

- PAI, S. C., C. C. YANG and J. P. RIELY (1990) Formation kinetics of the pink azo dye in the determination of nitrite in natural waters. *Anal. Chim. Acta* 232, 345-349.
- SHAW, P. T. (1989) The intrusion of water masses into the sea southwest of Taiwan. *J. Geophys. Res.* 94(C12): 18213-18226.
- Strickland, J. D. H. and T. R. PARSONS (1972) A practical handbook of seawater analysis. pp. 71-76. Bulletin 167 (2nd ed.), Fisheries Research Board of Canada, Ottawa.
- TANG, T. Y. and J. Y. CHEN (1990) Distribution of temperature, salinity and density contour. CTD Data Bank Data Report, Regional Instrument Center *R/V Ocean Researcher I*, National Science Council, Vol. II, 224 pp.
- UDA, M. and A. KISHI (1974) Cyclonic cold eddies along the edge of the Kuroshio current in relation to the genesis and passage of cyclones I. Waters north of Taiwan. pp. 199-218. In: *The Kuroshio III, Proceedings of the 3rd Symposium, Bangkok, Thailand, 1972.*
- WANG, J. and C. S. CHERN (1989) On cold water intrusions in the eastern Taiwan strait during the cold season. *Acta Oceanogr. Taiwanica* 22: 43-67.
- WANG, J. (1990) Oceanographic observations at CBK-11 platform and CFC drilling area (I). Marine physics and meteorology parts (May 1988-October 1989). Special publication No. 61, Institute of Oceanography, National Taiwan University. 312 pp.
- WONG, G. T. F., S. C. PAI, K. K. LIU, C. T. LIU and C. T. A. CHEN (1991) Variability of the chemical hydrography at the frontal region between the East China Sea and the Kuroshio northeast of Taiwan. *Estuarine Coastal Shelf Sci.* 33: 105-120.

## TEMPERATURE FLUCTUATION OF THE COLD WATER OFF NORTHERN TAIWAN: JUNE-DECEMBER, 1990

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### ABSTRACT

In order to understand the temperature fluctuation of the cold eddy off northeastern Taiwan, the data of sea surface temperature from the infrared imagery of the NOAA satellites during June-December, 1990 were analyzed. The results indicated that the cold water existed continually but its temperature anomaly (the temperature difference below the mean sea surface temperature of the surrounding area) fluctuated between 1-7°C with a mean of 4°C. The area of the cold water outcrop decreased and disappeared when the southwest wind prevailed continually for five days. The upwelling was probably suppressed temporarily by outflowing of the Taiwan Strait Water driven by the persistent southwesterly. However, upwelling resumed soon after the southwesterly diminished.