

[Home](#) > [Journal](#) > [Earth & Environmental Sciences](#) > [JWARP](#)
[Indexing](#) | [View Papers](#) | [Aims & Scope](#) | [Editorial Board](#) | [Guideline](#) | [Article Processing Charges](#)
[JWARP](#) > Vol.3 No.11, November 2011



Physico-Chemical Assessment of Euphrates River between Heet and Ramadi Cities, Iraq

PDF (Size: 3713KB) PP. 812-823 DOI: 10.4236/jwarp.2011.311091

Author(s)

Emad A. Al-Heety, Ahamed M. Turkey, Eethar M. Al-Othman

ABSTRACT

The physico-chemical parameters of Euphrates River water were studied between Heet and Ramadi cities during November 2008 to June 2009. Water samples were collected from eleven stations and analyzed for Temperature, Turbidity, Electrical conductivity (EC), Total suspended solids (TSS), pH, Total dissolved salts (TDS), Dissolved oxygen (DO), Biochemical oxygen demand (BOD), Calcium, Potassium, Sodium, Sulphate, Phosphate, Bicarbonates, Chloride, Nitrate and Total hardness. The observed values of these physico-chemical parameters were compared with WHO standards. Some parameters (Turbidity, TSS, TDS, BOD, Calcium, Sodium and Total hardness) exceeded the permissible limits of WHO standards, while other parameters were within the permissible limits. Statistical studies have been carried out by calculating correlation coefficients between different pairs of parameters. Monthly and spatial variations of physico-chemical parameters were investigated.

KEYWORDS

Physical Parameters, Chemical Parameters, Euphrates River, Iraq

Cite this paper

E. Al-Heety, A. Turkey and E. Al-Othman, "Physico-Chemical Assessment of Euphrates River between Heet and Ramadi Cities, Iraq," *Journal of Water Resource and Protection*, Vol. 3 No. 11, 2011, pp. 812-823. doi: 10.4236/jwarp.2011.311091.

References

- [1] K. Venkatesharaju, P. Ravikumar, R. K. Somashekar and K. L. Prakash, "Physico-Chemical & Bacteriological Investigation on the River Cauvery of Bollegal Stretch in Karnataka," *Kathmandu University Journal of Science, Engineering & Technology*, Vol. 6, No. 1, 2010, pp. 50-59.
- [2] D. S. Otieno, "Determination of Some Physico-Chemical Parameters of the Nairobi River, Kenya," *Journal Applied Science Environment Management*, Vol. 12, No. 1, 2008, pp. 57-62. doi: 10.1016/j.desal.2006.06.022
- [3] M. Milovanovic, "Water Quality Assessment & Determination of Pollution Sources along Axis/Vardar River, Southeastern Europe," *Desalination*, Vol. 213, 2007, pp. 159-173.
- [4] American Public Health Association, "Standard Methods for the Examination of Water & Wastewater," 20th Edition, Washington, DC, USA, 1998.
- [5] S. Shertha and F. Kazama, "Assessment of Surface Water Quality Using Multivariate Statistical Techniques: A case study of the Fuji River, Basin, Japan," *Environmental Modeling & Software*, Vol. 22, No. 4, 2007, pp. 464-475. doi: 10.1016/j.envsoft.2006.02.001
- [6] D. Bellos and T. Sawidis, "Chemical Pollution Monitoring of River (Thessalia, Greece)," *Journal Environment Management*, Vol. 76, No. 4, 2005, pp. 282-292. doi: 10.1016/j.jenvman.2005.01.027
- [7] N. Hacioglu and B. Dulger, "Monthly Variation of some Physico-Chemical & Microbiological Parameters in Biga Stream (Biga Canakkale, Turkey)," *African Journal of Biotechnology*, Vol. 8, No. 9, 2009, pp. 1929-1937.

- [Open Special Issues](#)
- [Published Special Issues](#)
- [Special Issues Guideline](#)

[JWARP Subscription](#)
[Most popular papers in JWARP](#)
[About JWARP News](#)
[Frequently Asked Questions](#)
[Recommend to Peers](#)
[Recommend to Library](#)
[Contact Us](#)

Downloads:	401,748
Visits:	1,008,935

[Sponsors, Associates, and Links >>](#)

- [8] M. V. Ahipathi and E. T. Puttaiah, " Ecological Characteristic of Vrishabhavathi River in Bangalor (India)," Environmental Geology, Vol. 49, No. 8, 2006, pp. 1217- 1222. doi:10.1007/s00254-005-0166-0
- [9] World Health Organization (WHO), " Guidelines for Drinking Water Quality," 3rd Edition, Geneva, 2004.
- [10] American Public Health Association, American Water Works Association, Water Environment Federation, " Stan- dard Methods for the Examination of Water & Wastewater," 21st Edition, American Public Health Association, Washington, DC, 2005.
- [11] B. Abida and Harikrishna, " Study on the Quality of water in Some Stream of Cauvery River," E- Journal of Chemistry, Vol. 5, No. 2, 2008, pp. 377-384.