

Dinosaurs of the Sustut Basin in Northern British Columbia

Cretaceous rocks are exposed over more than 9000 km² of the northern interior of British Columbia in a region called the Sustut Basin, but much of this vast terrestrial fossil record remains unexplored because of the challenges in accessing sites in this region. Nevertheless, a dinosaur specimen (Royal BC Museum specimen P900) consisting of articulated and disarticulated arm, shoulder, and leg bones was discovered in 1971 near the confluence of the Sustut River and Birdflat Creek, in the southern portion of the Sustut Basin. Originally published as an indeterminate plant-eating dinosaur in 2008, in 2019 it was reinterpreted as the new species of leptoceratopsid ceratopsian (hornless 'horned' dinosaur) *Ferrisaurus sustutensis*. A 2017 expedition to the confluence of the Sustut River and Birdflat Creek relocated the original collection site for RBCM P900, and data collected during this trip showed that *Ferrisaurus* lived during the last few million years of the Cretaceous Period, just before the mass extinction that ended the age of dinosaurs. The potential for new fossil discoveries in the Sustut River area is hindered by the forested landscape and limited outcrops; RBCM P900 was discovered when more outcrops were exposed during construction of the Dease Lake extension of the BC Rail line, which is now abandoned and rapidly being reclaimed by vegetation. Fieldwork in the northern part of the Sustut Basin in 2019 focused on two localities in Spatsizi Plateau Wilderness Provincial Park. Although fieldwork was cut short because of an unusually heavy August snowfall, one site produced numerous new fragmentary dinosaur bones including a large rib, possible limb elements, and a possible skull element. Together with fragmentary remains collected during a 2013 Royal BC Museum botanical field expedition, there is evidence for tyrannosaurs, large plant-eating dinosaurs, and possibly a small meat-eating dinosaur and crocodile in the northern Sustut Basin. The outlook for new discoveries in the park is excellent given the large expanses of unvegetated plateaus with exposed rocks. Future fieldwork is planned for Spatsizi Plateau Wilderness Provincial Park and will hopefully provide new, more identifiable fossils for this region, shedding light on dinosaurs and their ecosystems from the latest Cretaceous on the western side of the North American Cordillera.

