PREFACE.

LINNEUS has divided the vegetable world into 24 Classes; these Classes into about 120 Orders; these Orders contain about 2000 Families, or Genera; and these Families about 20,000 Species; besides the innumerable Varieties, which the accidents of climate or cultivation have added to these Species.

The Classes are distinguished from each other in this ingenious system, by the number, situation, adhesion, or reciprocal proportion of the males in each flower. The Orders, in many of these Classes, are distinguished by the number, or other circumstances of the females. The Families, or Genera, are characterized by the analogy of all the parts of the flower or fructification. The Species are distinguished by the foliage of the plant; and the Varieties by any accidental circumstance of colour, taste, or odour; the seeds of these do not always produce plants similar to the parent; as in our numerous fruit-trees and garden flowers; which are propagated by grafts or layers.[1]

The first eleven Classes include the plants, in whose flowers both the sexes reside; and in which the Males or Stamens are neither united, nor unequal in height when at maturity; and are therefore distinguished from each other simply by the number of males in each flower, as is seen in the annexed PLATE, copied from the Dictionaire Botanique of M. BULLIARD,[2] in which the numbers of each division refer to the Botanic Classes.

CLASS I. ONE MALE, *Monandria*;[3] includes the plants which possess but One Stamen in each flower.
II. TWO MALES, *Diandria*. Two Stamens.
III. THREE MALES, *Triandria.* Three Stamens.
IV. FOUR MALES, *Tetrandria.* Four Stamens.
V. FIVE MALES, *Pentandria.* Five Stamens.
VI. SIX MALES, *Hexandria.* Six Stamens.
VII. SEVEN MALES, *Heptandria.* Seven Stamens.
VIII. EIGHT MALES, *Octandria.* Eight Stamens.
IX. NINE MALES, *Enneandria.* Nine Stamens.
X. TEN MALES, *Decandria.* Ten Stamens.
XI. TWELVE MALES, *Dodecandria.* Twelve Stamens.

The next two Classes are distinguished not only by the number of equal and disunited males, as in the above eleven Classes, but require an additional circumstance to be attended to, *viz*. whether the males or stamens be situated on the calyx, or not.

XII. TWENTY MALES, *Icosandria.* Twenty Stamens inserted on the calyx or flower-cup; as is well seen in the last Figure of No. xii. in the annexed Plate.
XIII. MANY MALES, *Polyandria.* From 20 to 100 Stamens, which do not adhere to the calyx; as is well seen in the first Figure of No. xiii. in the annexed Plate.

In the next two Classes, not only the number of stamens are to be observed, but the reciprocal proportions in respect to height.
XIV. TWO POWERS, *Didynamia.* Four Stamens, of which two are lower than the other two; as is seen in the two first Figures of No. xiv.
XV. FOUR POWERS, *Tetradynamia.* Six Stamens; of which four are taller, and the two lower ones opposite to each other; as is seen in the third Figure of the upper row in No. 15.

The five subsequent Classes are distinguished not by the number of the males, or stamens, but by their union or adhesion, either by their anthers, or filaments, or to the female or pistil.

XVI. ONE BROTHERHOOD, *Monadelphia.* Many Stamens united by their filaments into one company; as in the second Figure below of No. xvi.

XVII. TWO BROTHERHOODS, *Diadelphia.* Many Stamens united by their filaments into two Companies; as in the uppermost Fig. No. xvii.

XVIII. MANY BROTHERHOODS, *Polyadelphia.* Many Stamens united by their filaments into thee or more companies, as in No. xviii.

XIX. CONFEDERATE MALES, *Syngenesia.*[4] Many Stamens united by their anthers; as in first and second Figures, No. xix.

XX. FEMININE MALES, *Gynandria.* Many Stamens attached to the pistil.

The next three Classes consist of plants, whose flowers contain but one of the sexes; or if some of them contain both sexes, there are other flowers accompanying them of but one sex.

XXI. ONE HOUSE, *Monœcia.* Male flowers and female flowers separate, but on the same plant.

XXII. TWO HOUSES, *Diœcia.* Male flowers and female flowers separate, on different plants.

XXIII. POLYGAMY, *Polygamia.* Male and female flowers on one or more plants, which have at the same time flowers of both sexes.

The last Class contains the plants whose flowers are not discernible.

XXIV. CLANDESTINE MARRIAGE, *Cryptogamia.*

The Orders of the first thirteen Classes are founded on the number of Females, or Pistils, and distinguished by the names, ONE FEMALE, *Monogynia.* TWO FEMALES, *Digynia.* THREE FEMALES, *Trigynia. &c.* as is seen in No. 1. which represents a plant of one male, one female; and in the first Figure of No. xi. which represents a flower with twelve males, and three females; (for, where the pistils have no apparent styles, the summits, or stigmas, are to be numbered) and in the first Figure of No. xii. which represents a flower with twenty males and many females; and in the last Figure of the same No. which has twenty males and one female; and in No. xiii. which represents a flower with many males and many females.

The Class of TWO POWERS, is divided into two natural Orders; into such as have their seeds naked at the bottom of the calyx, or flower cup; and such as have their seeds covered; as is seen in No. xiv. Fig. 3 and 5.

The Class of FOUR POWERS, is divided also into two Orders; in one of these the seeds are inclosed in a silicule,[5] as in *Shepherd's purse.* No. xiv.[6] Fig. 5. In the other they are inclosed in a silique,[7] as in *Wall-flower.* Fig. 4.

In all the other Classes, excepting the Classes Confederate Males, and Clandestine Marriage, as the character of each Class is distinguished by the situations of the males; the character of the Orders is marked by the numbers of them. In the Class ONE BROTHERHOOD, No. xvi. Fig. 3. the Order of ten males is represented. And in the Class TWO BROTHERHOODS, No. xvii. Fig. 2. the Order ten males is represented.

In the Class CONFEDERATE MALES, the Orders are chiefly distinguished by the fertility or barrenness of the florets of the disk, or ray of the compound flower.

And in the Class of CLANDESTINE MARRIAGE, the four Orders are termed FERNS, MOSSES, FLAGS[8] and FUNGUSSES.

The Orders are again divided into Genera, or Families, which are all natural associations, and are described from the general resemblances of the parts of fructification, in respect to their number, form, situation, and reciprocal proportion. These are the Calyx, or Flower-cup, as seen in No. iv. Fig. 1. No. x. Fig. 1. and 3. No. xiv. Fig. 1. 2. 3. 4. Second, the Corol, or Blossom, as seen in No. i. ii. &c. Third, the Males, or Stamens; as in No. iv. Fig. 1. and No. viii. Fig. 1. Fourth, the Females, or Pistils; as in No. i. No. xii. Fig. 1. No. xiv. Fig. 3. No. xv. Fig. 3. Fifth, the Pericarp or Fruit-vessel; as No. xv. Fig. 4. 5. No. xvii. Fig. 2. Sixth, the Seeds.

The illustrious author of the Sexual System of Botany, in his preface to his account of the Natural Orders,[9] ingeniously imagines, that one plant of each Natural Order was created in the beginning; and that the intermarriages of these produced one plant of every Genus, or Family; and that the intermarriages of these Generic, or Family plants, produced all the Species: and lastly, that the intermarriages of the individuals of the Species produced the Varieties.

In the following POEM, the name or number of the Class or Order of each plant is printed in italics; as "*Two* brother swains." "*One* House contains them." and the word "*secret*." expresses the Class of Clandestine Marriage.

The Reader, who wishes to become further acquainted with this delightful field of science, is advised to study the words of the Great Master, and is apprized that they are exactly and literally translated into English, by a Society at LICHFIELD,[10] in four Volumes Octavo.

To the SYSTEM OF VEGETABLES is prefixed a copious explanation of all the Terms used in Botany, translated from a thesis of Dr. ELMSGREEN,[11] with the plates and references from the Philosophia Botannica[12] of LINNEUS.

To the FAMILIES OF PLANTS is prefixed a Catalogue of the names of plants, and other Botanic Terms, carefully accented, to shew their proper pronunciation; a work of great labour, and which was much wanted, not only by beginners, but by proficients in BOTANY.

The SYSTEM OF VEGETABLES translated from the Systema Vegetabilium,[13] in two Vols. is sold by LEIGH and SOTHEBY, *York Street, Covent Garden:* Price 18 Shillings, in Boards.[14]

The FAMILIES OF PLANTS translated from the Genera Plantarum,[15] in two Vols. by JOHNSON, *St. Paul's Church-Yard,* LONDON: Price 16 Shillings, in Boards.

[flourish]

[Figures: [Two diagrams illustrating Linnaeus's 24 classes] F. P. Nodder Sculp.t[16]]

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[1] Grafts are shoots from one plant inserted in slits made in the stem of another plant. Layers are shoots bent and fastened down and partly covered in earth so that they root while still attached to the parent plant.

[2] Pierre Bulliard (1752–1793) was a French botanical writer whose masterwork is *Herbier de France illustré* [Illustrated Herbarium of France] (1780–1783). The diagrams at the end of the *LOTP* Preface are copied from Pl. II, "SYSTEME SEXUEL DE LINNÆUS," found between pages 116 and 117 of Buillard's *Dictionnaire élémentaire de botanique* [Elementary Dictionary of Botany] (1783). According to the title page, Bulliard designed the plates himself, oversaw their reproduction, and intended the *Dictionnaire* as an introduction to the *Herbier*.

[3] ED's English names for the 24 classes are literal translations of the Greek roots which form the Linnaean terms (in this case, *mono*- + *andria* = one male).

[4] In this case, the Greek roots are *syn*- + *genesis*, together + origin, production.

[5] Silicula or silicle; a short pod.

[6] 1794, 1799: "No. xv."

[7] Siliqua, a long pod.

[8] While "flags" may refer to plants with bladed leaves that grow in moist places, such as reeds, rushes, and irises, the word was also used in ED's time for seaweed and algae. In both of the translations of Linnaeus by ED, as part of the Botanical Society of Lichfield, *A System of Vegetables* (1783) and *The Families of Plants* (1787), "*Algæ,*" translated as "Flags," is a category under "Clandestine Marriage." It contains lichen, a genus of hornwort (Anthoceros), several species of liverwort, and filaments secreted by molluscs (Byssus), as well as several species of algae.

[9] ED refers to Linnaeus's *Genera Plantarum* (first published 1737); its full title is *Genera Plantarum Eorumque Characteres Naturales Secundum Numerum, Figuram, Situm, & Proportionem Omnium fructificationis Partium*; or, as translated by ED as part of the Botanical Society of Lichfield, *The Families of Plants, with their Natural Characters, according to the Number, Figure, Situation, and Proportion of all the parts of Fructification* (1787). ED's reference is to the first four of the numbered statements that make up the headnote to "Ordines Naturales. (*Natural Orders*.)", Vol. 2, p. 770.

[10] The Botanical Society of Lichfield was founded in the late 1770s for the purpose of translating works by Linnaeus from Latin into English. It consisted of ED, Brooke Boothby (1744–1824), and William Jackson (1735–1798). Boothby, an author, traveller, and exotic plant collector, was part of ED's circle of

Lichfield friends; he was also a friend of Rousseau. King-Hele (*Life*, p. 151) suggests that this William Jackson might be the one who wrote *The Beauties of Nature* (1769). King-Hele (*Life*, p. 179) believes that Boothby and Jackson aided with proofreading, while ED did the translation. *A System of Vegetables* was published in 1783, and *The Families of Plants* in 1787.

[11] "Termini Botanici," a dissertation proposed by Johan Elmgren (1740–1794), no. CXXIII in *Amœnitates Academicæ,* vol. 6 (1763), pp. 217–46. *Amœnitates Academicæ* [Academic Delights] (1749–1790) was a series directed by Linnaeus that published dissertations in Latin by scholars of natural history at the University of Uppsala. Most of these dissertations were written primarily by Linnaeus, with the student acting as an assistant.

[12] Linnaeus's *Philosophia Botanica* (1751) is an elaboration on his previous *Fundamenta Botanica* (1736) in which he had presented his botanical theories in the brief form of aphorisms.

[13] *Systema Vegetabilium*, published in 1774 by Linnaeus's student Johan Andreas Murray (1740–1791), is an updated version (13th ed.) of the *Regnum Vegetabile* [Vegetable Kingdom] section of Linnaeus's *Systema Naturæ* (first published 1735). *A System of Vegetables* (1783) also draws on Carl Linnaeus Jr.'s *Supplementum Plantarum* (1781).

[14] Books in boards had covers made of pasteboard and covered with paper. Purchasers would pay extra to have books more permanently bound.

[15] Linnaeus's *Genera Plantarum* was first published in 1737. *The Families of Plants* (1787) is a translation based on the new edition published in 1778 by Johann Jacob Reichard (1743–1782); it also includes the first and second *Mantissa Plantarum* (1767, 1771) by Linnaeus ("mantissa" means supplement) and Carl Linnaeus Jr.'s *Supplementum Plantarum* (1781). In addition, it includes "all the new Families of Plants" from *Flora Japonica* (1784) by the Swedish botanist Carl Peter Thunberg (1743–1828), and from *Nova Genera Plantarum* (a series of dissertations presided over and largely written by Thunberg as supervisor, published 1781–1801), and also from *Stirpes novæ Plantarum* (1784) by French botanist Charles Louis L'Héritier de Brutelle (1746–1800).

[16] In 1789 another engraving of the diagrams was used (see Appendix 1.2). "Sculp.t" is short for the Latin *sculpsit*, that is, engraved the plates. Botanical artist and publisher Frederick Polydore Nodder (fl. 1773–1800) also designed and etched the illustrations for *Thirty-Eight Plates with Explanations* (1788) and *Flora Rustica* (1792) by botanist Thomas Martyn (1735–1825).