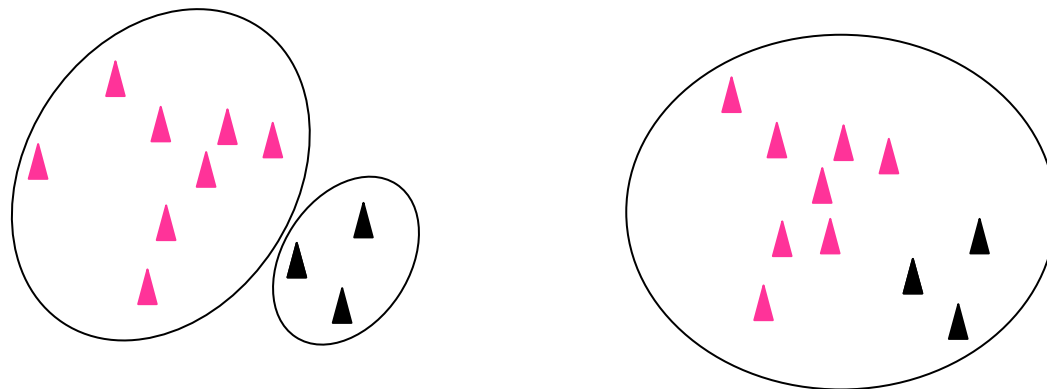


The “correct” name

- Nomenclatural codes help in finding the “**correct**” name for each taxon
What is correct?

FOUR LEVELS

1. Effective => real
2. Valid => According to technical rules
3. Legitimate => Technical but in relation to other names
4. Correct => A matter of opinion, ~ species concepts



The “correct” name? Effective publication

Art. 6.1. Effective publication is publication in accordance with Art. [29](#), [30](#), [31](#).

29.1. Publication is effected, under this *Code*, only by distribution of printed matter (through sale, exchange, or gift) to the general public or at least to botanical institutions with libraries accessible to botanists generally. It is not effected by communication of new names at a public meeting, by the placing of names in collections or gardens open to the public ... or solely by distribution electronically or through any electronic medium.

Ex. 1. Cusson announced his establishment of the genus *Physospermum* in a memoir read at the Société des Sciences de Montpellier in 1770, and later in 1782 or 1783 at the Société de Médecine de Paris, but its effective publication dates from 1787 (in Hist. Soc. Roy. Méd. 5(1): 279).

- Note (Art 30): before 1953 photocopies, lithographies, etchings of handwritten manuscripts were also considered “effective publication”. On a similar line, seed lists or lists accompanying specimens were also OK.

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon (autonyms excepted) must:

(a) be effectively published see Art. [29](#), [30](#), [31](#)) on or after the starting-point date of the respective group ([Art. 13.1](#)); (b) be composed only of letters of the Latin alphabet, except as provided in [Art. 23.3](#) and [Art. 60.4](#), [60.6](#), [60.9](#), and [60.10](#); (c) have a form which complies with the provisions of [Art. 16](#), [17](#), [18](#), [19](#), [20](#), [21](#), [22](#), [23](#), [24](#), [25](#), [26](#), [27](#) (but see [21.4](#), and [24.4](#)), and [Art. H.6](#) and [H.7](#); (d) be accompanied by a description or diagnosis or by a reference to a previously and effectively published description or diagnosis (except as provided in [Art. 42.3](#), [44.1](#), and [H.9](#)); and (e) comply with the special provisions of [Art. 33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) (see also [Art. 61](#)).

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon (autonyms excepted) must:

(a) be effectively published see Art. [29](#), [30](#), [31](#)) on or after the starting-point date of the respective group ([Art. 13.1](#));

Non-fossil plants:

SPERMATOPHYTA and PTERIDOPHYTA, 1 May 1753

MUSCI 1 January 1801 (Hedwig, *Species muscorum*).

FUNGI (including slime moulds and lichen-forming fungi), 1 May 1753 (Linnaeus, *Species plantarum*, ed. 1).

Names in *Uredinales*, *Ustilaginales*, and *Gasteromycetes* adopted by Persoon (1801)

Names of other fungi adopted by Fries (1821) are sanctioned (see [Art. 15](#)).

Names sanctioned are treated as if conserved against earlier homonyms and competing synonyms.

[..\..\..\Desktop\try.htm](#)

ALGAE, 1 May 1753

NOSTOCACEAE HOMOCYSTEAE, 1 January 1892

NOSTOCACEAE HETEROCYSTEAE, 1 January 1886

DESMIDIACEAE (s. l.), 1 January 1848 (Ralfs, *British Desmidiaceae*).

OEDOGONIACEAE, 1 January 1900

Fossil plants:

ALL GROUPS, 31 December 1820

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(b) be composed only of letters of the Latin alphabet, except as provided in [Art. 23.3](#) and [Art. 60.4](#), [60.6](#), [60.9](#), and [60.10](#);

No diacritics or punctuation

• The names must be pronounceable words (preferably Latinized), using Latin letters:
all letters used by the Romans + J, V & W

- *Siemienkiewicziechinogammarus siemienkiewitschii* Dybowski (amphipod)
- *Aa* Reichenbach, 1854 (orchid)
- *Aa* Baker, 1940 (mollusk)
- *la io* (vespertilionid bat)
- *Zyzza* (cicadellid)
- *Zyzyva* Casey, 1922 (tropical American weevil)
- *Zyzyx* Pate, 1937 (wasp)
- *Zyzyxdonta* Solem, 1976 (endodontoid snail) the extreme opposite of *Aaadonta*.

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(b) be composed only of letters of the Latin alphabet, except as provided in [Art. 23.3](#) and [Art. 60.4](#), [60.6](#), [60.9](#), and [60.10](#);

- *Abra cadabra* (Eames & Wilkins) 1957 (clam) Now, alas, in the genus *Theora*.
- *Aa* Baker, 1940 (mollusk)
- *Agra vation* Erwin, 1983 (carabid)
- *Mamma Moersch*, 1852 (mollusk) There is also *Papa Reichenbach*, 1850 (bird)
- *Oops Agassiz*, 1846 (arachnid)
- *Problema* (skipper)
- *Kamera lens* Woodcock, 1917 (protist)
- *La cucaracha* Blesynski, 1966 (pyralid)
- *Arses* (monarch flycatcher)
- *Dinohyus hollandi* Peterson (Miocene entelodont) Named after Carnegie Museum director W. J. Holland, who insisted that he be listed as senior author on every paper written by his staff. The name means "Holland's terrible pig."
- *Scrotum humanum* Brookes, 1763 (*Megalosaurus*)

<http://home.earthlink.net/~misaak/taxonomy/taxEtym.html>

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(b) be composed only of letters of the Latin alphabet, except as provided in [Art. 23.3](#) and [Art. 60.4](#), [60.6](#), [60.9](#), and [60.10](#);

- No tautonyms in the ICBN > < ICZN

Alle alle ([Little Auk](#))

Apus apus ([Common Swift](#))

Bubo bubo ([Eurasian Eagle Owl](#))

Buteo buteo ([Common Buzzard](#))

Carduelis carduelis ([European Goldfinch](#))

Ciconia ciconia ([White Stork](#))

Coccothraustes coccothraustes ([Hawfinch](#))

Coturnix coturnix ([Common Quail](#))

Crex crex ([Corncrake](#))

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(d) be accompanied by a LATIN description or diagnosis or by a reference to a previously and effectively published description or diagnosis (except as provided in [Art. 42.3](#), [44.1](#), and [H.9](#));

36.1. On or after **1 January 1935** a name of a new taxon (algal and all fossil taxa excepted) must, in order to be validly published, be accompanied by a Latin description or diagnosis or by a reference to a previously and effectively published Latin description or diagnosis.

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(d) be accompanied by a LATIN description or diagnosis or by a reference to a previously and effectively published description or diagnosis (except as provided in [Art. 42.3](#), [44.1](#), and [H.9](#));

36.2. In order to be validly published, a name of a new taxon of **non-fossil algae** published on or after **1 January 1958** must be accompanied by a **Latin** description or diagnosis or by a reference to a previously and effectively published Latin description or diagnosis.

36.3. In order to be validly published, a name of a new taxon of **fossil plants** published on or after **1 January 1996** must be accompanied by a **Latin or English description** or diagnosis or by a reference to a previously and effectively published Latin or English description or diagnosis.

The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(d) be accompanied by a LATIN description or diagnosis or by a reference to a previously and effectively published description or diagnosis

42.3. Prior to 1 January 1908 an illustration with analysis, or for non-vascular plants a single figure showing details aiding identification, is acceptable, for the purpose of this Article, in place of a written description or diagnosis.

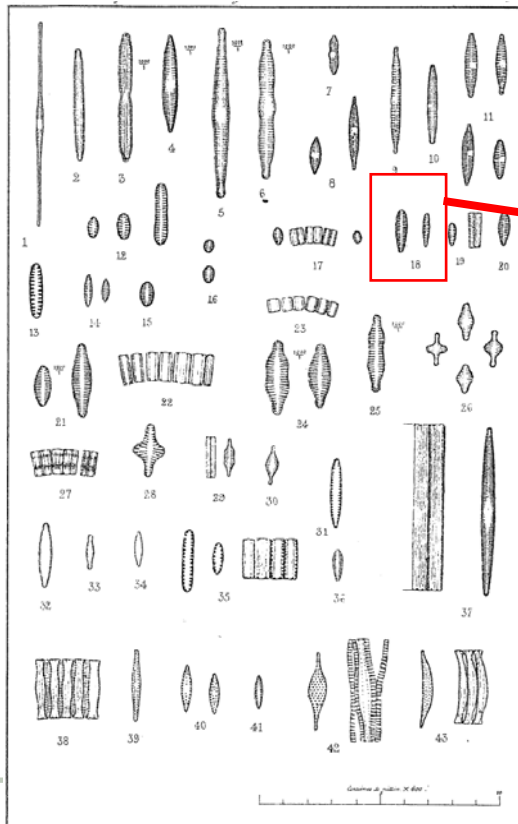
42.4. For the purpose of Art. 42, an analysis is a figure or group of figures, commonly separate from the main illustration of the plant (though usually on the same page or plate), showing details aiding identification, with or without a separate caption.

The “correct” name? Valid publication

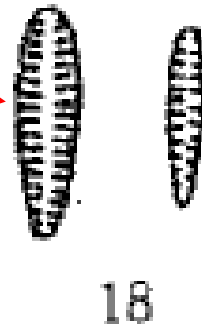
Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

32.1. In order to be validly published, a name of a taxon must:

(d) be accompanied by a LATIN description or diagnosis or by a reference to a previously and effectively published description or diagnosis (except as provided in [Art. 42.3](#), [44.1](#), and [H.9](#));



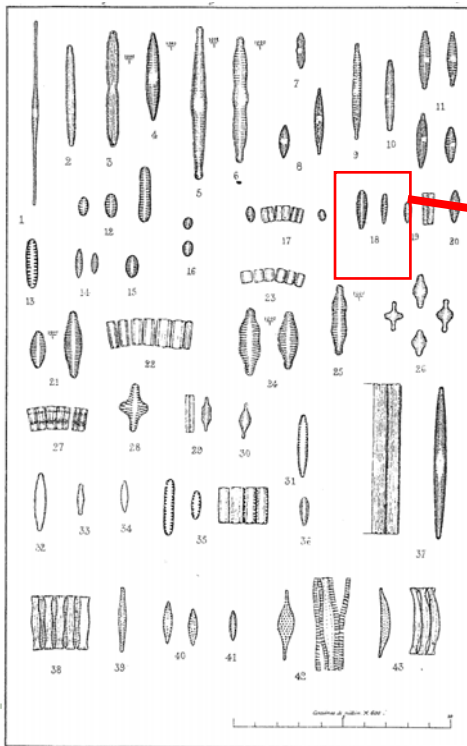
18. SCEPTRONEIS MARINA var?? PARVA.* (*Fragilaria mutabilis* var? *cuneata* Grun; serait d'après ARNOTT une forme de *Meridion marinum* Greg. Comparez Pl. 37 fig 9 et 8; Howland of Lamtash Bay.



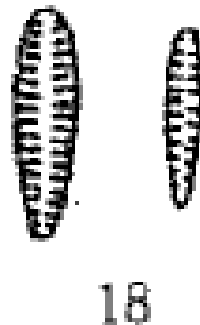
The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

Art. 39.1. In order to be validly published, a name of a new taxon of non-fossil algae of specific or lower rank published on or after 1 January 1958 must be accompanied by an illustration or figure ..., in addition to the Latin description or diagnosis, or by a reference to a previously and effectively published illustration or figure.



18. SCEPTRONEIS MARINA var?? PARVA.* (*Fragilaria mutabilis* var? *cuneata* Grun; serait d'après ARNOTT une forme de *Meridion marinum* Greg. Comparez Pl. 37 fig. 2 et 8.) Hourdel et Lamlash Bay



The “correct” name? Valid publication

Art. 6.2. Valid publication of names is publication in accordance with Art. [32](#), [33](#), [34](#), [35](#), [36](#), [37](#), [38](#), [39](#), [40](#), [41](#), [42](#), [43](#), [44](#), [45](#) or [H.9](#) (see also [Art. 61](#)).

33.1. A combination is not validly published unless the author definitely associates the final epithet with the name of the genus or species, or with its abbreviation. A complete and direct reference is needed.
... after 1953.

Example:

***Grateloupia belangeri* (Bory) comb. nov.**

BASIONYM: *Iridaea belangeri* Bory in Bélanger, Voyage aux Indes-Orientales: 160, pl. 15, Fig. 1, (1834).

~~***Grateloupia belangeri* (Bory) comb. nov.**~~

~~BASIONYM: *Iridaea belangeri* Bory~~

~~***Grateloupia belangeri* (Bory) comb. nov.**~~

~~BASIONYM: *Iridaea belangeri* Bory in Bélanger (1834).~~

The “correct” name? Legitimate

6.4. An illegitimate name is one that is designated as such in Art. [18.3](#), [19.5](#), or [52](#), [53](#), [54](#) (see also [Art. 21](#) Note 1 and [Art. 24](#) Note 2). A name which according to this *Code* was illegitimate when published cannot become legitimate later unless it is conserved or sanctioned.

6.5. A legitimate name is one that is in accordance with the rules, i.e. one that is not illegitimate as defined in Art. 6.4

- Not respecting the priority rule makes a name illegitimate !!!

Skeletonemopsis P. A. Sims (1995) was illegitimate when published because it included the original type of *Skeletonema* Grev. (1865). *Skeletonemopsis* had to be conserved in order to be available for use.

The “correct” name? Legitimate

6.4. An illegitimate name is one that is designated as such in Art. [18.3](#), [19.5](#), or [52](#), [53](#), [54](#) (see also [Art. 21](#) Note 1 and [Art. 24](#) Note 2). A name which according to this *Code* was illegitimate when published cannot become legitimate later unless it is conserved or sanctioned.

53.1. A name of a family, genus or species ... is illegitimate if it is a later homonym, that is, if it is spelled exactly like a name based on a different type that was previously and validly published for a taxon of the same rank.

- One name refers to one taxon (in the same code 😊)
- One of the (historically) most common mistakes in nomenclature !!!

Astragalus rhizanthus Boiss. (1843) is a later homonym of the validly published name *A. rhizanthus* Royle (1835) and is therefore unavailable for use. Boissier renamed it *A. cariensis* Boiss. (1849).

Argus Bohadsch, 1761 (gastropode);

Argus Scopoli, 1763 (vlinder);

Argus Scopoli, 1777 (vlinder);

Argus Poli, 1791 (slak);

Argus Temminck, 1807 (vogel);

Argus Lamarck, 1817 (hesperide);

Argus Boisduval, 1832 (lycaenide);

Argus Walckenaer, 1836 (arachnide);

Argus Gray, 1847 (slak);

Argus Gerhard, 1850 (lycaenide)

The “correct” name? Legitimate

6.4. An illegitimate name is one that is designated as such in Art. [18.3](#), [19.5](#), or [52](#), [53](#), [54](#) (see also [Art. 21](#) Note 1 and [Art. 24](#) Note 2). A name which according to this *Code* was illegitimate when published cannot become legitimate later unless it is conserved or sanctioned.

53.1. A name of a family, genus or species ... is illegitimate if it is a later homonym, that is, if it is spelled exactly like a name based on a different type that was previously and validly published for a taxon of the same rank.

- To avoid the creation of homonyms ***new names, avowed substitutes, nomen nova*** are made.

Okamura could not transfer *Zonaria ligulata* C.Agardh (1820) to *Dictyota*, because of the prior existence of *Dictyota ligulata* Kützing (1849). He therefore created a nomen novum, *Dictyota agardhii* Okamura.

- The type of a nomen novum remains that of the basionym !!!

Differences between codes

- **Principle of coordination**

The principle that within the family group, genus group or species group a name established for a taxon at any rank in the group is deemed to be simultaneously established with the same author and date for taxa based on the same name-bearing type at other ranks in the group [Arts. 36, 43, 46].

Family-group: Super-, Family, sub-, Tribus, sub-

Genus-group: Genus, sub-

Species-group: Species, sub-

An example:

Lecane closterocerca amazonica Koste, 1972 = *L. amazonica* Koste, 1972

Differences between codes

- **Tautonyms**

- e.g. Mops mops, Lima lima, Glis glis

- **Latin diagnosis**

- **Endings of taxa**

A unified code:
THE BIOCODE

Rank :	Zoölogie	Botanie	Bacteriologie
phylum/divisio	*	- <i>phyta/-mycota</i> ¹	
superfamily	- <i>oidea</i>	(<i>not used</i>)	(<i>not used</i>)
family	- <i>idae</i>	- <i>aceae</i>	- <i>aceae</i>
subfamily	- <i>inae</i>	- <i>oideae</i>	- <i>oideae</i>
tribus	- <i>ini</i>	- <i>eae</i>	- <i>eae</i>
subtribus	- <i>ina</i>	- <i>inae</i>	- <i>inae</i>