メダカの塩走性

要約

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The numbers of Killifish are decreasing because of invasive species and agricultural runoff. However, it is believed that they can spread their habitat by advancing to the sea because they are able to survive in seawater. We tried the following experiment referring to past data that killifish like seawater.

We put substances – salt, saltwater and seawater, into an aquarium and recorded the number of killifish to approach the substance within one minute. Our results shows that all substances gathered more killifish than the fresh water which was the experimental control. We believe that Sodium chloride, which is found in seawater, attracted the killifish, and hypothesize that the same reaction could be seen using other salt substances. However, potassium chloride seemed to have no meaningful taxis.

Henceforth, we want to carry out the experiment again using a substance other than sodium chloride and potassium chloride.

キーワード (　　)

killifish　salt chemotaxis　saltwater　sodium chloride　potassium chloride

1. 序論

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2. 材料と方法

35cm× 20cm× 21cm

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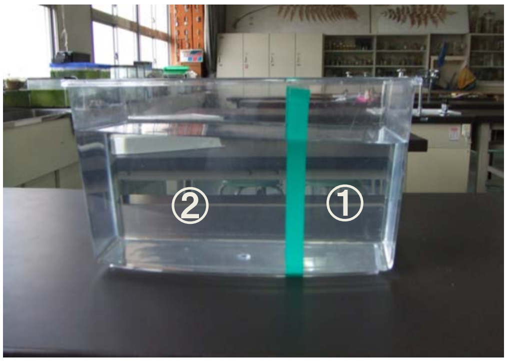

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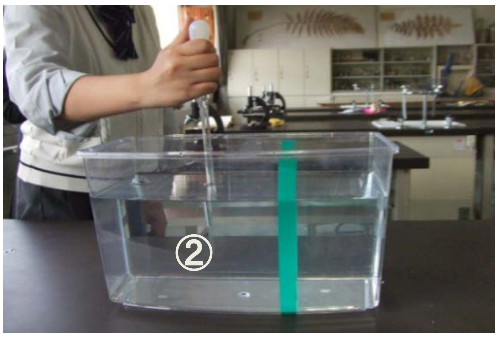

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3. 結果

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10ml ( )

	1	2	3	4	
10	2	0	0	6	2.0
20	3	5	1	7	4.0
30	4	6	3	7	5.0
40	5	3	7	3	4.5
50	3	4	6	1	3.5
60	1	8	5	7	5.3

(1)

10ml(3.5%) ( )

	1	2	3	4	
10	0	0	0	0	0.0
20	1	0	0	0	0.3
30	2	1	1	4	2.0
40	2	6	3	0	2.8
50	3	7	3	3	4.0
60	5	5	5	1	4.0

(2)

10ml ( )

	1	2	3	4	
10	0	3	0	0	0.8
20	0	2	0	0	0.5
30	1	2	0	0	0.8
40	0	1	1	2	1.0
50	1	2	0	2	1.3
60	0	4	2	2	2.0

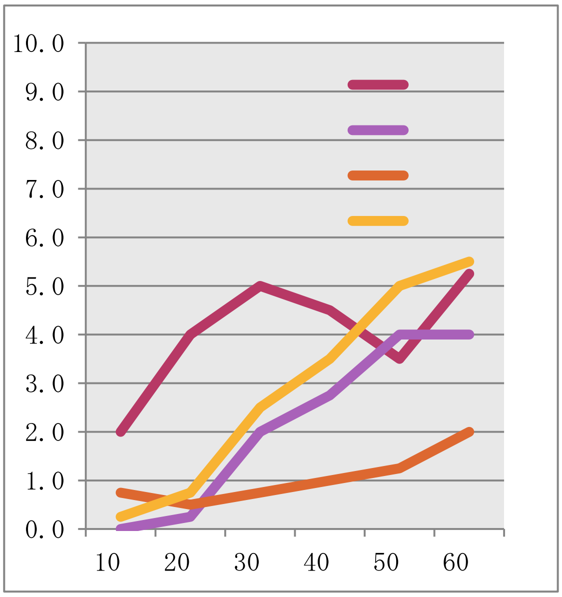
(3)

(0.35g)　　(　　　)

︵︶

	1	2	3	4	
10	0	0	1	0	0.3
20	0	2	0	1	0.8
30	0	6	2	2	2.5
40	0	7	4	3	3.5
50	3	8	4	5	5.0
60	7	5	5	5	5.5

(　4)



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(　　　　　)10ml　(　　　　)

︵︶

	1	2	3	4	
10	0	0	0	2	0.5
20	0	0	0	3	0.8
30	1	0	0	3	1.0
40	2	1	0	5	2.0
50	3	0	0	5	2.0
60	5	2	0	4	2.8

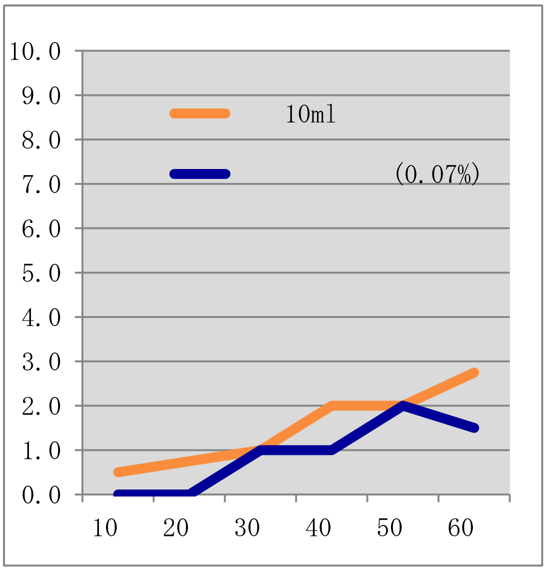
(　5)

(0.07%)　　(　　　　)

︵︶

	1	2	3	4	
10	0	0	0	0	0.0
20	0	0	0	0	0.0
30	1	0	0	3	1.0
40	2	0	0	2	1.0
50	3	0	0	5	2.0
60	3	1	2	0	1.5

(　6)



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4. 考察

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9.6

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5.今後の課題

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6. 謝辞

7.参考文献

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