

north temperate region, so that the insects, as well as the plants, appear to show both tropical and temperate affinities.

The only other American Eocene deposit to yield fossil ants is at Mossy Creek, about three miles southwest of Wellborn, Brazos County, Texas. The beds, which belong to the Jackson series, consist at this outcrop of kaolinite lenses in sandstone, and contain twenty-four species of plants, including a common *Combretum* and the littoral palm, *Nipadites*. Professor E. W. Berry (1924) has concluded more or less tentatively, from his study of the flora, that the latter is indicative of a subtropical climate and a strictly coastal location. The insect fauna is very little known, only two species having been described.

The deposit at Quesnel, British Columbia, consists chiefly of fine grayish and greenish-white clays. The age of the formation is still somewhat uncertain, but the latest researches point to the Miocene (Reinecke, 1920). The flora is badly in need of revision, and since the insect fauna is a small one, nothing definite can be said of the climatic conditions under which the biota existed.

The two remaining ant deposits also belong to the Miocene and appear to be very similar as to fauna and flora. The smaller of these is the oil shale of Elko and its vicinity, in Nevada. No fossil insects have previously been described from this outcrop or, in fact, from any other rocks in the state, although the presence of insects has been recognized since Emmons's explorations during 1867-73. In his report on the geology of the region (1877) he states, "Adjoining the coal beds are fine bituminous shales, which closely resemble the brown paper shales of the Green River series at Green River City, Wyoming. In these are found the same plentiful remains of fishes, and also occasional insects." The geology of this bed was more carefully investigated by Winchester (1923), who states that "the shales . . . are in part clean clay shales but are mainly sandy. They usually lack sharp and distinct lamination and are generally interbedded with thin layers of muddy sandstone. In color they are commonly light gray, bluish gray, or brown. . . . Very thinly laminated paper shales are common at certain horizons." These strata have yielded a few fossil plants, which have been referred to the following genera (Knowlton, 1919): *Comptonia*, *Carpinus*, *Fagus*, *Ficus*, *Lycopodium*, *Myrica*, *Planera*, *Populus*, *Salix*, *Sapotacites*, *Sequoia*, and *Thuja*. Lesquereux, who first studied the flora, believed (1878) that the beds were the same age as those at Florissant, and Cope came to this conclusion from his studies on the fishes. At that time the Florissant shales were placed in the late Eocene or Oligocene, but further researches by Cockerell, Henderson, and Knowlton have