Nomenclatural history of Upper Desmoinesian through Lower Virgilian (Pennsylvanian) strata in Kansas

Swallow (1866)	Haworth and Kirk (1894)	Haworth (1896)	Ha	worth (1898)	Adams et al. (1903)	Adams et al. (1904)	Schrader and Haworth (1906)	Beede (1909 Haworth an	9; faunal divisions) ad Bennett (1909)	Hinds and Greene (1915)	com KS, M	piled by Moore (1932) O. IA Nebraska		Moore (1932)	Pier Jev Oake	Moore (1936, Kansas) ce and Courtier (1937; Breezy Hill Ls.) rett (1941, 1945; mbrs. of Marmaton) and Jewett (1943, Oklahoma, in RED	Searight (Moore (1948) Moore et al. (1951) et al. (1953, Excello Shale, in <mark>RED</mark>)	Jewet	Jewett (1959) tt et al. (1965, in <mark>RED</mark>)) accepted b Z	Current Classification y the Kansas Geological Surve eller ([1968] 2018)	Heckel and Watney (2002; Plea: Oborny et al. (2017) Watney and Heckel (s., K.C., Lansing, & D , Lane Shale Interv; (1994; Marmaton C	Douglas (/al) Grp.)
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Wellrock series	Burlington Ls. or Sh. Garnett limestone Ls.	Oread Limestone limestone Limestone Limestone	ON Dread limestone	Limestone Shale Limestone	Oread limestone	undefined	Oread limestone (Painterhood)	<u></u>	Oread limestone	Oread limestone	on Sl	Oread limestone Water Nyderville s	eries Shawnee Gr	Oread limestone Oread Umestone Oread Dimestone Dimestone Dimestone Dimestone Dimestone	n Pk. sh. ord Is. der sh. outh Is. er shale vorth Is. ville sh.	Oread Limestone U U U U U U U U U U U U U U U U U U U	ge Shawnee Gr	Oread Limestone Dread Limestone Lime	ge Shawnee Group	Oread Limestone Jackson Pk. Sh. Kereford Ls. Heumader Sh. Plattsmouth Ls. Heebner Shale Leavenworth Ls. Snyderville Sh.	ge Shawnee Group	Oread Limestone	 Jackson Park Shale Kereford Limestone Heumader Shale Plattsmouth Limestone Heebner Shale Leavenworth Limestone Snyderville Shale 	Oread Limestone	shawnee Gro
	Le Roy shales	Lawrence shales	Douglas formati	Lawrence shales	Le Roy shales	undefined	Buxton formation [interbeds of shale, sand, and limestone]	Douglas Stage Series III	Lawrence shale F Kickapoo Is. Le Roy shale	Lawrence shale latan Is. Weston shale	Douglas Formati	Lawrence Lawrence shale shale	Peedee Douglas Grb.	Lawrence undefi incl. Irela Haskell Is. Stranger Fm. Hardesty shale undefi latan limestone undefi 9 Weston shale undefi	fined fined fined fined fined fined	Lawrence Formation incl.Williamsburg coal Stranger Formation Robbins Shale Haskell Ls. Vinland Shale Westphalia Ls. Tonganoxie Ss. Iatan Limestone Weston Shale	Virgilian Sta	Lawrence Formation Stranger Formation Stranger Formation Lawrence Formation Stranger Formation Lawrence Formation Stranger Formation Lawrence Formation Haskell Ls. Vinland Shale Westphalia Ls. Tonganoxie Ss. Strangen Formation Weston Shale	Virgilian Sta	Lawrence Formation Ireland Ss. Stranger Formation Haskell Ls. Vinland Shale Westphalia Ls. Tonganoxie Ss. Iatan Limestone Weston Shale	Virgilian Sta Douglas Group	Lawrence Formation Stranger Formation Kobbins Sha Westphalia Tonganoxie Iatan Ls. Weston Sha	al Williamsburg coal s. Amazonia Limestone Ireland Sandstone Robbins Shale Little Pawnee Shale Haskell Limestone Vinland Shale Little Pawnee Shale Haskell Limestone Westphalia Ls. Upr. Sibley coal b Ss. Tonganoxie Sandstone Iatan Limestone Weston Shale Kitaki Ls	Lawrence Formation Cass Limestone ed Stranger Formation e	Douglas Group
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Lower Carboniferous	Galena limestone	Mississippian	Mis: or sub-0	sissippian Carboniferous	Mississippian series	Boone formation	Boone limestone				Ū					Mississippian System	Mi	ississippian System	Mo Missis	ssippian System	Miss	issippian System	Mississippi	ian Stage	

Data prior to 1908:

All data and interpretations prior to 1908 were originally compiled by Schrader (1908); we have retained the correlations of that work.

Formal vs informal:

Prior to the 1930s, lithostratigraphic designations were written in lowercase. We retain the use of lowercase lithostratigraphic designations for those works to maintain authenticity. This use is not representative of informal status. However, lowercased lithostratigraphic units after Moore (1932) do denote informal status (e.g., Glenpool Is. bed).

Definition of the Galesburg Shale:

A discrepancy exists between Moore (1932) and Moore (1936) regarding the definition of the Galesburg Shale within the Bronson Group. Moore (1932) originally placed the upper contact of the Galesburg Shale at the base of the Canville Limestone. Moore (1936) indicates that previous interpretations included the Stark Shale within the Galesburg Shale interval. We therefore illustrate the interpretation of Moore (1936) for the Galesburg interval within the Moore (1932) column. Within this same column, we have included lithostratigraphic terms that were originally established in Oklahoma and later adopted for use in Kansas. Moore (1932; 1936, p. 72–74) reports that the basal sandstone (i.e., Hepler) within the Bourbon Formation (1936)/Group (1932) was locally absent and that a black shale exists near the base of this unit. Moore (1936) defined the base of the Bourbon Formation at a regional disconformity. This disconformity was later correlated into Oklahoma to a disconformity at the top of the Lenapah Limestone Formation by Oakes and Jewett (1943).

(This chart illustrates the correlative intent of each publication. It is not representative of unit thickness.) Zeller ([1968] 2018) is the current nomenclature accepted by the Kansas Geological Survey.

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Definition of the Lansing Group:

Published discrepancies exist regarding the historic discussion of the Lansing Group. The current definition for the Kansas City and Lansing Groups boundary was attributed by Newell (1935, p. 17) and Moore (1948, p. 2,033) to Moore (1932). In reviewing the 1932 work it is clear that the Kansas City and Lansing Groups boundary was established at a much lower stratigraphic position in that work than its current definition (see Moore, 1932, pg. 47, 92, 97, etc.). We find that Moore (1936, p. 44) was the first to use the current definition. Oddly enough, the systematic review of the unit by Moore (1936, p. 124) refers to the reference by Newell (1935) in the prior year, which referenced Moore (1932). We therefore conclude that this circular logic was a personal communication between these authors and its perceived inclusion within the 1932 field guide was an error. With these observations, we attribute the current Upper Kansas City Group's boundary definition to Moore (1936).

Peedee vs. Pedee:

Heckel and Watney (2002; Pleas., K.C., Lansing, & Douglas grps.)
Oborny et al. (2017, Lane Shale Interval)
Watney and Heckel (1994: Marmaton Grp.)

Moore (1948) modified the spelling of Peedee to read as Pedee.



The University of Kansas

Abbreviation

blk. sh.	black shale
Bon. Springs	Bonner Springs
Cement/Dewey	Cement City Limestone/Dewey Limestone
Ck.	Creek
Cottage Gr.	Cottage Grove
Fm./Form.	Formation
Grp./Grps.	Group/Groups
IA	lowa
incl.	includes
Jackson Pk.	Jackson Park
К.С.	Kansas City
KS	Kansas
ls./Ls.	limestone/Limestone
lwr./Lwr.	lower/Lower
mbr./mbrs./Mbr.	member/members/Member
mid./Mid.	middle/Middle
Miss.	Mississippian
MO	Missouri
Pleas.	Pleasanton
Shw.	Shawnee
sh./Sh.	shale/Shale
ss./Ss.	sandstone/Sandstone
Stg.	Stage
Subgrp.	Subgroup
Upr. Sibley coal	Upper Sibley coal
Victoria Junct.	Victoria Junction
Walter John.	Walter Johnson

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