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Title	Technical background information for the ORNL environmental and safety report. Volume 2. A description of the aquatic ecology of the White Oak Creek Watershed and the Clinch River below Melton Hill Dam
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Description/Abstract	In order to characterize the aquatic communities in the vicinity of Oak Ridge National Laboratory (ORNL), a biological sampling program was initiated in March 1979 and continued until June 1980. The periphyton, benthic macroinvertebrate, and fish communities were sampled at four sites in White Oak Creek watershed above White Oak Lake. In addition to these communities, phytoplankton, zooplankton, and ichthyoplankton were routinely collected at sites in White Oak Lake, White Oak Creek embayment below the dam, and in the Clinch River above and below the confluence with White Oak Creek. Also, muscle tissue of several fish species, including sauger and striped bass from the Clinch River, was analyzed for seven trace elements (Cd, Cr, Cu, Pb, Hg, Ni, and Zn). Data on the taxonomic composition, abundance, and temporal distribution of each community are presented for each of three study areas: upper White Oak Creek watershed, White Oak Lake, and the Clinch River (including White Oak Creek embayment). The spatial distribution of major taxonomic groups in each area was examined using analysis of variance techniques and dissimilarity indices. Results obtained from this study are compared with those of previous surveys of White Oak Creek when equivalent sampling methodologies were used. Attempts were also made to document changes that have occurred since the 1950-1953 survey.
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