

**NORTHERN COOKBOOK.** EDITED BY ELEANOR A. ELLIS, *original illustrations by James Simkins.* Ottawa: Queen's Printer, 1967. 9¼" x 6", 358 pages. Paper \$3.50, cloth \$6.00.

Are the Inukshuks coming for dinner and you simply do not know what to serve? Then may I suggest a simple little meal consisting of arctic muktuk chowder, followed by reindeer bourguignon or casserole of seal, served with fiddleheads or fireweed leaves, and for dessert, Saskatoon berry pie, followed by steaming cups of Labrador tea.

If you think these dishes are impossible or out of the question, you will find the recipes for all of them (and a good many more) in the *Northern Cookbook* issued by the Canada Department of Indian Affairs and Northern Development.

This handsome book was originally prepared as a Centennial project by the Education Division, Northern Administration Branch, Department of Indian Affairs and Northern Development. Its purpose is "to record facts about some of the wild game, game birds, fish, fruit and vegetables available in Canada's north . . . and to suggest methods by which these foods may be prepared and served." Chapters on "Basic nutrition and meal planning", "Pointers from Pioneers" (or, northern household hints) and NWT hunting regulations are included along with the recipes.

There is much practical and useful information in this cookbook. Not all dishes are as exotic (at least to us southerners) as those quoted above, but emphasis has been laid on ingredients available fresh locally (bear, caribou, seal, venison, beaver, muskrat, whale, char, cranberries, blueberries), as well as those only available tinned, frozen or preserved.

The book is handsomely and sturdily bound, and delightfully illustrated. Every northern housewife should have a copy on her kitchen bookshelf; southern gourmets will find it useful too; and armchair eaters cannot help but be fascinated by such dishes as Hawaiian caribou, elkburgers, sweet and sour deer ribs, lynx stew, moose chili con carne or moose sukiyaki, reindeer goulash, sweet pickled beaver, smothered muskrat and onions, rabbit à la king, squirrel en casserole with biscuit topping, grouse in sherry, partridge paprika, fried prairie chicken, ptarmigan with orange ice, Newfoundland seal flippers and whale bobokee.

Nora T. Corley

**REPRODUCTION IN BROWN LEMMINGS (LEMMUS TRIMUCRONATUS) AND ITS RELEVANCE TO THEIR CYCLE OF ABUNDANCE.** BY DAVID A. MULLEN. *University of California Publications in Zoology, Volume 85.* Berkeley: University of California Press, 1968. 6¾ x 10¼ inches, 24 pages. \$1.50.

The spectacular lemming cycle, that impressive arctic phenomenon, is to a demographer only the tip of an iceberg whose structure we need to study. Population changes are produced by the balance of births and deaths, and there are obvious pitfalls in fixing one's attention too exclusively on either side of this balance. Mullen evaluates reproduction in the brown lemming at Barrow, Alaska, and attempts to cast doubt on the idea that changes in fecundity cause the lemming cycle. In doing this he is whipping a dead caribou, since no one thinks that we can understand lemming cycles only by studying reproduction. Predictable reproductive changes may, however, be involved in the lemming cycle, but even this lesser hypothesis receives Mullen's stones. The most intriguing aspect of lemming reproduction, winter breeding under the snow, receives little attention. Yet Mullen found extensive winter breeding only during the winter before the peak year of 1963. As a first approximation, one might argue that lemming populations reach peaks simply because during some winters lemmings breed under the snow, and the summer reproduction may be a demographic sideshow. This sideshow may contain some important clues nonetheless, but Mullen does not recognize this. Ovulation rates and litter sizes change from month to month during the summer, and Mullen's neglect of this seasonal fluctuation unfortunately renders his analysis of these two reproductive variables less meaningful. Summer breeding begins when the snow begins to melt and Mullen shows that minimum daily temperatures may serve as a useful cue to this. The end of the summer breeding season is difficult to pinpoint, particularly when population density is low and samples are small. Mullen does not think that intrinsic factors associated with population density affect the length of the summer breeding season. He seems to be predicting that, given a replicated set of out-of-phase lemming populations in the same area, all of them would have identical reproductive changes. This problem awaits an experimental attack.

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