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Planaria Regeneration and Electromagnetism

Pulsing electromagnetic fields are being used in therapy with applications including improving mental and physical performance. The purpose of this project was to test the effects of a 6 volt electromagnetic field on the regeneration of planaria. The hypothesis was that if a group was cut before being electromagnetized for 3 days, then those planaria would regenerate slowly. Twenty were cut before the electromagnetism and twenty were cut afterwards. Ten were put into two control groups (50 planaria altogether). Eight groups were set to be electromagnetized for a certain amount of days: 2, 3, 4 or 5. Three times a day there were 15 minute periods of electromagnetism. After 20 days, the data showed an average of 6 planaria in each petri dish and an average of 4 regenerations in each group. Some of the electromagnetized planaria regenerated abnormally. One abnormality that was present in some of the heads was a bump above the tip of the tail it regenerated. Some did not regenerate to their full length, although most likely they would have grown to their original size with time and food. The control group differed from the others as it showed quicker regeneration (I cut the 2nd control group after all the others) and normal regeneration. In conclusion, after collecting the data, electromagnetism does not show to have a positive effect on planaria regeneration. The hypothesis was proven to be partially unsupported, because the group mentioned was perhaps a little slower than average in having their planaria regenerate.