

From little acorns grow



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When thinking about the use of native oak trees in naval construction, the image of Admiral Lord Collingwood with his pocket full of acorns comes to mind. Whilst walking with his dog, Bounce, he would plant acorns as they went along as a contribution to the survival of the navy. In the early years after the Battle of Trafalgar in 1805, when a strong naval presence was required, there was widespread concern that our supply of oak in Britain would not be sufficient. By the late eighteenth century it was recognised that the plantations of oak in Great Britain had diminished as the population and prosperity of the country increased.

The Analectic magazine of 1813 quotes:

'The soil which the oak affects, is that best adapted for wheat; oak moreover is, of all the woods, the longest coming to its full growth. Individuals, therefore, have not much inducement to plant oaks; whilst from the high price of bark, which has been nearly quadrupled within the last fifteen years, and the demand for oak paling, etc., great temptations are held out for cutting the trees whilst young. Whether for ornament or profit, trees of a quicker growth than oak generally compose the new plantations on private estates.'

In 1812 one assessment of the quantity of oak needed by the country as a whole, not only for ships but inland navigations, barges, docks, basins, locks, sluices and also for roofs, beams, floors, staircases and wainscoating in home building was as follows:

Navy	400,000 tons
East-India Company	115,000 tons
Merchant service	2,500,000 tons
Buildings, canals ...	1,000,000 tons
 Making in total	 4,015,000 tons

This indicated that the navy required only about one-tenth part of the whole consumption of the country, and that constraint in the use of native oak by the other agencies was deemed necessary.

Assuming 400,000 tons as the amount of tonnage to be kept in commission, with the average life of a ship of war to be twelve and a half years, an annual supply of tonnage to maintain the navy would be 32,000 tons, which would require 48,000 loads, a load and a half of timber being used for each ton.

The building of a 74 gun ship consumed about 2,000 oak trees, or 3,000 loads of timber, so that 48,000 loads would build 16 frigates (or 8 of the larger 'sail of the line' ships). Allowing for 'a one-fourth more for casualties' the annual consumption would be about 60,000 loads, or 40,000 full grown trees, of which 35 will stand on an acre of ground. The quantity of timber necessary for the construction of a 74 gun ship would require 57 acres of land, and the annual demand by the navy would equate to 1,140 acres of oak. Allowing only 90 years for 'the oak to arrive at perfection', then 102,600 acres of oak plantation, with annual felling, and planting would meet the consumption of the navy above.

Which brings us back to Admiral Lord Collingwood and Bounce. If they were to be the sole partakers of the eco-friendly, green policy of replacing trees removed, and assuming that each acorn planted produced a fully grown oak tree in the course of time, they would need to plant 40,000 acorns a year. Collingwood would need some very big pockets.

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