

Geologic Map of the Bullards and Riverton 7.5' Quadrangles, Coos County, Oregon

2015

OPEN-FILE REPORT O-15-04

Geologic Map of the Southern Oregon Coast
Between Bandon, Coquille, and Sunset Bay,
Coos County, Oregon
By Thomas J. Wiley, Jason D. McClaughry, Clark A. Niewendorf,
Lina Ma, Heather H. Herinicks, and Katherine A. Mickelson
This project was supported by the U.S. Geological Survey,
National Cooperative Geologic Mapping Program
under USGS award number G14AC00105.

PLATE 3

EXPLANATION OF MAP UNITS

See Explanation of Map Units in the accompanying pamphlet for complete unit descriptions.
NOTE: Geology was mapped at a maximum scale of 1:50,000; 1:24,000-scale plates cannot show all the detail of 1:50,000-scale geologic mapping. Please use the original digital source data contained in the accompanying Esri ArcGIS® geodatabase to explore the geology and structure in full detail.

UPPER CENOZOIC SURFICIAL DEPOSITS

ANTHROPOCENE SURFICIAL DEPOSITS

- Al** modern fill and construction material (Anthropocene)
- Aa** alluvium (Anthropocene) divided to show:
 - Aac** channel deposits (Anthropocene)
- Ala** landslide deposits (Anthropocene)
- Aaf** debris fan deposits (Anthropocene)
- Aal** alluvial fan deposits (Anthropocene)
- Abc** beach deposits (Anthropocene)
- Ada** foredune deposits (Anthropocene)

ANTHROPOCENE AND HOLOCENE SURFICIAL DEPOSITS

- AHs** coastal lacustrine deposits (Anthropocene(?) and Holocene)
- AHm** coastal marsh deposits (Anthropocene(?) and Holocene)
- AHdc** unvegetated dune deposits (Anthropocene(?) to upper Pleistocene)
- AHdp** deflation plain sand (Anthropocene(?) and Holocene)

HOLOCENE SURFICIAL DEPOSITS

- Ha** alluvium (Holocene)
- Haf** alluvial fan deposits (Holocene)
- Hdf** debris fan deposits (Holocene)
- HL** landslide deposits (Holocene)

QUATERNARY SURFICIAL DEPOSITS

- Qa** alluvium (Holocene(?) and upper Pleistocene(?))
- Qla** landslide deposits (Holocene(?) and upper Pleistocene(?))
- Qm** upland coastal dune deposits (Holocene(?) and upper Pleistocene(?))

- Fluvial terrace deposits and strath terraces (upper Pleistocene) divided to show:
- Qm1** fluvial terrace sediments 1 (upper Pleistocene)
 - Qm2** fluvial terrace sediments 2 (upper Pleistocene)
 - Qm3** fluvial terrace sediments 3 (upper Pleistocene)
 - Qm4** fluvial terrace sediments 4 (upper Pleistocene)
 - Qm5** fluvial terrace sediments 5 (upper Pleistocene)

- Coastal marine terrace deposits (Pleistocene) divided to show:
- Qm6** Whiskey Run terrace sediments (north of Floras Creek, upper Pleistocene, ~80 ka)
 - Qm7** Pioneer terrace sediments (upper Pleistocene, ~105 ka)
 - Qm8** Seven Devils terrace sediments (north of Floras Creek, upper to middle Pleistocene, ~125 ka)
 - Qm9** Metcalf terrace sediments (middle Pleistocene)

UNCONFORMITY

LOWER PLEISTOCENE SEDIMENTARY ROCKS

- Qm10** Coquille Formation (lower Pleistocene)

UNCONFORMITY

LOWER CENOZOIC AND MESOZOIC ROCKS

PALEOGENE OVERLAP SEQUENCE

- Ta** Bastendorff Shale (upper Eocene)

Coquille Formation (middle Eocene) divided to show:

- Ta1** Upper Member (middle Eocene)
- Ta2** Middle Member (middle Eocene)
- Ta3** Lower Member (middle Eocene)

- Ta4** beds at Sacchi Beach (middle Eocene)
- Ta5** Umpqua Group (lower Eocene)

UNCONFORMITY

SIXES RIVER TERRANE

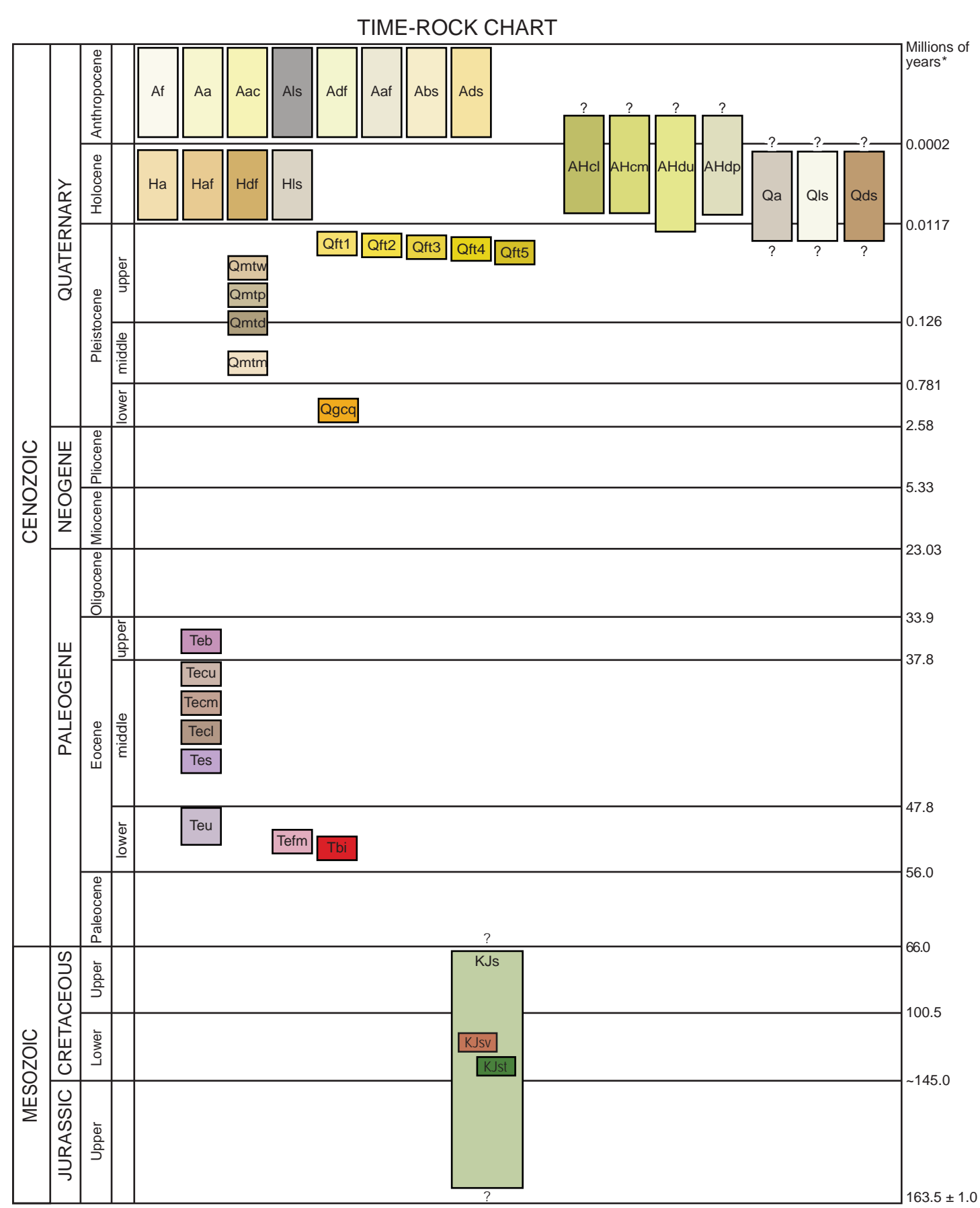
- Ta6** sandstone of Five Mile Point (lower Eocene)

UNCONFORMITY

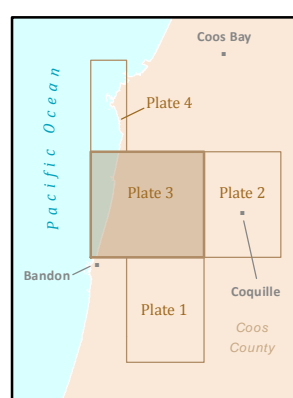
- Ka** melange of Sixes River (Upper(?) Cretaceous to Jurassic(?))
- Ca** siltstone
- Kav** volcanic and meta-volcanic rock

Rocks that intrude the Fulmar subterranean of the Sixes River terrane

- Ta7** Intrusive rocks (lower Eocene)



*International Chronostratigraphic Chart, International Stratigraphic Commission, 2015/1. Time scale after Gradstein and others (2004), Ogg and others (2008), and Cohen and others (2013). <http://www.stratigraphy.org/index.php/ics-chart-timescale>



- Clockwise starting at top left:
1. Location map.
 2. Project area with U.S. Geological Survey 7.5-minute quadrangles outlined in brown and map plate extent shown with a filled semi-transparent orange polygon.
 3. Map plate extent shown with a filled semi-transparent dark brown polygon.

EXPLANATION OF SYMBOLS

- Waterbody
- Stream
- Road
- State Highway
- U.S. Highway
- Cross Section
- Lidar-derived elevation
- Location of whole-rock XRF geochemical analysis sample (see Appendix in pamphlet)
- Location of radiometric age in millions of years (Ma), thousands of years (ka), or years before present (yr B.P.). See geodatabase for complete data.
- Location of radiometric age obtained from subsurface core sample. Only the uppermost or youngest age is labeled on the map. Age in thousands of years (ka) or years before present (yr B.P.). See geodatabase for complete data.
- Horizontal bedding
- Vertical bedding showing strike
- Overturned bedding showing strike and dip
- Inclined bedding showing strike and dip
- Inclined bedding showing lidar-derived strike and dip
- Contact — solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain.
- Fault — solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain.
- Normal fault — ball and bar on downthrown block. Solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain.
- Strike-slip fault, right-lateral offset — solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain.
- Thrust fault — Solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain. Sawtooth on upper (tectonically higher) plate.
- Anticline — solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain.
- Syncline — solid line where accurately located, long-dashed where approximate, short-dashed where inferred, dotted where concealed, queried where uncertain.

Source Data: DOGAMI Lidar Data Quadrangles LDQ-2009-41124-B4-Bullards and LDQ-2009-41124-B5-Riverton. Geologic data and water features are from Oregon Department of Geology and Mineral Industries (DOGAMI). Transportation data are from Coos County (2010) and were edited by DOGAMI to improve spatial accuracy of features or to add newly constructed features not present in the original data layer.

Projection: Oregon Statewide Lambert Conformal Conic, Unit: International Feet, Horizontal Datum: NAD 1983 (FARS), UTM Coordinate: Zone 10N, NAD83.

Software: Esri ArcGIS 10.1 and Adobe Illustrator® CS6

Time-Rock Chart Reference: Gradstein, F. M., Ogg, J. G., and Smith, A. G., eds., 2004, A geologic time scale 2004, Cambridge, U.K., Cambridge University Press, 589 p. Ogg, J. G., Ogg, G., and Gradstein, F. M., 2008, The concise geologic time scale, New York, Cambridge University Press, 177 p. Cohen, K. M., Finney, S. C., Gibbard, P. L., and Fan, J. X., 2013, updated 2015, The ICS International Chronostratigraphic Chart, Episodes 36, p. 189-204.

Field Work: Conducted in 2014 and 2015 by Jason D. McClaughry, Lina Ma, and Heather H. Herinicks (Bullards, DOGAMI); by Thomas J. Wiley (Riverton), DOGAMI

Geology Reviewer: Mark L. Farns

Cartography and Base Map Preparation: John M. Bauer, DOGAMI

NOTICE: This map cannot serve as a substitute for site-specific investigations by qualified practitioners. Site-specific data may give results that differ from those shown on the map. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. government.

