

Category	Activity	start date	end date	Details	hours	Learning & benefits
Self-directed learning	Agricultural knowledge	01/01/2020	31/12/2020	Maintaining agricultural knowledge through reading Farmers Weekly/Farmers Guardian and online information	26	Ensuring that my knowledge of agricultural systems is up to date. This is relevant to my work on farm economics and agricultural trials. For the agricultural trials it is just a case of ensuring that I have a broad understanding of the crops involved and the treatments applied. The farm economics work requires more in depth knowledge in order to formulate plausible farm level economic models.
Self-directed learning	Ecological knowledge	01/01/2020	31/12/2020	Maintaining ecological knowledge through membership of British Ecological Society, reading BES bulletins, and scanning contents of ecological journals	26	Maintaining my knowledge of ecology and wildlife so that I can comment intelligently on current and future projects, including contributing to research proposals. Relevant to my wildlife survey work.
Professional activity	Review of paper	01/03/2020	12/03/2020	Review of paper on bats and bridge lighting for Environmental Pollution	4	Paper had insufficient replication to permit a reliable comparison of lit and unlit bridges (3 of each with various possible confounding variables). My review ensured that this paper was rejected and hence did not mislead readers.
Professional activity	Review of paper	01/09/2020	15/09/2020	Review of paper on heavy metal contamination of bats for Environmental Pollution	4	A good piece of work let down by poorly presented results and erroneous analysis of variance failing to account for correlation between multiple samples from the same animal. A much improved paper was subsequently submitted modifying the original paper as suggested by me and another referee.
Work based learning	Mark recapture methods	01/01/2020	31/01/2020	Reading re simple mark recapture models and MARK program	6	I had not fitted any mark recapture models for many years, but some simple models were required to estimate survival of edible dormice for a possible paper with a colleague.

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Formal / educational	eDNA RSS meeting	16/10/2020	16/10/2020	Remote attendance at RSS eDNA meeting	4	Need to acquire overview of eDNA methods so can comment intelligently when clients have statical queries on the approach. Much of my work involves monitoring of mammal populations and it is likely that eDNA methods will become increasingly useful in this area, particularly for aquatic species (e.g. water volves)
Work based learning	Freeman indices paper	09/12/2020	09/12/2020	Reading paper on combining indices to indicator and discussing with those involved in producing the bat population indicator.	3	This paper presented an interesting Bayesian alternative approach to combining species trend into an overall indicator. I was able to report that it is not immediately relevant to the bat indicator (at least as currently presented), because it requires that the species can be viewed as random subset of wider population of different species. I will be attending a video meeting to discuss the approach further in early 2021
Professional activity	Genstat 21st edition	05/11/2020	20/11/2020	Reviewing new procedures in the beta version of the 21st Genstat edition and commenting on other aspects of the release.	6	This activity is of benefit to me in terms of familiarising me with the new features available. Hopefully my comments will improve the software.
Work based learning	Cluster analysis	01/05/2020	20/05/2020	Reading about cluster analysis methods in order to apply them to Farm Business Survey data.	3	Work on agricultural efficiency required me to carry out cluster analysis on data from cereals farms. It was some while since I had last used cluster analysis and so some reading was required to remind me of possible approaches and how to program them in Genstat. I have subsequently been asked to extend the work to other sectors, so they clearly considered it a success.