The North Devon Basin, situated in a more proximal passive margin regime than the rift basins to the south, is not constrained but its succession is thought to represent in large part the sediments debouched from a northerly hinterland. Rather than that immediate source being South Wales an original location of the basin well to the south-east and west of the Ardennes massif is considered probable, with its present position being attained by Carboniferous displacement along the Bristol Channel-Bray Fault. The basin's thick (6000 m) succession comprises terrestrial and marine deposits that form two major sedimentary cycles, which are apparently closely linked to rift basin formation to the south. The GCR sites span a relatively straightforward shelf succession that extends from the late Early Devonian to the Carboniferous. The sedimentology, palaeontology, and depositional environments of terrestrial and marine facies lithostratigraphical units are detailed, some sites providing the macrofossil assemblages important in the identification and definition by Sedgwick and Murchison of the Devonian System.