

two. The empty glumes are relatively longer and more acute in *A. fulva* (Fig. 2.) than in *A. pendulina* (Fig. 1.) and *A. effusa* (Fig. 3.); the flowering glume is also narrower and longer in *A. fulva*. We might state, moreover, that the base of the spikelets seems to afford an additional character by being more or less acute in *A. fulva* and *A. pendulina*, but obtuse in *A. effusa*, during the anthesis; this character follows the relative number of flowers in the spikelet, thus where more than three or four flowers are developed, the spikelets are generally acute at base, but obtuse, where a smaller number is present as for instance in *A. effusa*. The panicle of *A. effusa* is erect with the capillary rays deflexed, while the whole inflorescence is nodding in the two other species.

In regard to the geographical distribution of these species, *A. fulva* has been reported from a number of places in arctic Russia and Siberia, but the only specimens which we have seen from North America were collected at Muckelung River in British Columbia and on the west coast of Hudson Bay, Lat. 56.; the specimens from the former locality were by Beal, referred to *A. pendulina*, but they do not agree with this species, of which we have studied typical material from arctic Europe.

*A. fulva* occurs in Lapland under two forms: *maxima* and *minima*, as recorded by Brotherus, but in accordance with Nylander none of these are referable to the type, but represent his var. *Lapponica*: "panicula laxa ramis undique sparsis, pendulis, flexuosis, spiculis 2-5 floris versicoloribus, valvulis basi pilorum fasciculo barbati."

In regard to *A. pendulina* no definite geographical range can be given at present since Grisebach included *A. effusa* in this species, and since Kjellman in reporting *A. effusa* from the Siberian coast refers to both Lange's *A. effusa* and Grisebach's *Colpodium pendulinum* as synonyms; we only know for certain that it occurs in arctic Europe in the places recorded by Hartman and Hjelt, while we have not, so far, seen any specimens from this continent.

The third species *A. effusa* is known from the west coast of Greenland, Spitzbergen and Arctic Siberia; the plant from Spitzbergen formerly considered as a distinct species: *Colpodium*