

## FERN FAMILY (*Polypodiaceæ*)

BRACKEN (*Pteris aquilina* L.)  
(*Pteridium aquilinum* [L] Kuhn.)

### PLATE II.

**COMMON NAMES:** This plant is seldom known by any other name than common brake or bracken, sometimes modified to lady-bracken, fern-brake, or hog-brake.

**DESCRIPTION:** The bracken is a coarse fern with a creeping, woody, almost black rootstock. The stalk of the frond or leaf is from one to three feet high, and the blade measures from one to three feet across by two to four feet in length. The stalk, with maturity, becomes straw-coloured, or brownish, stiff, stout, ridged, swollen at the base. The blade is dull green, the general outline triangular, the widely spreading branches twice pinnate. In the spring the young leaves are bent over at the top and eurl'd in. The oblong obtuse lobes are strongly outlined by the reflexed margin which forms, in this case, a second indusium or covering to the spore-cases. As the spore-cases develop, they push aside the outer indusium and, fitted close together in several rows, they form quite a distinct golden-brown margin to the underside of each lobe. The spores, or reproductive bodies, are ready for dissemination from July to September. The spore-cases open with a snap, and the spores, light and easily carried by the wind, are scattered far and wide. When they reach the moist earth they germinate, but the germinated spores do not produce a true fern-plant. They give rise to another stage of its life, a small flat, green body (prothallus). On the underside of the prothallus are tiny organs whose union results in the development of a true fern-plant, which in its turn produces spores and thus completes the life cycle.

**DISTRIBUTION:** Common in thickets, on hillsides, and in sandy soil from the Atlantic to the Pacific.

**POISONOUS PROPERTIES:** The toxic principles of bracken have not yet been fully investigated, but it has been shown by experiment that the action of the poison is cumulative.

**ANIMALS AFFECTED:** The experiments carried on by Hadwen in British Columbia (1917) proved that the ingestion of dried bracken was the cause of a disease among horses known as "staggers." He says: "During the hard winter of 1915-16 the mortality amongst horses in the Fraser valley and on Vancouver Island was very heavy. As an extreme instance we cite the following: 'In the little village of St. Elmo, B.C., out of twenty-four horses owned by eleven farmers, sixteen died of bracken poisoning,