

## Geologic Relations of the Peat Bog

Geologic mapping has not yet advanced far enough in this area so that the peat deposit could be coordinated with any of the Pleistocene deposits in Texas. There are numerous fluviatile terraces along the creeks and streams of Texas, and the drainage issuing from the bog has probably fluviatile terrace deposits too; but their relations are unknown.

The Coastal Terraces of Texas (Beaumont and Lissie) are restricted to a belt along the coast and do not extend more than 90 miles from the present shore. The Patschke bog is about 50 to 60 miles beyond the reach of the lissie.

All that can be stated at present is that the bog may have started in the Pleistocene or later.

During a pluvial period spruce and fir might have descended to the vicinity of the bog by two possible routes: (1) From Rocky Mountains and other western mountain ranges via Trans-pecos Texas or High Plains to the Edwards Plateau and into the Coastal Plain, (2) From Appalachian or Ozark or Arbuckle region along the belts of the Coastal Plain southward and westward.

The Coastal Plain deposits are in belts and have diverse soils. Some deposits have developed black, waxy clay soils (chernoziem and similar); others have sandy soils. Vegetation, aside from the climatic factor, is arranged according to these soil belts. In east Texas pines extend westward on the sand soil belts and oaks are on the clay belts. In south Texas oaks extend on the sand belts and mesquite is on the clay belts. During any change in climate the vegetation would shift along the soil belts. There are several clay belts in the vicinity of the Patschke Bog that could have supplied the grass pollens.

### Literature:

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