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SUMMARY OF OPERATIONS ON CONTRACT NO. W-28-094-eng-33  
FOR THE MONTH OF SEPTEMBER 1948.

Project I\* Basic studies on the effect of X-rays upon fish in various stages of development.

Sections I\* and II\*.

The data summarizing the effect of exposure to 100 r units of X-rays on the F<sub>2</sub> generation of chinook salmon fingerlings is nearing the final report form. These data will bring up to date the results of the experiment that started in the fall of 1943 with the exposure of adult chinook salmon to X-rays prior to their spawning.

Project VI. Exposure of marine invertebrates to X-rays.

Marine snails, Thais lamellosa, exposed to X-rays on July 7, 1948 with whole body single doses of from 5900 r to 20,000 r continue under observation.

The marine snails in this experiment, alive on July 31, survived to the end of September. The failure of exposures to X-rays from the 5900 r - 10,000 r range to cause mortality in excess to the controls suggests that the snails are tolerant of X-rays in the range used. Repeat experiments using higher doses are needed to determine the L.D.<sub>50</sub> range.

Project X. Bikini Resurvey of 1948.

Of the 2500 ashed samples brought to the Applied Fisheries Laboratory from this summer's field work, 600 were counted during August and the balance during September. In addition approximately 400 samples were

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DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
SINGLE REVIEW AUTHORIZED BY: <i>Robinia G. 11-2-94</i>	DETERMINATION (CIRCLE NUMBER(S))
REVIEWER (ADD):	1. CLASSIFICATION RETAINED
NAME: <i>R. G. G. 11-2-94</i>	2. CLASSIFICATION CHANGED TO:
DATE: <i>11-14-94</i>	3. CONTAINS NO DOE CLASSIFIED INFO
	4. COORDINATE WITH:
	5. CLASSIFICATION CANCELLED
	6. CLASSIFIED INFO BRACKETED
	7. OTHER (SPECIFY):

\*Project and section numbers refer to the Project Chronology Chart and Summary UWFL-9, revised March 11, 1948.

ashed and counted from preserved and frozen materials brought in from the summer's field trip. Samples of calcareous material (coral, shell, etc.) numbering about 100 and samples of miscellaneous objects such as rope, canvas, wood, grass, coconuts, etc. remain to be done before completing the counting of Bikini and Eniwetok 1948 samples.

Eight active calcareous samples, unprepared and weighing approximately 10 gms. each were sent to U.C.L.A.


About 40 frozen Eniwetok fish samples were prepared for U.C.L.A. but not shipped. Additional samples are to be prepared to complete the shipment.

A regular schedule for counting samples showing high activity was established for the purpose of constructing decay curves.

Counting was limited to one counter, the IDL counter being at the factory for repair. From the 15th to the end of the month the counting was stepped up some by arranging a counting schedule of 18 hours per day.

Lauren R. Donaldson spent September 3, 1948 at Richland, Washington, in conferences with the staff of the Hanford Operations Office and the members of the Aquatic Biology Group in the 146 Building, 100 F area. A series of conferences was also attended in Washington, D. C., from September 13 to 17, 1948

Dr. C. H. Perry, Dr. Andrew Dowdy, and Dr. R. S. Anderson from NEPA Project at Oak Ridge, Atomic Energy Project at Los Angeles, and Oak Ridge National Laboratories respectively visited the Applied Fisheries Laboratories and had conferences on tolerance doses with the staff of the Applied Fisheries Laboratory.

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

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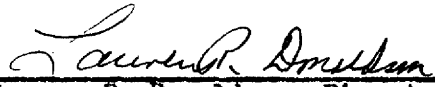
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