The Liscomb sanctuary was established in 1928. There have been some revisions of the boundaries since then, most recently in 1983. Total area is 43,244 hectares, of which 12,836 hectares is privately owned. There is some overlap with the Alder Ground wilderness area and the Boggy Lake wilderness area so 844 hectares are designated both sanctuary and wilderness area. Hunting and trapping were originally prohibited but since 1996 there has been a short hunting season each fall with muzzle loading firearms only.

Cabins at the north entrance to the sanctuary which were formerly used by the sanctuary wardens are now used as a forest fire fighting depot.

The sanctuary includes 36,027 hectares of forested land, 3732 hectares of bogs and other wetlands, 2361 hectares of lakes and ponds, 852 hectares of barrens, and 275 hectares of roads, utility corridors and other miscellaneous land classifications.