weather conditions and potentially influencing factors such as temperature, oxygen concentrations and phytoplankton biomass development were studied. During the 1990'S the ice-cover period was considerably shorter and the ice-breakup about one month earlier than in the 1970's. The nitrate concentrations were much lower in late winter. There were elevated phosphate and ammonium concentrations in the hypolimnion during August and significantly higher phosphate levels in October compared to the 1970's.

Title: GREEENHOUSE GAS EMISSIONS FROM HYDROELECTRIC DAMS IN BRAZILIAN AMAZONIA: THE EXAMPLE OF TUCURUI
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Affiliation: Department of Ecology, Instituto Nacional de Pesquisas da Amazonia (INPA) (National Institute for Research in the Amazon).
Abstract: Estimates of the amounts of greenhouse gases emitted by tropical reservoirs vary widely, largely due to differences in the emissions sources included in the estimates. Conclusions on the contribution of tropical reservoirs to global warming must include all sources and sinks, with appropriate adjustments to assure that calculations are representative in both time and space. The Tucurui reservoir in Brazilian Amazonia provides an example relevant to major hydroelectric construction plans on Amazon tributaries, as well as to estimating emissions from existing dams. An estimate of emissions in 1990 (the base year for national inventories under the climate convention) indicates a total of 7.0-10.1 x 10 6 metric tons (Mg) of CO2-equivalent carbon, an amount substantially greater than the fossil fuel emission of the city of Sao Paulo. The net emission of CO2-equivalent carbon is composed of 64-75% CH4 (from the reservoir surface and from water released downstream), 26-38% CO2 (from decay of dead trees projecting above the surface), and a negative emission of 1-2% as N2O (from loss of a source in unflooded forest soil). The methane emission is composed of 21-53% release from the turbines, 46-68% from the spillway, 7-12% from bubbling and diffusion from the reservoir surface, and a negative emission of 0.2-0.3% from other sources and sinks. Although emissions from Tucurui are substantial, the project has a positive balance as compared to fossil fuels (unlike some Amazon dams such as Balbina). The large emissions indicated by the present study reduce the benefits often attributed to existing and planned dams in Amazonia.

Title: THE DISTRIBUTION OF FAECAL COLIFORMS WITHIN A RIVER SYSTEM IN LANCASHIRE, UK
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Abstract: Faecal coliforms are used as indicators of water quality as some strains can be pathogenic, most commonly causing gastrotentiritis.The River Conder, Lancashire, is being studied because it shows a continuum of faecal coliform abundance throughout its course i.e. from pristine to heavily contaminated after passing through farmland. The abundance of these coliforms within the water column, epilithic biofilms and soil has been monitored since April 2000 and results indicate that a potentially important source of these bacteria is bovine. The persistence of such bacteria within the biofilms, and implications for public health, are discussed.

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