Chart	showing	current	correlation	of	stratigraphic	units	in	Alas
			By PHILIP S.	SMI	TH			

		SOUTHEASTERN	Сорр	er River		GULF OF ALASKA	[Arrangement of un	its within individual districts based on stratigraphic sequences.		By Philip S. Smith at of districts with respect to each other, within the		vidual series, in general has no stratigraphic significance  YUKON	1	W. TONIO V. WOL		Noneway Assert			
ERA FRIOI	District	Lithologic description	District	ithologic description	District	Lithologic description	District	Lithologic description	District	Lithologic description	District	Lithologic description	District	Kuskokwim  Lithologie description	District	NORTHERN ALASKA  Lithologic description	District	SEWARD PENINSULA  Lithologic description	EPOCH PERIOD ERA
QUATER-	Througho the r	Rhyolite, obsidian, andesite, and basalt.	the Territory deposits is not so readi	sits of material originally discernible, and vani	ting through gished ice sheet  Lituya  —Yakutat	Marine shale.  Cross-bedded sandstone, shale, and clay, in part marine, in part terrigenous.  Conglomerate, shale, sandstone of marine and glacial origin, described as	↑ ` · · · · · · · · · · · · · · · · · ·	mulated as outpourings of lava or the ejected r courses, uplifts, and depressions must be	d material productinferred to explain the second se	sed by volcanic activity, were formed of in some of the deposits that here and Shale and sandstone.	Hot Springs-Rampart Fortymile-	High gravels, slightly consolidated.  High gravels, slightly consolidated.	tly traced into ce events thus re	deposits in course of accumulaticecorded have not yet been determined.	on or destruction or	Neutral tinted soft shale with some rounded concretions. Marrine.	Nome Pa	ering or erosion. However, onologic order.  art of coastal plain sequence of sand, gravel, and silt. Marine.	cene QUATER NARY
CENOZOIC TERTIARY Oligocene, Miocene	?				Yakataga  Lituya  Yakataga  Katalla N.	Pinnacle "system."  Shale, flaggy sandstone, and conglomerate.  Marine sandstone, shale, conglomerate, and coal.  Buff sandstone, shale, intercalated conglomerate.  Quartzose, marine sandstone, and shale.  Marine calcareous shale, thin limestone, and conglomerate.  Sandstone, shale, flaggy sandstone.  Tokun.  Arkose, coal, sandstone, shale. Kushtaka formation.  Shale and sandstone. Stillwater formation.	?	Basaltic lava, and volcanic rocks, some rhyolitic flows near top of section. Arkose, conglomerate, shale. Massive conglomerate. Eska conglomerate.	Shumagin- Moller	Conglomerate. Unga conglomerate.	Eagle	Loosely consolidated gravel and sand.  Nenana gravel.	? —Tonzona	Loosely consolidated gravel and sand. Nenana gravel.	Colville	Gray and slate-colored calcareous silts. Marine.	? General Ba	saltic and andesitic lava flows and pyroclastics.	liocene
Eocene	?	Rhyolite basalt and andesite associated with some sediments.  Coarse sandstone with intercalated conglomerate, and some coal.	General Con	glomerate, flows, reccia and tuff. glomerate, varieated clay, lenses of oal, nonmarine.	Katalla S. Yakataga	Marine shale, sandstone, conglomerate.  Katalla formation.  Fine gray arkose, black shale, some coal.	Seldovia-Hope Spurr-Yentna. —Chulitna Matanuska	Sandstone, shale, some conglomerate and coal. Kenai formation.  Basaltic flows breccia and tuff. Sandstone, shale, grit, coal; comparaable to Kenai formation.  Rhyolitic lava, trachyte, andesite, some interbedded with Cantwell formation.  Shale, sandstone, and coal. Chickaloon formation.	General Shumagin- Moller Kodiak	Sandstone, shale, little conglomerate and lignite. Pyroclastics, andesite, and basalt flows.  Soft shale, sandstone and grit, marine alternating with terrigenous.  Shale, sandstone, grit, and coal; comparable to Kenai formation.		Basaltic lava flows. Clay, shale, sandstone, conglomerate, and lignite.  Andesite and basalt flows and tuff.  Rhyolite, dacite, and andesite. Undifferentiated from Cretaceous, heavy conglomerate, sandstone, and shale.  Rhyolite and andesite porphyry. Pyroxene andesite and basalt.  Coal-bearing series of shale, sandstone, and grit; comparable to Kenai formation.	? Goodnews	Basalt, tuff, ellipsoidal lava interlaminated with minor amounts of sedimentary rocks.	TZ 1 1	Conglomerate, soft cross-bedded sandstone, shales, some coal; comparable to Kenai formation.	General c	ndstone, shale, conglomerate, oal; comparable to Kenai for-	
TACEOUS			—General a	lifferentiated sand- one, graywacke, kose, shale, some inglomerate, and rit.	General	Undifferentiated sandstone, graywacke, arkose, shale, some conglomerate, and grit.	Yentna  Matanuska  Anchorage-  Nuka	Black and gray slate, phyllite, and graywacke.  Sandstone and shale. Matanuska	Mulchatna- Chignik- Tikchik	Conglomerate, sandstone, shale Shale and coal beds. Shale.	Donnelly- Kantishna Marshall Nulato —Innoko- Iditarod Ruby-Koyu- kuk  Hot Springs Rampart —Eagle	Coarse conglomerate, sandstone, and dark shale. Cantwell formation. Sandstone, graywacke, little conglomerate and argillite. Sandstone, shale, coal. Nulato formation, part of Shaktolik group. Sandstone, shale, and conglomerate. Conglomerate sandstone, arkose, shale (part of Bergman and Shaktolik groups). Black massive impure sandstone and shale. Greenish-gray to black sandstone, shale, and graywacke. Conglomerate in upper part.	? Tonzona-George-townAniak-Good-news ?		Canning	sandstone, shale, coan, none tun	Eastern San G Coa g	idstone, shale, coal. Shaktolik roup. arse conglomerate and grit. Un- alik conglomerate.	do
CRET	General	Black slate and shale gray- wacke, some conglomerate, calcareous sandstone, and impure limestone.	Kotsina- a Chitina oi	ck shale, sandstone, and small amount conglomerate and andy shale.			Matanuska	Conglomerate, tuff, and arkose; some massive limestone. Nelchina limestone.	Tikchik Southwest- ern	Dark fine-grained graywacke and slate.  Grayarenaceous cross-beddedlime-stone. Herendeen limestone. Thin - bedded shale, little sandstone, less conglomerate. Staniukovich shale.	Ruby-Koyu- kuk  Hot Springs- Rampart  Eagle	Dark shale, slate, sandstone, arkose, some lava flows and tuffs, former Koyukuk group.  Slate and quartzite.  Sandstone and fine conglomerate. Black shale, gray to black sandstone Kandik formation.  Undifferentiated shale and argillite,	?		Anaktu- vuk- Lisburne	Greenish-brown sandstone, shale, little conglomerate, and grit; includes former Anaktuvuk group.			Lower
Upper	? ——General	Melaphyre flows, tuff, agglomerate with associated slates of former Berners formation. Douglas Island volcanic group.  Black clay slate with some conglomerate and much graywacke. Treadwell slate.	Kusku- st lana- sk Nizina cl	glomerate, sand- one, limestone ale. (Formerly in- uded in Kennicott rmation of some ports.)			Chulitna  Matanuska  Chinitna	Sandstone shale, argillite, little chert, some conglomerate, and limestone lenses.  Conglomerate possibly equivalent to Chisik.  Green sandy shale, equivalent to Naknek formation. Shale, sandstone, little conglomerate, equivalent to Chinitna shale.  Massive arkosic sandstone, tuff, coarse sandstone, shale, and conglomerate. Arkose, sandy shale, and sandstone. Conglomerate shale, arkosic sandstone. Chisik conglomerate. Shale, argillite, few sandy and calcareous beds, rare grit. Chinitna shale.	Kanatak	Arkose, conglomerate, sandstone, and shale. Naknek formation. Shale, sandstone, sandy calcareous shale, little limestone. Shelikof formation; comparable with Chinitna shale.	?	some graywacke.	?		?—Lisburne?	Sandstone, shale, coal. Originally considered Jurassic on paleobotanic evidence but now regarded as Upper Cretaceous.			Upper
MESOZOIC JURASSIC Middle	? —General	Melaphyre tuff.   Thane vol- Limestone. Tuff and shale.   canic group.	Chitina Tuf	?			Chinitna  Kamishak  Matanuska  —Skwentna  Yentna	Sandstone and sandy shale, some conglomerate, grit, arkose, and little limestone. Tuxedni sandstone.  Porphyry, tuff, basaltic and andesitic lava flows.  Sandstone, shale, small amount of conglomerate equivalent to Tuxedni sandstone.  Argillite, some sandstone, little limestone.  Massive grit, sandstone, little conglomerate and slate. Tordrillo formation.	Katmai- Chignik Kanatak	Continuation of rocks of the Chinitna and Kamishak districts of Cook Inlet region.  Sandstone, shale, and conglomerate. Kialagvik formation.					Canning	Black shale and some sandstone.  Ignek formation. Black shale. Kingak shale.			Middle JURASSIC MESOZOIC
Lower	?		—Chitina w	sive conglomerate th well-rounded bbles set in tuff atrix.	—General	Undifferentiated sandstone, arkose, graywacke, and volcanic rocks.	—Skwentna- Yentna Matanuska Seldovia	Altered volcanics, interstratified tuff, chert arkose, part of Skwentna group.  Lava, breccia, tuff, interbedded sandstone and shale. Talkeetna formation.  Tuff, volcanic agglomerate, interbedded with thin limestone, shale, and sandstone.	Kanatak —Iliamna- Telaquana —Chignik- Naknek	mation.  Greenish volcanic rocks associated with shale and horizontal sediments.  Slate and graywacke, not differ-			? —Aniak —Tonzona- George- town	Undifferentiated sandstone, shale, and associated rocks.  Shale, sandstone, conglomerate in part comparable with Skwentna group and Tordrillo formation.	?				Lower
TRIASSIC	General	Andesite breccia with limestone matrix, interbedded with slates. Black slate and shale. Conglomerate, sandstone, and little limestone.	General li sl Thir so m W N Mas st ir	e, black shale, argilte. McCarthy ale. I-bedded limestone, me shale becoming ore abundant to- Izina limestone. Sive bedded lime- Imegary bedded lime- Imegar			Valdez Creek Chulitna Chinitna Kamishak Seldovia	In east shaly limestone and calcareous sandstone. In west dark-blue to black shale, arkose, graywacke; no limestone.  Argillite, clayey sandstone, lenses of tuff and conglomerate. Argillaceous rocks, limy white and rusty sandstone. Limestone.  Volcanic rocks. Limestone.  Chert interstratified with thin shale sandstone, limestone.  Kamishak chert. Igneous rocks, basic volcanics. Limestone with volcanic material. Chert with thin films of argillite. Ellipsoidal greenstone.	Kanatak Tikchik  —Kodiak	Limestone and shale. Contorted chert.  Light-colored more or less silicified limestone, somewhat metamorphosed.  Undifferentiated cherty rocks. Ellipsoidal greenstone, greenstone schist, and tuff.	Chisana-White Kandik Sheenjek Kantishna	Thin-bedded limestone and black shale. Shale, lavas, and pyroclastic rocks.  Thin-bedded limestone and calcareous shale.  Not definitely identified in field but unquestionably present in fossil collections from district.  Black siliceous limestone with poorly preserved fossils doubtfully identified.			Lisburne (Canning Colville-Noatak	Soft black shale. Dark chert, thin bedded cherty limestone. Argillite, black, green and red chert.  Black shale. Limestone and interlayered shale. Calcareous sandstone.  Tenacious dark shale. Chocolate-colored limestone. Dominantly chert with some thin bedded limestone, siliceous dark colored but white weathering argillite, locally sandstone.			Upper
nnsyl- Permian Lower Middle	General	Thick-bedded limestone with common to abundant intercalated layers of white chert. Conglomerate, limestone, sandstone, andesitic and basaltic lava, tuff, and locally rhyolitic volcanic rocks.  White massive limestone.	General Lava brefie st	ttic lava of green- ne habit. Nikolai senstone.  , tuff, volcanic secia interstrati- d with shale, lime- one, sandstone, d conglomerate.			—Chulitna	Tuff, volcanic breccia, lava, some argillite, limestone, chert, and conglomerate.	Tikchik	Volcanic rocks, dominantly greenstones, probably equivalent to Nikolai formation. Massive cream-colored to yellowish limestone.	Y Kandik	Limestone. Conglomerate, shale, and limestone.	. Akiak	Light-gray limestone, grading upward into effusive rocks; tuff at top of section.	Canning	Light-colored sandstone. Sadle-rochit sandstone.	York? One re	e extremely doubtful occur- ence in area of black slates.	nsyl- Permian Lower Middle
CARBONIFEROUS  Mississippian		Interbedded coarsely crystal- line limestone, and black chert overlain by interlay- ered dense gray quartzite, cherty limestone, and sparse conglomerate.	General sto	schist, small ounts of limene, tuff, and bat flows. Streina mation and Klua group.					Tikchik	Dominantly chert, cherty grit and conglomerate toward base, overlain by thin-bedded siliceous limestone, shale, slate, and quartzitic sandstone.	Koyukuk- Melozi Yukon- Tanana	Clay shale, sandstone, conglomerate. Nation River formation. Lava flows and associated sediments. Rampart group and Circle volcanics. Limestone, shale, slate. Calico Bluff formation. Limestone beds. Undifferentiated schist, shale, chert, quartzite. Chert with minor amount of limestone and shale. Livengood chert.  Comparable with northern Alaska section.  Andesite and basalt flows and tuff.  Dark limestone, somewhat silicified, weathering light, with arrillaceous	Goodnews	Argillite, sandstone, gray-wacke. Gray limestone associated with red and black slate; some chert.	Central- Western	Sandstone, shale, thin limestone, in places chert, conglomerate.  Noatak formation.  Gray and black limestone, some-	York st so ru Lim m bo	ek and light blue-gray lime- cone associated with slate and shist. Limestone near Palaz- ik. lestone and associated sedi- ents, not definitely identified ut apparently widely distrib- ted in peninsula.	ssissipp
Upper	General	Basalt, andesite, tuff, limestone, sandstone, slate, and conglomerate.				?						Quartzite, sandstone, slate, little con-	? ?		??  —Colville   Noatak	Quartzite, sandstone, slate, sub- ordinate conglomerate, grit, and limestone.	??!		Upper
DEVONIAN Middle	General	Limestone. Andesite, gray to green tuff, graywacke; locally conglomerate, thin limestone. Andesite lava, tuff, breccia, conglomerate, and locally rhyolite lava. Interbedded limestone, slate, chert, andesite breccia, tuff, and locally conglomerate. Conglomerate, graywacke; locally sandstone and limestone.					—Chinitna	Limestone and calcareous schist, much deformed and metamorphosed. Not distinguished on map.  Siliceous and argillaceous sediments, age highly problematical. Not distinguished on map.			Chisana-Tok Sheenjek	Massive light gray-blue limestone.  Salmontrout limestone.  Argillite, chert, and cherty grit. Thin beds dark-gray limestone, shale, and chert.  Lithographic limestone, dark-gray crystalline limestone. Clay shale, siliceous slate, chert, quartzite, sporadic limestone, and conglomerate.  Slate with small amounts of limestone.  Massive limestone, equivalent to part of Tonzona.  Limy shale, more calcareous at top. Slate, argillite, graywacke, quartzite. Black conglomerate, white conglomerate, shale, and graywacke.  Crystalline limestone associated with black slate, sandy beds, somewhat schistose.  Quartzite, sandstone, slaty sandstone, and argillaceous sediments.		Undifferentiated limestone of Lime Hills (?)  Blue to white somewhat siliceous semicrystalline limestone, weathering brown. Formerly considered part of Tonzona group.  Thinly bedded limestone with calcareous and chloritie shale and arkose. Formerly considered part of Takotna formation. Undifferentiated limestone not distinguished on map.	Lisburne	Calcareous sandstone and shale.  Black shale, slate, and subordinate sandstone. Not differentiated on map.	haven di	ek thin-bedded limestone. ek thin-bedded limestone. ormerly considered part of ome group.  e-gray limestone considerably letamorphosed. Formerly condered part of Port Clarence mestone.	DEVONIAN
SILURIAN  Ower Middle Upper Lowe	?—General	Gray-green graywacke, sparse conglomerate, sandstone, and shale.  Gray-green shale, red beds, gray sandstone, shale, limestone.  Dense limestone, locally thick conglomerate, thin limestone, and sandstone.  Andesite flows, conglomerate, graywacke, tuff, breccia, and limestone.  Indurated graywacke, black									?? ?  ??  —Porcupine  —Sheenjek- Alatna Kandik  Preacher- Tolovana- Hot Springs  ?  Ruby	Black fissile shale, little siliceous limestone. Buff magnesian limestone. Slate, schist, thin layered limestone. Skagit. Massive somewhat siliceous limestone. Skagit. Massive white to cream limestone. Calcareous and dolomitic limestone, somewhat recrystallized. Tolovana limestone.  Undifferentiated limestone, not distinguished on map.	—Tonzona.  —McGrath.		Kobuk.	Massive, somewhat siliceous limestone. Skajit limestone.	Kouga- F	nt-colored magnesian limestone. ormerly considered part of <b>Port</b> larence limestone.	wer Middle Upper Lower SILURIAN PA
ORDOVICIAN  Widdle Upper Lo	? General	Graywacke and slate, little conglomerate and calcareous sediments, andesitic lava, and volcanic rocks.  Black chert and graptolite slate, graywacke, locally				2		,			Porcupine Ruby  Preacher	Gray limestone.  Magnesian limestone overlain by calcareous limestone, not differentiated on map.  Volcanic tuff and associated igneous rocks.  Black shale, merging downward into schist.		Bluish-gray limestone, not distinguished as such on map.  Bluish limestone, sandy and carbonaceous slate. Part of former Tatina group.			—Western Blui	sh-gray limestone, in places onsiderably metamorphosed. ort Clarence limestone.	wer Middle Upper Lc
CAMBRIAN ver Middle Upper Lov	?	andesitic volcanic rocks.				?				*		Limestone, with dark-gray to black slate and chert in higher part. Limestone.  Upper plate of limestone. Thin layers of slate and quartzite. Lower plate of limestone.			?		????    		er Middle Upper Lo
Era Period PRE-PALEOZOIC Lower	Southern	Metamorphic complex of schists, slates, and calcareous rocks. Wales group.				?	—Wasilla.	Schists in vicinity of Willow Creek; age extremely doubtful, probably early Paleozoic or older.		?	Wiseman-Alatna Dall-Tozi  Kandik-Eagle  Kantishna-Tok  Yukon-Tanana	Undifferentiated highly metamorphic schist, quartzite, and calcareous rocks.  Undifferentiated metamorphics in part. Birch Creek schist.  Dolomite, limestone, shale, quartzite, associated with basalt and diabase. Tindir group.  Metamorphic rhyolitic effusives and related rocks. Totatlanika schist. and regular Birch Creek schist.  Schist, quartzite, and other highly metamorphic rocks, Birch Creek schist, some associated basic volcanics.				Undifferentiated metamorphic schist, quartzite, and related rocks. Neruokpuk schist. Undifferentiated highly metamorphic schist, quartzite, and limestone.	Nome Spanning Control of the control	k slates and quartzites. lates near York." amorphic greenstone and feldathic schist, including Casapaga schist. ly metamorphic schist, phyleand thin limestone. Nome oup.  ly metamorphic quartzose nist with some calcareous ds. Kigluaik group.	Lowe