Proposals to amend the Code (H9–H11)

J.M.H. SHAW
c/o Botany Department, RHS Garden Wisley

Proposal H9: To amend Article 3 of the Code regarding the Group and Grex

(H9) Insert new article: Art. 4: The Grex

4.1 [Art. 3.3 of present Code] The grex (plural: greges, although often written as grexes. Contraction, gx) is an assemblage of individuals based solely on specified parentage. It may only be used in orchid nomenclature.

Note. 1. In current usage the parents of a grex are restricted to the rank of species or another grex, or a subspecies treated as though it were a species.

Rec. 1. If a subspecies is employed as a grex parent, it should be treated as at species rank, and the appropriate species binomial should be employed where available.

Rec. 2. Botanical taxa below the rank of subspecies, and infra-grex elements should not be designated as grex parents, but may be used as parents of infra-grex Groups. See 4.4.

4.2 A grex name applies to a cross and its reciprocal.

Ex. 1 [Ex. 9 of the present Code.] The collective name for the cross Paphiopedilum Atlantis grex × Paphiopedilum Lucifer grex is Paphiopedilum Sorel grex. It is also the name for the cross Paphiopedilum Lucifer grex × Paphiopedilum Atlantis grex.

Note. 2. If a name is required for a reciprocal cross of a grex which has a previously established name, a Group may be established for the reciprocal cross within the grex.

4.3. The grex is ranked above the Group so that a grex may contain one or more Groups.
Note. 3. The original greges were all inter-species crosses. Consequently they were of equivalent rank to species, cf. ICBN 2005 Art. H.5.1. However, with the practice of assigning separate grex names to both an inter-species cross and its parental back crosses, this equivalency has been lost. Consequently a nothospecies could be viewed as containing one or more greges.

Ex. 2. Epidendrum × obrienianum Rolfe applies to all progeny derived from all possible hybrid combinations between Epidendrum jamiesonis × Epidendrum radicans and their offspring. Consequently Epidendrum × obrienianum includes Epidendrum O’Brienianum grex (jamiesonis × radicans), and the back-cross Epidendrum Thayeri grex (O’Brienianum × radicans).

4.4. A Group formed within a grex may be defined by parentage or description and preferably both.

4.5 [3.6 of present Code] Unchanged except delete “Notwithstanding Art. 3.5.”

4.6 [3.7 of present Code] Unchanged except delete “Notwithstanding Art. 3.5.”

Adoption of this elevated ranking for the grex would require slight amendments to other parts of the Code including the addition of the word “grex” adjacent to Group in many Articles. The principles and rules applying to the formulation of Group and cultivar epithets should also continue to apply to grex epithets.

In the current Code Article 3.3 a grex is regarded as a specialised application of the Group defined by parentage and only applicable to orchid hybrids. Originally all greges (greges) were derived from crosses between species, which would give them species equivalent rank, cf. ICBN 2006 H.5.1. This was the concept of grex in Rolfe (1909). The practice of using only species or greges as grex parents continues today, although at times elements now regarded as subspecies are used as grex parents, but they are treated as being species for practical or historical reasons for the purpose of ICRA Registration.
When a grex was made several times using each time a different botanical or horticultural variety of a parental species, the resulting hybrid populations were called “varieties” (Rolfe, 1909) and each assigned an epithet, that was used after the grex epithet. These “varieties” could be variously equivalent to cultivars or Groups today, depending on how many individual clones and how much variation they embraced.

Under the present Code, it is not possible to name these entities, because a Group is considered to be the same rank as a grex. As these populations may contain many different seedlings, from which individuals will be selected and named as cultivars, it is not practical to assign a single cultivar name to the whole population. However, elevating the grex above the Group would allow a grex to contain one or more Groups and would thus enable populations of different parentage or with discernible common characters within a grex to be named as Groups.

This would also enable a closer equivalency to be recognised between named elements and their putatively equivalent infra-specific nothotaxa. For example in Cypripedium × ventricosum the variation is extensive and several nothotaxa of lower rank have been named. This is paralleled in horticulture by several remakes of the equivalent grex, using different elements of the parental species. However these names do not have any rank or place under the present Code, but could usefully be seen as Groups or sub-greges.

The grex need not be elevated to species-equivalent rank, but simply above the rank of the Group. In fact, there would be a slight anomaly introduced by elevating the grex to species-equivalent rank, in that a grex derived from two species is subordinate to and contained within the putatively equivalent botanical species hybrid (nothospecies). This arises because Article H.4 of the Botanical Code (ICBN 2006) makes clear that the botanical name applies to all possible combinations of crosses between the two species and their progeny, whereas separate grex names would be required for both an F1 and each of its back-crosses. Therefore two or more grex names may apply to different elements within a nothospecies. The same would apply to an artificial hybrid described botanically, and apparently equivalent grex names.
Early grex names were listed in Index Kewensis as nothospecies-equivalent and now have a double life, under both the ICBN and ICNCP, so that they may compete with other epithets within a genus for date priority. Hence, Cypripedium smithii Schltr. 1924 published for a wild species is illegitimate because of the prior existence of Cypripedium [Paphiopedilum] Smithii, Low, 1893 for the artificial hybrid, Paphiopedilum ciliolare × lawrenceanum.

Finally there is a need for some flexibility in providing for the establishment of a Group within a grex. In the past such entities have been based sometimes on a description, and on other occasions on a statement of parentage, which is strictly a sub-grex unit rather than a Group. To simplify this concept and avoid the need for separate Groups and sub-greges to coexist within the same grex, it is proposed that establishment for Groups within greges should be possible by either a statement of parentage, a description or preferably both if available. As an example, contained within Paphiopedilum Ashburtoniae grex (barbatum × insigne) are two entities: Expansum, which is based on a description in Gard. Chron. 22: 552 (1884) and Majus, which is based on a statement of parentage (barbatum ‘Crossii’ × insigne) in Veitch, Man. Cyp.: 79, which is strictly a sub-grex.

Proposal H10: To amend Art 19.20 of the Code regarding words prohibited in epithets

(H10) Art. 19.20. Add to list of prohibited words in epithets: reciprocal cross, reverse cross.

At times the reciprocal cross of a grex may differ significantly from the original hybrid and a Group epithet might be used to distinguish such a reverse cross. In the past the word “inversa” has been so employed. While this would currently be unacceptable as being a Latin word, its modern language equivalents are likely to make an appearance. It is not the intention of this proposal to restrict the use of the word “cross” by itself.
Proposal H11: To amend Article 24 of the Code regarding the establishment of Grex names

(H11) Art. 24.3 Notwithstanding Art. 24.1, the names of intergeneric graft-chimaeras (Art. 21.3) and greges that are based on specified parentage alone (Art. 4.1 [3.3]) are established if the accepted name of at least one parent of the graft-chimaera or grex concerned are stated at the time of publication providing that the provisions of Art. 24.1 (a)–(c) are fulfilled.

Rec. 1. At the discretion of the appropriate ICRA, a paragrex name may be designated for an orchid hybrid where both parents are unknown. This nomenclatural device can remain until such time as at least one parent may become known. Then the paragrex becomes either a grex name or a synonym of an established grex or a Group name. A paragrex epithet cannot displace an existing grex name, if the latter was more recently established.

At present Article 24.3, by use of the phrase “accepted names of the parents”, apparently requires that both parents of a grex must be stated at the time of publication in order to effect establishment. However this extends beyond the requirement of Article H.3.2 of the ICBN, which states that “A nothotaxon cannot be designated unless at least one parental taxon is known or can be postulated.” There are numerous cases where sufficient information about a cultivated orchid hybrid is known, due to either one parent only being identified or one parent only having an established grex or valid species name. Consequently it is proposed that, in line with the ICBN, the Code be modified to allow establishment of a grex name where only one parent name is available. There are several advantages to allowing this situation.

It would permit registration of a hybrid where a parent, at some point in its genealogy, is unknown. This would stabilise nomenclature and prevent exclusion from registration and establishment of epithets applying to grex parents that form the basis of breeding lines. The current provisions mean that whole breeding lines containing many greges are excluded from registration or nomenclatural establishment.
Examples: *Zygolum* Rhein Harlequin. Grex of unknown origin and unstated parentage distributed as *Galeottia* Rhein Harlequin. The registered parentage is a guess by the registrant who is using this plant in a breeding programme.

A registrant recently withdrew an application to register a grex after one parent (*Phalaenopsis* Red Ocone) could not be traced. Consequently a breeding line is excluded from the register.

A slightly more contentious issue is how to treat grex designations that are used as names where both parents are unknown or unavailable. It is proposed that some provision be made to enable such a name or designation to be used at the discretion of the appropriate ICRA.

A grex-equivalent name, which it is proposed to call a paragrex (meaning alongside a grex), could be permitted to enable a plant of unknown parentage, to function nomenclaturally as a grex parent.

After all, the plant still exists and will be used for breeding. What is achieved by deliberately ignoring it? A significant number of such cases are known, some near the base of the registered grex tree. Without this provision enormous sections of the Orchid Hybrid Register would consist of unestablishable names, that are technically unregisterable. Many cases are known in which parentage is kept secret or deliberately falsified for commercial reasons. This provision would enable registration and nomenclatural establishment of names for plants that are important commercially, used in breeding programmes, and even awarded, but of unknown parentage. If they are of high quality a breeder may wish to utilise them in a program and register the progeny. It would prevent the ‘need’ for some to guess at parentage to achieve registration. It is surely better to be honest about parentage than to fabricate it.

There is a small number of applications for ICRA grex registration that involve a grex parent in this category; many of these are from first time registrants, whose good will and co-operation would be seriously damaged by a refusal to register their cherished plant, resulting from a situation outside their control. Others are established nurseries who need a name for their plant, or individuals that must produce evidence of registration to have an award ratified.
As a nomenclator, the ICRA register should record all names in use, even if their application is doubtful.

Examples: *Miltonia* Lyoth, originated by Charlesworth & Co., 1920. Neither parent was recorded.

A considerable proportion of mass-marketed *Epidendrum* hybrids originate as unregistered greges from an amateur breeder in Japan, who sells them to a large nursery in Thailand for micropropagation and global distribution. Because they can be raised from seed to flowering in 18 months or less, he is very reticent about the parentage of these high quality hybrids. Due to their excellence they are used by several other well known nurseries in the USA and elsewhere to produce hybrids that have been given awards and are very popular. Some of these were featured in *Orchid Digest* 69(3), 2005, where several are illustrated under unregistered names of unknown parentage. The need to register these hybrids is considerable, and some guess-work about the parentage has been necessary.

Contributing to this problem is the refusal to list grex names in statutory registration for PBR, etc. Thus many quality plants are known only by a cultivar name or trade designation, which cannot be matched to the appropriate entry in the ICRA register. A few breeders who apply for PBR, and who already register their greges with the ICRA, will form the statutory cultivar epithet by appending a word element to the registered grex name. This enables the entries in the two registration systems to be correlated. However, most who apply for PBR do not use a grex name at all.

**REFERENCES**
