

destruction of vegetation in some parts of Wyoming and other Western Territories of the United States. The way in which animals destroy each other, often on a great scale, may likewise be included among the geological operations now under description. As an illustration of this action, reference may be made to the occasionally enormous development of the protozoon genera *Peridinium* and *Glenodinium*, and the consequent killing off of the oysters and other mollusks in the waters of Port Jackson.³²⁸

§ 2. Conservative Action

Plants.—The protective influence of vegetation is well known.

1. The formation of a stratum of turf protects soil and rocks from being rapidly removed by rain or wind. Hence the surface of a district so protected is denuded with extreme slowness, except along the lines of its water-courses. A crust of lichens doubtless on the whole protects the rock underneath it from atmospheric agents.³²⁹

2. Many plants, even without forming a layer of turf, serve by their roots or branches to protect the loose sand or soil on which they grow from being removed by wind. The common sand-carex and other arenaceous plants bind littoral sand-dunes, and give them a permanence which would at once be destroyed were the sand laid bare again to the storms. In North America, the sandy tracts of the

³²⁸ But see the remark already made, ante, p. 792, note ³²⁸.

³²⁹ An occurrence of this kind in March, 1891, led to an almost complete destruction of the oysters, mussels and other bivalves; the rest of the littoral fauna—limpets and other univalves, starfish, worms, ascidians and other lower forms of life—were so seriously affected that dead and dying were strewn about in great numbers, while the higher forms, able to move rapidly, had retired to deep water. T. Whittelegge, Records of Australian Museum, i. No. 9, 1891, p. 179.