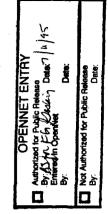


SUMMARY OF OPERATIONS ON CONTRACT NO. W-28-094-eng-33. FOR THE MONTH OF JANUARY 1947

The work conducted under the main clause of this contract was summarized during the month and a new Project Chronology chart was prepared. Planning sessions with members of the Atomic Energy Commission helped to formulate definite program procedures for the overall project.



- I. Applied Fisheries Laboratory at the University of Washington.
- 1. The basic program of measuring the effect of exposure of aquatic organisms in various stages of development to x-rays continues.

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*Sections I and II

Sections III and IV

The eggs produced from the second generation of fish derived from parents exposed to 100r or from the "controls" hatched during the month. The eggs and fry from the progeny of 100 r parents continue to experience a highermortality than those from the controls.

The data accumulated during the past three years of work on these sections is being summarized into a report. It is planned to submit copies of this report as soon as it is finished and then to report data that is obtained in the future in supplemental reports.

The run of adult sockeye salmon into Cultus Lake, B.C. has been completed for this season. No marked sockeye salmon were observed. It must be concluded that the young fish produced from the 100 r parents and the "control" parents and

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*Section numbers refer to the Project Chronology Chart, revised January 9, 1947

released into the lake February 22 and 27, 1945, failed to return to the lake during the past season. Observations will be continued during the 1947-1948 season.

Section V.

This section has not been summarized as yet. Sections VI, VII, and VIII.

Final reports have been submitted. Section IX.

This section has not been completed. Section X.

Completed and the final report submitted. Sections XI and XI a.

The data gathered in this portion of our project has been worked up by Mr. Richard F. Foster. The preliminary analysis has been completed. The finished report should be available by spring.

Section XI-b.

The five hundred, plus, fish that are being retained for further work under this section are nearing sexual maturity. The problems of spawning, caring for the eggs, record taking, etc. for this portion of our project will soon occupy all of our time. It is hoped that adequate information will be obtained to evaluate the effect of exposure to x-rays on the second generations.

Section XI-c.

This very important block of data has not been analysed further.

Sections XII, XIII, and XIV.

The statistical analysis of the data in this section has been completed and will be formulated into a final report soon.

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Sections XV - XVII.

During the winter fishing season on the Columbia

River six fish with marks similar to those of the young steelheads produced from parents exposed to 100r or "controls"

were captured in the lower river. Further study will determine if these are fish from the release during Spring of
1945 into Icicle Creek, a tributary of the Columbia. It is
hoped that some of these fish escaped the fishery and return
to Icicle Creek after completing the journey to the sea during
which they would have passed the Hanford plants on their journey
to the sea and again on their return.

Section XVIII.

The goldfish data has not been written up as yet.

2. The study of the effect of exposure of micro-plankton organisms to x-rays was reviewed and the material formulated into a condensed report. Six copies of the report were forwarded to the committee on declassification in the hopes the material would be cleared for publication in "Science".

Plankton cultures are being reactivated in preparation for initiating studies on absorption of radioactive materials by plankton forms and their subsequent ingestion by higher life types.

II. Hanford Laboratory.

1. Mr. Richard F. Foster returned to the Hanford laboratory after a three months stay in Seattle. While in Seattle Mr. Foster worked up data on the effect of x-rays on rainbow brood stock and their offspring. (Sections XI and XI-a)

III. Crossroads Project.

1. The unpacking and sorting of the fish and other material collected at Bikini was completed.

3. A general program with suggestions for follow-up work at Bikini was prepared and sent to Dr. Stafford L. Warren.

During the month the laboratories at the University were visited by Ccl. J. P. Cooney and Lt. Col. Harry E. Skinner. Conferences were held with the staff members and a review of the project was followed by the formulation of plans for expediting the program.

Dr. L. R. Donaldson attended the conferences of the Medical Section held at the New War Department Building, Washington, D. C., on January 23 and 24.

Lauren R. Donaldson
Director of Contract
No. W-28-094-eng-33

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