

Chronostratigraphy of the Chalk Group - Turonian Stage

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The Turonian was first defined by d'Orbigny (1842), with the type area at Touraine, in northern France (Birkelund et al., 1984).

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Definition of base of stage

The first occurrence of the ammonite *Watinoceras devonense* in the proposed boundary stratotype at Pueblo, Colorado, USA (Bengtson, 1996). In the UK, *W. devonense* has been recorded from SE Devon (Wright & Kennedy, 1981), but elsewhere the appearance of species of the inoceramid bivalve *Mytiloides* is a useful guide. In the absence of *W. devonense*, Gale (1996) defined the base of the Turonian at the top of the range of the ammonites *Sciponoceras gracile* and *S. bohemicum anterior*, since the disappearance of both of these species in Devon is coincident with the appearance of *W. devonense*.

Constituent Chalk Group lithostratigraphical units in the UK

Integrated southern England Chalk Group lithostratigraphy: Holywell Nodular Chalk Formation (except basal part), New Pit Chalk Formation, lower Lewes Nodular Chalk Formation

Northern England: Welton Chalk Formation (pars) & Burnham Chalk Formation (pars)

East Anglia: Middle Chalk (except basal part), Upper Chalk (pars)

N. Ireland: Turonian strata do not form part of the Chalk Group

North Sea: Herring Formation and Mackerel Formation (pars)

Constituent macrofossil biozones in the UK

Benthonic Macrofossil
Biozones

Ammonite Biozones

	<i>S.plana</i> (pars)	<i>S.neptuni</i>
	<i>T.lata</i>	
TURONIAN		<i>C.woollgari</i>
	<i>Mytiloides</i> spp.	<i>M.nodosoides</i>
		<i>F.catinus</i>
		<i>W.devonense</i>

Lithostratigraphical marker-beds for the base of the stage

Southern England (except SE Devon): between Meads Marls 4 & 5 (Gale, 1996).

SE Devon: the Haven Cliff Neocardioceras Hardground (Jarvis & Woodroof, 1984)

Northern England: an argillaceous unit (upper Variegated Beds of Wood & Mortimore, 1995) above the Black Band s.s., at the base of the Welton Chalk Formation

East Anglia: the junction of a hard, nodular chalk bed and a hard, flaser-bedded chalk unit in the lower part of the Melbourn Rock of the Hitchin district (Hopson et al., 1996); no precise data for other parts of East Anglia

References

- BENGTSON, P.** 1996. The Turonian stage and substage boundaries. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique*, **66-Supp**, 69-79.
- BIRKELUND, T, HANCOCK, J M, HART, M B, RAWSON, P F, REMANE, J, ROBASZYNSKI, F, SCHMID, F, SURLYK, F.** 1984. Cretaceous stage boundaries - Proposals. *Bulletin of the Geological Society of Denmark*, **33**, 3-20.
- GALE, A S.** 1996. Turonian correlation and sequence stratigraphy of the Chalk in southern England. In **HESELBO, S P & PARKINSON, D N** (eds), Sequence Stratigraphy in British Geology, *Geological Society Special Publication*, No. **103**, pp. 177-195.
- HOPSON, P. M., ALDISS, D. T. & SMITH, A.** 1996. Geology of the country around Hitchin. *Memoir of the British Geological Survey*, Sheet 221 (England & Wales).
- JARVIS, I & WOODROOF, P B.** 1984. Stratigraphy of the Cenomanian and basal Turonian (Upper Cretaceous) between Branscombe and Seaton, S E Devon, England. *Proceedings of the Geologists' Association*, **95**, 193-215.
- ORBIGNY, D', A.** 1840-1843. Paléontologie française. Terrains Crétacés. 2. Gastéropodes. 456 pp. (Masson, Paris.)
- WOOD, C J & MORTIMORE, R N.** 1995. An anomalous Black Band succession (Cenomanian - Turonian boundary interval) at Melton Ross, Lincolnshire, eastern England, and its international significance. *Berliner geowiss. Abh.*, Vol. **16**, 277-287.
- WRIGHT, C W & KENNEDY, W J.** 1981. The Ammonoidea of the Plenus Marls and the Middle Chalk. *Monograph of the Palaeontographical Society*, London: 148 pp., 32 pls (Publ. No. 560, part of Vol. 134 for 1980).

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