Gregor Mendel

Mendel's Life

Mendel was born into a German-speaking family in Heinzendorf, Austrian Silesia, Austrian Empire (now Hynčice, Czech Republic), and was baptized two days later. He was the son of Anton and Rosine Mendel, and had one elder and also a younger sister. During his childhood, Mendel worked as a gardener, studied beekeeping, and as a young man attended the Philosophical Institute in Olomouc. Upon recommendation of his physics teacher Friedrich Franz, he entered the Augustinian Abbey of St. Thomas in Brno in 1843. Born Johann Mendel, he took the name Gregor upon entering monastic life. In 1851 he was sent to the University of Vienna to study, returning to his abbey in 1853 as a teacher, principally of

Mendel's Importance

Gregor Mendel, who is known as the "father of modern genetics", was inspired by both his professors at university and his colleagues at the monastery to study variation

in plants, and he conducted his study in the monastery's garden. Between 1856 and 1863 Mendel cultivated and tested some 29,000 pea plants (i.e. Pisum sativum). This study showed that one in four pea plants had purebred recessive alleles, two out of four were hybrid and one out of four were purebred dominant. His experiments brought forth two generalizations, which later became known as Mendel's Laws of Inheritance.

Parental Cross	*F1 Phenotype*	*F2 Phenotype*	*F2 Ratio*
Round x Wrinkled Seed	Round	5474 Roound:1850 Wrinkled	2.96: 1
Yellow x Green Seeds	Yellow	6022 Yellow: 2001 Green	3.01: 1
Red x White Flowers	Red	705 Red: 224 White	3.15: 1
Tall x Dwarf Plants	Tall	1787 Tall: 227 Dwarf	2.84: 1

Table 1: The Mendelian Ratios[1]

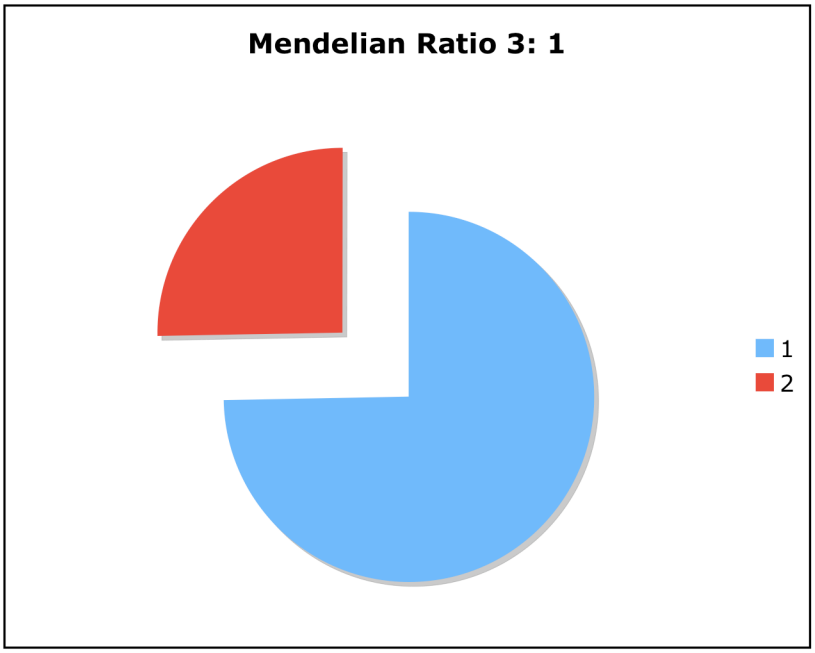


Chart 1: 3:1 Mendelian Ratio[2]

1

http://www.ndsu.edu/instruct/mcclean/plsc431/mendel/mendel1.htm

The Start of Mendel's Scientific Career

Mendel read his paper, "Experiments on Plant Hybridization", at two meetings of the Natural History Society of Brünn in Moravia in 1865. When Mendel's paper was published in 1866 in Proceedings of the Natural History Society of Brünn,[2] it had little impact and was cited about three times over the next thirty-five years. His paper received plenty of criticism at the time, but is now considered a seminal work.

Mendel's Work With Peas

After Mendel completed his work with peas, he turned to experimenting with honeybees, to extend his work to animals. He produced a hybrid strain (so vicious they were destroyed), but failed to generate a clear picture of their heredity because of the difficulties in controlling mating behaviors of queen bees. He also described novel plant species, and these are denoted with the botanical author abbreviation "Mendel".

Elevated as abbot in 1868, his scientific work largely ended as Mendel became consumed with his increased administrative responsibilities, especially a dispute with the civil government over their attempt to impose special taxes on religious institutions.[3]

2

http://www.ndsu.edu/instruct/mcclean/plsc431/mendel/mendel1.htm

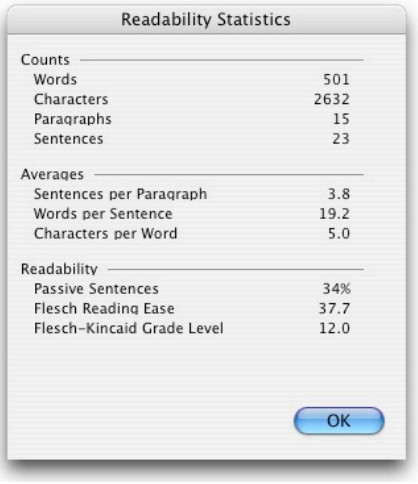
Mendel's Legacy

At first Mendel's work was rejected, and it was not widely accepted until after he died. The common belief at the time was that pagans were responsible for inheritance. Even Darwin's theory of evolution used pangenesis instead of Mendel's model of inheritance. The modern synthesis uses Mendelian genetics.

Mendel died on January 6, 1884, at age 62, in Brno, Austria-Hungary (now Czech Republic), from chronic nephritis. Czech composer Leoš Janáček played the organ at his funeral. After his death, the next abbot burned all his papers he had in his possession.

death, the next abbot burned all his papers he had in his possession.

http://en.wikipedia.org/wiki/Gregor_Mendel



Bibliography

http://en.wikipedia.org/wiki/Gregor_Mendel

http://www.ndsu.edu/instruct/mcclean/plsc431/mendel/mendel1.htm