

STRIKE SLIP FAULTING IN SOMERSET AND ADJACENT AREAS

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The presence of strike-slip faulting in Cornwall, Devon and Dorset is well established. There is now a growing body of evidence that strike-slip faults are to be found throughout Somerset as shown by faults and joint patterns. There were major dextral strike-slip movements during the Variscan Orogeny. Later movements have affected the Jurassic and Cretaceous formations and possibly Palaeogene rocks. Strike-slip faulting has implications for field mapping, the development of landforms and the quarrying industry.

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INTRODUCTION

Strike-slip faults have long been noted throughout SW England cutting the Variscan basement (Devonian and Carboniferous), granite plutons (Permian) and post-Variscan sedimentary successions. Dearman (1963) inferred that NNW-SSE trending dextral strike-slip faults in Devon and Cornwall largely originated as Variscan structures that were reactivated during mid-Tertiary shortening of the Alpine orogenic foreland. The Sticklepath-Lustleigh Fault zone and associated Tertiary pull-apart basins e.g. Bovey Basin (Edwards, 1976); Petrockstow Basin (Bristow *et al.*, 1995) are important

examples of these structures. Shearman (1967) reported evidence for NNW-SSE Tertiary fault movements in north-west Exmoor. Likewise similar dextral and associated NE-SW sinistral strike-slip faults have been reported in Dorset. For example, the 20 km-long Poyntington Fault, east of Sherborne, is interpreted to have a post-Jurassic dextral offset of some 3 km. Thickness variations on either side of the fault suggest that it was active during sediment deposition (Bristow *et al.*, 1995, pp. 134-139, figure 56). The purpose of this paper is to elaborate published work and focus on further evidence of strike-slip faulting in inland Somerset (Figure 1).

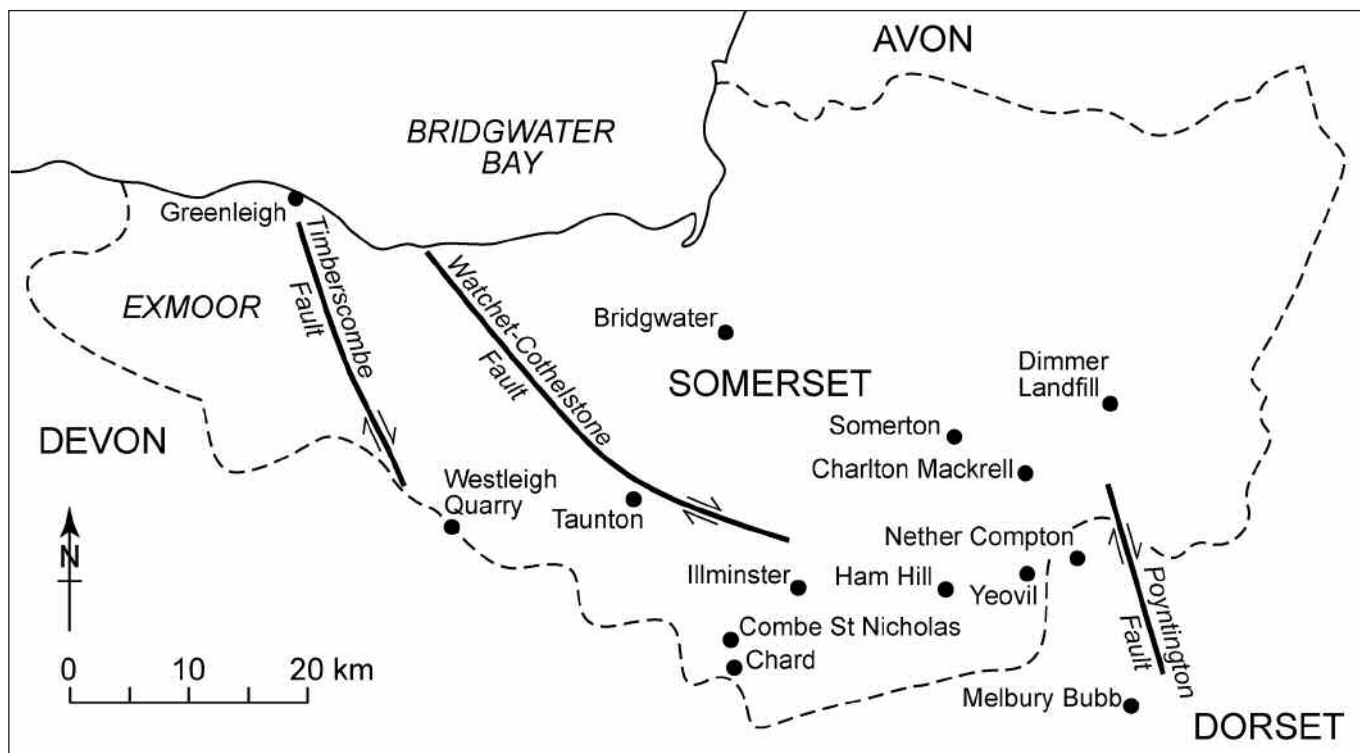


Figure 1. Map showing the location of places referred to in the text of the paper, along with the major structures in the region.