adult able to spawn. I do not have those figures at my finger-tips, but we can locate them. It is not 100 pounds, as I recall; it is something in the neighbourhood of five to ten pounds.

Mr. MURPHY: I thought it was more than that.

Dr. SPRULES: It may be. I would like to look this up.

Mr. MURPHY: Would you tell the committee, doctor, what the success has been and what the prospects are of fighting this menace through chemicals?

Dr. SPRULES: Well, I certainly believe that the use of a selective lampreycide is essential to the speeding up of the control process.

As we reported to the committee in 1955, the electrical barrier, or any physical control on the spawning stream, is simply preventing the adults of that area from spawning. Therefore, if we started to control every adult lamprey this year we still will have serious lamprey predation in the lakes for at least six years, because the young lamprey of last year are growing up in the mud and each year there will be a year class going out to the lakes.

The beauty of the use of lampreycide is that we can move into the rivers, having set up the electrical or physical barrier to the adult lamprey, and thus prevent spawning in the future, and wipe out this accumulation of up to six year classes of young lamprey, thus affecting a much more rapid control of the lake.

Mr. MURPHY: Supposing next year you had a chemical that was satisfactory, you could go into the streams where the lamprey are and kill all the lamprey that has been spawned and are from one to five years old?

Dr. SPRULES: That is absolutely correct.

Mr. MURPHY: In that case, if your experiments are successful, you would be re-establishing the fishing industry in a very short time.

Dr. SPRULES: Well, it depends on which lake you are speaking of.

Mr. MURPHY: Take, first, Lake Superior, where you already have some trout, and nature would be doing her work?

Dr. SPRULES: That is perfectly correct, but it would be six or seven years before those fish were reaching catchable size.

Mr. MURPHY: The point I am concerned about is that you are operating in only the one lake because you have only so much money, and you are not operating in Lake Huron because you have not the money. Until you do, the other catches will be decreasing, unless the fishermen extend their efforts, as they have in the last few years, in respect to their endeavours to catch other types of fish.

Therefore, if you do not touch Lake Huron for four or five years it would be twelve years at least before the fishing industry was re-established in Lake Huron.

Dr. SPRULES: Yes.

The reason behind the commission's decision, as I understand it, to concentrate its efforts in Lake Superior is twofold. First, there is a native stock of trout to restock that lake and, second, that the costs are quite high for the use of chemicals for control and for electrical control.

Until we are perfectly sure that the control methods are effective, I am sure that the commission felt that it would not be desirable to move out, expending a lot of money into other lakes, which might be just a monument to inefficiency.

Mr. MURPHY: Could you, doctor, table information as to the number of lampreys killed through these electrical weirs, and also some estimate of the number killed while in the mud? Would you tell the committee what the cost of each of these electrical weirs is? I suppose they vary, depending on distance from headquarters?