A DEMONSTRATION ON THE POLLUTION OF THE ILLINOIS RIVER

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The destruction by pollution of several of our Illinois streams has reached an advanced state. The loss to the State in fish life, sport, recreation, and potential water supplies, while hard to put in tangible figures, is nevertheless real.

The proper evaluation of the extent of pollution of any particular stream requires considerable scientific study and the consideration of several different sorts of tests. As an illustration, however, of the sort of evidence used, the dissolved oxygen content of the Illinois River is given at several points along its course. The content of dissolved oxygen in a stream is extremely important since without oxygen none of the higher forms of aquatic life can exist. Of course, the dissolved oxygen varies in any stream from day to day as well as from hour to hour, but the results shown are figures that are typical of the results obtained in the summer months at the time of normal river stages.

It is to be seen from the illustration that the entire upper portion of the river down to Chillicothe, 140 miles from Chicago, is at times devoid, or nearly devoid, of oxygen. Due primarily to the action of the wide water of Lake Peoria, a rapid rise is usually experienced between Chillicothe and Peoria, typical figures for the Peoria section being 5 ppm. Below Peoria, the sewage of Peoria and Pekin causes some lowering to at times as low as 2 ppm. with a gradual rise again due to self-purification as we go farther south. At Beardstown figures comparable to those at Peoria are ordinarily attained.

As a comparison we may take the Kankakee River, one of the tributaries of the Illinois River which is still relatively unpolluted, where we will ordinarily find an oxygen content of 7 ppm. or over. When we consider the importance of oxygen to all higher aquatic life we must realize how far from normal is the Illinois River in all places, the entire upper portion during some seasons of the year being utterly unsuited to a normal aquatic life,

and the lower portion, while supporting some fish life, being unsuited to much of the more delicate fauna.

The illustration accompanying this is a picture of a graphic demonstration of the above facts which has been exhibited at the State Fair at Springfield and at other places in Illinois during the past year.

