

June 13, 1958

Dr. Allyn H. Seymour  
Marine Biologist  
Division of Biology and Medicine  
United States Atomic Energy Commission  
Washington 25, D. C.

Dear Al:

Enclosed please find a tabulation of the results of strontium-90 determinations of land crab skeletons (Birgus latro) collected in March 1958 at Rongelap Atoll. The results of previous analyses are included for convenience in making comparisons. There continues to be a wide range at any particular island. This appears to be primarily due to individual variability in the specimens collected.

As a further check on the source of variability, analyses are being made of the carapace as compared to the legs and claws from the same specimens.

Virtually 100 per cent of the beta-activity in the skeleton is due to strontium-90 plus yttrium-90. The average percentage in twelve skeleton and five carapace samples is 100.3 with a range of 94.1 to 106 and a standard deviation of 3.3.

The results of strontium-90 analyses of other tissues of land crabs will be sent to you shortly.

Sincerely yours,

Edward E. Held  
Assistant Research Professor

EEH:mb  
cc: Dr. Robert Conard  
Dr. Allyn Seymour

*D/C Navy Recovery*

~~MEDICINE, HEALTH & SAFETY~~

*NMBS*

June 1958

Sr<sup>90</sup> in the Skeletons of Land Crabs collected  
at Rongelap Atoll

Island	Date of Collection	Laboratory	No. of Samples	Sr <sup>90</sup> d/m/g dry	Sr <sup>90</sup> d/m/g wet	Sunshine un its
Kabelle	July 1956	NYO	3		1300±230	3240±760
	"	U. W.	3		1950±470	4240±970
	July 1957	U. W.	3	3570±610	2430±420	5630±920
	March 1958	U. W.	5	3280±300	2360±210	6300±550
Rongelap	July 1956	NYO	1		750	2200
		U. W.	1		1310	3360
	July 1957	U. W.	2	1500±350	955±245	2350±650
	March 1958	U. W.	5	1660±441	1180±309	3140±860
Eniaetok	March 1958	U. W.	2	3200±800	2250±550	6000±1200

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