

CURRICULUM VITAE

LAST NAME : Ramachandran

FIRST NAME : Purvaja

DATE OF BIRTH : November 23, 1967

SEX : Female

NATIONALITY : Indian

ADDRESS (WORK) : Senior Project Scientist
Institute for Ocean Management,
Anna University, Chennai 600 025,
India
Phone: (91) 44-230-0108
Fax: (91) 44-235-2870
Email: purvaja@hotmail.com

ADDRESS (HOME) : 20 Hindi Prachar Sabha Road
T. Nagar, Madras 600 017, India
Phone: (91) 44 4340767/ 4345509

EDUCATIONAL QUALIFICATION:

Degree	Year	Subject	University/ Institute	Class
Ph.D.	Aug 1995	Environmental Sciences	Anna University Madras, India	NA
M.Sc.	Jun 1990	Marine Biology & Oceanography	Annamalai University India	I (Univ. II Rank)
B.Sc.	Jun 1988	Zoology	University of Madras, Madras, India	I

PhD Thesis: Interactions between greenhouse gas, nutrients, major and trace elements from mangrove ecosystems of South India

M.S. Thesis: Osmoregulation in four species of bivalves

B.S. Dissertation: A study of the Down's Syndrome

AREAS OF RESEARCH INTEREST:

- Global Climate Change
- Global Biogeochemical Cycles including nutrient biogeochemistry
- Coastal Ecosystem Management
- Coastal Biodiversity

PROFESSIONAL EXPERIENCE:

- **Scientist (June 1997 - till date) at the Institute for Ocean Management, Anna University, Madras, India.**
- **Visiting Scientist (July 1999 - September 1999) at the Max-Planck - Institute für terrestrische Mikrobiologie, Marburg, Germany**
- **Post-doctoral Fellow (October 1996 to May 1997) at the Max-Planck - Institute für terrestrische Mikrobiologie, Marburg, Germany**
- **Research Associate (July 1995 to May 1996, sponsored by the Council of Scientific and Industrial Research, CSIR, New Delhi, India) at Anna University, Madras, India.**
- **Visiting Scientist (August 1991 to November 1991) at the National Institute of Public Health and Environmental Protection (RIVM, Bilthoven), The Netherlands.**

AWARDS AND FELLOWSHIPS

- Department of Science and Technology, Govt. of India, Young Scientist Award to carryout advanced research on climate change studies along the coastal ecosystems of the Bay of Bengal [April 2002 – March 2005]
- Deutscher Akademischer Austauschdienst (DAAD) [German Academic Exchange Service] Fellowship, awarded from June 1996 to May 1997, to carry out post-doctoral research at the Max-Planck-Institute for Terrestrial Microbiology, Marburg, Germany on Global Climate Change Studies.
- Council of Scientific and Industrial Research, Govt. of India, awarded the Research Associateship to conduct research on urban pollution and

methanogenesis from mangrove ecosystems of South India and its effect on global climate change. This study was conducted at Anna University, Madras, India.

- Council of Scientific and Industrial Research, Govt. of India, awarded the Senior Research Fellowship, to conduct research on pollution of the waterways, methane emission, the biological productivity and the trace element composition in the mangrove ecosystems of South India. This study culminated in the award of the Ph.D. degree by Anna University, Madras, India.
- Dutch Ministry for International Cooperation Fellowship, awarded from August 1991 to November 1991, to undertake advanced research training in Aquatic Ecotoxicology, Coastal Zone Management and Global Climate Change.

PUBLICATIONS (IN REFEREED INTERNATIONAL JOURNALS):

- Purvaja, R., Ramesh, R. and Frenzel, P. (2003) Plant-mediated methane emission from Indian mangroves. *Global Change Biology*. *In Press*.
- R. Ramesh, Purvaja R., Ramesh, S. and James, R.A. (2002) Historical pollution trends in coastal environments of India. *Environmental Monitoring and Assessment* (In Press)
- Ramesh R. and Purvaja R. (2002) Nutrient fluxes from coastal ecosystems of Tamil Nadu, India to the Bay of Bengal. *Deep Sea Research* (Special Volume on Bay of Bengal) [In press].
- Purvaja R. and R. Ramesh (2001) Natural and anthropogenic methane emission from coastal wetlands of South India. *Environmental Management* 27, 547 – 557
- Ramesh R., AL. Ramanathan, S. Ramesh, R. Purvaja and V. Subramanian (2000). Distribution of rare earth elements and heavy metals in the surficial sediments of the Himalayan river system. *Geochemical Journal*, Vol. 34: 295-319.
- Purvaja R. and Ramesh R. (2000). Human impacts on methane Emission from Mangrove ecosystems in India. *Regional Environmental Change*, 1 (2): 86-97.

- Purvaja R. and Ramesh R. (2000). Natural and anthropogenic effects on phytoplankton primary productivity in mangroves. *Chemistry and Ecology*. Vol. 17: 41-58.
- Ramesh R. and Purvaja R. (1999) Methane and climate variability: Emission studies from coastal wetlands of India. *Mitt. Geol-Paläont. Inst. Uni. Hamburg*. SCOPE Publication, Hamburg, Germany. 39 -53.
- Ramesh, R., Purvaja R., Parashar D.C., Gupta P.K., and Mitra A.P. (1997) Anthropogenic forcing on methane efflux from polluted wetlands (Adyar River) of Madras city, India. *AMBIO*, 26: 369-374.
- Ramesh R., Purvaja R. and Subramanian V. (1995) Carbon and phosphorus transport by the major Indian rivers. *J. Biogeochemistry* 22, 409-415.
- Ramesh R., Purvaja R. and Ika R.V. (1995) The problem of ground water pollution: A case study from Madras city, India. *Hydrological Sciences*. 230: 147 - 157.
- Ramesh R., Shiv Kumar K., Eswaramoorthi S. and Purvaja R. (1995) Migration and contamination of major and trace elements in ground water of Madras city, India. *Environmental Geology*. 25: 126-136.

PAPERS PRESENTED / PUBLISHED IN PROCEEDINGS OF CONFERENCES:

- Purvaja, R. and Ramesh, R. (2003) Major Inorganic Constituents in Mangrove Ecosystems of South India. In: *Coastal Urban Management*. Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; 121-144.
- Purvaja, R. and Ramesh, R. (2003) Distribution of Trace Elements in the Mangrove Ecosystems of South India. In: *Coastal Urban Management*. Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; 145-174.
- Purvaja R., and Ramesh, R. Cultural eutrophication in mangrove ecosystems of South India. Research paper presented at the SCOR Symposium on Nutrient over-enrichment in coastal waters: Global patterns of cause and effect, Washington D.C., USA. October 11–13, 2000.
- Ramesh, R. and Purvaja, R. Nutrient fluxes from coastal ecosystems of Tamil Nadu, India, to the Bay of Bengal. Research paper presented at the SCOR Symposium on Nutrient over-enrichment in coastal waters: Global patterns of cause and effect, Washington D.C., USA. October 11–13, 2000.
- Ramesh, R. and Purvaja R. Nutrient budgets and modeling on coastal ecosystems of South India. Presented at the LOICZ-UNEP Workshop on

- Nutrient budgets and modeling in South Asia, held at NIO, Goa (14 – 17 February 2000).
- Purvaja R. and Ramesh, R. Mangrove Ecosystems and Climate Change. Presented at the Global Dialogue Session at the EXPO 2000, held at Hanover, Germany (July 2000).
 - Ramesh R. and Purvaja, R. Assessment of methane source strength in coastal wetlands of India. Presented at the 2nd JGOFS Open Science Meeting, held at Bergen, Norway (13 - 17 April 2000).
 - Purvaja R., and Ramesh, R. Methane emission and its inventory from coastal wetlands (mangrove ecosystems) of India. Presented at the Joint 8th CACGP Symposium/ IGAC Conference on “Global Atmospheric Chemistry” at Seattle, Washington, USA (August 19-25, 1998)
 - Ramesh R. and Purvaja G.R. Coastal wetland soils as probable N₂O source: Physico-chemical and biological nexus. Presented at the International Symposium on Atmospheric Chemistry and Future Global Environment, held at Nagoya, Japan (11-13 November 1997)
 - Ramesh R., Purvaja G.R. and Ika R.V. The problem of groundwater pollution: A case study from Madras city, India. Presented at the International Union of Geodesy and Geophysics (IUGG), held at Boulder, Colorado, U.S.A. (July 2-14, 1995).
 - Purvaja R., and Ramesh, R. Significance of methane emission from the coastal wetlands (mangrove ecosystems) of India. Presented at the Joint 7th CACGP Symposium/ 2nd IGAC Conference on “Global Atmospheric Chemistry” at Fuji-Yoshida, Japan (Sep. 5-9, 1994).
 - Ramesh R. and Purvaja G.R. Biogeochemistry of major Indian rivers. Presented at the First Global Change and Terrestrial Ecosystems Conference (May 23 - 27, 1994), Woods Hole, Massachusetts, USA.
 - Ramesh R., Shiv Kumar K., Eswaramoorthi S., Purvaja G.R. and Pundarikanthan N.V. Water quality management in the urban environment of India. Presented at the Stockholm Water Symposium (August 10 - 14, 1993), Stockholm, Sweden.
 - Purvaja R., and Ramesh, R. Estimation of greenhouse gas concentration from the mangrove ecosystems of South India. Asia-Pacific Symposium on Mangrove Ecosystems, Hong Kong (1993) pp. 46
 - Purvaja, R. and Ramesh, R. Ecology, restoration and conservation of coral reef ecosystems. Proc. Workshop on Sustainable Management of Coastal Ecosystem. Madras, India (1993). pp.103-113.
 - Ramesh, R. and Purvaja, R. Coastal environment and its management in Tamil Nadu, India. Proc. UNESCO workshop on Coastal Zone Management, Dhaka, Bangladesh (1992) pp. 1-11.

LANGUAGES KNOWN:

- Advanced Certificate in German Language, awarded by the Goethe Institute, Freiburg, Germany and good working knowledge of French, in addition to proficiency in English.

REFERENCES:

- **PROF. DR. R. RAMESH**
Institute for Ocean Management
Anna University, Madras 600 025, India
Ph. # (Off.) (91) 44 - 230-0108
Fax: (91) 44 - 235-0397,
E-mail: rramesh_au@hotmail.com, ramesh@annauniv.edu
- **PROF. DR. PETER FRENZEL**
Group Leader, Max-Planck-Institut für terrestrische Mikrobiologie
Karl-von-Frisch Straße D - 35043 Marburg/ Lahn, Germany
Ph. # (Off.) +(49) 6421 - 178-810
Fax: +(49) 6421 - 178-809
E-mail: frenzel@mail.uni-marburg.de
- **PROF. PAMELA A. MATSON**
Department of Geological and Environmental Sciences, and Director
The Institute for International Studies
Stanford University
Stanford, CA 94305-2115
Phone: 650 725-6812
FAX 650 725-0979 or 2199 (GES)
Email: pmatson@pangea.stanford.edu