Towards a unified terminology for angiosperm reproductive systems


List S1. Glossary summarising etymological origins and succinct definitions of the main terminologies treated throughout the review. Whenever existing, synonyms are cited after the definition or within parenthesis.

Androdioecy (andrós: ‘masculine’ + dioecy) – population presenting individuals with staminate and other individuals with bisexual flowers.

Andromonoecy (andrós + monoecy) – population presenting staminate and bisexual flowers on the same individual.

Apomictic systems (apomixis – apo: ‘away from, off’ + mixis: ‘mixing, intercourse, mingling’) – asexual reproduction through seeds.

Autogamy (autos: ‘self’ + gámos: ‘marriage, fertilization’) – fusion of gametes after self-pollination (deposition of pollen coming from anthers of a flower in the stigma of the same flower); self-fertilization; self-fecundation.

Cleistogamy (kleistos: ‘closed’ + gámos) – self-compatible flowers do not open, but still set seeds and fruits through self-pollination.

Cosexuality (ko: ‘together, with’ + sexualis: ‘relating to sex’) – presence of only bisexual flowers in the individuals of a given population; bisexuality; hermaphroditism; monochy.

Dichogamy (dikho: ‘asunder, apart, in two’) – temporal separation of male and female functions through differential ripening.

 Dioecy (di: ‘two’ + oikos: ‘house’) – population presenting individuals with staminate and other individuals with pistillate flowers.

Enantiostyly (enantios: ‘opposite’ + stulos: ‘column, pillar, style’) – lateral deflection of the style, generating left- or right-styled morphs, within the same or in different individuals.

Flexistyly (flexibilis: ‘to bend, to curve’ + stulos) – sexual dimorphism in which morphs present heterodichogamy, but also reciprocal movement of the stigmatic surface along a vertical axis.

Floral systems – spatial and/or temporal characteristics of mainly bisexual flowers that optimize reproductive success, through mechanisms that promote self- or cross-pollination.

Gametophytic apomixis – the embryo originates from an unreduced embryo sac, which may develop from mitotic divisions of the megaspore mother cell (MMC) (diplospory) or diploid somatic cell(s) positioned in parallel to the MMC (apospory).

Gametophytic self-incompatibility – genetically controlled self-sterility mechanism in which the self-incompatibility phenotype of the pollen is determined by its own haploid genotype.

Geitonogamy (geiton: ‘neighbor’ + gámos) – fusion of gametes after geitonogamous pollination (deposition of pollen coming from anthers of a flower in the stigma of a different flower on the same individual).

Gynandroecy (gyn: ‘feminine’ + dioecy) – population presenting individuals with pistillate and other individuals with bisexual flowers.

Gynomonoecy (gyn + monoecy) – population presenting pistillate and bisexual flowers on the same individual.

Herkogamy (hérkos: ‘fence, wall’ + gámos) – spatial separation between male and female organs of the same flower.

Heteranthery (heteros: ‘other, different’ + anthera: ‘medicine made from flowers’) – production of two or more stamen types within the same flower, associated with labor division (stamens specialized in feeding or pollinating functions).

Heterodichogamy (heteros + dichogamy) – population-level dimorphism involving two morphs synchronously and reciprocally dichogamous, with male- or female-first phases.

Heteromorphic sporophytic self-incompatibility – genetically controlled self-sterility mechanism in which the self-incompatibility phenotype of the pollen is determined by the diploid genotype of the pollen-producing plant. Polymorphic plants genetically controlled by only two alleles responsible for the recognition and inhibition of pollen tube growth.

Heterostyly (heteros + stulos) – populations with two (diastyl) or three (tristyl) cosexual morphs that differ in the heights of anthers and stigmas, generating reciprocal herkogamy.

Homomorphic sporophytic self-incompatibility – genetically controlled self-sterility mechanism in which the self-incompatibility phenotype of the pollen is determined by the diploid genotype of the pollen-producing plant. Plants with only one floral type genetically controlled by a single S locus, which contains multiple alleles.

Incompatibility systems – genetically controlled inability of plants to produce fertile seeds after undergoing some level of selfing.

Late-acting self-incompatibility – genetically controlled self-sterility mechanism that prevents seed set by self-pollination, despite normal pollen tube growth and ovule penetration in selfed pistils; ovarian incompatibility; pistillate sorting.

Mating systems – regard the mode of gene transmission to descendants through sexual reproduction considering the genetic relation between gametes involved (self-related or not).

Monoecy (mónos: ‘single, sole, alone, only’ + oikos) – population presenting staminate and pistillate flowers on the same individual.

Movements of floral whorls – pollen transfer mediated by movements of whorls (e.g. gynoecium, androecium, corolla).

Reproductive systems – set of strategies angiosperms adopt to optimize their reproductive success, comprising the phenomena occurring between pollination and embryo formation; breeding systems.

Resupinate dimorphy (resupinátus: ‘bent back’) – presence of resupinate (individuals with flowers upside down) and non-resupinate floral morphs in the population.

Sexual systems – gender expression and its occurrence at different levels (intrafloral, individual, population or species levels), which is based in the presence and distribution of fertile whors within the flower.

Stylar dimorphism – populations with two morphs differing only in style heights, with anthers presenting the same positioning; stigma-height dimorphism.

Trimonoecy (tri: ‘three’ + monoecy) – population presenting staminate, pistillate and bisexual flowers on the same individual; polygamomonoecy.

Xenogamy (xénos: ‘foreigner, stranger’ + gámos) – fusion of gametes after cross-pollination (deposition of pollen coming from anthers of a flower in the stigma of another flower of genetically different individuals of the same species); cross-fertilization; cross-fecundation.