Open the file. There are cells with the red numbers above the columns of different colors. It is given for the catch of 20 mm gill net, for the rest mesh sizes all are identical.

There are 5 numbers in the red frame nearby, where only 2 parameters here are variables — mesh size (20 mm) and the  angle (60). The  angle, signed as “, deg.”, can be changed in cell AK62 only, and it will be changed for all mesh size data simultaneously.

*Cell 1* — length classes observed;

*Cell 2* — jaw length;

*Cell 3* — jaw length distribution, approximated by the linear function;

*Cell 4* — *h* parameter (eq. 6 in the script);

*Cells 5 – 7* — components of the equations 4 and 5 in the script;

*Cells 8*— the probability (eq. 4);

*Cell 9* — the probability (eq. 5);

*Cell 10* — total catch:

*Cell 11* — length classes observed (the same as cell 1);

*Cell 12* — number of fish wedged, ;

*Cell 13* — number of fish tangled, ;

*Cell 14* — the  probability. (eq. 10; that portions were calculated separately for each length group and were inserted into the column);

*Cell 15* — (part of the eq. 2);

*Cell 16* — the linear function of the  probability (table 4) (there are 2 blue cells above with digits 13 and 31, they are correspond to the length groups of  and  respectively and are variables);

*Cell 17* — ;

*Cell 18* — .

Next we go to the red frames.

*Frame 20* — there are distributions of fish, contacted the gill nets of different mesh sizes (), which were collected in one place; the number of fishing operation (11 here) is variable;

*Frame 21* — averaged CPUE (catch per unit effort) – total catch, divided by the number of operations;

*Frame 22 (a)* — total number of fish of different species from different mesh size catches, which were caught together with cod;

*Frame 22 (b)* — total averaged CPUE for all observed species;

*Frame 22 (c)* — the number  , obtained from experiment — individual and total;

*Frame 23* — averaged number of  ; contains variable duration of fishing , h, cell U39 (12 here);

*Frame 24* —  for each length class as  (see the text below eq. 20);

Now I have to apologize. The correct form of eq. 20 of the script is . It can be explained.

*Frame 25* — contains  signed as “tau” (eq. 21) and  as “N\_AP”; here N\_AP is a total one;

*Frame 26* — , where  — the number of *l* class in averaged CPUE of given mesh size and  — the total number of fish in that averaged CPUE.

Cell AK62 contains  value, it is variable (7.0 now here), and cell AM62 —  (eq. 23 of the script). In order to determine the minimum of , one need to determine  for the range of  , and then to choose the min value. Technically you (1) set the range of  (6.8 – 8.2 in the *frame 27*), (2) determine the  for given  , (3) copy that  value and put it in near the same  in the frame 27, and (4) plot the curve, where you can see the minimum.

*Frame 28* — contains the selectivity.

There are some inaccuracies in calculations. We were finishing the article in a big hurry and made some errors. That is my fault. So, don`t compare the data from the Excel file with the ones from the script, just use Excel file. One more error — it needs to be  instead of  in the table 2.

You can play with variables and observe the results. Ask any questions, maybe I missed something.