

Bibliography

- [1] Antony, M.K., G. Narayana Swamy, and Y. K. Somayajulu, 2002. Offshore limit of coastal ocean variability identified from hydrography and altimeter data in the eastern Arabian Sea. *Continental Shelf Research*, 22, 2525-2536.
- [2] Bachan, A., 1895. Reports on oceanic circulation based on the observations made onboard H.M.S.Challenger and other observations. *Rep. Scient. Res. Voy. 'Challenger' physics and Chemistry*, part 8, Appendix, 33.
- [3] Bakun, A. and C., Roy and S., Lluch-Cota, 1998. Coastal upwelling and other processes regulating Ecosystem Productivity and Fish production in the Western Indian Ocean. *Large Marine Ecosystems of the Indian Ocean-Assessment, Sustainability and Management*. Edited by Kenneth Sherman, Ezekiel N.Okemwa and Micheni J.Ntiba, 103-141.
- [4] Bakun, A., and R.H., Parrish, 1982. Turbulence, transport and pelagic fish in the California and Peru Current systems. *Calif. Coop. Oceanic Fish. Invest. Rep.*23:99-112.
- [5] Bakun, A., 1973. *Coastal Upwelling Indices, West Coast of North America, 1946-71*. NOAA Technical Report NMFS SSRF-671., U.S. Department of commerce, National Oceanic and Atmospheric Administration., National Marine fisheries Service.

Bibliography

- [6] Balan, V., 1984. The Indian oil sardine: a review. *Mar. Fish. Inf. Serv. Tech. Ext. Ser.*, 60:1-10.
- [7] Banse, K., 1959. On upwelling and bottom trawling off the south-west coast of India, *J. Mar. Biol. Assoc. India*, 1, 33– 49.
- [8] Banse, K. 1968. Hydrography of the Arabian Sea shelf of India and Pakistan and effects on demersal fishes, *Deep- Sea Research.*, 15, 45– 79.
- [9] Bauer, S., Hitchcock, G.L., and Olson, D.B., 1991. Influence of monsoonally forced Ekman dynamics of upper layer depth and phytoplankton biomass distribution in the Arabian Sea. *Deep-Sea Research.*, 38, 531-553.
- [10] Behrenfeld, M. J., and P. G., Falkowski, 1997a. A consumer's guide to primary productivity models. *Limnol. Oceanogr.*, 42, 1479–1491.
- [11] Behrenfeld, M. J. and P. G. Falkowski, 1997b. Photosynthetic rates derived from satellite-based Chlorophyll concentration. *Limnol. Oceanogr.*, 42, 1–20.
- [12] Berger, W. H. and G., Wefer, 1991. Productivity of the Glacial Ocean: Discussion of the Iron Hypothesis. *Limnology and Oceanography* Vol. 36 (8), 1899-1918.
- [13] Boyce, D.G., M.R., Lewis, and B., Worm, 2010. Global phytoplankton decline over the past century. *Nature* /doi:10.1038, 466, 591-596.
- [14] Brandt, P., Stramma, L., Schott, F., Fischer, J., Dengler, M., Quadfasel, D., 2002. Annual Rossby waves in the Arabian Sea from TOPEX/POSEIDON altimeter and in situ data. *Deep-Sea Research II* 49, 1197-1210.
- [15] Brock, J.C., McClain, C.R., Anderson, D.M., Prell, W.L., Hay, W.W., 1992. Southwest monsoon circulation and environments of recent planktonic foraminifera in the northwestern Arabian Sea. *J. of Paleoceanography*, 7, 799-813.

- [16] Brown, O.B., Bruce, J.G., and Evans, R.H., 1980. Evolution of SST in the Somali basin during the southwest monsoon of 1979. *Science*, 209, 595-597.
- [17] Bruce, J.G., 1974. Some details of upwelling off the Somali and Arabian coasts. *Journal of Marine Research*, 32, 419-432.
- [18] Bruce, J.G., D.R.Johnson, and J.C.Kindle., 1994. Evidence for eddy formation in the eastern Arabian Sea during the northeast monsoon. *Journal of Geophysical Research*, 99, 7651-7664.
- [19] Chelton, D. B., R. A. Deszoeke, and M. G. Schlax, 1998. Geographical variability of the first baroclinic Rossby radius of deformation, *J. Phys. Oceanogr.*, 28, 433 - 460.
- [20] Clarke, A. J., 1983. The reflection of equatorial waves from oceanic boundaries, *J. Phys. Oceanogr.*, 13, 1193- 1207.
- [21] Cury, P. and C. Roy, 1989. Optimal environmental window and pelagic fish recruitment success in upwelling areas. *Can. J. Fish. Aquat. Sci.* 46: 670-680.
- [22] *De Tessan, U., 1844. *Voyage Autour du Monde Sur In Fregate 'La Venus Pendant Iesannees' 1836 - 1836*, Paris, Vol 10.
- [23] *Ekman, V. Walfred. 1905. On the influence of the earth's rotation on ocean current. *Ark f.mat. Astr. Och. Fysik.k.sv. Vet.AK*; Stockholm, 1905-06.v.2. No.11.
- [24] Gardner, W.D., Gundersen, J.S., Richardson, M.J., Walsh, I.D., 1999. The role of seasonal and diel changes in mixed-layer depth on carbon and Chlorophyll distributions in the Arabian Sea. *Deep-Sea Res. II* 46, 1833-1858.
- [25] Gill, A.E. and A.J., Clarke, 1974. Wind - induced upwelling, coastal currents and sea level changes. *Deep- Sea Res.*, 21:325-346.
- [26] Gopalakrishna, V.V.; Rao, R.R.; Nisha, K.; Girishkumar, M.S.; Pankajakshan, T.; Ravichandran, M.; Johnson, Z.; Girish, K.; Aneeshkumar, N.; Srinath, M.; Rajesh, S.; Rajan, C.K. 2008. Observed anomalous upwelling in the Lakshadweep Sea during the

- summer monsoon season of 2005. *J. Geophys. Res. (C: Oceans)*, : 113(5); 2008; doi: 10.1029/2007JC004240, 12 pp.
- [27] Grasshoff, K., M. Erhardt, and K. Kremling. 1983. *Methods of seawater analysis*. Verlag Chemie,.
- [28] Habeebrehman, H., Prabhakaran, M.P., Jacob, J., Sabu, Pa., Jayalakshmi, K.J., Achuthankutty, C.T. and Revichandran, C., 2008. Variability in biological responses influenced by upwelling events in the Eastern Arabian Sea. *J. Mar. Syst.*: 74(1-2); 545-560.
- [29] Han, W., and P. J. Webster, 2002. Forcing mechanisms of sea level interannual variability in the Bay of Bengal, *J. Phys. Oceanogr.*, 32, 216- 239, doi:10.1175/1520-0485(2002)032.
- [30] Haugen, V.E, O.M. Johannessen and G. Evensen. 2002. Mesoscale modeling study of the oceanographic conditions off the southwest coast of India. *Proceedings of the Indian Academy of Sciences (Earth and Planetary Sciences)*, 111, 321-337.
- [31] *Hidakka, K., 1954. A contribution to the theory of upwelling and coastal currents. *Trans. Am. Geophys. Un.*, 35: 431- 444.
- [32] Jayaram, C., C., Neethu, K. A. Joseph, and A. N. Balchand., 2010. Interannual Variability of Upwelling Indices in the Southeastern Arabian Sea: A Satellite Based Study. *Ocean Sci. J.*, 45(1):27-40. DOI 10.1007/s12601-010-0003-6.
- [33] *Jayaraman, R. and S.S., Gogate, 1957. Salinity and temperature variation in the surface water of the Arabian Sea off the Bombay and Sourashtra coasts. *Proc. Indian Acad. Sci.*, 45B: 151-164.
- [34] Johannessen, O. M., G. Subbaraju, and J. Blindheim, 1987. Seasonal variations of the oceanographic conditions off the southwest coast of India during 1971-1975, *Fisk Dir. Skr Hav Unders*, 18, 247- 261.
- [35] Kindle, J.C., J.J. O'Brien, 1974. On upwelling along a zonally oriented coast line. *J. phys. Oceanogr.*, 4: 125-130.
- [36] Krishnakumar P.K., and G.S. Bhat., 2008. Seasonal and inter-annual variations of oceanographic conditions off Manglore coast

- (Karnatak, India) in the Malabar upwelling system during 1995-2004 and their influences on the fishery. *Fisheries Oceanography*, 17:1, 45-60, 2008.
- [37] Krishnakumar P.K., K.S., Muhamed, P.K., Ashokan, T.V., Sattianandan, P.U., Zacharia, K. P. Abdurahiman, Veena Shettigar, and R.N., Durgekar, 2008. How environmental parameters influenced fluctuations in oil sardine and mackerel fishery during 1926 -2005 along the south west coast of India? *Marine fisheries information service, T& E Ser., No.198*.
- [38] Kumar, P.V.H., and N., Mohankumar, 1996. On the flow and thermocline structure off Cochin during pre-monsoon season. *Continental Shelf Research*, 16: 457-468.
- [39] Kumar, P.V.H., and B. Mathew, 1996. Seasonal variability of hydrographic conditions in the continental shelf of the west coast of India. *NPOL RR No. 1/96*.
- [40] Lathipha, P.N., and A.V.S., Murthy, 1978. Studies of upwelling along the west coast of India using geo-potential anomaly. *Indian J. of Mar. Sci.*, 7(4): 219-221.
- [41] Levitus, S., 1982. *Climatological atlas of the world ocean*. NOAA professional paper 13.
- [42] Longhurst, A. R., and Wooster, W.S., 1990. Abundance of Oil sardine (*Sardinella longiceps*) and Upwelling on the Southwest Coast of India. *Canadian Journal of Fisheries Aquatic Sciences*, 47, 2407-2419.
- [43] Luis, A.J., and H. Kawamura, 2002a. Dynamics of the mechanism of sea surface cooling near the Indian tip during winter monsoon. *Journal of Geophysical Research*, 107, 3187, doi:10.1029/2000JC000455.
- [44] Luis, A.J., and H. Kawamura, 2002b. A case study of SST cooling dynamics near the Indian tip during May 1997. *Journal of Geophysical Research*, 3171, doi:10.1029/2000JC000778.
- [45] Luis, A.J. and Kawamura, H., 2004. Air-Sea interaction, Coastal

- circulation and primary production in the Eastern Arabian Sea – A Review. *Journal of Oceanography*, Vol 60, 205- 218.
- [46] Luther, M. E., J. J. O'Brien, and W. L. Prell. 1990. Variability in upwelling fields in the northwestern Indian ocean. 1. Model experiments for the past 18,000 years. *Paleoceanography* 5: 433-445.
- [47] Madhupratap, M., S.R. Shetye, K.N.V. Nair and S.R. Sreekumaran Nair, 1994. Oil Sardine and Indian Mackerel: their fishery, problems and coastal Oceanography. *Current Science*, 66, 340-348.
- [48] Madhupratap, M., Prasanna Kumar, S., Bhattathiri, P.M.A., Kumar, M.D., Raghukumar, S., Nair, K.K.C., Ramaiah, N., 1996. Mechanism of biological response to winter cooling in the north-eastern Arabian Sea. *Nature* 384:549-552.
- [49] Madhuprathap, M., K. N. V. Nair, T. C. Gopalakrishnan, P. Hari-das, K. K. C. Nair, P. Venugopal and M. Gauns, 2001. Arabian Sea oceanography and fisheries of the west coast of India. *Current Science*, VOL. 81, NO. 4.
- [50] Maheshwaran, P.A., G. Rajesh, C. Revichandran, and K.K.C.Nair, 1999. Upwelling and associated hydrography along the west coast of India during southwest monsoon. *PORSEC Proceedings*, Vol (2); 873-878.
- [51] McCreary, J.P. and S.Y. Chao, 1985. Three-dimensional shelf circulation along an eastern ocean boundary. *J. Mar. Res.*, 43, 13-36.
- [52] McCreary, J.P., P.K. Kundu and R.L. Molinari., 1993. A numerical investigation of dynamics, thermodynamics and mixed layer processes in the Indian Ocean, *Progress in Oceanography.*, vol.31, 181-244.
- [53] McCreary J. P., Han W, Shankar, D., and Shetye, S. R., 1996. Dynamics of the East India Coastal Current, 2. Numerical solutions; *J. Geophys. Res.* 101 13,993-14,010.
- [54] *McEwen, G. F. 1912. The distribution of ocean temperatures along the west coast of North America deduced from Ekman's theory

- of the upwelling of cold water from the adjacent ocean depths. *Int. Rev. Hydrobiol.* 5:243-286.
- [55] *Meeus, Jean. (1991) *Astronomical algorithms*. Richmond, Va.: Willmann-Bell. ISBN 0943396352.
- [56] Morel, A. and J. Berthon, 1989. Surface pigments, algal biomass profiles, and potential production of the euphotic layer: Relationships reinvestigated in view of remote-sensing applications. *Limnol Oceanogr.* 34: 1545 – 1562.
- [57] Muraleedharan, P.M. and S. Prasannakumar., 1996. Arabian Sea upwelling – A comparison between coastal and open ocean regions. *Current Science*, vol.71, No.10, 842-846.
- [58] Murty, A.V.S. and M.S. Edelman, 1971. On the relation between the intensity of the southwest monsoon and oil sardine fishery of India. *Indian J. Fish.*, 13 (1 & 2): 142-149.
- [59] Murthy, A.V.S., 1987. Characteristics of neritic waters along the west coast of India with respect to upwelling, dissolved oxygen and zooplankton biomass. *Indian J of Mar. Sci.*, 16(2); 129-131.
- [60] Narasimha Rao T. V., 2002. Spatial Distribution of Upwelling off the Central East Coast of India. *Estuarine, Coastal and Shelf Science*, 54, 141–156.
- [61] Naidu, D. P., M.R.Ramesh Kumar and Ramesh Babu, V., 1999. Time and space variations of monsoonal upwelling along the west and east coast of India. *Continental Shelf Research*, 19, 559-572.
- [62] Nair R.V., 1959. Notes on the spawning habits and early life-history of the oil sardine *Sardinella longiceps* Cuv. & Val. *Indian J. Fish.*: 6(2): 342-359.
- [63] Naqvi, S.W.A., R.J., Noronha, K., Somasundar, and R. Sengupta, 1990. Seasonal changes in the denitrification regime of the Arabian Sea. *Deep- Sea Research*, 37, 693-711.
- [64] Naqvi, S.W.A. and R.J., Noronha, 1991. Nitrous oxide in the Arabian Sea. *Deep- Sea Research*; 38: 871-890.

- [65] Naqvi, S.W.A., T. Yoshinari, D.A. Jayakumar, M.A., Altabet, P.V. Narvekar, A.H. Devol, J.A. Brandes, and L.A. Codispoti, 1998. Budgetary and biogeochemical implications of N₂O isotope signatures in the Arabian Sea. *Nature*, 394; 462-464.
- [66] Naqvi, S.W.A., and D. A. Jayakumar, 2000. Increased marine production of N₂O due to intensifying anoxia on the Indian continental shelf. *Nature*; vol. 408; 346-348.
- [67] Padmakumar, K. B., B.R. Smitha, C. T. Lathika, C. L. Fanimol, G. SreeRenjima, N. R. Menon and V. N. Sanjeevan, 2010. Extensive blooms of *Trichodesmium erythraeum* in the South Eastern Arabian Sea during the onset phase of Summer Monsoon 2009. *Ocean Science Journal*, 45(3):151-157, DOI 10.1007/s12601-010-0013-4.
- [68] Pankajakshan, T., Jaydeep Patnaik and Aravind K. Gosh., 1997. An Atlas of Upwelling Indices along East and West Coast of India. Indian National Oceanographic Data Center, National Institute of Oceanography (CSIR), Goa.
- [69] *Pauly, D., and M., Soriano. 1987. Monthly spawning stock and egg roduction of peruvian anchoveta (*Engraulknngens*), 1953 to 1982. In:
- [70] D. Pauly and I. Tsukqama (eds.). The Peruvian anchoveta, and its upwelling ecosystem: three decades of change. *ICURM Stud. Rev.*, 15: 167-178.
- [71] Pauly, D., and V. Christensen, 1995. Primary production required to sustain global fisheries. *Nature* (374): 255-257.
- [72] Pond, S., and G.L. Pickard, 1993. *Introductory Dynamic Oceanography*, Pergamon Press, New York, pp240.
- [73] Potemra, J.T., M.E. Luther, and J.J.O'Brien, 1991. The seasonal circulation of the upper ocean in the Bay of Bengal. *J. Geophysical Research*, 96, 12, 667-12, 683.
- [74] Prasannakumar, S. and T.G. Prasad., 1999. Formation and spreading of Arabian Sea High Saline Water Mass. *Journal of Geophysical Research* :104 (C1);1455-1464.

- [75] Prasannakumar, S., Madhupratap, M., Kumar, M.D., Muraleedharan, P.M., D'Souza, S.N., Gauns, M., Sarma, V.V.S.S., 2001. High biological productivity in the central Arabian Sea during the summer monsoon driven by Ekman pumping and lateral advection. *Curr. Sci.* 81, 1633-1638.
- [76] Prell, W.L. and H.F. Streeter, 1982. Temporal and spatial patterns of monsoonal upwelling along Arabia: A modern analogue for the interpretation of Quaternary SST anomalies. *Journal of Marine Research.* 40, 143-155.
- [77] Qasim, S.Z., 1977. Biological Productivity of the Indian Ocean. *Indian J. of Mar. Sci.*, 6, 122-137.
- [78] *Rabalais, N.N., Turner, R.E. and W.J. Weisman Jr., 2001. Hypoxia in the Gulf of Mexico. *J. of Environ. Qual.*; 30: 320-329.
- [79] Ramamirtham, C. P. and D.S. Rao, 1973. On upwelling along the west coast of India. *J. of Mar. Biol. Ass. India*, 15: 306-317.
- [80] Rao, L.V.G., K.P.T. Cherian, K.R. Varma and V.V.R. Varadachari, 1974. Hydrological features of the inner shelf waters along the west coast of India during winter, spring and summer. *Mahasagar*, 7 (1&2); 15-20.
- [81] Rao, S.A., V.V. Gopalakrishna, S.R. Shetye and T. Yamagata, 2002. Why were cool SST anomalies absent in the Bay of Bengal during the 1997 Indian Ocean Dipole Event? *Geophysical Research Letters*, volume 29, No.11, 10, 1029/2001 GLO14645.
- [82] Rao AD, M. Joshi, M. Ravichandran, 2008. Oceanic upwelling and downwelling in the waters off west coast of India. *Ocean Dyn* 58:213-226, doi:10.1007/s10236-008-0147-4.
- [83] Redfield, A. C. 1934. On the proportions of organic derivatives in sea water and their relation to the composition of plankton, p. 176-192. In James Johnstone Mem. Vol. Univ. Liverpool.
- [84] Ryther, J.H., and D. W. Menzel, 1965. On the production, composition and distribution of organic matter in the western Arabian Sea. *Deep- Sea Res.*, 12, 199-209.

- [85] Ryther, J.H., R.H., John, K. P., Allan, A., Bakun, and M., M., Jones, 1966. Primary Organic Production in Relation to the Chemistry and Hydrography of the Western Indian Ocean. *Limnology and Oceanography*, Vol. 11, No. 3 (Jul., 1966), pp. 371-380.
- [86] Sanilkumar, K.V., V.K. Unni and V.V. James, 2003. Upwelling characteristics of the southwest coast of India during 2003. *Proceedings, METOC-2004*.
- [87] Sanjeevan, V.N., P. Jasmine, B.R. Smitha, T. Ganesh, P. Sabu, and T. Shunmugaraj, 2009. Eastern Arabian Sea Marine Ecosystems. *Proceedings of the symposium on Marine ecosystems: Challenges and opportunities, MECOS2009, Kochi*. 1-2.
- [88] Santos, A.M.P., C. Alexandra, D.S. Antonina, T. Moita, P.B. Oliveira, A. peliz, and Pedro Re., 2007. Physical-biological interactions in the life history of small pelagic fish in the Western Iberia Upwelling Ecosystem. *Progress in Oceanography* Doi:10.1016/j.poccean. 2007.04.008.
- [89] Sarhan, T., J.G. Lafuente., Manuel Vargas., M.V. Juan and F. Plaza., 2000. Upwelling mechanism in the northwestern Alboran Sea. *Journal of Marine Systems*, 23, 317-331.
- [90] Sastry, J. S., D'Souza, R. S. (1972). Oceanography of the Arabian Sea during southwest monsoon season. Part 111. Salinity. *Indian J. Meteorol. Geophys.* 23: 479-490.
- [91] Sengupta, D, R. Senan, B.N. Goswami and J. Vialard, 2007. Intraseasonal variability of equatorial Indian Ocean zonal currents. *J. Clim.*, 20, 3036-3055.
- [92] Shah, N.M., 1973. Seasonal variation of phytoplankton pigments and some associated oceanographic parameters in the Laccadive Sea off Cochin. In B. Zeitzschel [ed.] *Biology of the Indian Ocean*. Chapman and Hall, Ltd, London. 175-185.
- [93] Shankar, D., and S.R. Shetye., 1997. On the dynamics of the Lakshadweep high and Low in the southeastern Arabian Sea. *Journal of Geophys. Res.*, 102, 12551-12562.

- [94] Shankar, D., P. N. Vinayachandran & A. S. Unnikrishnan, 2002. The monsoon currents in the North Indian Ocean. *Progress in Oceanography*, 52, 63–120.
- [95] Shankar, D., S. S. C. Shenoi, R. K. Nayak, P. N. Vinayachandran, G. Nampoothiri, A. M. Almeida, G. S. Michael, M. R. Rameshku-
mar, D. Sundar, and O. P. Sreejith, 2005. Hydrography of the eastern Arabian Sea during summer monsoon 2002, *J. Earth Syst. Sci.*, 114, 459– 474, doi:10.1007/BF02702023.
- [96] Sharma, G.S., 1966. Thermocline as an indicator of upwelling. *J. of Mar. Bio. Ass. India*. 8(1); 8-19.
- [97] Sharma, G.S., 1968. Seasonal variation of some hydrographic properties of the shelf waters off the west coast of India. *Bull. Nat. Inst. Sci. India*, 38: 263-276.
- [98] Sharma, G.S., 1978. Upwelling of the southwest coast of India. *Indian J. of Mar. Sci.* ; 7; 209-218.
- [99] Shenoi, S.C., D. Shanker, V.V. Gopalakrishna and F. Durand, 2005. Role of ocean in the genesis and annihilation of the core of the warm pool in the southeastern Arabian Sea. *Mausam*, 56, 1, 147-160.
- [100] Shetye, S.R., 1984. Seasonal variability of the temperature field off the south-west coast of India. *Journal of Earth System Science* , 93, 4, 399-411, DOI: 10.1007/BF02843257.
- [101] Shetye, S.R., Gouveia, A.D., Shenoi, S.S.C., Sundar, D., Michael, G.S., Almeida, A.M., Santanam, K., 1990. Hydrography and the circulation off the west coast of India during southwest monsoon 1987. *Journal of Marine Research*, 48:359-378.
- [102] Shetye, S.R. and Shenoi, S.S.C., 1988. Seasonal cycle of surface circulation in the coastal north Indian Ocean. *Proc. Ind. Acad. of Sci. (Earth and Planetary Sci.* 97:53-62.
- [103] Shetye, S.R., 2005. Dynamics of circulation of the waters around India: Recent Developments and key issues for the future. *Oceanology*, Edited by Harsh K. Gupta, Published by Universities Press (India) private Limited, 138-149.

- [104] Shetye, S.R., A.D., Gouveia S.S.C., Shenoi, G.S., Michael, D., Sundar, A.M., Almedia, and K. Santanam., 1991. The Coastal current off western India during the northeast monsoon. *Deep-Sea Research*, Vol. 38, No.12, 1517-1529.
- [105] Shetye, S.R., S.S.C. Shenoi, M.K. Antony, and V.K. Kumar, 1985. Monthly-mean wind stress along the coast of the North Indian Ocean. *Proceedings of the Indian Academy of Sciences (Earth and Planetary Sciences)*, 94, 129-137.
- [106] Sindhu B., I. Suresh, A. S. Unnikrishnan, N. V. Bhatkar and S. Neetu, 2007. Improved bathymetric datasets for the shallow water regions in the Indian Ocean. *Journal of Earth System Science*, Volume 116, 3, 261-274.
- [107] Smith, R.L. and J.S. Bottero, 1977. On upwelling in the Arabian Sea. In-*A Voyage of Discovery*: 291-304.
- [108] Smith, S.L., and M. Madhuprathap, 2005. Mezozooplankton of the Arabian Sea: patterns influenced by seasons, upwelling and oxygen concentrations. *Progress in Oceanography*, 65, 214-239.
- [109] Smitha, B.R., V. N. Sanjeevan, K.G. Vimalkumar, and C. Revichandran, 2008. On the upwelling off the southern tip and along the west coast of India. *J. of Coastal Res.*, 24, 4C, 95-102.
- [110] Smitha, B.R., K.G. Vimalkumar, V.N. Sanjeevan and C. Revichandran, 2007. Coastal process at the southern tip of India during summer monsoon 2005. *Proceedings, METOC Kochi*.
- [111] Stramma, L., Fischer, J., and F. Schott, 1996. The flow field off southwest India at 8°N during the southwest monsoon of August 1993. *Journal of Marine Research*, 54, 55-72.
- [112] Strickland, J.D.H., T.R. Parsons, 1972. *A Practical Handbook of Sea Water Analysis*, second ed., vol. 167. *Bulletin Fisheries Research of Board Canada*, 310pp.
- [113] Subrahmanyam, R. and A.H. Viswanatha Sarma 1965. *Studies on the phytoplankton of the west coast of India. Part IV. Magnitude of the standing crop for 1955-1962, with observations on*

- nanoplankton and its significance to fisheries. *J. Mar. Biol. Ass. India*, 7(2) : 406-419.
- [114] Sverdrup, H. 1938. On the process of upwelling. *Journal of Marine Research*. 1: 155-164.
- [115] Sverdrup, H. U., and R. H. Fleming. 1941. The waters off the coast of southern California, March to July, 1937. *Bull. Scripps Inst. Oceanogr.* 4:261-378.
- [116] Sverdrup H, U., M. W. Johnson and R.H. Fleming., 1942. *The Oceans: their Physics, Chemistry and Biology*. Prentice-Hall, New York, 1087pp.
- [117] Sverdrup, H.U., 1953: On conditions for the vernal blooming of phytoplankton. *J. du Conseil*, 18, 287-295.
- [118] Tchernia, P., 1980. *Descriptive regional oceanography*, Pergamon, Oxford, 253 pp.
- [119] *Thorade, H., 1909. Uber die kalifornische Meeresstromung. *Ann d. Hydrogr. U. Mar. Meteor*, Bd. 37; 17-34.
- [120] Tsai P.,T.,H., J.J.O'Brien and M.E.Luther, 1992. The 26-day oscillation in the satellite sea surface temperature measurements in the equatorial western Indian Ocean, *Journal of Geophysical Research*, 97, C6, 9605-9618.
- [121] Turner, J.S. 1973. *Buoyancy effects in fluids*. Cambridge University Press, 250.
- [122] *UNESCO, 1994. *Protocols for the Joint Global Ocean Flux Study (JGOFS). Core Measurements*, IOC Manuals and Guides, vol. 29. UNESCO, Paris, 170pp.
- [123] Varadachari, V.V.R. and G.S. Sharma, 1967. Circulation in the surface waters of the North Indian Ocean. *J. Indian Geophys Uni*: 4(2): 61-73.
- [124] Vinayachandran, P.N., 2004. Summer cooling of the Arabian Sea during contrasting monsoons. *Geo Phy. Res. Letters*, VOL. 31, L13306, doi:10.1029/2004GL019961.

- [125] Vivekanadan, E., M. Srinath, V.N. Pillai, S. Immanuel, and K.N. Kurup, 2003. Trophic model of the coastal fisheries ecosystem of the southwest coast of India. In: Assessment, Management and Future directions for coastal fisheries in Asian countries. G.Silvestre, L. Garces, C. Luna, M. Ahmed, R.A.V, Santos, L.Lachika-Alino, V. Christensen & D. Pauly (eds) Manila, Philippines: World fish Center Conference Proceedings 67, pp, 281-298.
- [126] Weisberg, R.H. and T.J. Weiyarate, 1991. On the annual cycle of equatorial upwelling in the central Atlantic oceans. *J. of Phys. Oceanogr.* 21: 68.
- [127] Wiggert, J.D., R.R. Hood, K. Banse, and J. C. Kindle, 2005. Monsoon-driven biogeochemical processes in the Arabian Sea. *Prog. Oceanogr.* 65, 176-213.
- [128] *Witte, E., 1880. 'Das Emporquellen Von Kaltem wasser an meridionalen Kustin , *Ann, Hydroegr, Berlin*, 8: 192-193.
- [129] Wooster, W.S.A., A. Bakun and D.R. McLain, 1976. The Seasonal upwelling cycle along the eastern boundary of the North Atlantic. *Journal of thMarine Research.* 34, 131-141.
- [130] Wyrtki, K., 1973. *Physical Oceanography of the Indian Ocean.* *Biology of the Indian Ocean* 3: 18-36.
- [131] Wyrtiki, K., 1981. An estimate of equatorial upwelling in the Pacific. *J. of Phy. Oceanogr.* 11: 1205.
- [132] Yoshida, K., 1967. Circulation in the eastern tropical ocean with special reference to upwelling and under currents. *Japan J. Geophys.*, 4:1-75.
- [133] *Yu, L., J.J.O'brien, and J. Yang, 1991. On the remote forcing of the circulation in the Bay of Bengal. *J. Geophys. Res.*, 96, 20449-20454.

*Original not referred.