

NOTE ON THE FAT OF PORPOISE MILK.

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PROFESSOR PURDIE recently published (*Chemical News*, lii., 170) the results of his analysis of the milk from a porpoise, which milk he found to contain 45·8 per cent. of fat. At my request, he sent me a small quantity of the extracted fat, and also a little of the milk, from which I obtained an additional quantity, the total amount of fat, however, being barely 1 gramme, and hence insufficient for a thorough examination. On treating the "porpoise butter" by Reichert's process, I obtained a distillate having an acidity corresponding to 4·57 of valeric acid, and I found the combining weight of the volatile acids to correspond approximately with that of valeric acid. The odour of the distillate was also suggestive of valeric acid, but the quantity of material at disposal would not allow of a rigid identification. I had, however, previously found that the volatile acid from the blubber oil of the porpoise was undoubtedly essentially valeric acid, as, indeed, was done long ago by Chevreul. From the volatile acids of a sample of porpoise oil, Chevreul obtained barium salts equivalent to a yield of 9·63 per cent. of valeric acid from the original oil. The sample I examined yielded 5·06 per cent. of volatile acids having a mean combining weight of 104·7, the molecular weight of valeric acid being 102. Whale oil, blackfish oil, &c., often yield a considerable proportion of valeric acid, but, like porpoise oil, are very erratic in this respect, and hence have very variable saponification-equivalents.

It is a curious circumstance that the butter from the milk of a marine mammal should apparently contain the glyceride of valeric acid, $C_5H_{10}O_2$, as its characteristic constituent, while in the butter from the milk of terrestrial mammals, such as the cow, sheep, and goat, glycerides of butyric, caproic, and other fatty acids containing an even number of carbon-atoms, appear to be almost exclusively present.

CONCLUSION OF THE SOCIETY'S PROCEEDINGS.