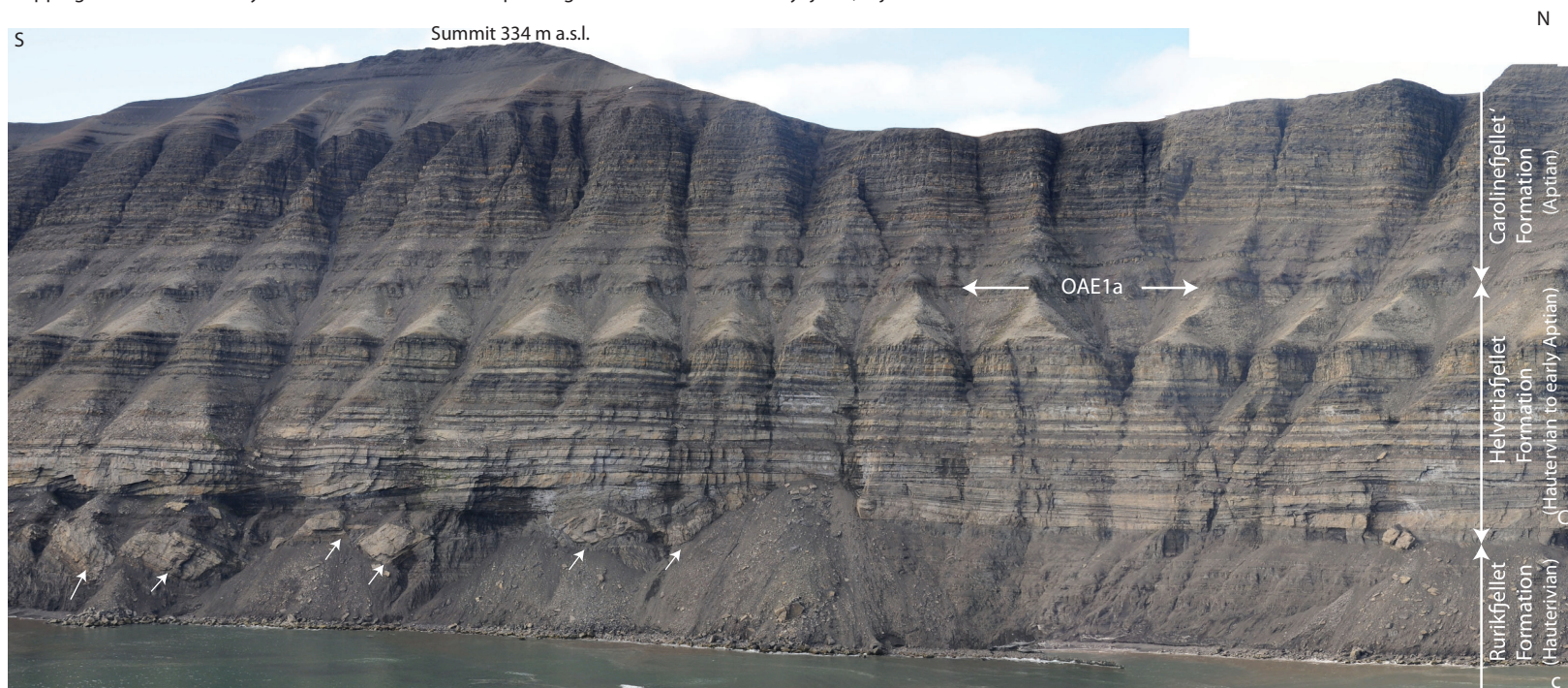
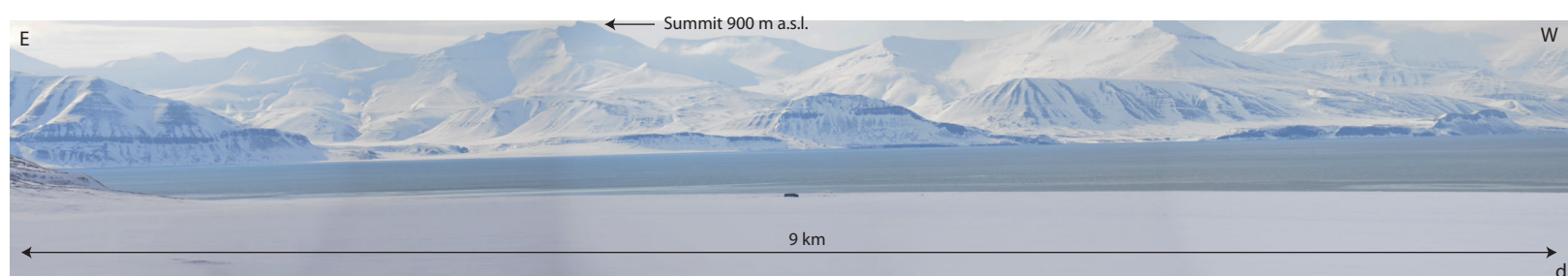


(a) The Middle Jurassic to near base Valanginian (i.e., the informal Base Cretaceous Unconformity ; BCU) organic rich marine mudstone dominated Agardhfjellet Formation. The Agardhfjellet Formation is sandwiched between the Kapp Toscana Group (KT.Gr.) and the Rurikfjellet Formation (Ru. Fm.) and is an onshore analogue to the Fuglen Formation and the prolific source rock unit; the Hekkingen Formation (offshore). Myklegardfjellet, Agardhbukta, east coast of Spitsbergen. N.top: Near top; OP. Mbr: Oppdalen Member. (b) Kimmeridgian prograding delta/shoreface above Oxfordian/Kimmeridgian organic rich marine mudstone, sourced from northwest. Upper medium to coarse grained sandstone is heavily burrowed with mixed *Cruziana* and *Skolithos* ichnofacies. Red triangle marks a c. 20 m thick coarsening upwards unit. MRS: Maximum Regressive Surface. Dipping strata are caused by contraction from the West Spitsbergen Fold and Thrust Belt. Sylfjellet, Isfjorden.



(c) Sea cliff, facing east, with well exposed Hauterivian to Aptian deltaic to shallow shelf deposits at Kvalhovden, east coast of Spitsbergen. Arrows point to blocks of fluvial to coastal plain deposits sliding into a collapse scar within the offshore deposits of the Rurikfjellet Formation. Mouthbars are followed by fluvial (distributary channel) and delta/coastal plain deposits of the Helvetiafjellet Formation. The Aptian Oceanic anoxic event (OAE1a) is a regional marker bed throughout Spitsbergen and marks the onset of the storm dominated marine shelf deposits of the Carolinefjellet Formation.



(d) In spring time, at the south coast of Sassenfjorden Lower Cretaceous (Aptian) up to 20 to 30 m thick dolerite sills, assigned to the HALIP, stand out as black bands on the sea cliffs. The dolerite intrudes Middle to Upper Triassic organic rich marine mudstone and grey shales respectively. Photo is taken from Gipshuksletta, north coast of Sassenfjorden. A cabin is seen in the front.