**Taxonomic status of Bacteria**

* No one system for the classification of bacteria is generally accepted. The three most widely used classifications are those of Lehmann and Neumann, Migula, and Bergey.
* A comprehensive classification was published by Lehmann and Neumann in 1896. Almost the same time Erwin Frink.
* A fresh system of classification was sug­gested by Migula in 1900.
* Later Bergey in 1923 in Manual of Determinative Bac­teriology introduced a new system of classification of bacteria. Bergey’s system of classification attracted attention of a large number of workers.
* Subsequently, in 1948 an abridged classification was prepared by a committee appointed by the Society of American Bacteriologists.
* This committee, known as the Board of Editor-Trustees, has the co-operation of a group of approximately 65 bacteriologists interested in developing the systematic relationship of the various groups of bacteria.
* The work of the committee was published under the title of **‘Bergey’s Manual of Determinative Bacteriology’** in honour of Dr. D. H. Bergey who was responsible for developing the first edition of the manual.

In Bergey’s manual, bacteria were separated into five orders which may be briefly characterized as follows:

* Eubacteriales

#### Actinomycetales

#### Chlamydobacteriales

#### Myxobacteriales

#### Spirochaetales

But in course of time bacteria were further grouped into ten orders based on the morphology of vegetative cells and nature of flagellation:

1. Eubacteriales
2. Pseudomonadales
3. Caryophanales
4. Actinomycetales
5. Chlamydobacteriales
6. Myxobacteriales
7. Beggiatoales
8. Hyphomicrobiales
9. Spirochaetales
10. Mycoplasmatales

There are 13 families of bacteria out of them 4 are important

|  |  |  |
| --- | --- | --- |
| Taxonomic category | Genus / species | Diseases caused |
| Order: PseudomonadalesFamily: *Psedomonadaceae* | *Xanthomonas compestris* pv. *malvacearm**X. compesrtis* pv. *citri**X. oyzae* pv. o*yza**Psedomonas solanacearm* | Angular leaf spot of cottonCitrus cankerBrown leaf spot of riceWilt of salacious plant |
| Order: EubacterialesFamily: *Enterobacteriaceaee* | *Erwinia corotovora**E. amylovora* | Root and crown rotsSoft rot |
| Order: EubacterialesFamily: *Rhizobiaceae* | *Agrobacterim tumefaciens* | Crown Gall  |
| Order*:* Actinomycetales*Family: Streptomycetaceae* | *Streptomyces scabies* | Potato scab |