

taceous, however remarkable we may think it that in that period it should have developed into so many species ; and it is still more surprising that two species already make their appearance which approach so near to the living *Sequoia sempervirens* and *S. gigantea*.

Altogether, we have become acquainted, up to the present time, with twenty-six species of *Sequoia*. Fourteen of these species are found in the Arctic zone, and have been described and figured in the "Fossil Flora of the Arctic Regions." *Sequoia* has been recognised by Ettingshausen even in Australia, but there in the Eocene.

This is, perhaps, the most remarkable record in the whole history of vegetation. The *Sequoias* are the giants of the conifers, the grandest representatives of the family, and the fact that, after spreading over the whole northern hemisphere and attaining to more than twenty specific forms, their decaying remnant should now be confined to one limited region in western America and to two species constitutes a sad memento of departed greatness.* The small remnant of *S. gigantea* still, however, towers above all competitors, as eminently the "big trees"; but, had they and the allied species failed to escape the Tertiary continental submergences and the disasters of the glacial period, this grand genus would have been to us an extinct type. In like manner the survival of the single ginkgo of eastern Asia alone enables us to understand that great series of taxine trees with fern-like leaves of which it is the sole representative.

Besides these peculiar and now rare forms, we have in the Mesozoic many others related closely to existing yews, cypresses, pines, and spruces, so that the conifers were probably in greater abundance and variety than they are at this day.

* The writer has shown that much of the material of the great lignite beds of the Canadian Northwest consists of wood of *Sequoia* of both the modern types.