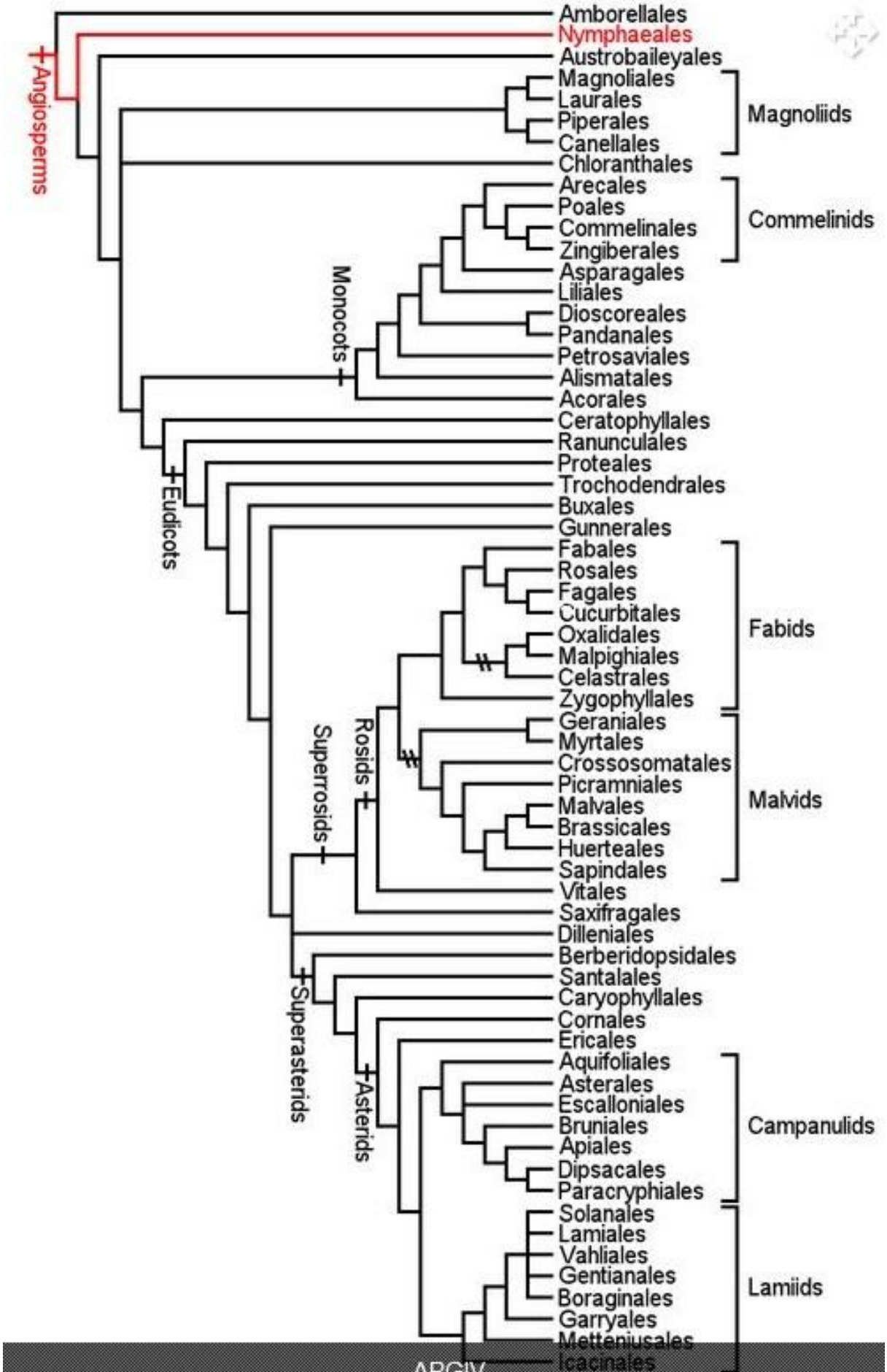
**CORSO DI BOTANICA SISTEMATICA**

# LEZIONE 16

# INTRODUZIONE ALLE ANGIOSPERMAE
# (Parte seconda: classificazione e nomenclatura)


Amborellales
Nymphaeales
Austrobaileyales
Magnoliales
Laurales
Piperales
Canellales
Chloranthales
Arecales
Poales
Commelinales
Zingiberales
Asparagales
Liliales
Dioscoreales
Pandanales
Petrosaviales
Alismatales
Acorales
Ceratophyllales
Ranunculales
Proteales
Trochodendrales
Buxales
Gunnerales
Fabales
Rosales
Fagales
Cucurbitales
Oxalidales
Malpighiales
Celastrales
Zygophyllales
Geraniales
Myrtales
Crossosomatales
Picramniales
Malvales
Brassicales
Huerteales
Sapindales
Vitales
Saxifragales
Dilleniales
Berberidopsidales
Santalales
Caryophyllales
Cornales
Ericales
Aquifoliales
Asterales
Escalloniales
Bruniales
Apiales
Dipsacales
Paracryphiales
Solanales
Lamiales
Vahliales
Gentianales
Boraginales
Garryales
Metteniusales
Icacinales
Magnoliids
Commelinids
Fabids
Malvids
Campanulids
Lamiids
Angiosperms
Monocots
Eudicots
Rosids
Superrosids
Asterids
Superasterids

## Flavoplaca limonia (Nimis & Poelt) Arup, Frödén & Søchting

in Arup & al., Nord. J. Bot., 31: 45, 2013. Basionym: Caloplaca limonia Nimis & Poelt in Nimis & al. - Bull. Soc. linn. Provence, 45: 252, 1994.

- Regno: Fungi
- Phylum: Ascomycota
- Suddivisione: Pezizomycotina
- Classe: Lecanoromycetes
- Sottoclasse: Lecanoromycetidae
- Ordine: Teloschistales
- Famiglia: Teloschistaceae
- Genere: *Flavoplaca*
- Specie: *limonia*

**TAXON** – pl. **TAXA**

Ogni taxon è una ipotesi!

Aggruppamento di organismi che si suppone siano **monofiletici**, i.e. hanno **antenato comune**.

Autori che per la prima volta hanno descritto la specie (!!!)

**Flavoplaca limonia (Nimis & Poelt) Arup, Frödén & Søchting**

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in Arup & al., Nord. J. Bot., 31: 45, 2013. Basionym: Caloplaca limonia Nimis & Poelt in Nimis & al. - Bull. Soc. linn. Provence, 45: 252, 1994.

## Contributions to lichen floristics in Italy VII — The Lichens of Marettimo (Egadi Islands, Sicily)

by Pier Luigi NIMIS *, Josef POELT **, Mauro TRETIACH *, Domenico OTTONELLO ***, Domenico PUNTILLO **** and Antonin VĚZDA *****

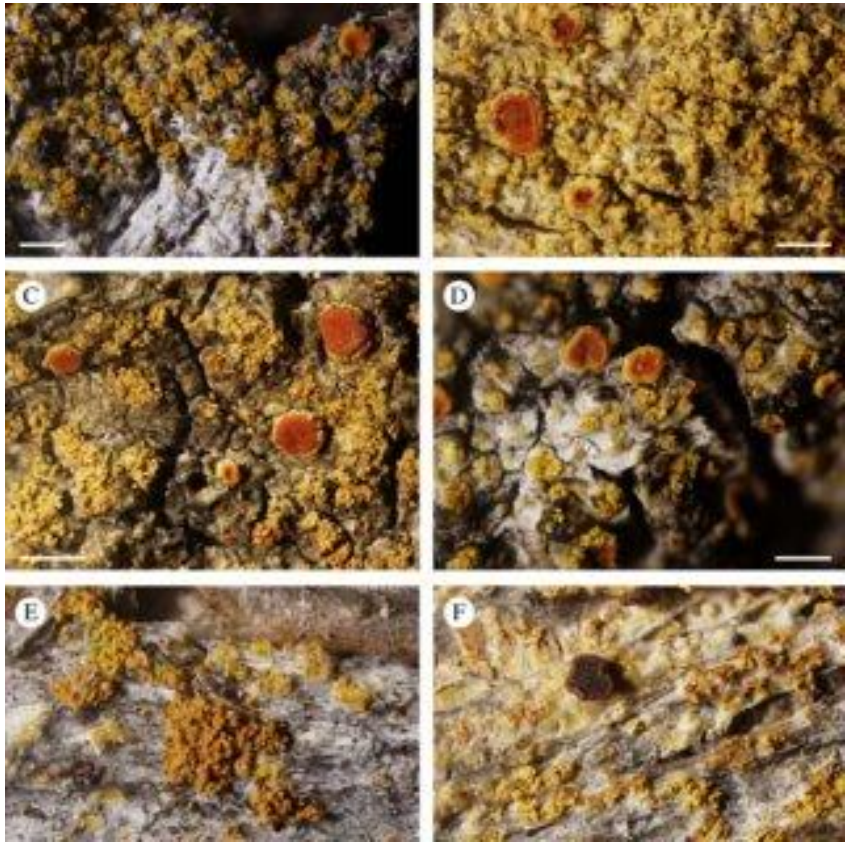
**Diagnosi** in latino: obbligatoria! (era obbligatoria, ora anche ok se solo in inglese)

***Caloplaca limonia*** Nimis & Poelt spec. nov. — *Thallus latus, demum indistincte areolatus, areolis tenuibus subplanis, et marginibus saepe crenatis–sublobulatis, superficie flava, demum blastidiatis, blastidiis comparate crassis. Apothecia subimmersa ad subpedicellata, crassula, discis planis ochraceo–fuscis et marginibus crassis, demum reclusis, laevibus ad blastidiatis, primum simplicibus, demum zeorinis. Superficies thalli blastidiorumque cristallis comparate magnis tecta. Blastidia cortice imperfecto instructa. Excipulum hyphis plus minusve radiantibus, demum indistinctis conglutinatisque constructum, numquam paraplectenchymaticum, turmas algarum irregulariter distributas includens. Hymenium ca. 100 mm altum. Paraphyses laxae, cellulis 2–3 apicalibus plus minusve inflatis. Sporae forma variabiles, anguste ad late ellipsoideae, septis subcrassis.*

Typus: Italia, Isole Egadi, Marettimo: Marettimo gegen Punta Ansini, 200–300 m, 25.3.1991. Leg. J. POELT (holotypus: GZU, isotypus: TSB).

Il materiale «**tipo**» (type/ holotype)

<u>Importante</u> per i confronti per descrizione di nuove specie o revisioni di specie.



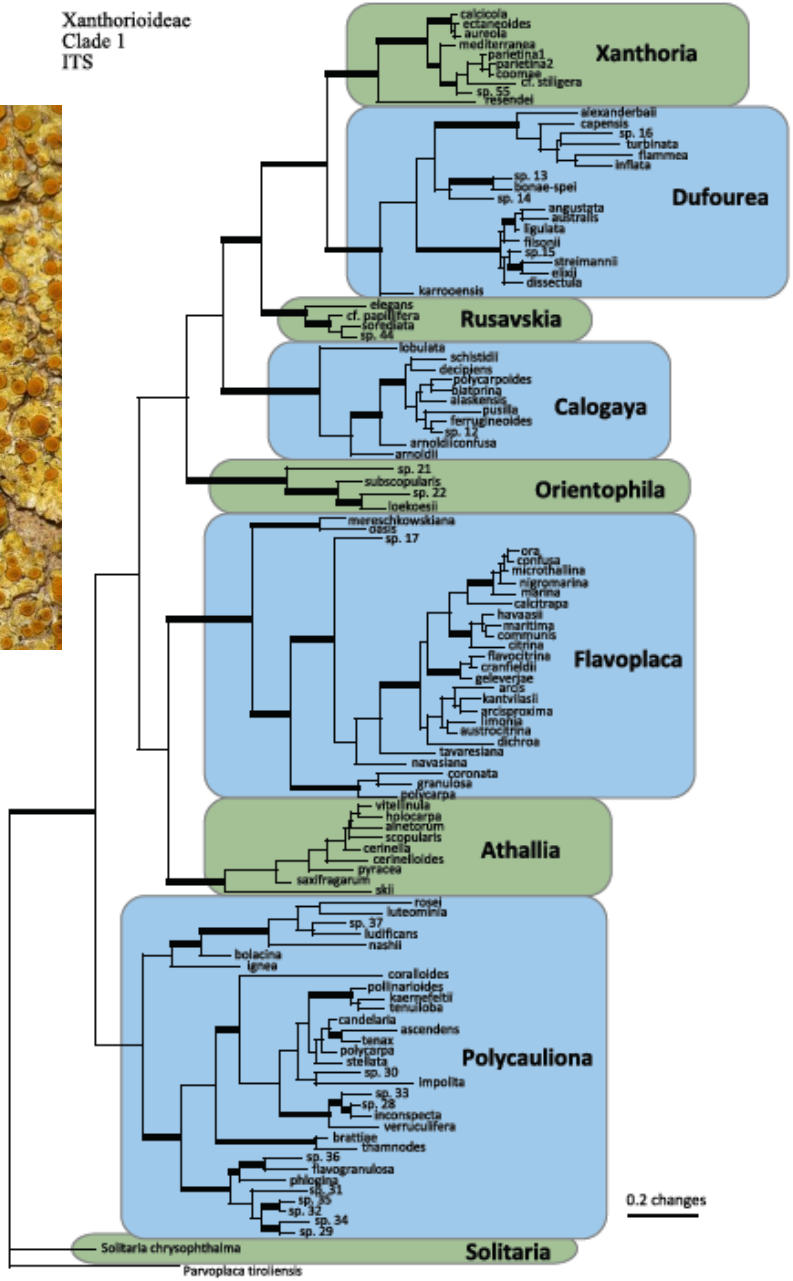

Nordic Journal of Botany 31: 016–083, 2013
doi: 10.1111/j.1756-1051.2013.00062.x,
© 2013 The Authors. Nordic Journal of Botany © 2013 Nordic Society Oikos
Subject Editor: Stefan Ekman. Accepted 5 January 2013

# A new taxonomy of the family Teloschistaceae

**Ulf Arup, Ulrik Søchting and Patrik Frödén**

*U. Arup (ulf.arup@biol.lu.se) and P. Frödén, Botanical Museum, Lund Univ., Box 117, SE-221 00 Lund, Sweden. – U. Søchting, Section for Ecology and Evolution, Dept of Biology, Univ. of Copenhagen, Universitetsparken 15, DK-2100 Copenhagen, Denmark.*

# *Caloplaca* & co. → 39 generi



## Flavoplaca limonia (Nimis & Poelt) Arup, Frödén & Søchting

in Arup & al., Nord. J. Bot., 31: 45, 2013. Basionym: Caloplaca limonia Nimis & Poelt in Nimis & al. - Bull. Soc. linn. Provence, 45: 252, 1994.

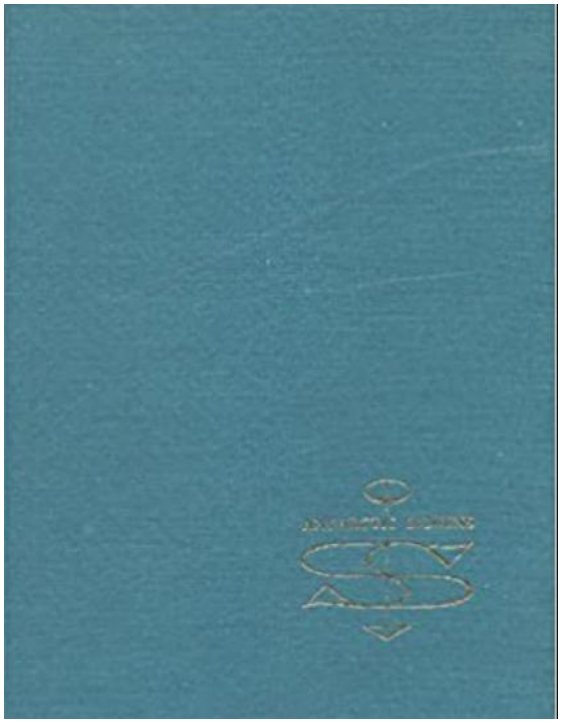
Basionimo!

***Flavoplaca limonia*** (Nimis & Poelt) Arup, Frödén & Søchting comb. nov. MycoBank MB 802073
**Basionym:** *Caloplaca limonia* Nimis & Poelt in Nimis et al. (1994, p. 252). **Type:** Italy, Isole Egadi, Marettimo, 1991, J. Poelt (GZU-holotype!).

**MYCOBANK** database!

*I nomi cambiano sempre!*

C.W. Dodge (1895-1988)



Lichen flora of the Antarctic continent and adjacent islands 1973

Importanza del materiale tipo!

Negli anni ‘20 U.S.A. aveva il monopolio delle analisi in Antartide. Come unico lichenologo avevano trovato Doge (un medico! Lichen eritematosum!!) ed assunto per lo studio dei licheni in Antartide. Doge contratta due collaboratrici per la determinazione dei licheni → descrizioni di specie nuove incorrette.

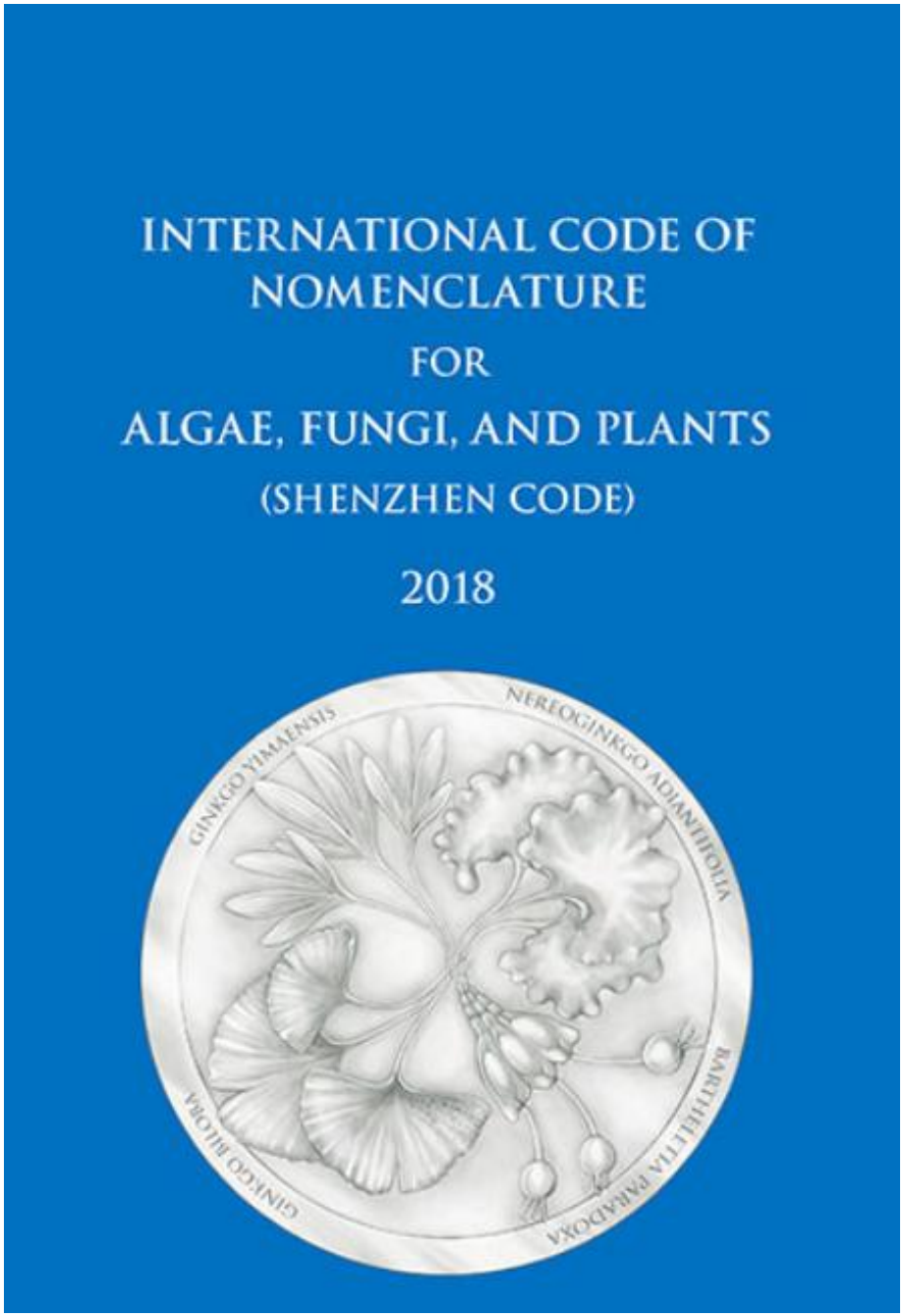
**A critical revision of Antarctic lichens described by C. W. Dodge**

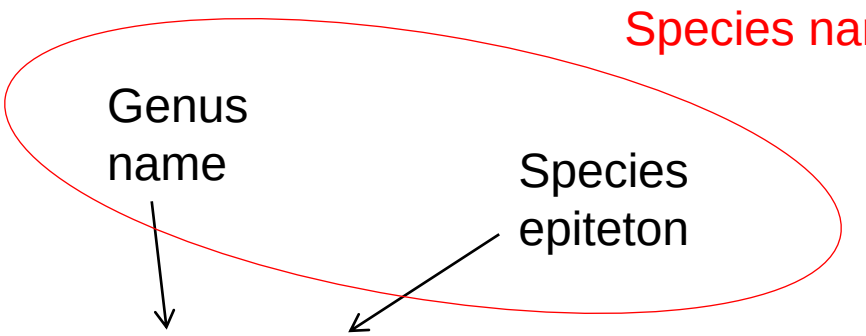
Miris CASTELLO and Pier Luigi NIMIS

*Department of Biology, University of Trieste, Via Valerio 32, I-34100 Trieste, Italy*

**Abstract:** The types of several species of Antarctic lichens described by C. W. DODGE, kept at the Farlow Herbarium (FH), were revised. A commented list of 152 species, including also the results of previous authors, is presented. The types of 27 species either belong to non-lichenized parasitic fungi, or, mostly, are so poorly developed as to render a precise identification impossible. The types of 94 species proved to be synonyms of previously described species; only 31 species are still accepted as valid.

**Priorità!**
Il nome valido di un organismo è il primo nome valido che è stato assegnato a quel organismo!





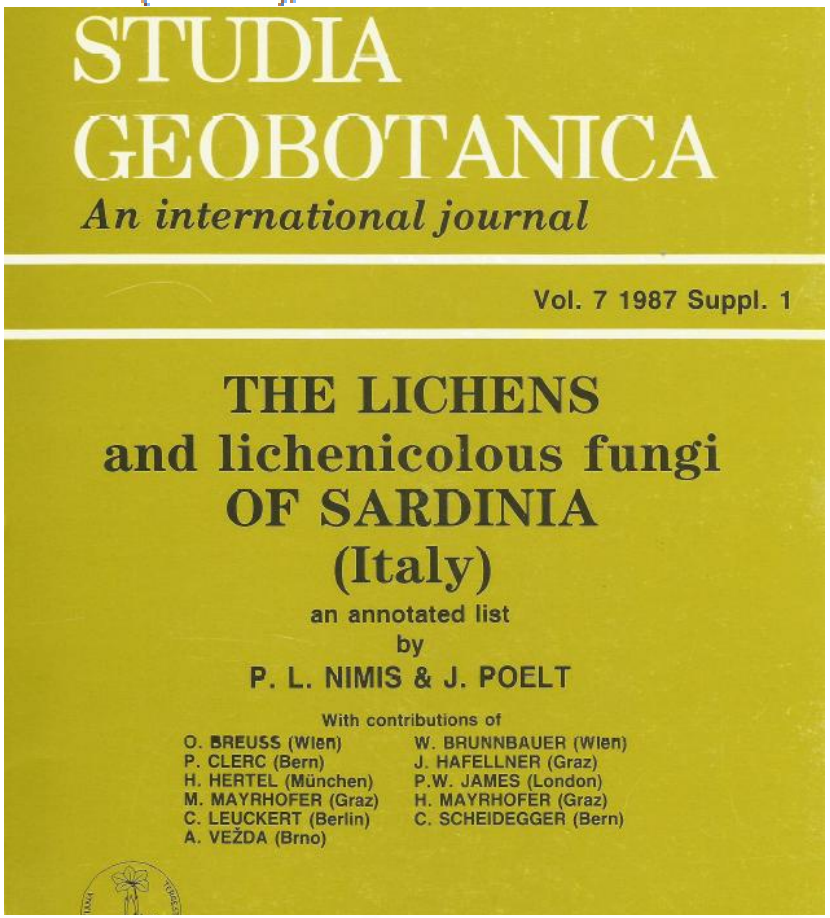

## Enchylium tenax (Sw.) Gray

Nat. Arr. Brit. Pl. (London), 1: 397, 1821. Basionym: Lichen tenax Sw. - N. Acta Reg. Soc. Sci. Upsal., 4: 249, 1784.

**Synonyms:** Collema ceranoides Borrer; Collema concinnum Flot.; Collema crispum var. prasinum ("Ach.") Duby; Collema crustaceum Kremp.; Collema euganeum A. Massal.; Collema intestiniforme Rabenh.; Collema meliteum Jatta; Collema meliteum var. conglomeratum Jatta; Collema molybdinum Körb. et auct. p.p.; Collema obscurum Hoffm.; Collema pulposum auct.; Collema pulposum var. corallinum A. Massal.; Collema subcorallinum Degel.; Collema submarginale (Wulfen) Ach.; Collema subpulposum Nyl.; Collema tenax (Sw.) Ach.; Collema tenax var. ceranoides (Borrer) Degel.; Collema tenax var. corallinum (A. Massal.) Degel.; Collema tenax var. crustaceum (Kremp.) Degel.; Collema tenax var. diffractoareolatum (Schaer.) Degel.; Collema tenax var. expansum Degel.; Collema tenax var. vulgare (Schaer.) Degel.; Collema turgidum sensu Hepp; Lichen palmatus sensu Ach.

# Physcia mediterranea Nimis

The Lichens of Italy. A second Annotated Catalogue: 20, 2016. Basionym: Physcia aipolia subsp. scopulorum Lambinon & Vezda in Vezda - Sched. ad Lich. Sel. Exs., 35: 6 (nr. 871), 1970.



Physcia **scopulorum (Ach.) DC.**, *Fl. franç.*, Edn 3 (Paris) **5/6**: 190 (1815)

**Basionym:**
Parmelia scopulorum Ach. 1803

15 **P. scopulorum** (Lamb. et Vežda) Poelt et Nimis comb. nov.
Basion.: Physcia aipolia (Ehrh. ex Humb.) Hampe subsp. scopulorum Lamb. et Vežda in A. VEŽDA Lich. Sel. Exs. 861, 1970.

# *I nomi cambiano sempre!*

La sistematica è come un mulino che macina ipotesi filogentiche (*PL Nimis*).

**Stabilità** dei nomi vs. **libertà** delle ipotesi filogenetiche e riconsiderazione dei nomi!

*Rosmarinus officinalis* L.

*Salvia officinalis* L.

Salvia rosmarinus Spenn.

Famiglia / Family: LAMIACEAE

*Salvia*: over 1000 species worldwide

# *Salvia* united: The greatest good for the greatest number

**Bryan T. Drew,[1] Jesús Guadalupe González-Gallegos,[2] Chun-Lei Xiang,[3] Ricardo Kriebel,[4] Chloe P. Drummond,[4] Jay B. Walker[3,4] & Kenneth J. Sytsma[4]**

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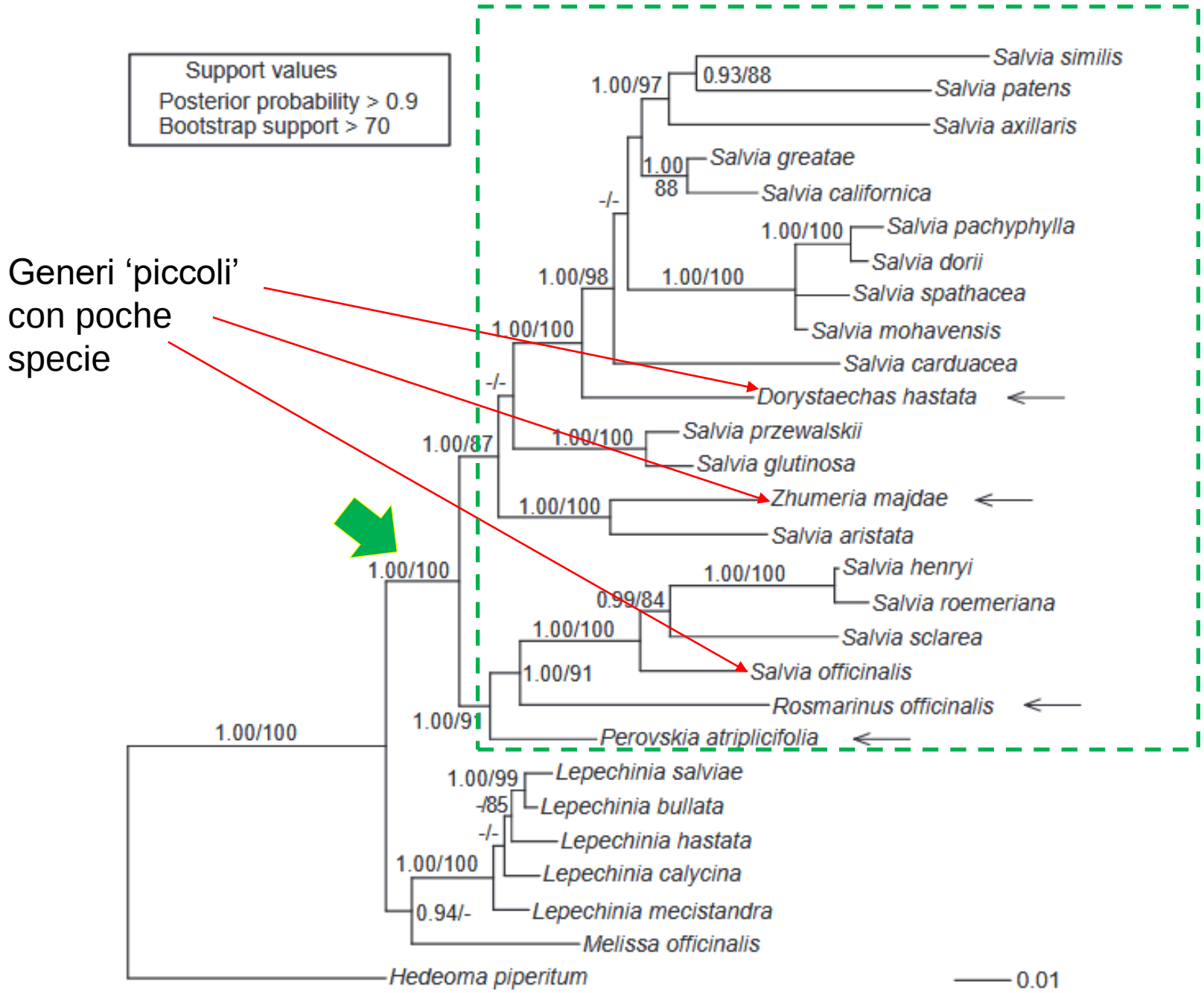
**DOI** https://doi.org/10.12705/661.7

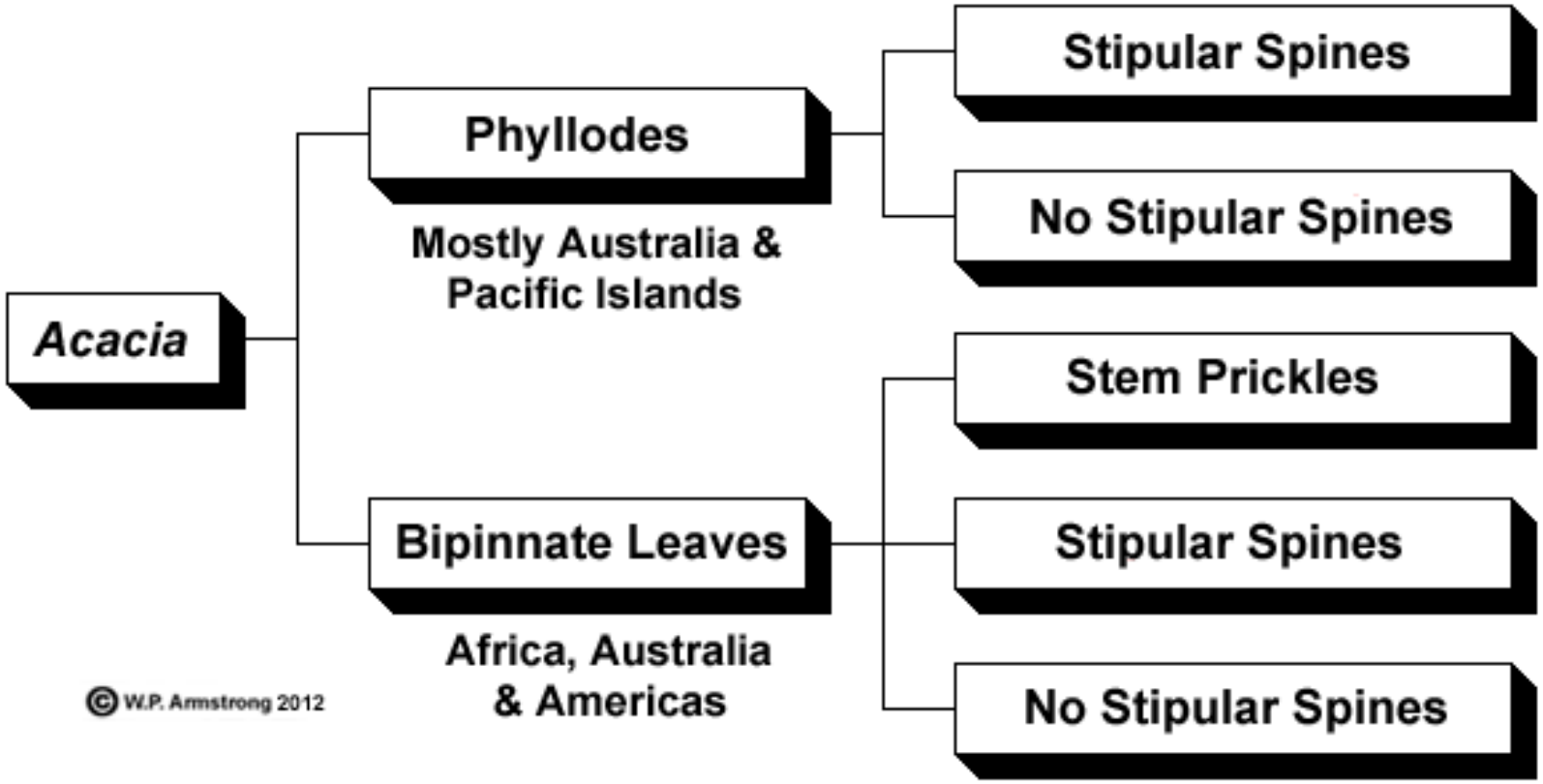
**Abstract** Previous molecular phylogenetic research, based on chloroplast and nuclear ribosomal DNA data, has demonstrated that the large genus *Salvia* (Lamiaceae) is paraphyletic as traditionally circumscribed. However, neither relationships within *Salvia* s.l. nor within subtribe Salviinae have been evaluated using low-copy nuclear gene regions. Here, we use two low-copy nuclear gene regions (*PPR-AT3G09060*, *GBSSI*) to further assess relationships of *Salvia* and related genera within Salviinae. Our results largely confirm results from previous studies based on chloroplast and nuclear ribosomal DNA. Based upon the phylogenetic results presented here, previous phylogenetic studies, and taxonomic, morphological, and practical considerations, we conclude that the botanical community would be best served by maintaining a broadly defined *Salvia*, including the five small embedded genera *Dorystaechas*, *Meriandra*, *Perovskia*, *Rosmarinus*, and *Zhumeria* as *Salvia* species. We subsequently present an updated circumscription of *Salvia*.


Support values
Posterior probability > 0.9
Bootstrap support > 70
Generi 'piccoli' con poche specie
Salvia similis
Salvia patens
Salvia axillaris
Salvia greatae
Salvia californica
Salvia pachyphylla
Salvia dorii
Salvia spathacea
Salvia mohavensis
Salvia carduacea
Dorystaechas hastata
Salvia przewalskii
Salvia glutinosa
Zhumeria majdae
Salvia aristata
Salvia henryi
Salvia roemeriana
Salvia sclarea
Salvia officinalis
Rosmarinus officinalis
Perovskia atriplicifolia
Lepechinia salviae
Lepechinia bullata
Lepechinia hastata
Lepechinia calycina
Lepechinia mecistandra
Melissa officinalis
Hedeoma piperitum
1.00/97
0.93/88
1.00
88
-/-
1.00/100
1.00/98
1.00/100
1.00/100
-/-
1.00/87
1.00/100
1.00/100
1.00/100
1.00/100
0.99/84
1.00/100
1.00/91
1.00/91
1.00/100
1.00/99
-/85
-/-
1.00/100
0.94/-
0.01

# Il “Caso Acacia” (Acacia-Vachellia)

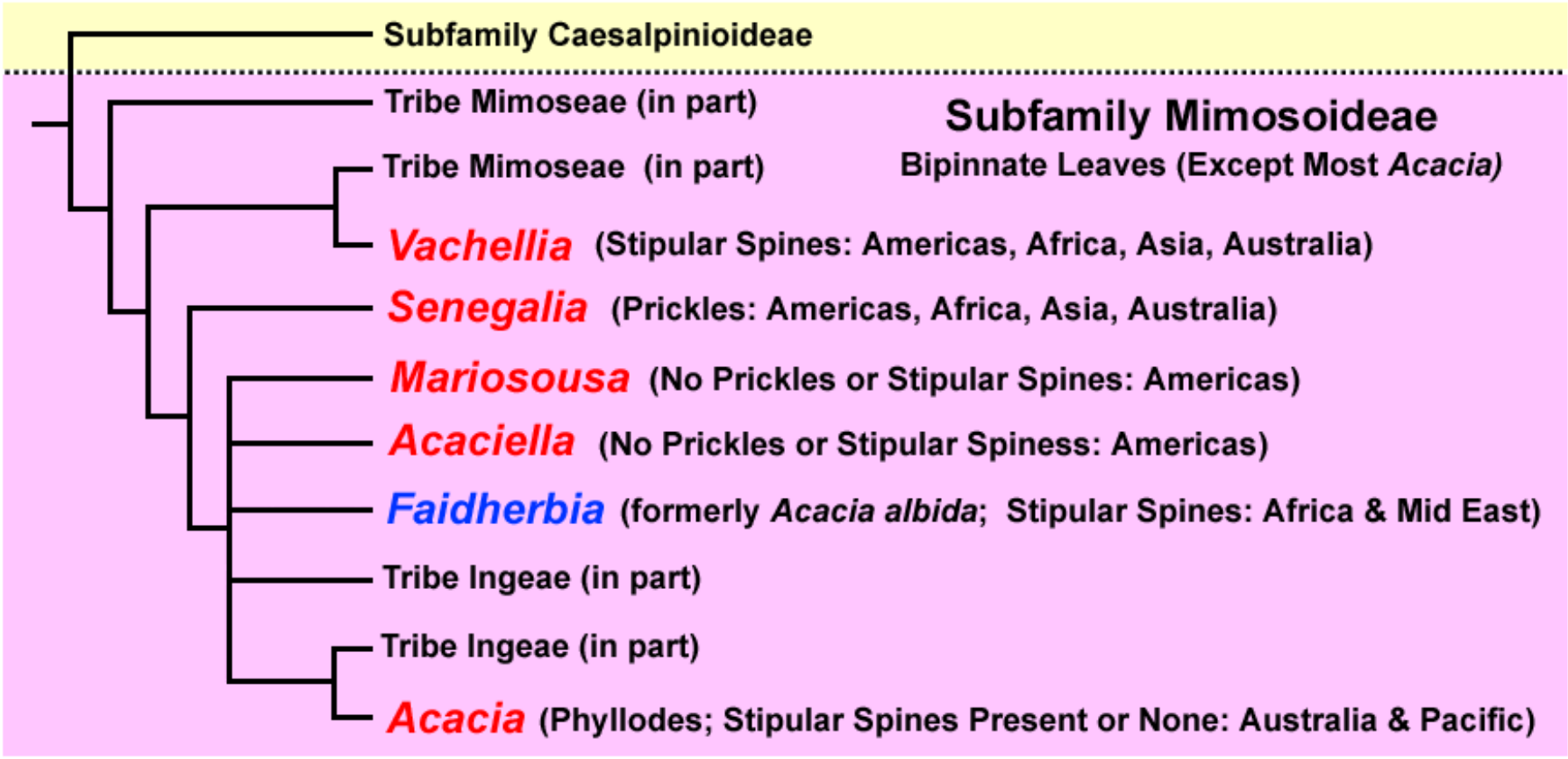
*Acacia*:

- over 1200 specie
- diffuse in Africa, Asia Australia
- dominanti nelle savane
- usate economicamente
- species da proteggere




© W.P. Armstrong 2012

## Cladogram of Acacias Using Clhloroplast DNA



*LA SPECIE TIPO DEL GENERE ACACIA*

*Mimosa nilotica L.*

***Acacia nilotica (L.) Willd.*** ex Delile

la prima species del genere *Acacia*

# The case for conserving *Acacia* with a new type

**Anthony E. Orchard[1] & Bruce R. Maslin[2]**

[1] *Centre for Plant Biodiversity Research, CSIRO Plant Industry, GPO Box 1600, Canberra, A.C.T. 2601, Australia. tony.orchard@deh.gov.au (author for correspondence)*
[2] *Department of Conservation and Land Management, Locked Bag 104, Bentley Delivery Centre, Western Australia 6983, Australia. brucem@calm.wa.gov.au*

Cambiare la specie tipo del genere *Acacia* (!!!)

In July 2011 the Nomenclature Section of the XVII International Botanical Congress in Melbourne, Australia, voted with a clear majority (68%) to accept the Vienna Code with *Acacia* included therein with a conserved (new) type, *A. penninervis*, that replaces the former type,

Tutte le *Acacia* australiane hanno mantenuto il nome tale! Le altre *Acacia* di altre origini hanno dovuto cambiare il nome!!

## Vachellia farnesiana (L.) Wight & Arn.

Famiglia / Family: FABACEAE

Nomi italiani / Italian names: Acacia farnesiana (Italia)

## Senegalia catechu (L.f.) P.J.H.Hurter & Mabb.

Famiglia / Family: FABACEAE

Nomi italiani / Italian names: Acacia catechu (Italia)

***Thlaspi granatense* Boiss. & Reut.**

***Ihsanalshehbazia granatensis* (Boiss. & Reut.) Tahir Ali & Thines**

# PORTALE DELLA FLORA D'ITALIA - PORTAL TO THE FLORA OF ITALY 2019.2

Questo portale organizza i dati nomenclaturali e distributivi derivanti dalle recenti checklist delle piante native e aliene d'Italia (e dei loro successivi aggiornamenti), con collegamenti a risorse provenienti da altri progetti.

This portal organises nomenclatural and distributional data from the recent checklists of the Italian native and alien vascular plants (and their subsequent updatings), with links to resources from other projects.

Ogni sei mesi vengono controllati i cambiamenti nomenclaturali

Portale della flora d'Italia
Portal to the flora of Italy

*Lichenologist* **30**(4-5): 427–438 (1998)
Article No. li980152

# A CRITICAL APPRAISAL OF MODERN GENERIC CONCEPTS IN LICHENOLOGY

**Pier Luigi NIMIS***

# A tale from Bioutopia

## Could a change of nomenclature bring peace to biology's warring tribes?

Pier Luigi Nimis

Once upon a time, two tribes dominated Bioutopia. The small but powerful tribe of Real Taxonomists occupied several scattered ivory towers in the mountains. The huge but poor tribe of Name-users lived in the swamps. They both worshipped Names, but with different rites. The Name-users peacefully adored a huge book made of granite, in which billions of Names were inscribed for Eternity. The favourite occupation of the cruel Real Taxonomists was sacrificing a few Names every day, just by changing them. This they did after consulting their Oracle, Phylogenia, who lived in a cloudy forest.

One day, Phylogenia started to worship a new God, called DNA, and uttered the following words: "Why should *Lichenia splendens* stay together with *L. tristis* and those other 347 species in the same genus? DNA has spoken. The Names must change!" None of the Name-users had complained when *L. tristis* was transferred from the family Licheniaceae to the Tristidaceae, but they all got upset when the Real Taxonomists decided that these 348 species must be called *Thundertenthronckia*, because DNA had spoken. The trouble started at a meeting of the Parliament of Bioutopia. They had to change the law protecting *L. tristis*, the official state organism, and they refused to rename it *Thundertenthronckia tristis*.

Then the war started. Billions of Name-users on one side, the few Real Taxonomists on the other. A fire was burning all around that cruel battle, the same fire that all of us quietly host in the warm shelter of our beloved binomial system.

Generic epithets are indeed like viruses. They are carriers of dangerous phylogenetic implications that kill names. As a sin of my old age, three years ago I tried to warn against the rash acceptance of new generic names. I was so naive as to suggest that the Real Taxonomists should consider the needs of the poor Name-users.

When I reread that article recently, I saw myself as an old Victorian lady fighting against the outrageous trend of wearing skirts so short as to expose the knee. Now, after three years of molecular brainstorming, even the nuns of Bioutopia go around in miniskirts. The thin umbrellas of Victorian ladies cannot fight against the hurricane of generic changes that is ahead. And why should they try? Why should one fight against something fresh, exciting and so scientifically sound? Those who worship books of granite cannot hinder a free development of (r)evolutionary taxonomy.

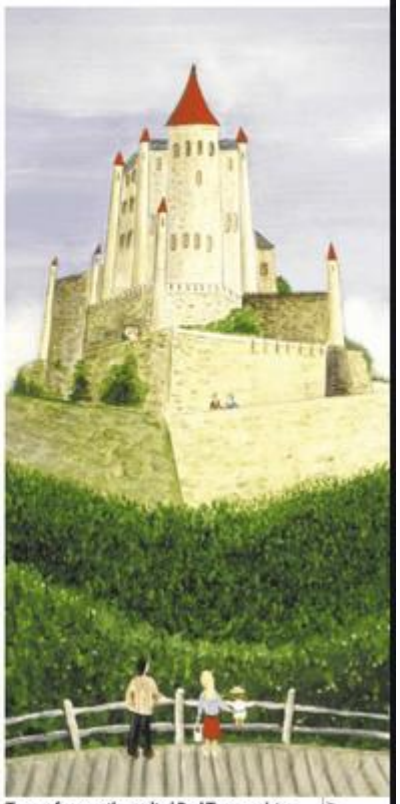
There is a sentence engraved on the stone cover of the Name-users' book: "Nomina si nescis, perit et cognitio rerum", which means: "If you do not know the Names, Knowledge is also dead for you." The Name-users explained to me that humans, the only animal to develop language, cannot worship a dictionary from which 10% of the names are scraped out every year. This made me think. Name-users gain knowledge by learning and using names. But the Real Taxonomists produce brand new knowledge for mankind. Why should these tribes fight against each other? Do we really need this conflict? Do we really need generic names?

I therefore consulted another Oracle, called Logic, and she dictated: "Get rid of the binomial." Every species in Bioutopia could be designated by a single epithet: a number, or a barcode, the best food for computers. Surely Name-users — such as curators of collections and databases, authors of books and identification keys, legislators and teachers — should be happy with something like: "It's an *X157YR222971*!" The Real Taxonomists could then concentrate on more important matters than scraping Names off granite, and Phylogenia would be free to change her mind whenever she liked. The Name would remain the same. Peace would return to Bioutopia.

Yet I wonder how many amateurs, having found a rare *L. splendens* on an old oak, will exclaim joyfully to their companions: "Wow! Look at this! I've found *X157YR222971*!" I also wonder what they should say when, more cautiously, they think they've found just "a *Lichenia*". Surely not "I've found something starting with *X157…*".

Last week I read an article about the pressure from public authorities in the United Kingdom to create vernacular names for organisms. That article has come to my mind now, but in association with a different question: "Is *L. splendens* better than *X157YR22297* for an amateur who reads only Chinese?" Perhaps *L. splendens*, although not a 'vernacular' name, could find a place in the list of 'mid-level names' — those that exist for half-educated people, like most of us, who would have problems in remembering what *X157YR22297* is.

> Humans cannot worship a dictionary from which 10% of the names are scraped out every year.



Tower of power: the exalted Real Taxonomists, armed with knowledge, can change the Names.

THE CASTLE BY MARK BARING, PRIVATE COLLECTION/BRIDGEMAN ART LIBRARY

As a citizen of Bioutopia, I have an identity card. It bears my social security number (NMSPLGP09etc., I always forget it) plus my Name (Pier Luigi Nimis), although my parents call me "Pil" (my vernacular name). I do not see anything wrong in being named 'NMSPLGP09etc.' in all official transactions with my government. If this works for people, why should it not work for organisms?

There is an alternative solution: let things continue the way they're going. The war will eventually stop when every single species belongs to a monospecific genus. ■

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