REFERENCE MATERIAL ON "ACID COAL MINE POLLUTION AND RELATED SUBJECTS"

JOHN W. PARSONS

Tennessee Game and Fish Commission, Crossville, Tennessee

Ash, S. H. 1941. Mine water—A major problem in the Pennsylvania anthracite region. Proc. 32d Ann. Conv., Mine Inspector's Inst. America, pp. 127-146.

sh, S. H. 1941. Water problem in the Pennsylvania anthracite mining region. U. S. Bureau of Mines, Inf. Circ. 7175. Pp. 11. Ash, S. H.

Ash, S. H., et al. 1950. Inundated anthracite reserves. U. S. Bureau of Mines, Bulletin 491. Pp. 28.

American Public Health Association. 1936. Standard methods for examination of water and sewage. 8th edition. Pp. 309.

Baker, Clarence M. 1939. Pollution-public enemy No. ?. Trans. 4th N. Amer. Wildlife Conf., 4:56-62.

Bartsch, A. F. 1948. Biological aspects of stream pollution. Sewage Works Jour., 20:292-302.

Belding, D. L. 1927. Toxicity experiments with fish in reference to trade waste

pollution. Trans. Amer. Fisheries Soc., 57:100-119.
Belding, D. L. 1929. The respiratory movements of fish as an indicator of a toxic environment. Trans. Amer. Fisheries Soc., 59:238-245.
Brown, H. W., and M. E. Jewell. 1926. Further studies on the fishes of an acid lake. Trans. Amer. Microscop. Soc., 45:20-34.

Butcher, R. W. 1946. The biological detection of pollution. Review by R. F. Weston. Sewage Works Jour., 19:292-293.
Carpenter, K. E. 1925. On the biological factors involved in the destruction

of river-fisheries by pollution due to lead-mining. Ann. Applied Biol., 12: 1-13.

Carpenter, K. E. 1927. The lethal action of soluble metallic salts on fishes.
 Brit. Jour. Expt. Biol., 4:378-390.
 Carpenter, K. E. 1930. Further researches on the action of metallic salts on

fishes. Jour. Expt. Zool., 56:407-422.

Chance, H. M. 1883. Report on the mining methods and appliances used in the anthracite coal fields. Second Geological Survey of Pennsylvania. See

Claassen, P. W. 1926. Biological studies of polluted areas in the Genesee River System. N. Y. Dept. Conserv., Sixteenth Ann. Rept., Suppl., A Biological Survey of the Genesee River System. Part 3.

Clark, H. W., and G. O. Adams. 1913. Studies of fish life and water pollution. Forty-fourth Ann. Rept., Mass. State Bd. Health, 6:336-345.

Clark, W. Mansfield. 1920. The determination of hydrogen ions. Williams & Wilkins Co., Baltimore, Md. Pp. 317.

Clements, F. E., and V. E. Shelford. 1939. Bio-Ecology. John Wiley, N. Y. Pp. 425.

Coal Mining, 15(2):8-10. 1938. Substantial progress reported in mine seal program.

Coker, R. E. 1925. Observations of the pH and the fishes in waters tributary to the Catawba River, North Carolina, etc. Ecology, 6:52-56.

Cole, Arch E. 1941. "The effects of pollutional wastes on fish life." A symposium on hydrobiology. University of Wisc. Press, pp. 241-259. Coxe, E. B., and others. 1893. Report of commission appointed to investigate

the waste of coal mining, with the view to the utilizing of the waste. Commonwealth of Pennsylvania, Pp. 153.

Crighton, Andrew B. 1923. Mine-drainage stream pollution. Trans. Amer. Inst. Min. and Met. Eng., 69:434-446.

Dahl, K. 1927. The effects of acid water on trout fry. Salmon and Trout

Mag., No. 46:35-43.

Doudoroff, P., and M. Katz. 1950. Critical review of literature on the toxicity of industrial wastes and their components to fish. I. Alkalies, acids and of industrial wastes and their components to fish. 22:1432-1458. inorganic gases. Sewage and Industrial Wastes, 22:1432-1458.

Doudoroff, Peter. 1951. Biological observations and toxicity bioassays in the control of industrial waste disposal. Proc. Sixth Industrial Waste Conference.

Purdue Univ. Eng. Bull., Ext. Series (in press). Edwards, Dean G. 1941. Public interest and welfare as affected by the anthracite mine-drainage problem. Report prepared for Anthracite Mine Drainage Subcommittee of the Susquehanna Drainage Basin Committee, National Resources Planning Board, Jan. 14. Pp. 9.

Ellis, M. M. 1936. Effects of pollution on fish. Trans. 1st N. Amer. Wildlife

Conf., 1:564-567.
Ellis, M. M. 1937. Detection and measurement of stream pollution. Bull. U.

S. Bur. Fisheries, 48 (22):365-437.
Ellis, M. M. 1937. Pollution and aquatic life. Trans. 2nd N. Amer. Wildlife

Conf., 2:653-657.

Ellis, M. M. 1940. Pollution of the Coeur d'Alene River and adjacent waters by mine wastes. U. S. Bureau of Fisheries, Special Scientific Report No. 1 (Mimeographed).

Ellis, M. M. 1944. Water purity standards for fresh water fishes. U. S. Bureau

of Fisheries, Special Scientific Report No. 2. (Mimeographed).

Ellis, M. M., and Grover C. Lander. Attacking the nation's water pollution menace. American Game, 21:135-143. Ellis, M. M., B. A. Westfall, and M. D. Ellis. 1946. Determination of water quality. U. S. Fish & Wildlife Service, Research Report 9. Pp. 122.

Gehm, Harry W. 1944. Neutralization of acid waste waters with an upflow expanded limestone bed. Fed. Sewage Works Assoc., Sewage Works Jour.,

16 (1):104-120.

Greenfield, R. E. and G. C. Baker. 1920. Relationship of hydrogen-ion concentration of natural waters to carbon dioxide content. Jour. Indus. & Eng. Chem. 12:989-992.

Griffith, Edward. 1945. Mine-drainage practice in the anthracite region of Pennsylvania. Amer. Inst. Min. and Met. Eng., Tech. Pub. 1907. Pp. 18.
 Guelyard, F., and M. Duval. 1922. Comparative toxicity of various acids for

fish, Compt. rend., 175:1243-1245.

Hagman, N. 1936. Resin acids and fish mortality. Finnish Paper and Timber Jour., Chem. Abst., 30:1754. Handy, J. O. The determination of acidity and alkalinity. Proc. Eng. Soc.

West. Pa., 19:705 (1903).

Handy, J. O. 1926. Mine-water purification. Min. Cong. Jour., 12:421-422.

Hart, W. B., P. Doudoroff, and J. Greenbank. 1945. The evaluation of the toxicity of industrial wastes, chemicals and other substances to fresh-water fishes. The Atlantic Refining Co., Philadelphia. Pp. 317. Heaton, J. R. 1950. Ecological succession in Central Missouri strip mine lakes.

Proc. 12th Midwest Wildlife Conference,

Hey, Douglas. 1949. The problem of river pollution from the fisheries aspect.

Piscator, 3 (11):1-8.

Henderson, C. 1949. Value of the bottom samples in demonstration of the effects of pollution on fish-food organisms and fish in the Shenandoah River. Progressive Fish Culturist, 11:217-230.

Hodgman, C. D., H. N. Holmes, et al. 1940. Handbook of chemistry and physics. 24th edition. Standard solutions, pp. 1317-1322. Jewell, M. E. 1922. The fauna of an acid stream. Ecology, 3:22-26.

Jewell, Minna E., and H. Brown. 1924. Fishes of an acid lake. Trans. Amer.

Microsc. Soc., 43:77-84.

Johnson, L. H. 1946. Treatment of acid mine water for breaker use in the anthracite region of Pennsylvania. U. S. Bureau of Mines, Inf. Circ. 7382. Pp. 14.

Jobes, Frank W., and Minna E. Jewell. 1927. Studies on the alkali reserve of

the blood of Ameiurus nebulosus from acid and basic waters. Trans. Amer. Microsc. Soc., 46.

Kent, John L. 1950. Stream clean-up to save our fish. Outdoor Sportsman, June.

Klassen, C. W. 1939. Pollution-public enemy No. ?. Trans. 4th N. Amer. Wildlife Conf., 4:62-67.

Knight, A. P. 1901. The effects of polluted waters on fish life. Dept. of Marine and Fisheries, Canada, Thirty-second Ann. Rept. Suppl., No. 22a. Pp. 62.

Lackey, James B. 1938. Protozoan plankton as indicators of pollution in a

flowing stream. U. S. Public Health Reports, 53 (46):2037-2058.

Lackey, James B. 1949. The use of biological indicators in the determination of stream pollution. University of Michigan, School of Public Health. Pp. 10.

LaMotte, F. L., W. R. Kenney, and A. B. Reed. 1932. pH and its practical applications. Williams and Wilkins, Baltimore. Pp. 262.

Leitch, R. D. 1928. Observations on acid mine drainage in western Pennsylvania, U. S. Bureau of Mines, Rept. of Investigations 2889. Pp. 18. Leitch, R. D. 1939. Pollution-public enemy No. ?. Trans. 4th N. Amer.

Wildlife Conf., 4:50-56.
Leitch, R. D., and W. P. Yant. 1928. A comparison of the acidity of waters from some active and abandoned coal mines. U. S. Bureau of Mines, Rept. of Investigations 2895. Pp. 8.

Leitch, R. D., W. P. Yant, and R. R. Sayers. 1930. Effect of sealing on acidity of mine drainage. U. S. Bureau of Mines, Rept. of Investigations 2994. Pp. 11.

Marsh, M. C. 1907. The effect of some industrial wastes on fishes. Water-Supply and Irrigation Paper No. 192, U. S. Geol. Sur., pp. 337-348.

McCay, C. M., and H. M. Vars. 1931. Studies upon fish blood and its relation to water pollution. In Biological Survey of the St. Lawrence Watershed; Supplement to 20th Ann. Rept., N. Y. Conserv. Dept. Pp. 230-233.

Menzies, J. R. 1950. Control of pollution by federal authorities. Canadian Jour. Pub. Health, 41:241-247.

Menzies, W. J. M. 1927. River pollution and the acidity of natural waters. Nature, 119:638-639.

Mundt, Karl E. 1940. Pollution on the run. Trans. 5th N. Amer. Wildlife Conf., 5:26-35.

Parsons, John W. 1952. A biological approach to the study and control of acid mine pollution. Jour. Tenn. Acad. Sci., 27(4):304-309. Oct.

Perley, G. A. 1937. Modern views of pH measurements. Amer. Dyestuff Reporter.

Platt, P. G. 1936. The federal part in pollution-an analysis of the report of the special advisory committee on water pollution, National Resources Committee. Trans. 1st N. Amer. Wildlife Conf., 1:572-575.
Pough, Richard H. 1938. How shall we approach the pollution problem?

Trans. 3rd N. Amer. Wildlife Conf., 3:72-76.

Powers, E. B. 1917. The goldfish as a test animal in the study of toxicity.

Ill. Biol. Monog., 4:127-193.
Powers, E. B. 1922. The physiology of the respiration of fishes in relation to the hydrogen-ion concentration of the medium. Jour. Gen. Physiol., 4:305-317.

Powers, E. B. 1930. The relation between pH and aquatic animals. Amer. Nat. 64:342-366.

Pruthi, H. S. 1927. The relative importance of the various factors responsible for the death of fishes in polluted waters. Jour. Marine Biol. Assoc. United Kingdom, 14:729-739.

Pruthi, H. S. 1927. The ability of fishes to extract oxygen at different hydrogen-ion concentrations of the medium. Jour. Marine Biol. Assoc., United Kingdom, N. S., 14:741-747.

Reid, Kenneth A. 1939. Pollutions of streams from mining operations. Trans.

1st N. Amer. Wildlife Conf., 1:544-550. Reid, Kenneth A. 1939. Pollution—public enemy No. ?. Trans. 4th N. Amer.

Wildlife Conf., 4:44-50.
Reid, Kenneth A. 1947. Economic and human psychology in water pollution. Trans. 12th N. Amer. Wildlife Conf., 12:146-152.

Roos, George A. 1945. Mine drainage in the anthracite region. Min. Cong.

Jour., 31 (6):32-34. Sanders, J. T. 1926. The hydrogen-ion concentration of natural waters. I. The relation of pH to the pressure of carbon dioxide. Brit. Jour. Expt. Biol., 4:

Schaperclaus, W. 1927. The acidity of fresh water in relation to fish. Sitzungsberichte d. Gesell. Naturforsch, Freunde Berlin (1-3):1-9. See Biol. Abst.,

Selvig, W. A., and N. C. Ratcliff. 1922. The nature of acid waters from coal mines and the determination of acidity. Ind. Eng. Chem., 14:125.

Shelford, V. E. 1918. Ways and means of measuring the dangers of pollution to fisheries. Ill. State Nat. Hist. Sur. Bull., 13:25-42.

Shelford, V. E. 1923. The determination of hydrogen-ion concentration in connection with fresh-water biological studies. Ill. State Nat. Hist. Surv. Bull., 14:379-395.

Smith, A. D. W. 1893. Report of the Pennsylvania coal waste commission. Summary, Final Rept., Second Geol. Surv. Penn., 3(1):2,147-2,152.

Standing Committee on Rivers Pollution. 1924. River pollution and fisheries.

Min. Agri. and Fish. Pp. 42. London.
Steiner, Kalman. 1944. pH, what it means and how it's measured. Heat., Pip., and Air Cond., 16 (1):11-15.

Stewart, A. H. 1945. Stream-pollution control in Pennsylvania. Fed. Sewage Works Assoc., Sewage Works Jour., 17 (3):586-593.

Stroop, David. 1938. How shall we approach the pollution problem? Trans. 3rd N. Amer. Wildlife Conf., 3:70-72

Theroux, F. R., E. F. Eldridge, and W. LeR. Mallmann. 1936. Laboratory manual for chemical and bacterial analysis of water and sewage. McGraw-Hill. N. Y. Pp. 228.

U. S. Public Health Service. 1942. Acid mine drainage studies, supplement C. Federal Security Agency, Office of Stream Sanitation, Cincinnati, Ohio. Pp.

U. S. Public Health Service. 1951a. Tennessee River drainage basin. Federal Security Agency, Division of Water Pollution Control. Pp. 121.

U. S. Public Health Service. 1951b. Water pollution in the United States.

Federal Security Agency, Division of Water Pollution Control. Pp. 44. Van Horn, W. M. 1950. The biological indices of stream quality. Proc. Fifth Industrial Waste Conference, 1941. Purdue Univ., Eng. Bull. Ext. Series,

No. 72. Pp. 215-222. Ward, Henry Baldwin. 1928. The national pollution menace. American Game, 15:114-119.

1950. Stream pollution from coal mines in the Ohio Watson, Kenneth S. basin. Mimeographed statement prepared for a joint meeting of the West Virginia Coal Mining Institute and the Appalachian Section Coal Division of the American Institute of Mining and Metallurgical Engineers. Wells, W. M. 1913. The resistance of fishes to different concentrations and

combinations of oxygen and carbon dioxide. Biol. Bull., 25:323-347.

Wells, W. M. 1915. Reactions and resistance of fishes in their natural environment to acidity, alkalinity, and neutrality. Biol. Bull., 29:221-257. Wells, W. M. 1915. The reaction and resistance of fishes in their natural

environment to salts. Jour. Expt. Zool., 19:243-283.

Wells, W. M. 1918. The reaction and resistance of fishes to carbon dioxide and carbon monoxide. Ill. State Lab. Nat. Hist., Bull. 9, 11:557-571.

Wiebe, A. H. 1927. Biological survey of the upper Mississippi River with special reference to pollution. U. S. Bur. Fisheries. Wiebe, A. H. 1931. Trans. Amer. Microscop. Soc., 50:380-393.