**S3 Text. Modelling annual and monthly variations in the total length of pelagic trawlers operating in the Eastern English Channel and the Southern North Sea.**

Vessel length of pelagic trawlers was modelled using Generalized Additive Models building in a tensor product to accommodate the combination of annual and monthly effects, assuming a Gamma distribution. For each observed fishing vessel *v*, the expected value of vessel length *E[Lengthv]* could be formulated by the Equation below:

$E\left[Length\_{v}\right]=exp\left\{a+sp(y,t)\right\}$)

Where *a* is a constant base line, y is an annual cycle; t is the month within each annual cycle. The predicted vessel length resulting from the GAM is shown below.

**Fig.** Contours of predicted vessel length as a function of annual cycle and month.

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