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Eel tagging experiments

by

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An important instrument in getting more knowledge about the biology of the growing eel (yellow eel) is a good tagging method.

Depending on the anatomy of the eel and on its living manner it has appeared impossible to tag yellow eels with conventional fish tags. The skin is also much more sensitive for infections at this stage than in the migration phase.

In order to get a suitable tagging method experiments have been carried out. This report concerns some experiments which were started in the autumn of 1966 and are still going on. The first experiments were intended to test as many different types of tags as possible. If any type gave positive result this would be tested on a smaller scale.

In the enclosed tableau the different types of tags which were tested are listed. These tests were carried out so that yellow eels were tagged and then maintained in aquaria or kegs (submerged in the sea) for up to six months. During this time the result of the tagging was controlled, in the beginning once a week then at longer intervals.


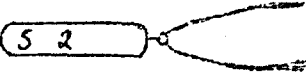

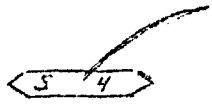


As a summary of this preliminary tests it could be said that the only tag which performed satisfactorily was the so-called brisling tag (No 5) which was inserted in the coelom. No eels with this tag died during the test but in a few cases the tag was lost. No eels tagged with the other types lived more than two months. As a rule the tests were quite satisfactory after one month but then infections appeared and the tag was either lost or the eel died. A fact worth mentioning however is that one of the eels into which a figure was burnt (No 6) with a silver stamp is still alive after one year and the figure can clearly be seen.

The brisling tag has as a consequence of the preliminary tests been tested on a smaller scale. In the spring and summer of 1968 about 2500 yellow eels have been tagged and put out at three places on the Swedish coast. Up till today ten of the tagged eels have been reported caught.

Finally it can be mentioned that aquaria tests are going on with a new plastic tag (No. 7) which is inserted both intra coelomic and intra muscular. The tag is inserted with an applicator.

Tableau.

Tested tags on yellow eel.

No	T a g	Material	The position of the tag	Result	N o t e s
1		Celluloid-coted cardboard with stainless steel wire	Below the former edge of the dorsal fin	Negative	Carlin tag
2		Celluloid-coted cardboard with synthetic thread	"	Negative	
3		Coloured glass pearls with stainless steel wire	"	Negative	
4		Nylon plate with (solid) nylon thread	Intra muscular	Negative	This tag has been used before in tagging yellow eels on a larger scale with neg. result
5		Stainless plate with synthetic thread	Inserted into the coelom	Positive	Brisling tag
6	Figures burnt with a silver stamp		In the skin, dorsally, laterally and ventrally	Partly positive	
7		Plastic anchor with plastic tube	Intra muscular and intra coelomic	"	Aquaria tests are going on