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tions than Southern Island (Aldar) crabs in 1978. Secondary, from the 1974, 1975, and 1978 data, the concentration of  $^{90}\text{Sr}$  appears to be evenly distributed throughout the edible portions of the crab, while the  $^{137}\text{Cs}$  activity seems to concentrate in the crab meat by a factor of 2 to 1 over the hepatopancreas.

body burden, the resultant annual dose would be ~80 percent of the current standards. Consequently, we feel that the Rongelapese should not eat coconut crabs from the Northern islands. Coconut crabs collected from the Southern part of the atoll may be consumed without contributing significantly to the dose commitment of the Rongelap population.

If you have any questions concerning these data or if we can be of further service, please contact us.

Sincerely yours,



N. A. Greenhouse



R. P. Miltenberger

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Island	Sample	1974	1975	Count	Count Error	Count Error Error	Count Error Error Error	Significance	Notes	
Rongelap	Kabelle	1.4	1.4	0.08	0.02	7.7	0.06	210	+10	a, b, c
Rongelap	Kabelle	1.1	1.1	0.07	0.02	9.8	0.06	180	+13	a, b, c
Rongelap	Kabelle	1.4	1.4	0.08	0.03	9.5	0.08	180	+8.2	a, b, c
Rongelap	Kabelle	ns	ns	17	+1.0	212	+3.0			b, d

- a. The error values for all radionuclides listed except <sup>90</sup>Sr and Pu are two-sigma, propagated, counting errors for a single sample. The error value for <sup>90</sup>Sr and Pu is the two-sigma counting error for a single sample plus an analytical error.
- b. ns = not significant; the net sample count is less than the two-sigma, propagated counting error.  
na = not analyzed.
- c. Results obtained from Appendix, Table 6, NVO-269-32, "Radiological Survey of Plants, Animals and Soil at Christmas Island and Seven Atolls in the Marshall Islands-Progress Report for 1974-1975; V. A. Nelson, 1977.

Table 2<sup>c</sup>

Mean Concentration of <sup>90</sup>Sr in Coconut Crabs Collected  
at Rongelap Atoll from 1957 - 1974

Sample Type	Collection Area	Collection Date	Number of Samples	Mean Concentration in pCi/g, dry <sup>90</sup> Sr
Coconut Crab, Muscle	Rongelap I	1957-58	12	14
	Arbar, Busch I	1974	4	2 <sup>b</sup>
	Kabelle I	1955	1	120 <sup>b</sup>
	Kabelle I	1957-58	14	47
	Kabelle I	1974	3	4.8
Coconut Crab, Exoskeleton	Arbar I	1959	2	480
	Arbar I	1974	2	64
	Mellu I	1959	2	1100
	Mellu I	1974	1	240
	Kabelle I	1959	3	1600
	Kabelle I	1974	3	190

. These data were taken from the following sources:

<u>Collection Date</u>	<u>Source</u>
1955	Donaldson, 1955
1958-1971	LRE, unpublished data
1974	This report

. 27 pCi/g, wet, multiplied by a wet/dry ratio of 4.5.

. This table is a partial reprint of Table 7, NVO-269-32, "Radiological Survey of Plants, Animals and Soil at Christmas Island and Seven Atolls in the Marshall Islands-Progress Report for 1974-1975", V. A. Nelson, 1977.

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