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Born October 12, 1959
New York City

Occupations:

1991 - PRESENT

Chairman and President, Biosphere Foundation and its Division the Planetary Coral Reef Foundation (PCRF). Biosphere Foundation is a US 501 (c) 3 organization with a primary goal to inspire intelligent stewardship of our earth's biosphere. Its projects aim to contribute to the existing knowledge about the biosphere and inspire individuals join through hands-on field work or virtual education-outreach programs.

1985- 1994: The Biosphere 2 Project

Ms. Alling was one of the eight "biospherians" to live for two years inside Biosphere 2, a 3.15-acre Laboratory for Global Ecology. At Biosphere 2, she created and operated the largest artificial ecological marine system, a 1,000,000-gallon mangrove, marsh, and ocean coral reef. She also served as Scientific Chief for over sixty research projects.

1993 - 1994

Assistant Vice-President of Biospheric Development, Space Biospheres Ventures (SBV). Assisted the Vice-President in overseeing of research, development, analytics, environmental and space applications, environmental marketing, technical systems, and marine systems for Biosphere 2 and the adjacent research complex.

1991 - 1993

Associate Director of Research and Development, SBV, and Marine Systems Manager for Biosphere 2. Resided inside Biosphere 2 for two years during its first mission. Responsible for the research and development program for Biosphere 2 and the operational management of the ocean and marsh systems.

1985 - 1991

Director of Marine Systems (SBV). Responsible for the final design, development, operations and research of two biomes: the 1,000,000 gallon ocean and marsh systems for Biosphere 2.

1986 – 1991: President, Ocean Expeditions Inc. (OEI)

During these years, OEI managed the following projects:

1989 - 1991: Collection of the coral reef for Biosphere 2 in the Yucatan and the Bahamas.

1987 – 1989: "Expedition to Circumnavigate South America", including a six week voyage to the Antarctic Peninsula. Ms Alling was the Expedition Chief.

1987: Release of two dolphins from captivity with Oceanic Research and Communication Alliance.

1985:

Project Coordinator, Cetacean Seas Research, Lincoln, MA. Design and construction of a 44 foot sloop for the studies and film documentation of cetaceans.

Scientific Consultant for a UNEP/NARA (National Aquatic Resource Agency) Sri Lankan Small Cetacean Entrapment Project

1981 – 1984:

Scientist for the World Wildlife Fund program to study marine mammals in the Indian Ocean Marine Mammal Sanctuary.

1981: Scientist for Marine Mammal Commission, Greenland

Education:

1983-1985: M.S., Honors. The School of Forestry and Environmental Studies, Yale University, CT

1977-1982: B.A., Biology, Honors. Middlebury College, Middlebury, VT

1981: Zoology Lab, Honors. Cambridge University, Cambridge, England

1979: Organic Chemistry, Honors. Harvard University, Cambridge, MA

1979: Semester in Nepal, Honors. Experiment in International Living

1977: Sea Semester, Boston University, Boston, MA

Fellowships/Memberships:

Fellow, World Academy of Art and Science

Fellow, Linnean Society, UK

Fellow, New York Explorers Club

Committee Member, Espace Mer, France

Associate Member, Institute for Advanced Studies in Life Support

Board of Directors, Journal of Life Support and Biosphere Science, USA

Awards:

1993 Woman of the Year, Elle Magazine
Thomas J. Watson Fellowship, USA
International Cetacean Society Award, USA

“Studio of the Sea” films:

Studio of the Sea is a project of the Biosphere Foundation that has made over 40 mini-films about life at sea, ocean challenges and island cultures. Its archive consists of 3 terrabytes of HD and DV footage. The films are online at www.studioofthesea.org.

The most well known include:

Water Music & Mbambanga Dance. 2008. World Water Expo Zaragoza Spain.

Whaling Wall. 2008. YouTube

Canary is Dead. 2008. Link TV

Deep Trouble. 2007. YouTube

Going, Going, Gone. 2007. YouTube

Canary is Dead. 2007. Current TV

Our World – A visual journey into Biosphere 2. 2006. YouTube

Studio of the Sea. 2005. Link TV

Documentaries:

An Inconvenient Truth. 2006. Academy award winning film by Paramount Classics and Participant Productions. 2006 that featured the work of PCRf and the fact that coral reefs are an early warning sign for global warming.

Dragon of the Seas. 2004. 52 minute documentary film about the PCRf Coral Reef Research program by ADR Productions, France.

Indonesia Beyond the Reefs. 1999. 90 minute National Geographic Television program about Raffles Marina Marine Parks of Indonesia expedition with PCRf.

The Coral Dance. 1998. 30 minute documentary film on the PCRf Coral Reef Research and Wastewater Gardens® by Japan Asahi TV, French Canal + TV, and British 3BM Production.

Buddha and the Biosphere - Vis a Vis. 30 minute documentary about life inside the two year Biosphere 2 project by Point du Jour - France 3 - Borromeé Productions.

Numerous International films about the Biosphere 2 project. 1986-1994.

Back to the Sea. 1987. National Geographic film about the release of two bottlenose dolphins, *Joe and Rosie*.

Research Experience:

1998 – present: Closed system research; R & D for Mars On Earth®

- 1995 – present: Coral reef research worldwide
- 1993 – present: Wastewater recycling research and development, called Wastewater Gardens®
- 1995 – 2005: Closed systems research and development with a 12' closed system chamber, Laboratory Biosphere – a test chamber for the Mars On Earth® Project.
- 1995 – 2003: Pioneered an R & D Program to develop the Coral Reef Satellite Mission: a project to put a satellite in space to map and monitor reefs and to create an urgently needed first comprehensive baseline map of living coral reefs. Partners in this effort included the Massachusetts Institute of Technology (MIT) and the Scripps Institution of Oceanography.
- 1991 – 1994: Coral reef research, Turneffe Atoll, Belize
- 1985 – 1994: Closed ecological systems research and development, Biosphere 2; Ocean and marsh biome research and development, Biosphere 2
- 1989: Research of humpback whale populations along the coast of the Antarctic Peninsula with the National Cancer Research Institute
- 1988 – 1989: Research on small cetaceans and vocalizations of humpback whales off the coast of South America.
- 1987: Readaptation and Release into the wild of two captive bottlenose dolphins.
- 1986: Participant in a communication study with killer whales in British Columbia, Canada
- 1983 – 1984: Research on the behavior, ecology and vocalizations of blue whales off the east coast of Sri Lanka
- 1983: Research on the exploitation of small cetaceans in Sri Lanka and China.
- 1982 – 1984: Participant in a WWF research project studying sperm whale behavior and vocalizations off the coast of Sri Lanka. Research on the distribution, identification and ecology of small cetaceans in the Indian Ocean.
- 1982: Research on the exploitation, distribution and population of dolphins and porpoises off Labrador, Canada.
- 1981: Participant in a research project studying the distribution of humpback whales off Greenland.
- 1979: Research on nutrition and health in Dhopakel and Taplejung, Nepal

Books:

A. Alling, M. Nelson, S. Silverstone. 1993. *Life Under Glass: The Inside Story of Biosphere 2*. The Biosphere Press, Oracle, AZ.

Publications:

Tanya Ribakoff, Orla Doherty, Paul McCurdy, Katharine Currier, Abigail Alling. 2008. *Declining Coral Health and Fish Diversity at Sagharughombe Reef, Solomon Islands Before and After the 2007 Tsunami and Earthquake*. Poster presented at the International Coral Reef Symposium, July 2008.

Katie Olds, Phil Dustan, Abigail Alling. 2008. *Eight Years of Coral Reef Data from Melanesia and Southeast Asia: Vitality, Percent Coverage, Reef Area and the Affects of an Earthquake*. Poster presented at the International Coral Reef Symposium, July, 2008.

Lindsey Feldman, Abigail Alling, Kitty Currier, Orla Doherty, Phil Dustan, Heather Logan, Carol Milner. 2008. *The Planetary Coral Reef Foundation*. Poster presented at the International Coral Reef Symposium, July, 2008.

Alling, A., Doherty, O., Logan, H., Feldman, L., Dustan, P. 2006. *Catastrophic Coral Mortality in the Remote Central Pacific Ocean: Kirabati Phoenix Islands*. Atoll Research Bulletin (in press).

Alling, A., Van Thillo, M., Dempster, W., Nelson, M., Silverstone, S., Allen, J. 2005. *The Mars On Earth® Project: Lessons Learned from Biosphere 2 and Laboratory Biosphere Closed Systems Experiments*. Jpn. So. Biol. Sci. Space, Vol. 19, No. 4: 250-260.

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H. Morowitz., J.P. Allen, M. Nelson and A. Alling, *Closure as a Scientific Concept and its Application to Ecosystem Ecology and the Science of the Biosphere*. Advances in Space Research. 2005;35(9):1552-6.

William F. Dempster, J.P. Allen, A. Alling, M. Nelson, S. Silverstone, M. Van Thillo. 2005. *Atmospheric dynamics in the Laboratory Biosphere with wheat and sweet potato crops*. Advances in Space Research. 2005;35(9):1552-6.

M. Nelson, W.F. Dempster, S. Silverstone, A. Alling, J.P. Allen and M. Van Thillo, *Crop Yield and Light/Energy Efficiency in a Closed Ecological System: Two Laboratory Biosphere Experiments*. Advances in Space Research 35 (2005) 1539-1543.

Silverstone, S., M. Nelson, A. Alling and J.P. Allen. 2005. *Soil and Crop Management: Lessons from the Laboratory Biosphere 2002-2004*. Advances in Space Research Adv 35(9):1544-51.

Silverstone, S., M. Nelson, A. Alling, J. Allen. 2003. *Development and research program for a soil – based bioregenerative agriculture system to feed a four person crew at a Mars base*. Adv. Space Res. 31(1): 69-75.

Nelson, M., W. Dempster, A. Alling, J.P. Allen, R. Rasmussen, S. Silverstone and M. Van Thillo. 2003. *Initial experimental results from the Laboratory Biosphere closed ecological system facility*, Adv. Space Res. 31(7):1721-1730, 2003.

Dempster, W.F., Van Thillo, M., Alling, A., Allen, J.P., Silverstone, S., Nelson, M. 2004. *Technical review of the Laboratory Biosphere closed ecological system facility*. Adv. Space Res., 34, 1477-1482.

Allen, J.P., M. Nelson, A.K. Alling. 2003. *The legacy of Biosphere 2 for the study of biospherics and closed ecological systems*, paper presented at the World Space Congress, COSPAR general assembly, Houston, TX, October 2002, Advances in Space Research, 2003, Vol. 31, issue 7, 1629-1640.

M. Nelson, J. Allen, A. Alling, W.F.Dempster, S. Silverstone. 2003. *Earth applications of closed ecological systems: relevance to the development of sustainability in our global biosphere*, paper presented at the World Space Congress, COSPAR general assembly, Houston, TX, October 2002, Advances in Space Research, 2003, 31 (7), 1649-1656.

Alling, A, Nelson, M., Silverstone, S and M. Van Thillo. 2002. *Human Factor Observations of the Biosphere 2, 1991-1993, Closed Life Support Human Experiment and Its Application to a Long-Term Manned Mission to Mars*. Life Support and Biosphere Science 8:71-82.

Nelson, M., Alling, A, Dempster, W.F., Van Thillo, M. and J. Allen.2002. *Integration of wetland wastewater treatment with space life support systems*. Life Support and Biosphere Science 8 (3/4):149-154.

Salisbury, F.B, Dempster, W.F., Allen, J.P., Alling, A., Bubenheim, D., Nelson, M and S. Silverstone. 2002. *Light, Plants, and Power for Life Support on Mars*. Life Support and Biosphere Science 8:161-172.

Allen, J. and A. Alling. 2002. *The design approach for Mars On Earth®, a biospheric closed system testing facility for long-term space habitation*. American Institute of Aeronautics and Astronautics Inc.IAC-02-IAA.8.2.02.

Nelson, M., Odum, H.T., Brown, M.T., and A. Alling. 2001. "Living off the land": resource efficiency of wetland wastewater treatment. Adv. Space Res. 27 (9) 1547-1556.

Nelson, M., Alling, A, Dempster, W.F., Van Thillo, M. and J. Allen. 2003. *Advantages of using subsurface flow constructed wetlands for wastewater treatment in space applications: ground-based Mars Base prototype*. Advances in Space Research 31 (7): 1799-804.

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Supriya, C., Baumgardner, J., Alling, A., Dustan, P. 1999. *Sensor Specifications for Space Based Coral Reef Monitoring*. Linnean Society/NASA/PCRF Remote Sensing of Coral Reefs Conference, London, Dec 15-16, 1999.

Alling, A., Joe Allen, F. El-Baz. 1998. *A Simulation of an Inhabited Mars Base to be Constructed and Operated in the Egyptian Sahara Desert*. 3rd International Conference Life Support and Biosphere Science, January 11 -15, Disney, Coronado, Florida.

Dustan, P., S. Chakrabarti, A. Alling. 1998. *Mapping and Monitoring the Health and Vitality of Coral Reefs From Satellite: a Biospheric Approach*. 3rd International conference of Life Support and Biosphere Science, January 11 -15, Disney, Coronado, Florida.

Alling, A. 1997. *Pulsing Planet Earth: The Planetary Coral Reef Project*. Explorers Journal. Fall, 1997.

Alling, A. and P. Dustan. 1996. *Coral Reef Ecosystem of Biosphere 2*. 4th International Conference on Closed Ecological Systems. Linnean Society, UK.

A. Alling. 1994. *"Two Years Inside Biosphere 2: Looking Back, Looking Ahead."* Illume, V. 6. N.1 (Japan).

M. Van Thillo, W. Dempster, N. Alvarez-Romo, G. Hudman, S. Silverstone, A. Alling, and M. Nelson. 1996. *"From Theory to Practice: The Initial Two-Year Closure of Biosphere 2"*. Journal of Ecological Engineering.

Nelson, M. and A. Alling. 1993. *"Biosphere 2 and its Lessons for Long-duration Space Habitats"*. In: Faughnan, ed., Space Manufacturing 9. The High Frontier: Accession, Development and Utilization. AIAA, Washington, D.C. P. 280-287.

M. Nelson, T. Burgess, A. Alling, N. Alvarez-Romo, W.F. Dempster, R.L. Walford, and J.P. Allen. 1993. *"Initial results from Biosphere 2: a closed ecological system laboratory,"* Bioscience, 43 (4).

A. Alling, M. Nelson, L. Leigh, R. Frye, T. Macallum, N. Alvarez-Romo. 1993. *A summary of the Biosphere 2 Test Module Research*, an appendix chapter included in *Microcosms and Mesocosms in Scientific Research*, Springer-Verlag, New York by H.T. Odum and R. Beyers.

Baker, C.S., A. Perry, J.L. Bannister, M.T. Weinrich, R.B. Abernethy, J. Calambokidis, J. Lien, R.H. Lambertsen, J. Urban Ramirez, O. Vasquez, P.J. Clapham, A. Alling, S.J. O'Brien, S.R. Palumbi. 1993. *Abundant Mitochondrial DNA Variation and Worldwide Population Structure in Humpback Whales*. Proceedings of the National Academy of Sciences of the United States of America. Vol 90. No. 17: 8239-8243.

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MacCallum, T., M. Nelson, J.P. Allen, L.S. Leigh, A. Alling, N. Alvarez-Romo. 1991. *The Biosphere 2 Project and its Application for Space Exploration and Mars Settlement*. The Case for Mars I V, Volume 76, Science and Technology Series, American Astronautical Society, San Diego.

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Alling, A. and R. Payne. 1988. *"Song of the Indian Ocean Blue Whale, Balaenoptera musculus"*. Submitted to the International Whaling Commission.

Alling, A. and H. Whitehead. 1987. *"A preliminary study of the status of the White-beaked dolphin and other small cetaceans off the coast of Labrador."* Canadian Field Naturalist Vol 101(2): 131-135.

Alling, A. 1987. *"A case study of the incidental entrapment of odontocetes in Sri Lanka's gillnet fishery"*. Accepted for publication in the J. Bombay Nat. Hist. Soc.

Gordon, J., V. Papastavrou, and A. Alling. 1986. *"Measuring blue whales: a photographic technique"*. Cetus, 6(2): 5-8.

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Alling, A., Gordon, J., Rotten, N. & Whitehead, H. (1982). WWF-Netherlands Indian Ocean Sperm Whale Study, 1981-1982 Interim Report. Paper SC/34/Sp9 presented to the IWC Scientific Committee, June 1982 (unpublished). 46pp.

Whitehead, H., K. Chu, P. Harcourt, and A. Alling. 1982. *"The humpback whales off West Greenland: summer 1981."* Final Report to Marine Mammal Commission. N.T.I.S. Publication no. PB82-243924, pp 25.