

males from the controls and a slight excess of females from the treated fathers. The four experiments with the Dilute-brown males give a slight excess of females from the controls and a slight excess of males from the treated fathers. In no case does the deviation from equality even approach statistical significance. Unless some unrecognized influence has not been controlled in these experiments the results seem conclusive that the treatment of the males with heavy doses of alcohol fumes has not modified the sex ratio.

TABLE I.

Line of father	From treated fathers			From control fathers		
	No. of mice	Per cent males	Deviation from 50 %	No. of mice	Per cent males	Deviation from 50 %
B. alb.	1261	48.69	-1.31±0.95	1283	51.60	+1.60±0.94
D-br.	872	50.57	+0.57±1.14	1039	49.76	-0.24±1.05
Total	2133	49.46	-0.54±0.72	2322	50.77	+0.77±0.70

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### The vitamin content of oysters.

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A twofold interest is connected with a study of the vitamin content of oysters. They constitute an important and an extensively used item of food. Furthermore, the material upon which they feed consists largely of diatoms and minute organisms, marine forms of life to which have been traced the origin of the fat-soluble vitamins found so abundantly in certain fish liver oils, such as that of the cod.<sup>1</sup>

So far as we are aware, no work has been hitherto reported on the vitamin content of oysters with the exception of that pub-

<sup>1</sup> Hjort, J., *Proc. Roy. Soc.*, Series B, 1922, xciii, 440; Drummond, J. C., and Zilva, S. S., *Biochem. J.*, 1922, xvi, 518.

lished by Randoïn<sup>2</sup> on the antiscorbutic factor. They found that oysters contain this vitamin in abundance.

By means of feeding tests with rats, we have found that oysters are rich also in vitamins A and B. In order to obtain uniform samples, fresh oysters were ground in a frozen condition. Quantities of the frozen product equivalent to 0.5 gm., calculated on a dry basis, caused prompt resumption of growth when fed daily to rats that had declined in weight as a result of the lack of vitamin B in their basal ration. Experiments in progress indicate that smaller quantities are sufficient to meet the requirements of rats for this vitamin.

As little as 0.25 gm. of a product obtained by dehydrating fresh oysters at a temperature not exceeding 40° under reduced pressure, enabled rats to make a fair recovery from the results of vitamin A deficiency.

It was found that during the process of dehydrating the oysters a change took place which caused a partial destruction of vitamin B. Whether this process also impaired the vitamin A value of the oysters is being investigated. Work is also in progress to estimate the vitamin content of clams, shrimp and other articles of sea food.

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#### The photo-electric cell as a colorimeter.

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The photo-electric cell determines the intensity of illumination to which it responds, by means of varying amperage, which it allows to pass through under the stimulus of an E.M.F. Any change in the illumination can be determined by changes in this amperage. The variables in an apparatus set up for this determination are: (a) the voltage offered to the cell from "B" batteries or other source of current, such as a "B eliminator," or other

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<sup>2</sup> Randoïn, L., *Compt. Rend. Acad. Sci.*, (Paris), 1923, *clxxvii*, 498.