

The genus birch (*Betula*) consists of woods that grow nearly on the whole northern hemisphere. They have been intensively studied since the 2. half of the 19. century which led to the description of tens of species. During time the genus has been divided into several sections, which changed in the opinions of different authors. The study of their evolution and diversity is difficult due to frequent interspecific hybridisation and polyploidisation. Understanding this issue is also complicated due to a large number of morphologically similar defined species. Different methods have been used to study birch evolution, from morphometrics to the present time study of the genome. The objective of this text is to summarize the knowledge and to enable the reader easy access to it.

Key words: *Betula*, birch evolution, hybridization, morphometrics, flow cytometry, DNA analysis, birch taxonomy