **Creating an International Community of Marine Education Professionals Who Work Together to Improve Best Practice Through Research, Critique, Reflection, etc.**

La persona que haya identificado el tema de la discusión

Convener: *Wendy Barry*

Los otros participantes

Other members: *Dana Sitzler, Russell Stevens, Carlos Stepath, Vicki Osis, Qamar Schuyler*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Who would want to belong?

Bad (for example) from Australian government as bad example, e.g. process, methodology

Jody -- applying for grant to do Australian study + publish on web

Parallel study for New Zealand or other countries?

Want mechanism by which our work can be peer reviewed

↳ don't just want positive feedback

want to be challenged

Gather a group of people + create a pool of knowledge to improve practice.

Provides global / international perspectives.

Share our examples of best / good practice

Ways that we could work?

Create framework for best practice

W20 website as place

↳ AZA guidelines -- private organizations don't share.

Look to how other professional groups do this.

Need to be able to show that what we are doing is having impact.

Need to know international funding agencies to do some research on international examples of best practices

Use UNDES0 as platform for funding

Set of common messages and understanding

MESA, NMEA have articles on best practices, but not specific, only saying was it needed, not how

→ discuss methodology, evaluation

What are the outcomes we seek from best practices?
for example, sustainable lifestyle choices

Need professional exchange and mentoring

Should go beyond highlighting best practices and into the how

Imitation is the best form of flattery

Educators mentoring educators
Critical friends

Have to understand peoples' time constraints.

How to have agreed expectations.

MESA website -- chat room in real time
- Forums where post what you need and people respond

Yahoo group or email

As a group we need to openly say that we observed a lack of critical analysis in marine education at the NMEA and have formed a group to address this through never getting complacent in our work

Need to word it carefully not to put people off or intimidate

Cutting edge + excellent etc. could do that.

Rather use strive for excellence and avoid complacency from the field of marine education

Open our minds and thinking differently.

Tema

Issue / Topic: **Write A Virtual Viable Education Sea-experience (W.A.V.E.S.)**

La persona que haya identificado el tema de la discusión

Convener: *Barbara Mayer*

Los otros participantes

Other members:

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

I am motivated to write two lessons:

① a combination classroom and field trip experience about ICC (International Coastal Cleanup)

and ② a classroom lesson (maybe several "modifications", each suitable to different ages / levels) having to do with human population growth -- perhaps especially related to ocean health

I.C.C. -- with classroom students (about 20-30 students at a time)

I. Introduction

This lesson will be made up of 3 sessions

- pre-field trip
- field trip
- post-field trip

II. Pre-Field Trip (the order of the following may be modified)

- A. Amass a collection of marine "debris" (some natural but mostly human-made) of various types. Divide it into 6 bags, labeled A-F.
- B. Divide the students into 6 groups. Each group is sitting at its own table / floor space
- C. Tell the students that on _____ the group is going to _____ beach / coastal area to pick up "marine debris". Explain...beach cleanup with an extended impact. Explain history / purpose of ICC.

[Oops! Add in letter to parents, including safety issues → permission slip]

- D. Show an overhead projector transparency of the ICC data card. Explain different categories, showing graphics of unfamiliar debris. Distinguish between natural versus man-made flotsam and jetsam.
- E. Give each group their bag of marine debris. Also give them a pamphlet of the pictures. Their job is to tally the debris onto the data card. When they are done -- and everybody in the group has gotten a chance to handle the debris and express an opinion (because there may be disagreement on categorization) -- then ask the teacher for the answer sheet for their bag of debris.

F. How well did you do?! Self-evaluate:

- World Ocean Citizen = close to all correct
 - Clean-Sailing Sailor = over half correct
 - Beginner = almost none correct
- But are there some "answers" you disagree with?!

G. Classroom sharing:

- Option #1: Each group has a spokesperson who shares some of their more surprising / unique examples of marine debris
- Option #2: Each group arranges a display of its debris and data card. At the teacher's call, groups move (clockwise) to see other groups' examples.

H. Wrap / prep for actual field trip -- logistics, e.g. each group packages its garbage bags, gloves, clipboards, pencils, data cards, etc.

III. Field Trip

A. Typical logistics: collect last minute permission slips, take attendance, organize chaperones, get lunches, etc.

B. Bus travel. Upon arrival...

....Ran out of time here. Contact Barb for this lesson, and other ocean-related curriculum writing!

Tema

Issue / Topic: **Ocean Ambassadors for Outreach Education / Ocean Curriculum Project**

La persona que haya identificado el tema de la discusión

Convener: *Gloria Snively / Mark Schreffler*

Los otros participantes

Other members: *Andrew Vance, Noriko Imamiya, Kazuya Hirai, Carlos Stepath*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

Ocean Curriculum project stems from a 1980's project where members of the Pacific Rim basin came together 3 times to develop an international curriculum.

Gloria believes it lacked an in-depth cultural approach, but was strong on scientific concepts.

Countries included: US, Canada, Japan, Australia, New Zealand, Fiji, Puerto Rico

Participants will need funding → how though? who?

→ Each partner develops and brings their local curricula

→ Noriko and Kazuya utilize the MARE program to spread ocean stewardship in Japan.

→ Carlos points out that the curriculum is out there, the OOMF can work to link these

→ The OOMF needs to reach out and connect educators with the fantastic curriculum that exists.

→ Mark acknowledges that some schools and educators don't have internet access. Therefore someone has to work "on the ground".

Recruiting people as ocean ambassadors in the Indo-Pacific Islands.

Gloria suggests that Mark's organization (Marine Aquarium Council) funds teachers in these areas to develop programs.

In Australia there is the Rainbow Schools project that connects Australian schools with developing schools in East Timor. We ship container loads of resources to schools. Also a connection with the ATA (Alternative Technology Association) that developed low cost, low energy & locally serviceable lighting kits and spare parts that local people can build and hook up to solar panels provided by the ATA. → could we look towards this as a model for encouraging sustainable fishing practices in the Indo-Pacific region?

Mark - works with aquariums

-- Philippines, Indonesia, Maldives

Best practices, go to small fishing villages, use nets instead of cyanide, killing reefs

Sister Schools --

- Small schools, no internet
- Letters, packages, National Geographics
- Need local teachers

Japan -- informal educators, general public

- We ask fishermen to come in to schools
- Some education necessary for fishermen
- Same issues
- Sometimes school group, tourist, Okinawa, aquarium fish collectors

Andrew is a high school teacher in Melbourne, Australia girls college

- Kids to become ocean ambassadors
- act as sister schools
- Rainbow Schools Project - leaders who have hired shipping containers
- East Timor massacre, people trying to set up sustainable industries, low energy desk lamps

Noriko -- MARE (Marine Activities Resources and Education)

- EcoTourist Program
- Original Japanese program
- Small forum - 100 people
- Japanese - original curriculum - local kids to know, monitor local environment

Andrew -- Kids Coastal Health Conference (2nd year)

- Local mentor
- Curriculum is out there

A resource clearing house

Ambassadorship

Connect educators with what exists

Web

How do we reach isolated poor countries?

Tema

Issue / Topic: **Sustaining the Network / Next Steps Needed to Keep the Conversation Going**

La persona que haya identificado el tema de la discusión

Convener: *Sherwood Maynard / Jody Plecas*

Los otros participantes

Other members: *Caïssa Douwes, Fiona Fraser-Smith, Mellie Lewis*

Notas de la discusión, conocimientos claves, preguntas pendientes, observaciones, y cosas para hacer y siguientes pasos si apropiadas a esta discusión:

Discussion notes, key understandings, outstanding questions, observations, and, if appropriate to this discussion: action items, next steps:

How do we keep this sharing going? We will be in contact, but how to make this sustainable?

Need funding, 2 people to set up website

Video conferencing

If there is a central office, is OOMF still Pacific-based?

We cannot, and must be inclusive.

One ocean now means all oceans, not just Pacific.

Our goals are same for all oceans: bring health to the oceans.

National Marine Aquarium in the United Kingdom has just announced funding possibilities -- aquarium could fund UK-based stuff.

UNESCO: United Nations Decade of Education for Sustainable Development 2005-2014. We all want to work together in the future, and may need goals to work towards.

NMEA pre-session or post for New York City conference: will have to keep talking: what we've done and what we would like to do.

Or do a presentation for NMAE.

We all have to go home and recruit conservation organizations etc. to bring them into the fold -- exchange -- buy-in for OOMF moves forward.

Harry will spend 3 more months.

Need sub-committees → granting, New York City meeting, issues, etc.

Are the people in this room a part of "the OOMF Network" and what is our "mission."

Mission: all agree on big issue of raising awareness for marine education -- a voice for change.

We need a place and then we can get funding and communicate.

W20 can provide some foundational, set-up options, but OOMF may need its own site.

This site may contain a Scuttlebutt-type email list, a network of sites.

How is OOMF network different?

What will we bring to the web -- bring together international awareness, guidelines, strategies, protocols, to identify.

Need physical meetings, periodically?

And can meet on the web.

There is hesitation as what we can do because we are still not sure as to who we are exactly and what our goals are. What are our messages? We need one voice and a clear message(s).

For a long time, internet was just volunteers working together. But in terms of action, we need: UNESCO follow-up, we need working groups

ACTIONS

People to follow up on these 8 points

- ① Funding for more sessions > sites
- ② Funding from UNESCO for sustainable presence (7-20k)
- ③ Get consensus from our own groups
- ④ Pull together existing organizations and research
- ⑤ e-Cheerleader for OOMF statement / message
- ⑥ e-Cheerleader for "common themes" from OOMF
- ⑦ Look at / for politicians with OOMF feeling
- ⑧ Look at sites online



Topic: Devise an Overall 5-10 Year Plan for OOMF

Convenor: *Angela Colliver* Other participants: *Jody Plecas, Shekar Bose, Gloria Snively, Kazuya Hirai, Russell Stevens, Qamar Schuyler*

For each result or recommendation:

What	How	Who	When
Desired end results	Actions to get there ...	Lead person on each action item	if appropriate: beginning date? status report dates? end date?
1. An overall 10-year plan on www available to leaders, practitioners and all interested.	- Access to action plans from each group	Harry	Aug 2005
2. Access funding opportunities within the UNESCO Decade and all other areas to reach goals and outcomes	- Compilation and analysis of a draft	Angela / Shekar	Aug-Oct 2005
3. A communications plan to support effective communication about who we are and what we are doing	- Dissemination to all members for ratification and feedback	Harry	Nov-Dec 2005
4. Develop an evaluation plan	- Second draft	All members	Jan 2006
	- Create final draft	Angela / Shekar Jody (Evaluation)	ongoing
	- All groups share plan(s) with our government bodies, professional associations, NGOs (INFLUENCE)	All OOMF members	
Who else do we need to enroll? (and who will take the lead on contacting them?)			
Our networks - involve them however each OOMF member here today be responsible to compile feedback from government departments, key marine and environmental education groups. Steering Committee members to see first draft			
Resources Needed			
OOMF members, Central Office / Secretariat, Bank Account - Treasurer / Accountant			
First Steps (Next 2 weeks)		Leader for this first steps phase:	
- Access plans from Lisa - Liaison with all networks - for a contact - eg. USA, Hawaii, South Africa, Canada to establish and international organizational Steering Committee.		Angela Colliver angelac@gbrmpa.gov.au	

Date of next meeting of this group: August 2005

adapted from a form designed by Diane Gibeault, *Diane Gibeault & Associe.e.s/Associates, Ottawa www.cyberus.ca*

OOMF Participants who will disseminate information in their geographic region and act as main contact for these regions are:

AFRICA	Russell Stevens	
AUSTRALIA	Angela Colliver	
CANADA	Eriko Arai	
ASIA	Noriko Imamiya	
PACIFIC	Qamar Schuyler	
NORTH AMERICAS	Mellie Lewis	
SOUTH AMERICAS	(Carlos to look)	Luis Pinto, Universidad de Concepción (Vicki Osis)
EUROPE	Fiona	
NEW ZEALAND	Wendy Barry	



Topic: Peer Marine Education Review Forum

Convenor: *Russell Stevens* Other participants: *Wendy Barry*

For each result or recommendation:

What Desired end results	How Actions to get there ...	Who Lead person on each action item	When if appropriate: beginning date? status report dates? end date?
<ol style="list-style-type: none"> 1. List of potential reviewers, contact them and establish whether they are interested in being part of a forum of reviewers. 2. Establish community of reviewers and critical professionals who are striving for excellence in marine education for sustainability 3. Evaluate in 1 year and feed back to OOMF participants what has been <u>done</u>. 	<ul style="list-style-type: none"> - Invite suggestions - Contact people - Spread to others internationally - <ul style="list-style-type: none"> NZ UK & Europe USA WWF Teacher network 	<p>Russell</p>	<p>15 August 2005</p>
<p>Who else do we need to enroll? (and who will take the lead on contacting them?)</p>			
<p>Resources Needed</p>			
<p>First Steps (Next 2 weeks) - Russell to get people involved e.g. Rita from Monterey Bay, Paula of NOAA</p>		<p>Leader for this first steps phase: Russell Stevens rstevens@aquarium.co.za</p>	

Date of next meeting of this group: _____



Topic: Create an 'OOMF' Website that is Useful and Resourceful

Convenor: *Lindsey Peavey* Other participants: *Caissa Douwes, Andrew Vance, Noriko Imamiya, Harry Breidahl, Qamar Schuyler, Mellie Lewis*

For each result or recommendation:

What Desired end results	How Actions to get there ...	Who Lead person on each action item	When if appropriate: beginning date? status report dates? end date?
1. Make OOMF a separate website with its own address (even if hosted by an organization) 2. Website with outline : see next page	<ul style="list-style-type: none"> - Research available info for website so we don't reinvent the wheel - Harry work with Peter to find available websites (www.??) - Designate a person to head [lead] each part of the site - Have committee rework website outline to create a master outline - research "yahoo" groups [free] - research potentials for database 	everyone Harry Lindsey everyone (headed by Lindsey) Caissa Caissa	over the next year 2 months over next year over next year 2 months 2 months
Who else do we need to enroll? (and who will take the lead on contacting them?)			
Resources Needed \$, internet research capabilities			
First Steps (Next 2 weeks) - -		Leader for this first steps phase: Lindsey Peavey lindsey@propeninsula.org	

Date of next meeting of this group: 2006? OOMF - meet via email / conference call sooner.

A Web-Based Platform for International Information and Resource Sharing and Collaboration

- the easiest way we can stay connected, networked and communicating. And cheap.
- need a "host" organization that has the capacity to manage the website. Pro Peninsula might be an option. Currently the "OOMF" website is hosted on the MESA website. There is info posted there but it is not a functional, resourceful site (yet).

Things the site needs:

- an interactive listserv (example: seaturtle.org's listserv)
 - * available to anyone
- a 'bulletin board' where people can post → documents
 - curricula
 - educational activities
 - abstracts
 - papers, etc.
- a 'calendar' or area to post upcoming events like conferences, festivals, professional development, workshops, etc.
- a comprehensive list of international organizations / individuals / agencies working on / towards a healthy ocean with contact info, area / region and description of work.
- reports from working groups
- an ebulletin or newsletter with articles containing information of programs, happenings around the world / Pacific Basin. Anyone can submit an article so it remains diverse. Example: an article about what happened at the 1st OOMF.
- linking people who need with people who have i.e. materials, capacity
- guidelines / best practices for all to use / see values - (the need)
- reduce replication, easy access
- one-stop shopping for finding and connecting with organizations / people doing similar work → catalyzing international partnerships
- first step in creating an actual network and defining who we are - who's involved. Gives people who did not / could not make it to OMF a chance to get involved and contribute.
- will help define what issues are arising (are reality) among the people who are interested in actively participating - so we can take those things to move ahead with the OOMF and progress with actions and tasks to work towards the same goals with one voice. → perhaps reflecting on the website activity / topics / postings, etc. at the OOMF 2006.
- * Multi - lingual → 'mirror' sites hosted by partner organizations → main site in ~ 10 languages

Website Outline

- Main page in ~ 10 different languages (MESA)
 - who we are
 - what makes us different / purpose
 - distinguish, articulate

- Curriculum sharing / education link organized by:
 - region
 - ↳ discipline
 - ↳ matrix of links (Andrew & Barb)

↳ international ocean curriculum
(recommendations at the moment)
with example projects that are ongoing

- Open forum for discussion, questions, postings, etc.

- Listserv → subscribe

- Links / resources page (Lindsey)
 - materials, websites
 - (guidelines for links) - need input

- Academic page - papers, reports, etc.

- Guidelines of best practices

- Calendar of world-wide events (MESA)
 - keep it specific (guidelines)
 - broken down by region

- Database of organizations / individuals / agencies



Topic: International Marine Education Conference

Convenor: *Sylvia Spalding* Other participants: *Sherwood Maynard, Barbara Mayer, Mellie Lewis, Jody Plecas*

For each result or recommendation:

What Desired end results	How Actions to get there ...	Who Lead person on each action item	When if appropriate: beginning date? status report dates? end date?
<p>1. Hold the conference</p>	<ul style="list-style-type: none"> - Determine potential location, date, local partners - Determine tentative purposes / potential participants - Hold planning session 	<p>Sylvia</p> <p>Sherwood</p> <p>Sylvia / Mellie</p>	<p>now to late August</p> <p>now to late August</p> <p>now to late August</p>
<p>Who else do we need to enroll? (and who will take the lead on contacting them?) Mellie to contact following OOMF participants about joining committee - Sarah S., Shekar, Vicki O., Barbara Klemm, Wendy, Noriko, Barbara Mayer</p>			
<p>Resources Needed Teleconference access, local partners</p>			
<p>First Steps (Next 2 weeks) - See « How », above</p>		<p>Leader for this first steps phase: Sylvia Spalding Sylvia.spalding@noaa.gov</p>	

Date of next meeting of this group: late August

adapted from a form designed by Diane Gibeault, *Diane Gibeault & Associe.e.s/Associates, Ottawa* www.cyberus.ca



Topic: International Marine Sustainability Education Workshops for Teachers

Convenor: *Carlos Stepath* **Other participants:** *Mark Schreffler, Wendy Barry, Barb Mayer, Yunus Peer, Qamar Schuyler, Angela Colliver, Sherwood Maynard, Gloria Snivley*

For each result or recommendation:

What Desired end results	How Actions to get there ...	Who Lead person on each action item	When if appropriate: beginning date? status report dates? end date?
<ol style="list-style-type: none"> 1. Reach teachers without web access in remote rural & urban communities; provide these educators with support necessary to teach marine sustainability and science 2. Hard copy information delivered to teachers, recycled teaching materials 3. Information exchange (shared learning) 	<ol style="list-style-type: none"> 1) Develop action plan, teacher availability; Contact teachers and assess interest in Philippines 2) Create funding for trip & workshops & materials; Contact aid agencies & international NGO's for funding this multinational project 3) Arrange facilities for teaching; Contact training facilities and arrange for training; accommodations necessary for teachers 4) Develop curricula and schedule for one week (5-7 day) intensive program 5) Arrange for trips to aqua farms & MPA's 6) Teaching materials (new & recycled) 7) Local involvement of teacher trainers 8) Support for teacher learning and equipment to take to their students 	<ol style="list-style-type: none"> 1) Mark 2) Angela, Qamar, Wendy 3) Carlos, Mark, Barb, Qamar 4) Carlos, Gloria, Barb 5) Mark & Carlos 6) Wendy, Sherwood, Angela 7) Carlos, Qamar, Mark 8) Angela, Wendy, Sherwood 	<p>Philippines, March 2006</p> <p>Start university teaching evaluation pilot project in July 2006 at Cairns (James Cook University - Post-Doc award for Carlos?)</p> <p>Develop workshops and pilot project</p>
<p>Who else do we need to enroll? (and who will take the lead on contacting them?) Need to contact Alan White, Reef Check, Save Our Seas and Mike ?? from Cebu (will be done by Carlos after Mark has gone through several islands and discussed training with teachers, and assessed their interest). The university in Dumagete is the first selection of a training location; along with the MPA at Apo Island for a field trip; teacher training at the Tubigon community center and field trip at nearby MPA; teacher training at the Surigao del Norte and field trips to local MPA and utilizing students from SNCAT (Surigao del Norte College of Agriculture and Technology); UN Ed Sustainability involvement (Carlos, Gloria)</p>			
<p>Resources Needed - Monetary support for educational materials & funding sources, pens, papers, travel, accommodations for teachers, presentation materials, teaching rooms / materials / payroll and per diem / field trip expenses for teachers <i>pertaining</i> to travel & accommodations, snorkel gear</p>			
<p>First Steps (Next 2 weeks) - connections with teachers (Mark); organizing facilities for workshops; organizing funding for teacher in-service training</p>		<p>Leader for this first steps phase: Carlos Stepath cstepath@jcu.edu.au</p>	

Date of next meeting of this group: End of August on the Internet with report back from Mark about teacher interest and feasibility in the PI...



Topic: Creating / Compiling an International Collective Statement to Achieve Healthy Oceans to Present to World Leaders

Convenor: *Eriko Arai* Other participants: *Fiona Fraser-Smith, Dana Sitzler, Wendy Barry, Harry Breidahl*

For each result or recommendation:

What Desired end results	How Actions to get there ...	Who Lead person on each action item	When if appropriate: beginning date? status report dates? end date?
<p>1. Find out if there is a niche to fill for our group on the international</p>	<ul style="list-style-type: none"> - internet research - draft final question - put word out / ask around - compile research - go ahead decision - ask wider group 	<p>Fiona</p> <p>Dana</p> <p>everyone emails</p> <p>Fiona</p>	<p>September 15, 2005</p> <p>August 18, 2005</p> <p>Deadline for responses September 1, 2005</p> <p>September 15, 2005</p>
<p>Who else do we need to enroll? (and who will take the lead on contacting them?)</p>			
<p>Resources Needed</p>			
<p>First Steps (Next 2 weeks)</p> <ul style="list-style-type: none"> - Continue conversation re : need for an organization behind a statement - Complete steps. 		<p>Leader for this first steps phase:</p> <p>Eriko Arai eriko.arai@vanaqua.org</p>	

Date of next meeting of this group: _____

Closing Comments and Reflections July 19, 2005

Participants of the 2005 One Ocean Marine Forum gathered in a closing circle for comments and reflections on their two days working together. A rock which had fossils of ocean creatures in it was passed from person to person around the circle as each Forum delegate shared words and moments of silence as each individual was so inspired.

I believed along the way in the process...and I disbelieved along the way in the process...I am pretty amazed all along the way at the level of interaction we have had. Thank you for that...

I realize this is probably one of the most important two days of my life. I am totally committed to our work towards a sustainable ocean. Thank you for our work and for new friendships for our ocean planet.

This was an opportunity for challenges to be seized and worked towards...it is indeed challenging, but I feel we will do this together...

I am impressed with this group...I think we have gone through quite an experience together. Think about what we did in such a short time. The vision of what I thought this could be is coming together enormously. I am retiring soon, and I am trying to pass the torch to my graduate students. I am going back to Canada and involving them as the next generation. I wish this had happened twenty or 30 years ago...There is a toast we like to say in British Columbia: "U'xsla'x" = "Launch the Canoes!!" [Lisa's best-guess spelling]*

Go forth and network !!

Everyone in this room made me think differently about something. I appreciate the variety of perspectives.

Thanks for including me in this event - it is so important to me that I am here and...before I left to come here, I drew a picture of a mermaid holding the oceans...and I think this is what we are doing here...

In Hawai'i, rocks are very important. They are to be treasured...and listened to...and Hawai'i is a hot spot, as well. I think this forum is a hot spot, too...

In these past few days I have seen how much more I have to learn. Thank you and I am in awe of you for all you will continue to teach me...

This is just the beginning of something really great...We are actually doing it. We have stopped talking about it and are doing it; really doing it!

We are all lifelong learners and I think we are doing this here...

At first I was so nervous - this is my first experience discussing things in English. These days have been so exciting...I am so happy to be here!

I had a wonderful time...and now I am thinking what can I do in Japan...

Mahalo to everyone.

I think the future is brighter because of the people in this room.

This has been a very exciting two days...I am happy that we are going to continue and bring this forward.

This is a very emotional moment for me. I have been in this work for so long. I hope even younger people will come - they are the people we are working for...

I think often of global networks...and of unity...let us be united...

In this rock, I see some incredible evidence of life which has become extinct. Which is natural...and it is also hard to know what is naturally becoming extinct and which creatures are becoming extinct because of humans' impact on the planet. Together we can help reduce the negative impact we have on our ocean planet.

I am so pleased to see passionate educators who believe marine education is about marine education for sustainability...

Each of you inspires me...and I think we are one of the few groups to come to Maui, stay indoors, and talk about the oceans...which are just out there..!

I feel part of a powerful global community...and I am excited about the things that will happen in the future...

This rock is made of many particles...and yet I can see cohesion in the particles. Each of us has touched this rock and I hope I have taken a grain of each of you with me. Africa is full of very old rock. Maui is the home of the youngest rock. We come from many lands. May our efforts take the oceans into a new land...one that knows no boundaries. Remember that the oceans are crying out, "I need custodians - I need you to care for me..."



The OOMF 2005 event was a 1.5 day meeting convened using the method of Open Space Technology (OST). As you can imagine, there is more to facilitating OST than may be apparent at first glance - such as pre-work, preparation and design for specific situations, the knowledge of when to use this method, when not to use it and what it might or might not deliver, how making variations or intervening mid-process may affect a hoped-for outcome, how OST is used in different cultures, settings and countries, how to handle conflict in Open Space, and how and when (and when not) to design for action planning within the Open Space. If you are interested in learning more about OST you may wish to read Harrison Owen's book, "Open Space Technology: A User's Guide" and visit my website: <http://www.openingspace.net> to see more papers, resources and photos of the Open Space process. Thank you again for the honor of being able to facilitate for you to support your creative work towards a sustainable ocean

-- Lisa Heft

Open Space Technology is a way to convene a meeting, retreat or conference that generates communication, collaboration, innovation, and other solutions to challenges and transitions. When your organization or community has a complex problem, you are completely out of ideas regarding a solution, you have a diversity of people to bring to the process and the time for resolving the situation was yesterday -- This is a great time for Open Space. Participants emerge from the process invigorated and proud of their individual and collective accomplishments. If there was inter-group conflict they become appreciative of their differences and also delighted to find common ground. And if OST is used as the format for a conference participants realize that everyone is an expert full of wisdom and experience.

Committees, task forces and design teams can take weeks, months and even years to accomplish their goal - or in some cases simply to *define* their goal. Much of this same work can be accomplished by holding an Open Space. A half- or one-day Open Space can help a group identify and share resources and enhance networking; a 2 or 2.5 day Open Space highlights emerging opportunities and issues, creates mutual understanding, can include action planning and includes a complete written report of the proceedings for all participants to use and share for continued work post-event.

Open Space is an interactive process -- participants meet in concurrent and overlapping mini-discussions around a theme or an issue across departmental, hierarchal or historically opposite lines. The cross-pollination of moving from group to group and topic to topic in a non-linear way allows participants to jump quickly from familiar ways of thinking into innovation and action, going only to groups where they feel they are learning or contributing.

The guidelines of an Open Space meeting:

- **Whoever comes is the right person** - You do not need every person in the organization, just whomever cares the most. And if you are the only one who comes you might finally have some rich, focused quiet time for thinking and writing on that issue.
- **Whatever happens is the only thing that could have** - Let go of your expectations and work with whatever emerges.
- **Whenever it starts is the right time** - Creativity does not happen on a schedule.

- **Whenever it's over, it's over** - If you find a solution in 20 minutes, move on to the next group. If it takes 2 hours, keep the conversation rolling.
- There is one law, the **Law of Two Feet**: if you are neither learning nor contributing, get up and move to another discussion where you will be more useful and engaged, as your best work is needed at all times.

Open Space has been effective for 20 years in a diversity of settings, cultures and countries. It has been used by communities working towards peace, chemists designing new polymers, tribal and governmental leaders planning land use, community advocates and local government designing literacy programs, conference organizers holding action conferences, architects designing pavilions for the Olympics, an entire town having a simultaneous discussion town meeting, and community workers helping neighbors rebuild and heal after times of war.

This tool can be utilized by groups of 5 to over 2000 and the dynamics and the results are always the same: input from stakeholders at all levels, new ways of thinking and working, large amounts of work done rapidly, bringing perceived competitors together on issues and projects, organizational flexibility, interdepartmental or intercommunity teamwork, a sense of accomplishment and a feeling of passion and energy for the challenges ahead.

I look forward to hearing from you.

In addition to facilitating I also offer workshops on the method wherever I am hosted by an organization or community. If I cannot facilitate for you perhaps I can recommend a global Open Space colleague in your part of the world. And if you wish to learn how to convene groups using this method, I am happy to help you learn (in person at a workshop or via email conversations and links for online reading) and may be able to provide you with translations of signage and materials in various languages. Do not hesitate to ask me questions and ask for resources and support regarding Open Space Technology.

Lisa Heft is an international consultant, facilitator and Master Level interactive learning specialist serving businesses, organizations and communities since 1974. She has presented, consulted, and facilitated conferences, retreats and meetings, evaluated curriculum and trained trainers in Brazil, South Africa, Switzerland, Canada, Zambia, Germany, Australia, Spain, Denmark, Thailand and the USA. She has also written papers and training materials used by OST facilitators around the world and translated into several languages. Clients include the U.S. Department of Labor / Department of Transportation, the International AIDS Conferences, GlaxoSmithKline, U.S. Scholar-Athlete Games, FioCruz (Brazil), and the President's Commission on National and Community Service. She is Board Vice President, Open Space Institute (USA) and a member of the International Association of Facilitators and the Ethics Practitioners Association of Canada.