

clude thick masses of limestone and abundant volcanic intercalations in the form of tuffs (schalstein) and lavas (diabase, etc.). With these lithological contrasts there is a corresponding difference in the abundance and variety of organic remains, the calcareous rocks of Plymouth and Torquay being the chief repositories of fossils. Yet even at the best the Devonian rocks of this classical region, though they served as the type formations of the same geological age elsewhere, are much less clearly and fully developed than those of the Rhine country and other parts of the Continent. It is rather from the sections and fossil collections of central Europe than from those of England that the stratigraphy and palæontology of the Devonian system are to be determined.

This system has long been grouped into three divisions, each more or less distinctly marked off by its palæontological characters. In Devonshire and West Somerset these divisions are arranged as follows:

	Northern Type	Southern Type
UPPER.	<p>Pilton group. Slates and grits with calcareous seams: <i>Spirifer Verneuili</i>, <i>Athyris concentrica</i>, <i>Productus prælongus</i>, etc.</p> <p>Baggy group. Sandstones with <i>Cucullæa</i>, slates with <i>Lingula</i>, <i>Discina</i>.</p> <p>Pickwell-Down group. Red, green, gray and purple slates and grits, generally unfossiliferous.</p> <p>Morte slates, unfossiliferous, passing down into the slates below.</p>	<p>Slate near Ashburton with <i>Spirifer Verneuili</i>, etc.</p> <p>Slates of Livaton with <i>Clymenia</i>.</p> <p>Red and green slates with <i>Posidonia venusta</i> and abundant <i>Entomis</i> (<i>Cypridina</i>) <i>serratostrata</i> (= <i>Cypridinen-schiefer</i>).</p> <p>Red and gray slates with volcanic tuffs.</p> <p>Chudleigh limestone with <i>Goniatites intumescens</i>, <i>G. lobatus</i>, <i>G. acutus</i>, <i>G. simplex</i>, <i>Cardiola retrostrata</i>, <i>Rhynchonella cuboides</i>, <i>R. acuminata</i>, <i>Atrypa reticularis</i>, <i>Spirifer bifidus</i>, <i>Productus subaculeatus</i>, etc.</p>
MIDDLE.	<p>Ilfracombe slates; gray silvery slates with lenticular impure fossiliferous limestone, resting on grits and slates of Combe Martin (<i>Cyathophyllum cespitosum</i>, etc.)</p>	<p>Torquay and Plymouth limestones passing laterally into slates and volcanic rocks: <i>Stringocephalus Burtini</i>, <i>Uncites gryphus</i>, <i>Favosites polymorpha</i>, etc.</p> <p>Slates and limestones of Hope's Nose: <i>Atrypa reticularis</i>, <i>Kayseria lens</i>, <i>Spirifer speciosus</i>, <i>S. curvatus</i>, <i>Rhynchonella procuboides</i>, etc. = <i>Calceola</i> beds.</p>
LOWER	<p>Hangman grits and slates (<i>Natica</i>, <i>Myalina</i>).</p> <p>Lynton group, grits and calcareous slates: <i>Spirifer hystericus</i>, <i>Chonetes sarcinalatus</i>, etc.</p> <p>Foreland grits and slates.</p>	<p>Slates and graywackes (Cockington, Warberry, Meadfoot) with <i>Pleurodictyum problematicum</i>, <i>Homalotus</i>, <i>Spirifer cultrijugatus</i>, <i>S. hystericus</i>, <i>Pterinea costata</i>, etc.</p>