STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
RUARRI J. DAY-STIRRAT, STATE GEOLOGIST
https://www.oregon.gov/dogami/

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

2025

DOGAMI Digital Data Series

Oregon Geologic Data Compilation, Release 8 (OGDC-8)

Michael H. Darin[1], Jason D. McClaughry[1,2], Carlie J.M. Azzopardi[1], Jon J. Franczyk[1], and Ian P. Madin[1]

Cartography by Jon J. Franczyk[1] and Geodatabase by Carlie J.M. Azzopardi[1]

[1] Oregon Department of Geology and Mineral Industries, 800 NE Oregon Street, Suite 965, Portland, OR 97232
[2] Oregon Department of Geology and Mineral Industries, Baker City Field Office, Baker County Courthouse, 1995 3rd Street, Suite 130, Baker City, OR 97814

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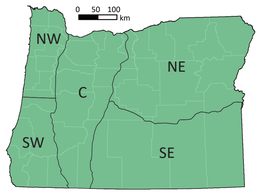
PLATE 1

INTRODUCTION

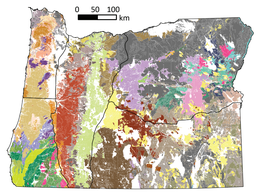
This time-rock chart illustrates the absolute ages, relative stratigraphic relations, and correlations of geologic terranes and groups in the state of Oregon. Geologic map units are derived from the statewide Oregon Geologic Data Compilation (OGDC-8) and include formally recognized geologic terranes 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-tock chart is in the depiction of absolute time and the temporal relations among the various map units in the region.

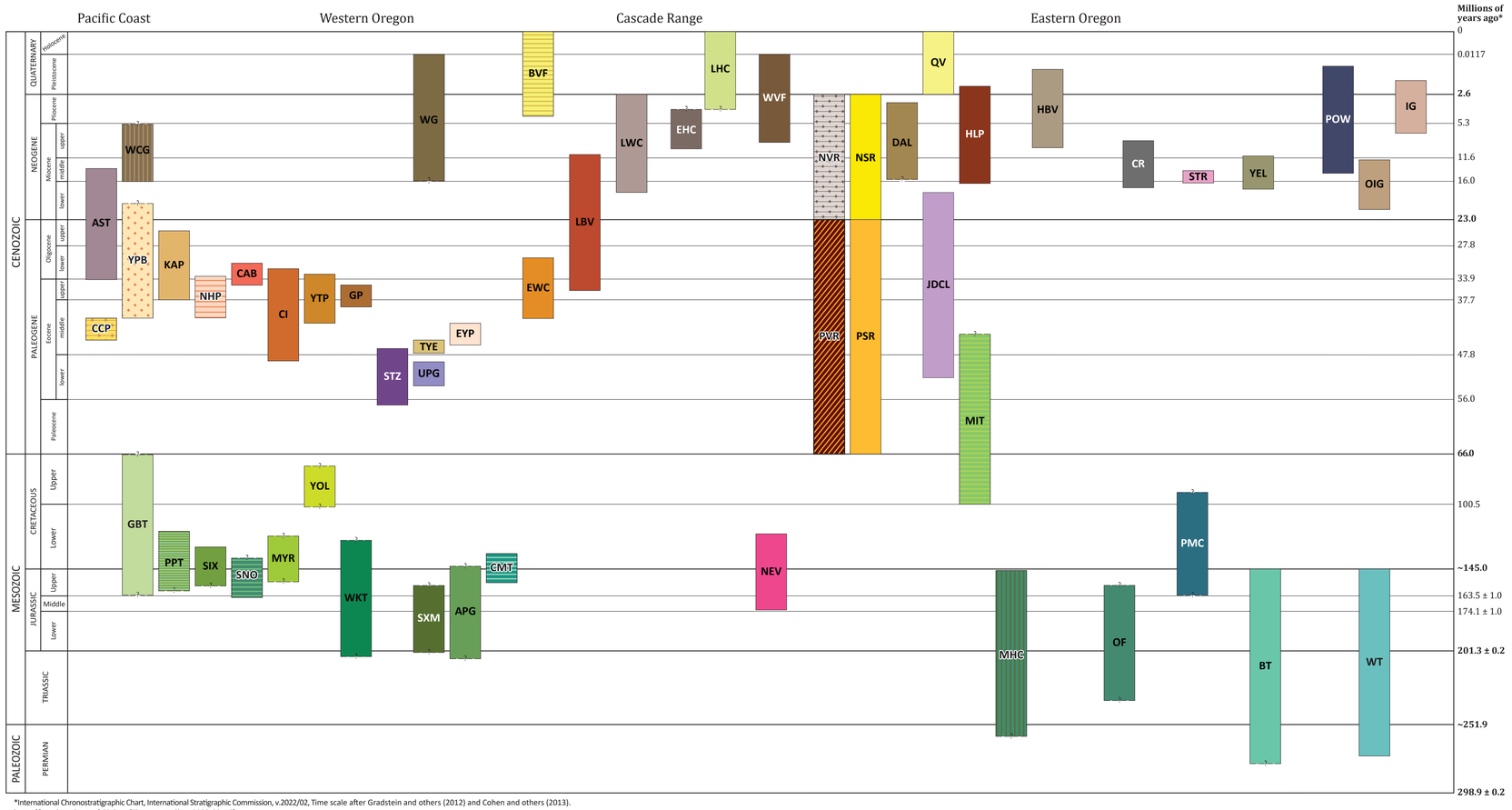
REGION LOCATION MAP



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

(arranged alphabetically by Label)

Label	Terrane/Group	Bedrock Areal Coverage in State (%)
APG	Applegate Group	1.2
AST	Astoria package	0.6
BT	Baker terrane	1.2
BVF	Boring volcanic field	0.3
CAB	Coastal alkalic basalts*	< 0.1
CCP	Coaledo-Cowlitz package	0.6
CI	Coastal intrusions*	0.5
CMT	Condrey Mountain terrane	< 0.1
CR	Columbia River Basalt Group	21.9
DAL	Dalles package	2.6
EHC	early High Cascade Volcanics	1.3
EWC	early Western Cascade Volcanics	0.7
EYP	Elkton-Yamhill package	0.8
GP	Goble package	< 0.1
GBT	Gold Beach terrane	< 0.1
HBV	Harney Basin volcanic field	4.2
HLP	High Lava Plains volcanic province	3.7
IG	Idaho Group	1.0
JDCL	John Day/Clarno package	4.9
KAP	Keasey-Alsea package	0.3
LBV	Little Butte Volcanics	5.4
LHC	late High Cascade Volcanics	5.9
LWC	late Western Cascade Volcanics	2.1
MHC	Mountain Home complex*	< 0.1
MIT	Mitchell package	0.2
MYR	Myrtle Group	0.1
NEV	Nevadan intrusions	1.3

(arranged alphabetically by Label)

Label	Terrane/Group	Bedrock Areal Coverage in State (%)
NHP	Nestucca-Hamlet package	0.5
NSR	Neogene sedimentary rocks	3.7
NVR	Neogene volcanic rocks	4.9
OF	Olds Ferry terrane	1.2
OIG	Oregon-Idaho graben	0.7
PPT	Pickett Peak terrane	0.3
PMC	Pueblo Mountain metamorphic complex*	< 0.1
POW	Powder River volcanic field	1.0
PSR	Paleogene sedimentary rocks	0.2
PVR	Paleogene volcanic rocks	9.6
QV	Quaternary volcanics	3.1
SIX	Sixes River terrane	0.4
SNO	Snow Camp terrane	0.2
STR	Strawberry Volcanics	1.8
STZ	Siletz terrane	0.9
SXM	Sexton Mountain terrane	0.3
TYE	Tyee package	4.4
UPG	Umpqua Group	1.2
WCG	Whale Cove-Gnat Creek package	< 0.1
WG	Willamette package	0.4
WKT	western Klamath terrane	1.7
WT	Wallowa terrane	0.7
WVF	Winema volcanic field	6.4
YEL	silicic rocks of Yellowstone hotspot	2.5
YOL	Yolla Bolly terrane	1.2
YPB	Yaquina-Pittsburg Bluff package	0.5
YTP	Yachats-Tillamook package	0.8

REFERENCES

Cohen, K. M., Finney, S. C., Gibbard, P.L. and Fan, J.-X, 2013, The ICS International Conostratigraphic 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.

REGISTERED OREGON Michael Darin GEOLOGIST
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