Eighty four morphological characters were used for description of the Bromus spp., these characters describe both qualitative and quantitative features of the whole plant, culms, leaves, inflorescences, inflorescences axes, spikelets, florets and fruits description (grains “caryopses”) according to shape, colour, thickness, margin, shape of the hilum and shape of the embryo, these morphological characters of Bromus taxa recorded accurately by using stereomicroscopy, SEM used for caryopses surface description. Cross sections were obtained by cutting in culms at the second internodes near the roots according to Johansen (1940) for LM examination, twenty seven anatomical characters were selected for comparison among the studied taxa including description of the cross sections outline and complete description of the internal tissues including type, lignification, arrangement and number of layers of these tissues. from this study we concluded that: 1. B. catharticus and B. danthoniae can be recognized easily from the other taxa, coinciding with the fact that the two species represent two separate sections (Ceratochloa and Triniusua respectively). This conclusion can be extended to involve B. inermis which represent section Pnigma. 2. B. scoparius can be confused with other Bromus species due to panicle shape. However, B. scoparius can be distinguished by its diagnostic panicle characters. 3. In this work B. adoensis was treated as synonym for B. pectinatus. On the other hand, B. sinaicus was treated as a separate species different from B. pectinatus. 4. The morphological description of B. diandrus var. diandrus and B. diandrus var. rigidus in the present study revealed diagnostic obvious characters suggesting the treatment of these two taxa at the specific level, viz. B. diandrus and B. rigidus. 5. B. tectorum was classified into 2 subspecies: B. tectorum subsp. tectorum and B. tectorum subsp. lucidus, which are restricted to Sinai. 6. B. hordeaceus, B. lepidus, B. lanceolatus, B. japonicus, B. madritensis, B. rubens and B. asciiculatus are treated as separate species; although B. madritensis and B. rubens are very similar morphologically and can be confused with each other. However, there are diagnostic characters that support their separation as different species. 7. B. catharticus, B. scoparius, B. diandrus, B. rigidus, B. madritensis and B. rubens are common in Egypt, B. tectorum subsp. tectorum and B. tectorum subsp. Lucidus are restricted in Sinai only, while B. danthoniae, B. hordeaceus, B. lepidus, B. lanceolatus, B. japonicus, B. pectinatus, B. sinaicus, B. inermis and B. fasciculatus were not traced by the author. B. alopecuros and B. sterilis are unconfirmed in Egypt. Representatives of each studied 16 species of Bromus were used as Operational Taxonomic Units (OTU’s). Based on previous studies as well as personal observations, a total of 84 morphological characters including both quantitative and qualitative were recorded. For data homogeneity, a binary matrix was generated for each character state that resulted in 195 records included both quantitative and qualitative. This matrix was subjected to ordination using detrended correspondence analysis (DECORANA) according to Hill and Guach (1980) and the computations were made using community analysis Package (CAP) according to Seaby and Henderson (2007), also 27 anatomical characters with 42 records were amalgamated with those of morphological characters resulted in 111 characters with 237 records and subjected to the ordination. Both sets of data of the morphological characters and the amalgamation between morphological and anatomical characters gave the same grouping of the studied taxa where B.catharticus, B. danthoniae and B. inermis each comprised a separate section and B. scoparius, B. hordeaceus, B. lepidus, B. lanceolatus, B. japonicus, B. pectinatus and B. sinaicus comprised another section and the remaining species were included in the last section.