phasize the fact that the other writers studied mainly vaso-motor effects, whereas we were concerned solely with cardio-inhibitory manifestations.

Bowman and I were the first to prove, by the method of unipolar faradization, that the cardio-inhibitory center is located in the dorsal vagus nucleus or ala cinerea. In a fresh specimen of the medulla oblongata of the dog the dorsal vagus nucleus (ala cinerea) is easily recognizable as a translucent-looking ridge, forming the lateral margin of the calamus scriptorius. Its position and appearance, as shown in Fig 1 of our paper, are identical with those indicated by Ellenberger and Baum in Fig. 165 in their "Anatomie des Hundes."

In localization experiments, like those described in our paper, it is essential that the excitability of the medulla oblongata be carefully maintained and that the current applied by the stigmatic electrode be of threshold value. Such a current yields definite cardiac inhibition from the dorsal vagus nucleus but fails to yield it from points 1 mm or less mesially or laterally to the nucleus. Slightly stronger currents applied to the nucleus elicit complete inhibition (Cf. Figs. 1, 2, 3 and 4 of our paper).

The view expressed above that the dorsal vagus nucleus is the source of the cardio-inhibitory fibers is held by the following authorities: Kohnstamm, van Gehuchten and Molhant, Herrick, Ranson, Tigerstedt (the latter in "Physiol. d. Kreislaufes," vol. 2, p. 424, 1921).

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SELF-FERTILIZATION IN NICOTIANA

IN a recent paper,[1] Morgan describes the removal of the "block" to self-fertilization in *Ciona* by the removal of the membrane around the egg, and compares it to experiments on the self-fertilization of self-sterile plants. In this connection, he states that "in self-sterile plants it has not been possible to demonstrate whether the pollen could fertilize the egg cell if it reached it."

Leaving aside the consideration that Morgan's work with *Ciona* may not be strictly comparable to that with self-sterile plants, there are certain unpublished data obtained by Dr. E. Anderson and myself which show that there is no "block" to self-fertilization in *Nicotiana*. It was conceived that, since self-sterility (according to East) is due to the fact that pollen tubes after self-pollination show no acceleration in growth, and hence fail to reach the ovary before the decay of the flower, if unopened buds were self-pollinated, additional time would be gained, and the pollen tubes might reach the ovary before the flower decayed. In several instances, pollinations were simultaneously made on the unopened bud, the first, and the second flowers[2] on the same branch of the panicle of both *Nicotiana alata* plants and hybrids between *Nicotiana alata* and *Nicotiana Forgetiana*. Seeds were set in 68 per cent. of the pollinations of unopened buds, whereas in the first flowers seeds were set in only 16 per cent. of the cases and in the second flowers there were none set. This indicates that the gametes are not incompatible, and that self-fertilization can take place in *Nicotiana* provided the male gamete can reach the egg.

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THE INFLUENCE ON FISHERIES OF THE WAR

IN many places the war made it necessary to discontinue fishing during a considerable period of time, as most of the active fishermen were called to the colors.

This involuntary cessation of fishing was most noticeable where the struggle took place actually within fishery districts, and it is interesting to study how it influenced the abundance of fish in such places after the close of the war. There was a marked influence in southeast Russia in the mouths of the Volga River, where the most important Astrakan fisheries are located. I recently met a business man interested in the Astrakan fishery who had received news from his locality to the effect that the run of every kind of commercial fish in the Volga River was an unusually large one last spring and fall; individual catches were of fabulous size. Nevertheless, the entire amount of fish landed was only half what it had been before the war. This latter is mostly due to absence of organization and fishing outfit (nets).

The unusually strong run of fishes here is rightly attributable to the fact that during 1918 to 1920 a civil war was in progress within the Astrakan government and nationalization of the fishery industry was effected, which resulted in stopping regular fishing. This enabled various fishes like vobla (*Leuciscus rutilus*, var.), Caspian herring, pike-perches and sturgeons to enter the Volga River untroubled by fishermen and to spawn freely and abundantly. Most of these fishes reach maturity (and spawn) at their third or fourth year, and therefore they appeared in the river after this period of time in great quantities. Now, because of shortage of fishing tackle, they have doubtless again propagated in quantities (1923),

[1] Proceedings of the National Academy of Sciences, Vol. 9, No. 5, pp. 170–171.

[2] The flowers have been numbered from the apex to the base of the branch of the panicle, thus making the first flower the youngest.