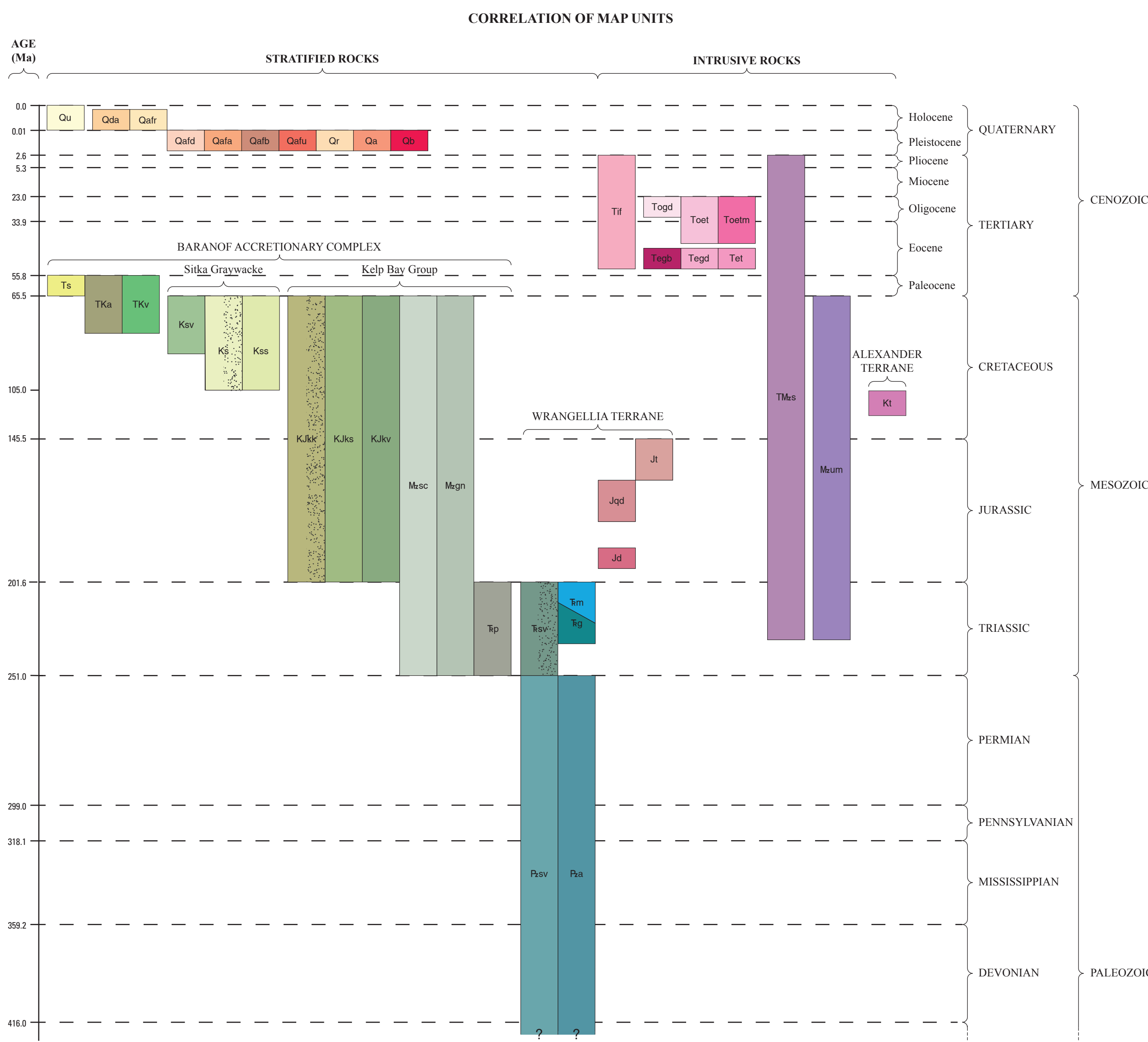
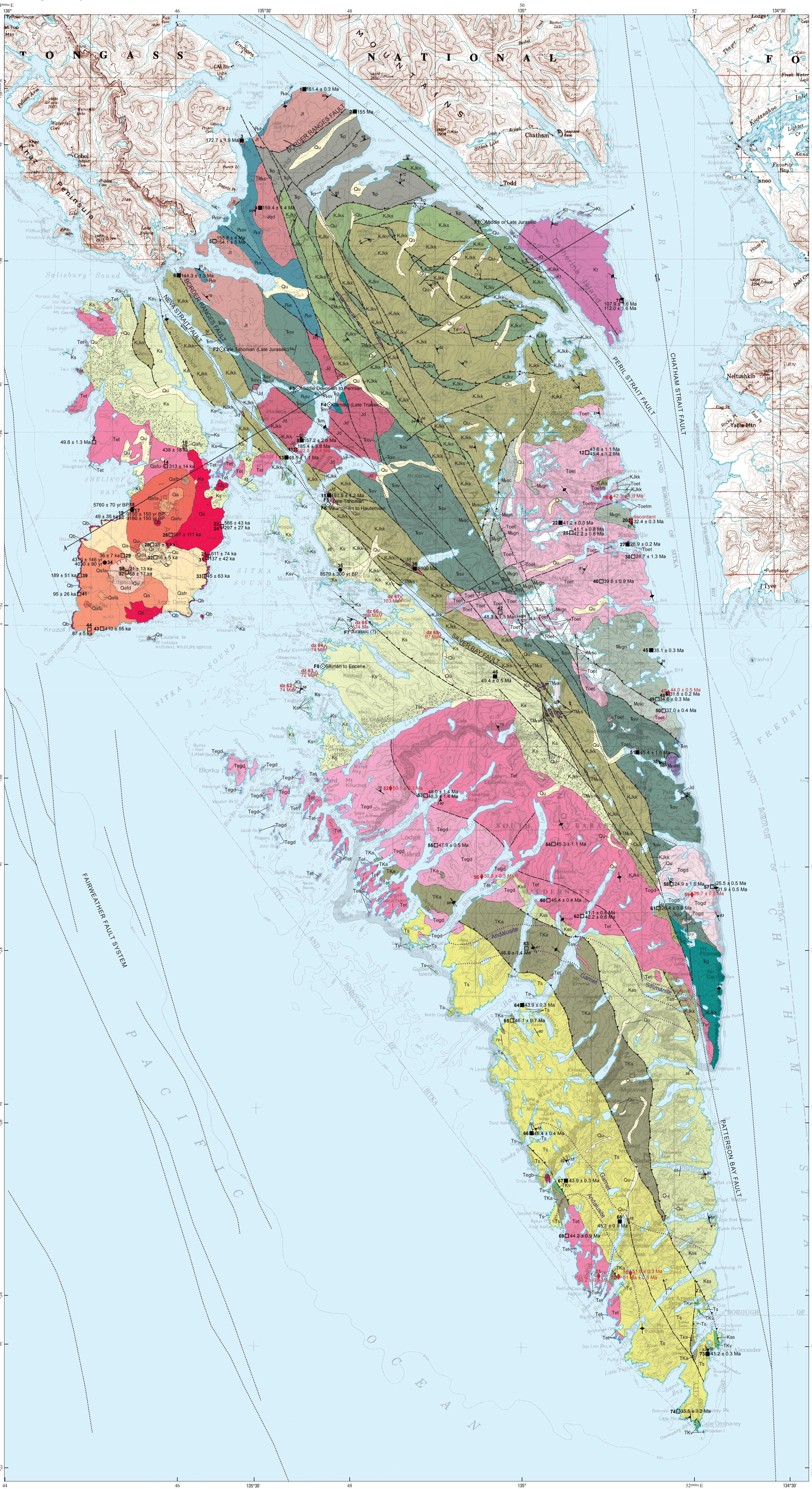




ABBREVIATED DESCRIPTION OF MAP UNITS

[See Description of Map Units (in pamphlet) for complete unit descriptions and age information]

STRATIFIED ROCKS

- Unconsolidated deposits, undivided (Quaternary)**—Alluvial, colluvial, tidal, glacial, and glacial-marine deposits
- Dacite flows of Crater Ridge (Holocene)**—Dark, brownish-gray, vesicular to diktytaxitic, plagioclase-phyric dacite; massive with local subite flow variation
- Pyroclastic flow deposits of Crater Ridge (Holocene)**—Poorly sorted silt, sand, low-silica rhyolite pumiceous lapilli, and blocks of dark-gray, aphyric to sparsely porphyritic, vitrophyre. Pyroclastic flows contain up to 50% by volume lithic clasts that range up to 1 m in size
- Dacite air-fall tuffs of Mount Edgecumbe (Pleistocene)**—Dark-gray and red-brown scoriaeous lapilli, breccia, foliated vitrophyre, and ash. Lapilli are more than 75% yellow to brown glass. On the rim of Mount Edgecumbe, deposit is compacted and agglutinated into banded vitrophyre more than 50 m in thickness. Identified as far away as Juneau
- Andesitic air-fall tuffs of Mount Edgecumbe (Pleistocene)**—Gray scoriaeous lapilli from deposits greater than 50 m in thickness near vents, identified as far as 30 km from Mount Edgecumbe
- Basaltic air-fall tuffs of Mount Edgecumbe (Pleistocene)**—Rusty orange-brown scoriaeous lapilli, swept near vents where deposits are at least 50 m in thickness
- Undifferentiated pyroclastic deposits of Mount Edgecumbe (Pleistocene)**—Reddish to yellowish-brown lapilli and ash
- Rhyolite dome of Crater Ridge (Pleistocene)**—Dark-gray, sparsely plagioclase and pyroxene porphyritic, pliotaxitic, low-silica rhyolite with scattered vesicles and near-vertical foliation
- Andesite and basaltic andesite flows of Mount Edgecumbe (Pleistocene)**—Banded to thin-plated, dark-gray andesite and high-silica basaltic andesite—plagioclase, pyroxene, and olivine subulate porphyritic or glomeroporphyritic—with trachytic, pliotaxitic, or hyalophytic groundmass
- Basalt flows of Mount Edgecumbe (Pleistocene)**—Massive, dark-gray, vesicular, plagioclase, olivine, and clinopyroxene porphyritic basalt flows, with intercalated breccia and aqueous tuff

BARANOF ACCRETIONARY COMPLEX

- Sandstone of Whale Bay (Paleocene)**—Light-gray, medium- to fine-grained sandstone and dark-gray argillite, sandstone-mudstone turbidite beds, massive sandstone beds, and polymictic conglomerate. Sandstone contains quartz, plagioclase, potassium feldspar, detrital biotite, white mica, chlorite, carbonate, epidote, amphibole, chert, and volcanic, plutonic, and metamorphic rock fragments. Locally contains secondary pyrite, garnet, and andalusite
- Argillite of Necker Bay (Tertiary and Cretaceous)**—Dark-gray argillite has semischistose fabric and locally retains primary bedding structures. Argillite includes thin interbeds of sandstone and limestone, and tectonic blocks of sandstone, chert, limestone, and greenstone. Locally contains secondary pyrite, white mica, biotite, garnet, and andalusite
- Volcanic rocks of Port Alexander (Tertiary and Cretaceous)**—Dark-green mafic volcanic rocks depositonally interlayered with sandstone and argillite. Unit includes massive and amygdaloidal thick-bedded basalt flows, pillow flows, breccia, and thick sills. Locally contains secondary actinolite, biotite, chlorite, epidote, garnet, and calcite
- Sitka Graywacke (Cretaceous)**—Tan-weathering, light-gray, medium- to fine-grained graywacke and dark-gray argillite, including graded turbidite beds, amalgamated massive sandstone beds greater than 10 m thick, and polymictic conglomerate. Graywacke contains quartz, plagioclase, potassium feldspar, detrital biotite, white mica, and chlorite, carbonate, epidote, amphibole, chert, and volcanic, plutonic, and metamorphic rock fragments. Stipple pattern indicates areas of hornfels in contact aureoles of plutons
- Semischistose Sitka Graywacke (Cretaceous)**—Gray, banded, foliated metagraywacke and metamudstone contains biotite, almandine garnet, andalusite, and sillimanite. Locally, primary depositional structures are preserved. Folds and mineral lineations predominate intrusion of Eocene plutons
- Volcanic rocks of Sitka Graywacke (Cretaceous)**—Dark-green mafic volcanic rocks interlayered with sandstone of the Sitka Graywacke as massive flows, pillow flows, volcanic breccia, and sills
- Kelp Bay Group (Mesozoic)**
 - Kbax Complex (Cretaceous and Jurassic)**—Dark-gray slaty argillite chaotically mixed with green volcanoclastic material contains clasts and blocks of sedimentary, volcanic, plutonic, and metamorphic rocks. Clasts are matrix supported. Locally contains depositional lenses of tuff, chert, sandstone, limestone, and mafic volcanic rock. Stipple pattern indicates areas of hornfels in contact aureoles of plutons
 - Sandstone (Cretaceous and Jurassic)**—Greenish-gray or brownish-gray volcanoclastic wacke, dark-gray argillite turbidites, and subordinate poly-mictic conglomerate. Wacke contains primary quartz and volcanic rock fragments, altered plagioclase, and secondary calcite, epidote, chlorite, sericite, and pyrite
 - Volcanic rocks and chert (Cretaceous and Jurassic)**—Dark-green mafic volcanic rocks, locally pillowflow, include lenses of red, green, or gray ribbon chert, and interlayered sandstone or mudstone. Volcanic rocks contain primary plagioclase and clinopyroxene; secondary chlorite, epidote, albite, calcite, quartz, prehnite, and pumpellyite
 - Schist (Mesozoic)**—Dark-gray, banded to massive, biotite schist and quartz-biotite schist. Contains quartz, plagioclase, muscovite, garnet, staurolite, andalusite, and sillimanite
 - Gneiss (Mesozoic)**—Gray and white, fine- to medium-grained, centimeter-banded, quartzofeldspathic biotite gneiss and hornblende plagioclase gneiss. Contains quartz, plagioclase, garnet, biotite, hornblende, staurolite, andalusite, sillimanite, and cordierite
 - Pinnacle Peak Phyllite (Triassic)**—Black, carbonaceous phyllite alternates with light-green phyllite, metachert, and thin black marble. Metamorphic minerals in gray phyllite include quartz, graphite, chlorite, calcite, white mica, and pyrite. Green phyllite contains quartz, albite, sericite, clinozoisite, chlorite pseudomorphs of garnet, and actinolite

INTRUSIVE ROCKS

- Felsic intrusive rocks (Tertiary)**—Very light gray to buff aplite and fine-grained granitic rock. Contains less than 5% biotite and pyrite
- Granodiorite of Cat Bay (Oligocene)**—Light-gray, medium-grained, hypidiomorphic, hornblende-biotite granodiorite. Hornblende approximately equal to biotite in abundance. Not magnetic
- Tonalite (Oligocene to Late Eocene)**—Light-gray, medium-grained, hornblende-biotite tonalite, with subordinate granodiorite and trondhjemite. Not magnetic. Contains up to 5% red aluminous garnet
- Migmatite (Oligocene to Late Eocene)**—Gray, black, and white irregularly banded gneiss, and inhomogeneous granitic rock with raft of host rock, laced with leucocratic neosome. Associated with unit Toet
- Gabbro (Eocene)**—Dark-gray, coarse-grained, massive gabbro and norite altered to a mineral assemblage of hornblende, albite, magnetite, and quartz. Gabbro has massive-sulfide lenses that contain nickeliferous pyrrhotite, chalcopryite, and pentlandite
- Granodiorite (Early Eocene)**—Light-gray, medium-grained, hornblende-biotite granodiorite. Locally plagioclase porphyritic. Gradational to biotite-hornblende tonalite. Accessory sphene, apatite, zircon, opaque, and rare allanite. Contains abundant inclusions of host rock
- Tonalite (Early Eocene)**—Light-gray, medium-grained biotite-hornblende tonalite, gradational to granodiorite, quartz monzonite, and quartz diorite. Some phases contain muscovite or pyroxene. Crosscut by late alaskite phases containing oligoclase, microcline, biotite, muscovite, and garnet. Not magnetic
- Serpentine (Tertiary and/or Mesozoic)**—Yellowish-brown-weathering clinopyroxene-antigorite and talc-tremolite-chrysotile serpentinite. Lenticular bodies range from meter to kilometer scale. Mainly associated with the Silver Bay and Patterson Bay Faults. May be associated with faults or may be derived from unit Mueu
- Ultramafic rocks (Mesozoic)**—Red-weathering, black, fine-grained dunite and clinopyroxene, including wehrlite. Dunite and clinopyroxene are layered or irregular masses, but are not zoned. Contains chromian spinel lherz and lenses, and secondary magnetite

ALEXANDER TERRANE

- Tonalite (Early Cretaceous)**—Medium-gray to greenish-gray, medium-grained, hornblende tonalite, quartz diorite, diorite, leucogabbro, and gabbro. Heterogeneous composition and texture. Hypidiomorphic granular, locally layered, locally foliated. Contains primary quartz, plagioclase, hornblende, and biotite with rare augite and olivine. Secondary minerals include calcite, sericite, chlorite, epidote, prehnite, magnetite, and serpentine

WRANGELLIA TERRANE

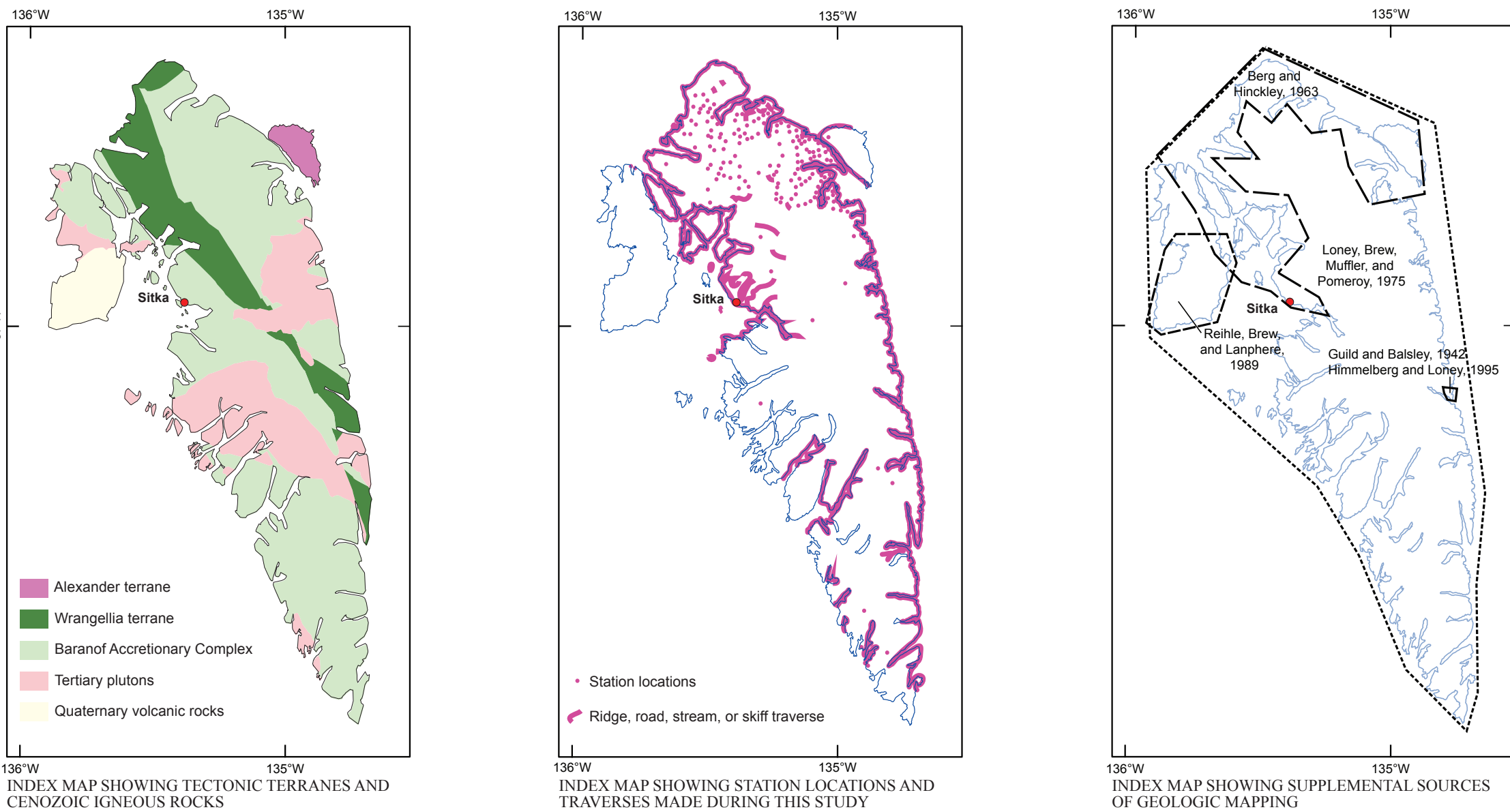
- Tonalite (Late Jurassic)**—Gray-green, massive, medium-grained biotite-hornblende tonalite. Hypidiomorphic and seriate phases. Primary minerals include quartz, plagioclase, biotite, hornblende, and accessory muscovite, garnet, and sphene. Secondary minerals include calcite, albite, prehnite, epidote, chlorite, sericite, and magnetite
- Quartz diorite (Middle Jurassic)**—Green, medium- to fine-grained quartz diorite and diorite. Secondary minerals include epidote, chlorite, pyrite, and chalcopryite
- Diorite (Early Jurassic)**—Green, medium-grained, biotite-hornblende diorite. Pervasively altered to chlorite, actinolite, and epidote. Locally foliated. Locally pervasive shear and cataclasis

EXPLANATION OF MAP SYMBOLS

- Contact**—Solid where location is accurate; dashed where location is approximate; dotted where location is concealed
- Faults**—Solid where location is accurate; dashed where location is approximate; dotted where location is concealed
- Thrust fault**—Arrows show relative motion
- Thrust fault—Sawtooth on upper plate**
- Relative fault movement**—Only on cross section
- Toward**
- Away**
- Metamorphic isograd**
- Hornfels in contact aureoles**
- Bedding**
 - Inclined**—Showing strike and dip
 - Overturbed**—Showing strike and dip
- Foliation**
 - Inclined**—Showing lineation
 - Vertical**—Showing strike
- Sample locality**—Showing sample locality number (bold) and age
 - "C"—See table 1
 - "K-Ar"—See table 1
 - "⁴⁰Ar/³⁹Ar"—See table 1
 - "U-Pb"—Magmatic zircon age. See table 1
 - "U-Pb"—Detrital zircon youngest age. See table 2
 - Fossil—See table 3
- Glacier**



Photograph showing Crawford Inlet Pluton and argillite host rocks, Great Arm of Whale Bay, Baranof Island.



Geologic Map of Baranof Island, Southeastern Alaska

By

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