Ocean Policy Seminar:  
Oceans and Human Health

Syllabus

The role of the oceans in human health and well-being has received considerable attention in recent years. Much of that attention has focused on the need for and the findings of scientific research. The changing relationship of oceans to human health, however, has tremendous implications for public policy and governing. In this interdisciplinary seminar we will look at this relationship from both a physical and social-science perspective. Where possible, we will also explore governance and policy responses to the changing connection between oceans and human health. This exploration will involve readings from the primary and review scientific literature as well as from news coverage, NGO reports, and other popular sources of information. We hope also to have guest lectures from experts on aspects of the ocean-health connection from UH.

Readings: The required texts are: (1) National Research Council. 1999. From Mammals to Microbes: Understanding the Ocean’s Role in Human Health, National Academy Press: Wash., D.C. [in syllabus as “FMMR”]; (2) Special Issue on the Oceans & Human Health, Oceanography, vol. 19, no. 2 (June 2006) [in syllabus as “OCN”]. Please note that these texts are shelved in the UH Bookstore under OEST 735. Readings not in the required texts will be posted on the course web page on the MyUH portal. Students are responsible for checking their e-mail regularly for notice of assignment changes, guest speakers, recommended campus lectures, etc.

Class format: In the 2nd class, we will assign approximately two to four topics to each student depending on enrollment. On the date of the class in which a student’s topic is featured, the assigned student(s) will introduce the topic and speaker and then lead the question and answer period after asking the first questions. If there is no guest speaker, the student(s) will present an overview of the assigned readings, raise questions, and run the class discussion on the readings. If you would like to change the readings (i.e., add or substitute another item) for one or more of your assigned topics, you can do so by advising the class one week in advance and posting on MyUH either a pdf, the full bibliographic citation (if available on UH Library Voyager e-journals), or a URL for the paper(s). Grades will be based on class participation and short response papers. Everyone is expected to fully participate and complete all the assigned readings.

Time and place: Saunders Hall 443B; Wed, 12-1:30 pm (some classes may run until 2 pm).

Instructors: Prof. Alison Rieser, Geography, and Dr. Hank Trepido-Rosethal, SOST
Contact Information: rieser@hawaii.edu Office: Saunders 440; 956-8467
roseenthal@hawaii.edu Office: POST Bldg 105; 956-9418

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 15</td>
<td>introduction to seminar topics</td>
<td>L.E. Fleming and E. Laws. 2006. Overview of the Oceans and Human Health Special Issue, in OCN, pp. 18-23.</td>
</tr>
<tr>
<td></td>
<td>Dr. Robert Bidigare, POST Bldg 723</td>
<td></td>
</tr>
<tr>
<td></td>
<td>on cyanobacteria</td>
<td></td>
</tr>
</tbody>
</table>
neurotoxin and disease in the (Chamorro people of Guam)

Part 1: Hazards from the Sea

Jan 17
Oceans and Climate
Climate and Weather, Coastal Hazards and Public Health, in FMTM, pp. 17-42.
J.A. Patz et al, Climate Change, Oceans, and Human Health, in OCN, pp. 52-59.
J.M. Prospero, Case Study: Saharan Dust Impacts and Climate Change, in OCN, pp. 60-61.

Jan 24
Severe Weather and Climate Variability; Coastal Disasters; Reducing Disaster Vulnerability
Invited guest speaker: Cheryl Anderson, UH Social Science Research Institute
NPR transcript, "Is Mild Winter a Sign of Climate Change?", interview with Robert Hanson, Jan. 7, 2006 www.npr.org
M.E. Keim, Cyclones, Tsunamis, and Human Health: The Key Role of Preparedness, in OCN, pp. 40-49.
F. Miller et al., Case Study, Resilient Ecosystems, Healthy Communities: Human Health and Sustainable Ecosystems after the Des 2004 Tsunami, in OCN, pp. 50-51.

Jan 25
Recommended lecture: Dr. Craig Venter, UH Distinguished Lecture: "The Ocean Genome: The Key to Earth's Habitability" Campus Center Ballroom, 7 p.m.

Jan 11
Climate Change and Human Health

Feb 7
The Oceans as Vectors for Disease
Infectious Diseases, in FMTM, pp. 43-58.
A.P. Dufour et al., Microbes, Monitoring, and Human Health, in OCN, pp. 72-80.
E. Laws, Case study: Cholera, in OCN, pp. 81-83.

Feb 14
Seafood Consumption: Case Study of Risk-Benefit Analysis
E. Dewaullie and A. Knap, Food from the Oceans and Human Health: Balancing Risks and Benefits, in OCN, pp. 84-93.
E. Dewaullie, Canadian Inuit and the Arctic Dilemma, in OCN, pp. 88-89.
(continued on next page)
<table>
<thead>
<tr>
<th>Date</th>
<th>Event/Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 7</td>
<td>Cigaretta poisoning and coral reefs</td>
<td>Readings to be announced. <em>Invited guest speaker:</em> Dr. Paul Bionfang, Oceanography Dept.</td>
</tr>
<tr>
<td>Mar 14</td>
<td>Risks of Recreational Contact with Seawater; Coastal Water Quality Criteria; Beach Closures</td>
<td>Readings to be announced. <em>Invited guest speaker:</em> Dr. Roger Fujioka, UH Water Resources Research Center</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Reading Information</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Mar 21</td>
<td>Integrated Coastal Management</td>
<td>Readings to be announced.</td>
</tr>
<tr>
<td></td>
<td>Invited guest speaker: Prof. Kem Lowry, Dept. of Urban and Regional Planning, UHM</td>
<td></td>
</tr>
<tr>
<td><strong>SPRING BREAK</strong></td>
<td><strong>Part II:</strong> Benefits from the Oceans</td>
<td></td>
</tr>
</tbody>
</table>
http://state.hi.us/lrb/rpt06/biocoop.pdf  
Other readings to be announced. |
| Apr 18 | Marine Biodiversity and Human Health: oceans as source of model organisms for biomedical research | Marine Organisms as Models for Biomedical Research, in *FMTM*, pp. 83-95.  
| Apr 25 | Marine Biodiversity and Human Health | Readings to be announced.  
**Invited guest speaker:** Dr. Bruce Wilcox, Div. of Ecology and Health, UH Burns Medical School |
Other readings to be announced. |