

Time-Rock Chart and Terrane/Group Correlation for the State of Oregon

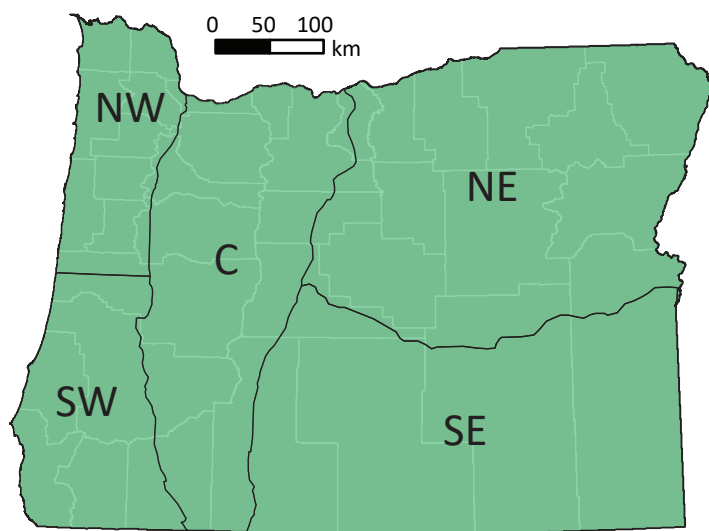
2025

INTRODUCTION

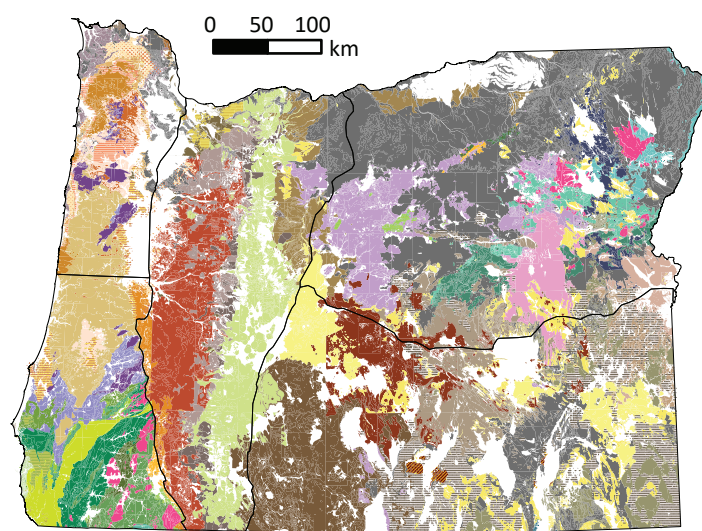
This time-rock chart illustrates the absolute ages, relative stratigraphic relations, and correlations of geologic terranes and groups in the state of Oregon. Geologic map units are derived from the statewide Oregon Geologic Data Compilation (OGDC-8) and include formally recognized geologic terranes and groups, as well as some informal rock units. The terms used here for the "Terrane/Group" classification are a mixture of formal stratigraphic names, informal stratigraphic names, and geographic names. Some informal names used here have wide currency and a form (geographic name combined with rank or descriptive term) reserved for formal names; their informal status is denoted by a lowercase rank or descriptive term followed by an asterisk, e.g., Coastal alkalic basalts*.

In the legend, map units are arranged alphabetically by their abbreviated terrane or group label for ease of reference with the chart. On the chart, terranes and groups are arranged vertically by their age of deposition or emplacement, and horizontally from west to east within the state; because many units extend laterally over significant portions of the region, their horizontal positions in the chart are relative approximations. Although spatial and lateral stratigraphic relations among units are not easily represented in this format, the primary utility of this time-rock chart is in the depiction of absolute time and the temporal relations among the various map units in the region.

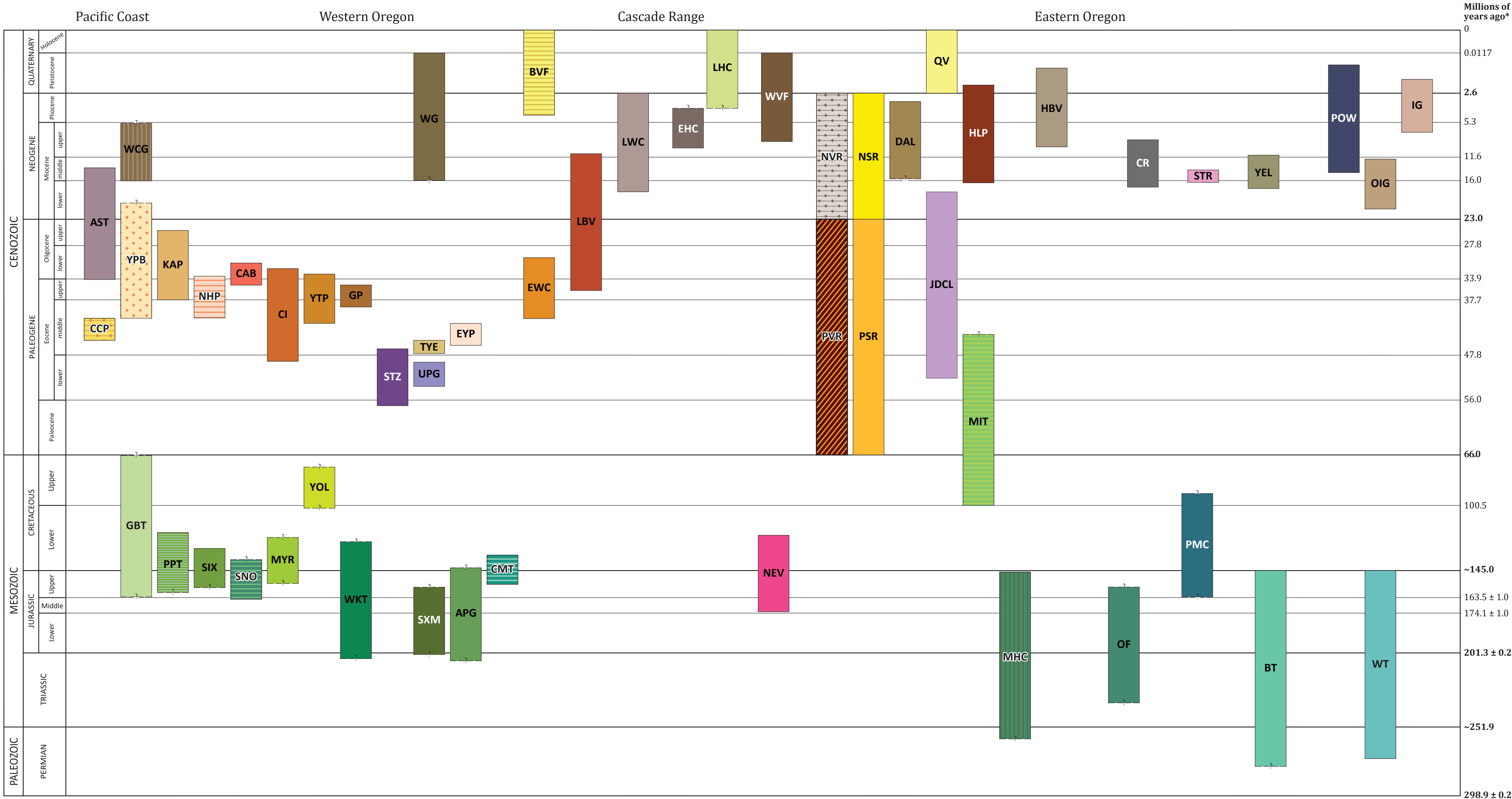
REGION LOCATION MAP



STATE GEOLOGIC MAP



Note that Quaternary surficial deposits shown in white are not included on the time-rock chart below.



*International Chronostratigraphic Chart, International Stratigraphic Commission, v.2022/02, Time scale after Gradstein and others (2012) and Cohen and others (2013).
<https://stratigraphy.org/ICSChart/ChronostratChart2022-02.pdf>

REFERENCES

Cohen, K. M., Finney, S. C., Gibbard, P. L., and Fan, J.-X., 2013, The ICS International Chronostratigraphic Chart: Episodes 36, p. 199-204.
Gradstein, F. M., Ogg, J. G., Schmitz, M. D., and Ogg, G. M., eds., 2012, The Geologic Time Scale 2012: Boston, Elsevier, 1176 p.

DOGAMI Digital Data Series Oregon Geologic Data Compilation, Release 8 (OGDC-8)

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PLATE 1

(arranged alphabetically by Label)			(arranged alphabetically by Label)		
Label	Terrane/Group	Bedrock Areal Coverage in State (%)	Label	Terrane/Group	Bedrock Areal Coverage in State (%)
APG	Applegate Group	1.2	NHP	Nestucca-Hamlet package	0.5
AST	Astoria package	0.6	NSR	Neogene sedimentary rocks	3.7
BT	Baker terrane	1.2	NVR	Neogene volcanic rocks	4.9
BVF	Boring volcanic field	0.3	OF	Olds Ferry terrane	1.2
CAB	Coastal alkalic basalts*	< 0.1	OIG	Oregon-Idaho graben	0.7
CCP	Coaledo-Cowlitz package	0.6	PPT	Pickett Peak terrane	0.3
CI	Coastal intrusions*	0.5	PMC	Pueblo Mountain metamorphic complex*	< 0.1
CMT	Condrey Mountain terrane	< 0.1	POW	Powder River volcanic field	1.0
CR	Columbia River Basalt Group	21.9	PSR	Paleogene sedimentary rocks	0.2
DAL	Dalles package	2.6	PVR	Paleogene volcanic rocks	0.2
EHC	early High Cascade Volcanics	1.3	QV	Quaternary volcanics	3.1
EWC	early Western Cascade Volcanics	0.7	SIX	Sixes River terrane	0.4
EYP	Elkton-Yamhill package	0.8	SNO	Snow Camp terrane	0.2
GP	Goble package	< 0.1	STR	Strawberry Volcanics	1.8
GBT	Gold Beach terrane	< 0.1	STZ	Siletz terrane	0.9
HBV	Harney Basin volcanic field	4.2	SXM	Sexton Mountain terrane	0.3
HLP	High Lava Plains volcanic province	3.7	TYE	Tyee package	4.4
IG	Idaho Group	1.0	UPG	Umpqua Group	1.2
JDCL	John Day/Clarno package	4.9	WCG	Whale Cove-Gnat Creek package	< 0.1
KAP	Keasey-Alsea package	0.3	WG	Willamette package	0.4
LBV	Little Butte Volcanics	5.4	WKT	western Klamath terrane	1.7
LHC	late High Cascade Volcanics	5.9	WT	Wallowa terrane	0.7
LWC	late Western Cascade Volcanics	2.1	WVF	Winema volcanic field	6.4
MHC	Mountain Home complex*	< 0.1	YEL	silicic rocks of Yellowstone hotspot	2.5
MIT	Mitchell package	0.2	YOL	Yolla Bolly terrane	1.2
MYR	Myrtle Group	0.1	YPB	Yaquina-Pittsburg Bluff package	0.5
NEV	Nevadan intrusions	1.3	YTP	Yachats-Tillamook package	0.8



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