"There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved."

Charles Darwin

The extended family

Plants

Grasses and palms In Mexico, there are around 4,700 species (Villaseñor, 2004) belonging to 58 families of flowering plants of the monocotyledon group (Class: Monocots or Liliopsida). A sample of 15 families is presented here, selected either for their diversity in Mexico, for being restricted to Mexico, or for their uniqueness.

The grasses and palms group includes a diverse range of species, some of which are controversial. It includes agaves and yuccas, bromeliads, grasses, sedges, orchids, "bird of paradise" plants and palms. There are very few fossil records of monocots and relatively little is known about their origin and evolution. This has led to great discussion about the families and groups at the top of this taxonomic category. The group is characterized by having only one embryonic leaf or cotyledon in each seed. They are distinguished from the other group of flowering plants (the Dicotyledons or Magnoliopsida) by the following:

- The ribs of the leaves are all parallel:
- The flowers (petals and sepals) are almost always divided into 3 segments or multiples of three
- Conducting tissues (xylem and phloem) are widely dispersed and are not arranged in a ring as in the dicotyledons
- They have a single cotyledon in the embryo
- Stems have no secondary vascular tissue growth and therefore some species lack thickness.
- Stems have almost no branches
- In herbaceous species, the stem is hollow
- The leaves normally have a sheath surrounding the stem

Contact: biodiversidad@conabio.gob.mx | México 2009