RESEARCH SECTION

Oregon Department of Fish and Wildlife

A Revised Reference Survey to Literature on Catchable Trout in Streams
A Revised Reference Survey to Literature on Catchable Trout in Streams

John R. Moring

Oregon Department of Fish and Wildlife
Research Section, Corvallis, Oregon

January 1977

This work was partially funded by the U. S. Fish and Wildlife Service through Dingell-Johnson-funds.
INTRODUCTION

In 1973, Dr. Michael Clady prepared and issued a report summarizing a current status of knowledge concerning the stocking of trout, and provided the basis for an intensive research project designed to evaluate Oregon's catchable rainbow trout program. As time and the catchable rainbow trout project progressed, additional, relevant papers appeared in national journals and regional reports. It was considered important to update the earlier literature survey, incorporate the more recent papers, and issue a revised listing of coded titles under a single cover.

The 1973 literature survey was limited to articles, papers, and reports related to hatchery-reared trout planted in streams. As a result, papers dealing with plants in lakes, ponds, and reservoirs were generally not included. An initial listing of several hundred titles was pared to 150 that were cited in the discussion and listed.

METHODS

Although the listing is by no means complete, most pertinent papers dealing with stocking of catchable-sized ("legal" or yearling) trout in streams, their adaptation and survival, and interaction with existing populations, were obtained. Available papers and reports were reviewed from 1972 to December 1, 1976. Occasional articles dealt with sub-legal stocking or trout stocking in impounded waters, but these applied to the overall priorities of the literature update and were included.

Journals and sources surveyed for titles are listed. Reference lists of papers obtained were also utilized.

Journals and Bulletins

Transactions of the American Fisheries Society
Journal of Wildlife Management
Copeia
Progressive Fish-Culturist
New York Fish and Game Journal
Journal of the Fisheries Research Board of Canada
California Fish and Game
Fisheries (Bulletin of the American Fisheries Society)

Abstracts and Indexes

Science Citation Index
Sport Fishery Abstracts
Denver Public Library, Fish and Wildlife Reference Service, literature search on federally aided papers and reports dealing with stocking and transplanting of trout since 1972.

Other Sources

Proceedings of the Western Association of Game and Fish Commissioners
Proceedings of the Northwest Fish Culture Conference
Research in Fisheries, University of Washington
Oregon Department of Fish and Wildlife, Research Section, publications.

RESULTS

In the survey, 34 additional useful titles were obtained, including some papers published prior to 1972, but omitted in the previous report. These papers have been alphabetized and included with the previous 150 from the survey issued in 1973.

All publications listed herein have been coded to reflect their relevancy to specific sub-topics. The codings are as follows:

0  General (other than strictly localized interest)
1  Survival of planted trout
2  Interaction between wild fish and stocked fish
3  Adaptability of catchable trout to the stream environment
4  Movement of planted trout
5  Season of release
6  Physical spacing of releases
7  Temporal spacing of releases
8  Other management techniques (stocking formulae, creel census, computer simulation models, etc.)
9  Catch rates and percent return of planted trout

LITERATURE CITED

Ackerman, G. L. 1971. Iowa trout program in 1971. Unpublished manuscript, 13 pp. (0, 7, 8, 9)


________. 1954. Investigating the survival of hatchery trout. Big Laramie Wyo. Wildl. 18(4):20-25. (1, 2, 4, 5)


________. 1970. Guidelines to fish stocking in Maine. Maine Fish & Game. (8)

________. 1970. West Virginia trout allotment system. 2 pp. (typewritten). (8)


Bailey, J. E. 1958. Test stream study. Comparing survival, growth, and condition of wild trout and hatchery rainbow trout reared on two different diets. Montana Dep. Fish & Game, Proj. No. F-13-R-4, Job No. 1, 16 pp. (1, 2)


Bell, R. 1968. Tests for increasing the returns of hatchery trout, Silver Creek fishery investigations. Idaho Fish & Game Dep. Job Compl. Rep., Proj. F-32-R-9, Job No. 11:86-96. (2)


Bridges, W. L. 1965. Progress report on the Pawcatuck River watershed study. R. I. Div. Fish & Game, F-20-6, 3 pp. (1, 5)


Calhoun, A. 1964. The psychology, mortality, and economics of catchable trout. Outdoor Cal., 25(12):8-10. (0, 1)


and W. W. Huber. 1947. Ten years of trout streams management on the Pisgah. Prog. Fish-Cult. 9:185-191. (0, 2)

Cobb, E. W. 1933. Results of trout tagging to determine migrations and results from plants made. Trans. Amer. Fish. Soc., 63:308-318. (4)

Colorado Division of Wildlife. 1974. The strategy of today, for wildlife tomorrow. Volume I: a strategic plan for the comprehensive management of Colorado's wildlife resource. 46 pp. (0)


Cooper, E. L. 1952. Rate of exploitation of wild eastern brook trout and brown trout populations in the Pigeon River, Otsego County, Michigan. Trans. Amer. Fish. Soc., 81:224-234. (1, 2, 4, 6, 7, 9)


Cooper, E. L. and N. G. Benson. 1951. The coefficient of condition of brook, brown, and rainbow trout in the Pigeon River, Otsego County, Michigan. Prog. Fish-Cult. 13:181-192. (3, 6)


Cuplin, P. 1959. Tests for increasing the returns of hatchery trout, 1958. The survival of planted trout to the creel as related to their size and time of planting. Idaho Fish & Game Dep., Proj. F-32-R-1, Job No. 28:7-13. (1, 3, 7)

Cuplin, P. 1960. Tests for increasing the returns of hatchery trout. The survival of planted trout to the creel in Pebble and Toponce creeks as related to size and time of planting. Idaho Fish & Game Dep., Proj. No. F-32-R-2, Job No. 2-B:37-43. (1, 7)


DeRoche, E. 1963. Why stock trout streams? Maine Fish & Game, 62(4). (0, 2, 3, 8, 9)


Fenderson. 1970. Hatchery fish versus wild fish, a study of their comparative behavior. Maine Fish &Game. (2, 3)


Flick. 1964. Comparative first year survival and production in wild and domestic strains of brook trout (Salvelinus fontinalis). Trans. Amer. Fish. Soc. 93:58-69. (1, 3)


Gee, M. A. 1942. Success of planting legal-sized trout in the southwest. Trans. 7th N. Am. Wildl. Conf. 238-244. (1, 4, 7)


Haskell, D. C. 1965. Are we looking in the right direction in fishery research. Prog. Fish-Cult., 27:105-107. (8)

Hazzard, A. S. and D. S. Shetter. 1939. Results from experimental plantings of legal-sized brook trout (Salvelinus fontinalis) and rainbow trout (Salmo irideus). Trans. Amer. Fish. Soc. 68:196-210. (0, 1, 2, 4, 6)

Hess, R. H. 1954. Migration of stocked legal-size trout. Prog. Fish-Cult., 16:44. (4)


Holloway, A. D. 1945. Summary of trout stocking experiments. U. S. Fish & Wildl. Serv. Fish. Leaf. 137. (0, 9)


Horton, H. F. 1956. An evaluation of some physical and mechanical factors important in reducing delayed mortality of hatchery-reared rainbow trout. Prog. Fish-Cult. 18(1):3-14. (1, 8)


Keating, J. F., Jr. 1962. Tests for increasing the returns of hatchery trout. The survival of planted trout to the creel as related to their size and time of planting. Idaho Fish & Game Dep., Job Compl. Rep., Proj. No. F-32-R-4, Job No. 3C:12-18. (1, 5, 7)

Keating, J. F., Jr. 1968. Test for increasing returns of hatchery trout. Lochsa River investigations. Idaho Fish & Game Dep., Proj. No. F-32-R-19, Job No. 1, 27 pp. (1, 2, 4, 5)

Kelly, W. H. 1965. A stocking formula for heavily fished trout streams. N. Y. Fish & Game J. 12:170-179. (1, 4, 8, 9)


King, W. 1942. Trout management studies at Great Smoky Mountain National Park. J. Wildl. Mgt. 6:147-161. (3, 4, 5)


Klak, G. E. 1941. The condition of brook trout and rainbow trout from four eastern streams. Trans. Amer. Fish. Soc. 70:282-289. (3)


________. 1952. Survival of hatchery-reared cutthroat trout in an Alberta stream. Trans. Amer. Fish. Soc. 81:35-42. (1, 2, 4)


________. 1954. Comparative survival of wild and hatchery reared cutthroat trout in a stream. Trans. Amer. Fish. Soc. 83:120-130. (1)

________. 1955. Trout management research in Alberta. Trans. 20th N. Am. Wildl. Conf. 242-252. (1, 2, 4)


Mottley, C., McC. 1942. Experimental designs for developing and testing a stocking policy. Trans. 7th N. Am. Wildl. Conf. 224-238. (8)


and D. W. Slater. 1944. Survival of hatchery-reared brown and rainbow trout as affected by wild trout populations. J. Wildl. Mgt., 8:22-36. (1, 2)


Nielson, R. S., N. Reimers and H. D. Kennedy. 1957. A six-year study of the survival and vitality of hatchery-reared rainbow trout of catchable size in Convict Creek, California. Calif. Fish and Game 43(1):5-42. (1, 3, 5)


. 1953. Migratory tendencies of the Manchester (Iowa) strain of rainbow trout. Prog. Fish-Cult. 41:57-63. (4)


Reimers, Norman. 1957. Some aspects of the relation between stream foods and trout survival. Calif. Fish & Game, 43:43-69. (1, 2, 3)


Richards, M. 1962. Tests for increasing the returns of hatchery trout. The survival of planted trout to the creel as related to their time of planting. Idaho Fish & Game Dep., Job Comp., Rep., Proj. No. F-32-R-4, Job No. 3a:6-9. (1, 2)

Royal, L. A. 1972. An examination of the anadromous trout program of the Washington State Game Department. Wash. Dep. of Game, 176 pp. (0, 2, 8)

Saltzman, W. O. 1953. A preliminary study of certain chemical factors that may be involved in the delayed mortality of rainbow trout following liberation. M.S. Thesis, Oregon St. Col., Corvallis. 59 pp. (1)


Schuck, H. A. 1942. The effect of population density of legal sized trout upon the yield per standard fishing effort in a controlled section of stream. Trans. Amer. Fish. Soc. 71:236-248. (9)

. 1948. Survival of hatchery trout in streams and possible methods of improving the quality of hatchery trout. Prog. Fish-Cult. 10:3-14. (1, 2, 3, 5, 6)


and A. S. Hazzard. 1941. Results from plantings of marked trout of legal size in streams and lakes of Michigan. Trans. Amer. Fish. Soc. 70:446-468. (1, 2, 5, 6, 7, 9)


Smith, L. L., Jr. 1941. The results of planting brook trout of legal length in the Salmon River, northern Michigan. Trans. Amer. Fish. Soc. 70:249-259. (2, 5, 9)


1971. Rock Creek creel census. Mont. Fish & Game Dep., Job Final Rep. 28 pp. (1, 2, 8, 9)


Trembley, G. L. 1945. Results from plantings of tagged trout in Spring Creek, Pennsylvania. Trans. Amer. Fish. Soc. 73:158-172. (1, 4, 5)


Vestal, E. H. 1954. Creel returns from Rush Creek test stream, Mono County, California, 1947-1951. Calif. Fish & Game 40:89-104. (1, 2, 7, 9)


Wales, J. H. 1954. Relative survival of hatchery and wild trout. Prog. Fish-Cult. 16:125-127. (1, 2)


Williamson, L. O. and E. Schneberger. 1942. The results of planting legal-sized trout in the Deerskin River, Vilas County, Wisconsin. Trans. Amer. Fish Soc. 72:92-96. (1, 2, 5)