Supporting Online Information

**Annex 2.** Bottom trawling fishing effort reconstruction of the Balearic Islands

To estimate the evolution of bottom trawl fishing effort in the Balearic Islands from 1920 to 2010, we have gathered information on engine power (hp) from several sources. The beginning of our time series is determined by the start of the use of engines in fishing vessels in the Balearic Islands in 1920 [[1](#_ENREF_1)]. Before 1920, bottom trawlers were composed of pairs of sailboats. We gathered the available data regarding bottom trawl official vessel power from several references for available years [[2-7](#_ENREF_2)] (Figure 11b, Official HP).

However, it is well known that at present bottom trawlers in the Balearic Islands have a much higher fishing effort than officially register [[8](#_ENREF_8)], surpassing the established legal limit of 500 HP[[1]](#footnote-1) per vessel. The engine power per vessel can frequently be double the permitted by law [[9-11](#_ENREF_9)], whereas official data is between 150 to 320 HP per vessel, frequently. To estimate the real engine power per vessel, we used the data estimated from 1965 to 2008 [[12](#_ENREF_12)]. From 1920 to 1964, we assumed that the real engine power and the official one was the same because it is from 1988 when the regulation of the engine power limit on 500 hp1 per vessel is set up and we think that there were no reason to hide this information before. Then, we gathered information from several references about the bottom trawling fleet along the studied time series [[3-5](#_ENREF_3),[13-19](#_ENREF_13)], which allowed us to calculate the real engine power of the Balearic bottom trawling fleet (Figure 11b, Real HP).

Finally, a 1% yearly increase due to improved fishing technology (e.g., net sensors, scanmar, new bathymetry data, etc.) was applied to the series of real fishing effort starting from 1980 in order to simulate the increase in the efficiency of estimated fishing effort (Figure 11b, Real HP & technology increase series). We applied an annual increase of 1% as a conservative ratio respect to the 1.8% previously suggested [[20](#_ENREF_20)].

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