of hard slates, grits and flags was identified by Sedgwick as of Upper Silurian age. These form the varied ranges of hills in the southern part of the Lake District, from near Shap to Duddon mouth. The following are the local subdivisions, with the conjectural equivalents in Siluria:[91]

Kirkby Moor Flags **Hay Fell Flags** **(2000 feet)**	Thick beds of hard sandstone, massive and concretionary or flaggy and micaceous (Phacops Downingiæ, P. caudatus, Ceratiocaris inoreatus, Lingula cornea, Orthis lunata, Orthonota amygdalina, Holopella gregaria, H. conica).	=Upper Ludlow Group
Bannisdale Flags **(5200 feet)**	Calcareous beds (Rhynchonella navicula abundant) probably equivalent to the Aymestry Limestone. Sandstone and Shale, with star-fishes (Protaster). Dark blue flags and grits of great thickness. (Monograptus leintwardinensis ranges through the Bannisdale Flags and M. colonus and M. Salweyi also occur.)	=Middle Ludlow Group
Coniston Grits **(upward of 4000 feet)**	Flags and graywacke generally unfossiliferous, but containing Monograptus colonus, M. Bohemicus M. Roemeri, Cardiola interrupta, Orthoceras, angulatum, O. primævum, Ceratiocaris Murchisoni.	
Coniston Flags **(2800 feet)**	Dark gray course flags divided by Sedgwick into stages which are characterized by Mr. Marr as follows: Upper Coldwell Beds (lower part of zone of Monograptus bohemicus) with M. Colonus, M. Roemeri, Spirorbis Lewisii, Ceratiocaris Murchisoni, Encrinurus punctatus, Phacops Stokesii, Cardiola interrupta, Pterinea subfalcata, Orthoceras primævum, O. dimidiatum, O. subundulatum, O. indense. Middle Coldwell Beds (zone of Phacops obtusicaudatus) with Cardiola interrupta Orthoceras subannulare, O. angulatum, O. lineatum, O. imbricatum. Lower Coldwell Beds (zone of Monograptus Nilssoni).	=Lower Ludlow Group
	Brathy Flags (zone of Cyrtograptus Murchisoni), fossils chiefly graptolites including Monograptus priodon, M. vomerinus M. caltellus, Retiolites geinitzianus, Aptychopsis. Cardiola interrupta, Orthoceras primævum. Thickness more than 1000 feet.	Wenlock Group
Stockdale Shales **(200-450 feet)**	**Browgill Beds** Upper pale green and purple shales with badly preserved fossils, 67 feet. Lower pale shales (65 feet) with zones of Monograptus crispus and M. turriculatus. **Skelgill Beds or Graptolitic Mudstones** Upper blue mudstones with two bands of black and blue graptolitic shale, the upper of which contains Monograptus spinigerus, the lower M. Clingani. Middle blue mudstones with three bands of dark graptolitic shale, the highest being the zone of Monograptus convolutus, (with M. gregarius, M. Clingani, Rastrites peregrinis and many other graptolites), the middle being the zone of Monograptus argenteus (with M. gregarius, M. leptotheca, and ten other species; Rastrites peregrinus, and three other species; Diplograptus tamariscus, D. Hughesii, Climacograptus normalis, and other fossils); and the lower band being the zone of Monograptus fimbriatus, M. gregarius, M. Tenuis, and other species; Rastrites peregrinus, Diplograptus tamariscus, petalograptus ovatus, Climacograptus normalis. Lower calcareous shales—zone of Dimorphograptus confertus, with Monograptus revolutus, M. tenuis, Diplograptus vesiculosus, etc., resting on a thin limestone with Atrypa flexuosa.	=Llandovery Group

In some places beneath these shales a conglomeratic band occurs that forms their base and lies unconformably on Lower Silurian strata.

[91] For papers on the Upper Silurian rocks of the Lake District see Harkness and Nicholson, Quart. Journ. Geol. Soc. xxiv. 1868, p. 296; xxxiii. 1877, p. 461. H. A. Nicholson, op. cit. p. 521; xxviii. 1872, p. 217, "An Essay on the Geology of Cumberland and Westmoreland," 1868. Nicholson and Lapworth, Brit. Assoc. 1875, sects. p. 78. Geol. Survey Memoirs, Explanations of Sheet 98, S.E. and N.E. 1872 (Aveline and Hughes). Marr, Quart. Journ. Geol. Soc. xxxiv. 1878, p. 871; Geol. Mag. 1892, p. 534; Marr and Nicholson, Quart. Journ. Geol. Soc. xliv. 1888, p. 654.