

# Corso di Botanica Sistemática

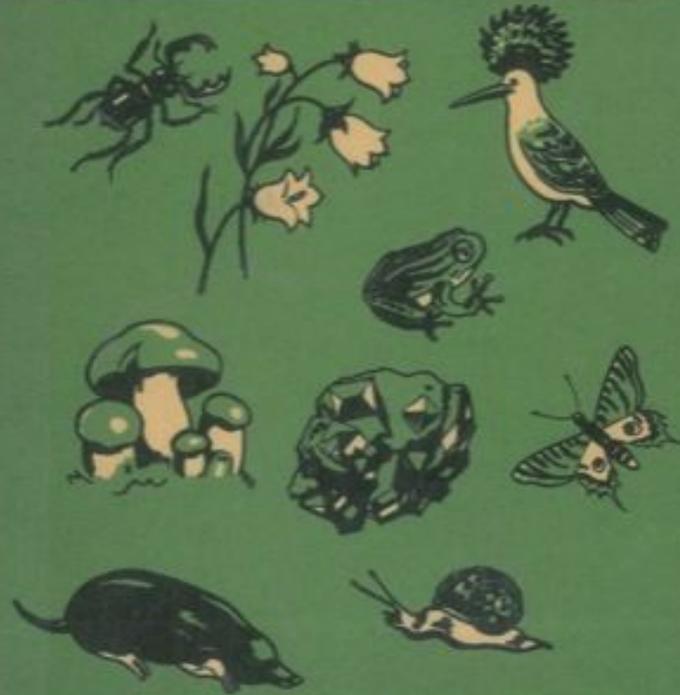
## LEZIONE 1

**Presentazione docente e  
generalità sul corso**





# IL PICCOLO NATURALISTA

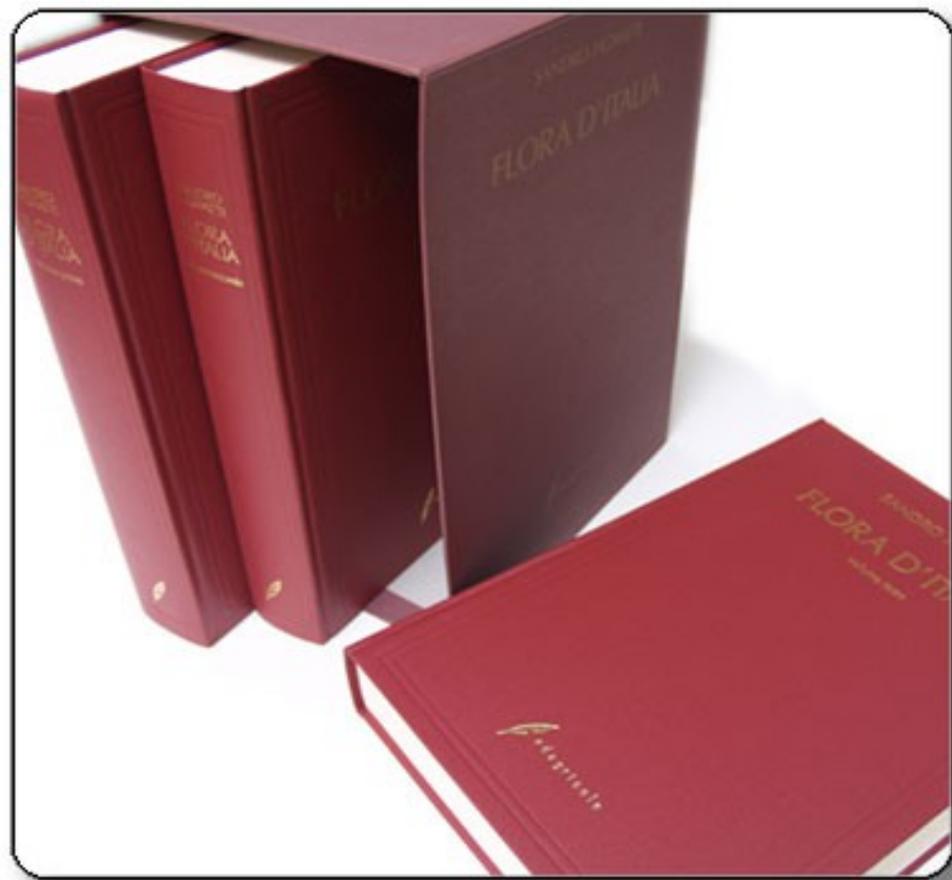


ANTONIO VALLARDI EDITORE

















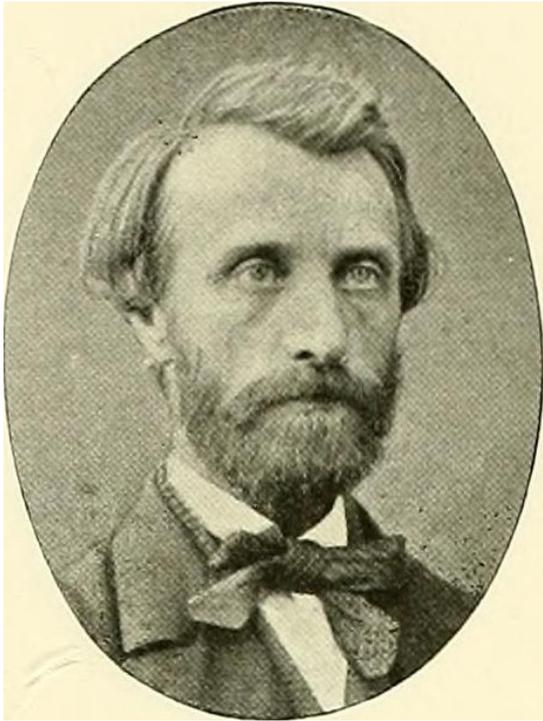


# ARCTIC CIRCLE CROSSING

MILE 253.7 DEMPSTER HIGHWAY  
REACHED AUG. 6 1977

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CONTRACTOR GENERAL





**J.M. Norman (1823-1903)**

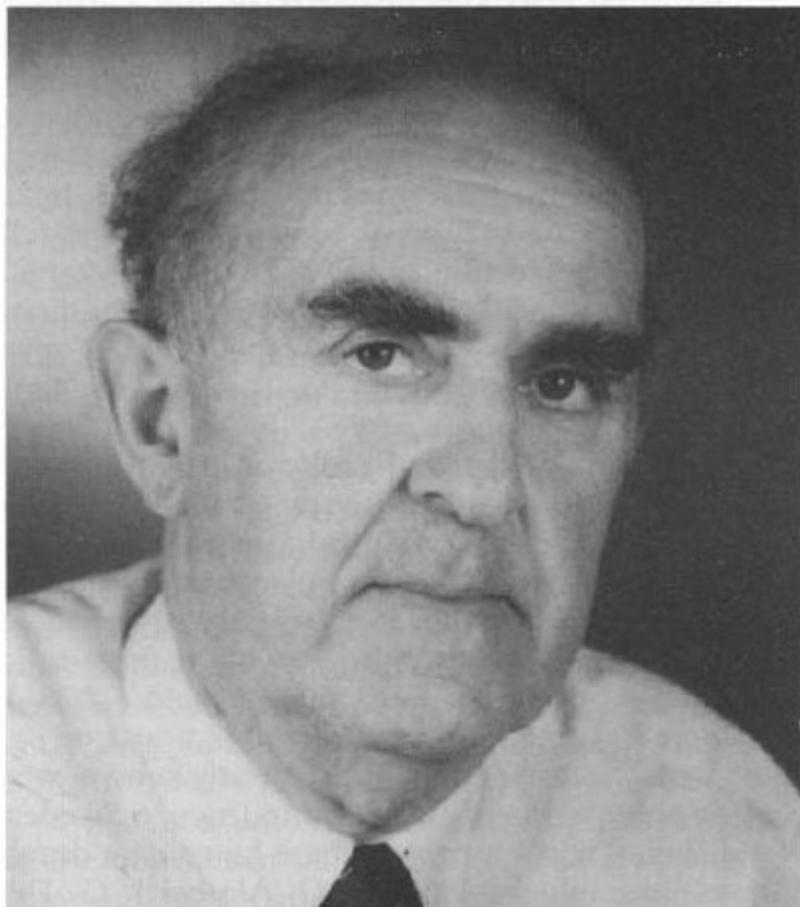


**J.C. Flotow (1733-1356)**



**G.W. Koerber (1817-1885)**

**A TRIBUTE TO JOSEF POELT (1924–1995)**







Società  
Lichenologica  
Italiana



## La Società Lichenologica Italiana

La Società Lichenologica Italiana (S.L.I.) è dedicata alla diffusione e al progresso degli studi lichenologici in Italia.

La S.L.I. ogni anno organizza un convegno, corsi introduttivi e di specializzazione, riunioni scientifiche, escursioni e pubblica un Notiziario.

La S.L.I. collabora con altre società scientifiche aventi finalità analoghe, sia in Italia che all'estero.

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The Italian Lichen Society (S.L.I.) is devoted to the diffusion and progress of lichenological studies in Italy.

The S.L.I. every year organizes a congress, introductory and specialization courses, scientific meetings, field excursions and publishes a bulletin.

The S.L.I. cooperates with other scientific societies having similar aims, both in Italy and abroad.

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**INTERNATIONAL ASSOCIATION  
FOR LICHENOLOGY  
9TH SYMPOSIUM**

*"UNLOCKING THE INNER LICHEN"*

**August 2-7 2020 | Bonito, MS - Brazil**  
Bonito Convention Center





Pier Luigi Nimis



# The Lichens of Italy

An annotated catalogue

Museo Regionale  
di Scienze Naturali  
Torino

MONOGRAFIA XII  
1993



Abstract

# ITALIC

## The Information System on Italian Lichens

by L. Gomez & G. Marone

Index

ITALIC is an information system on Italian lichen taxa held in tax, which regularly incorporates from the same database the general checklist of Italian lichens, the number of recorded lichens, the lichenic flora of Italian territories and their taxonomic composition. It also includes a number of particular data sheets.

Information System on Italian Lichens

System Director: G. Marone  
Coord. of Project: L. Gomez & G. Marone  
In Collaboration with: G. Marone & G. Marone

Region: **Friuli**

Phytoclimatic belt: **Dry mediterranean**

Substrate:

Photosynthetic partner:

Growth form:

Phytoclimatic range:

Special requirements for water:

Only coastal species:

Only parasitic species:

Only pioneer species:

Only species of metal-rich substrata:

Reproductive Strategy:

**Select two values for any parameter if you want to search in a range, or the same value in the two columns.**

Indicator values for pH from:  to

Indicator values for Light from:  to

Indicator values for Water from:  to

Indicator values for Eutrophication from:  to

Altitudinal Range from:  to

Poleotolerance from:  to

Commonness-rarity status from:  to

SUBMIT

**List of taxa:**

*Acrocordia conoidea* (Fr.) Körb. var. *conoidea*  
*Arthonia calcarea* (Sm.) Ertz & Diederich  
*Bagliettoa baldensis* (A. Massal.) Vezda  
*Bagliettoa calciseda* (DC.) Gueidan & Cl. Roux  
*Bagliettoa marmorea* (Scop.) Gueidan & Cl. Roux  
*Bagliettoa parmigera* (J. Steiner) Vezda & Poelt  
*Bagliettoa parmigerella* (Zahlbr.) Vezda & Poelt  
*Botryolepraria lesdainii* (Hue) Canals, Hern.-Mar., Gómez-Bolea & Llimona  
*Caloplaca teicholyta* (Ach.) J. Steiner  
*Candelariella aurella* (Hoffm.) Zahlbr.  
*Catillaria lenticularis* (Ach.) Th. Fr.  
*Circinaria caesiocinerea* (Malbr.) A. Nordin, Savić & Tibell  
*Circinaria contorta* subsp. *hoffmanniana* (R.Sant.) I. Zhdanov  
*Clauzadea chondrodes* (A. Massal.) Hafellner & Türk  
*Clauzadea immersa* (Hoffm.) Hafellner & Bellem.  
*Clauzadea metzleri* (Körb.) D. Hawksw.  
*Clauzadea monticola* (Schaer.) Hafellner & Bellem.  
*Collema flaccidum* (Ach.) Ach.  
*Flavoplaca polycarpa* (A. Massal.) Arup, Frödén & Søchting  
*Gyalolechia flavovirescens* (Wulfen) Søchting, Frödén & Arup  
*Heteroplacidium imbricatum* (Nyl.) Breuss  
*Lathagrium auriforme* (With.) Otálora, P.M. Jørg. & Wedin  
*Lathagrium fuscovirens* (With.) Otálora, P.M. Jørg. & Wedin  
*Lecidella stigmatea* (Ach.) Hertel & Leuckert  
*Lepraria eburnea* J.R. Laundon  
*Lepraria finkii* (B. de Lesd.) R.C. Harris  
*Lepraria nivalis* J.R. Laundon  
*Lepraria vouauxii* (Hue) R.C. Harris  
*Leproplaca xantholyta* (Nyl.) Hue



**Dryades**  
project



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Dipartimento di Scienze della Vita

**smaTs**  
sistema mondiale di steno

MENU

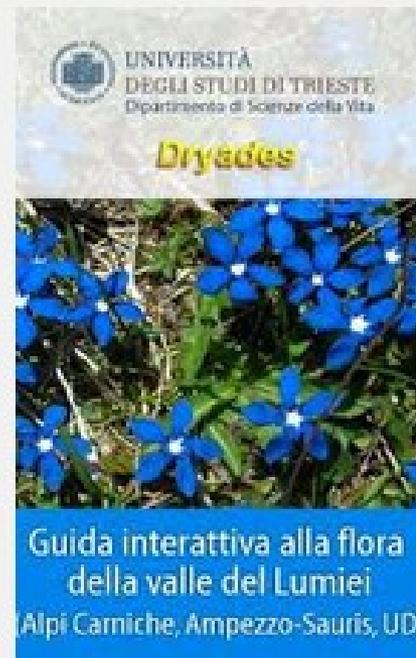
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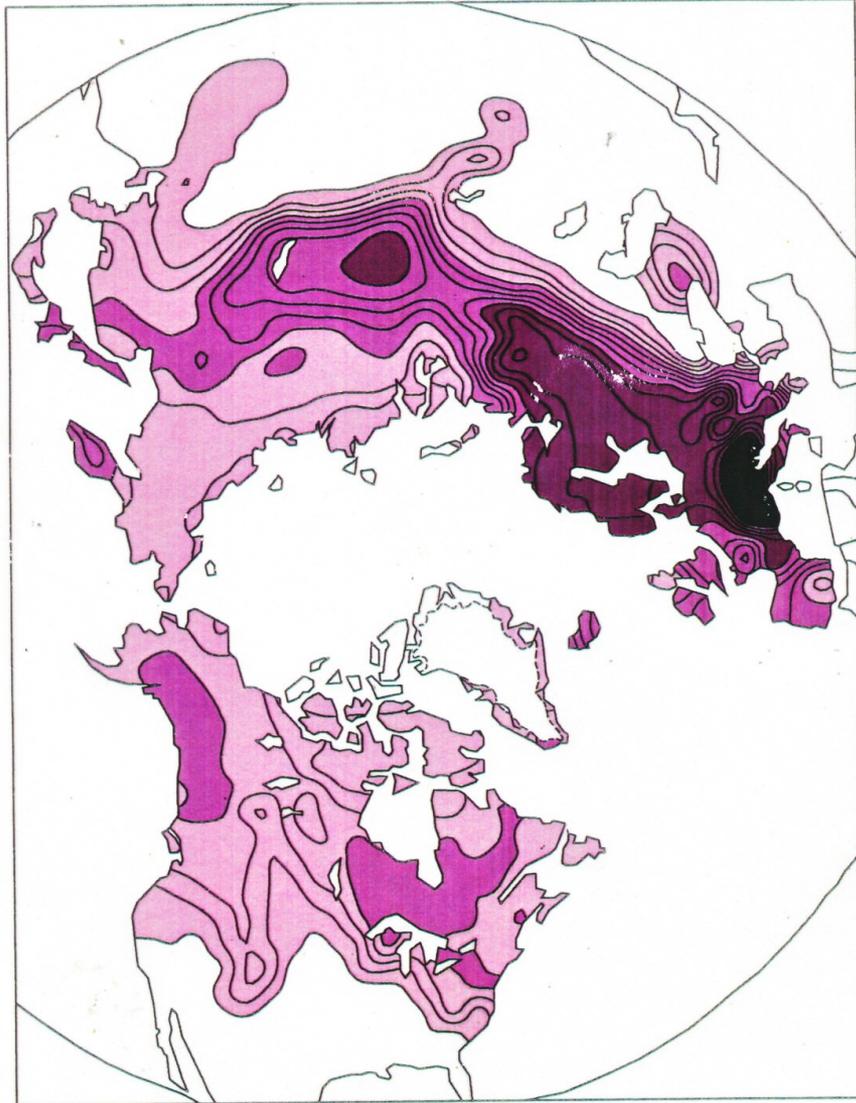








PRODUCT	Nr.Unique Visitors	Source
Keys	1.243.563	Statcounter
Portals	672.705	Statcounter
SiiT Webpage	71.465	Google Analytics
TOTAL	<b>1.987.733</b>	

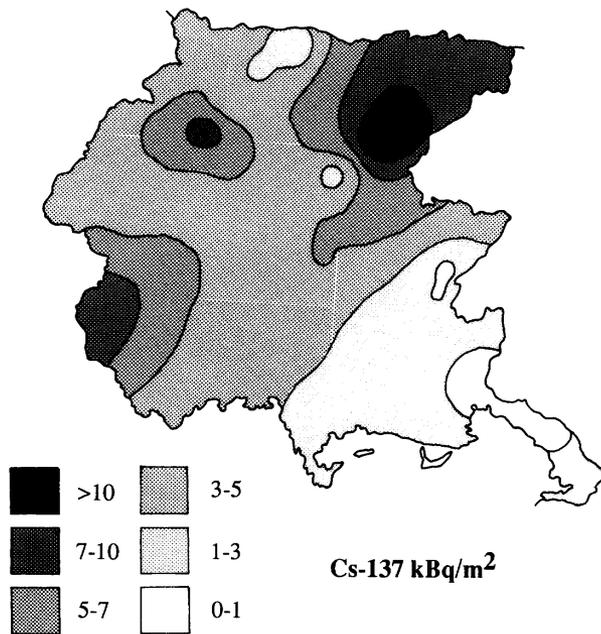


**2<sup>nd</sup> Caesium Workshop:  
meeting challenges for Fukushima recovery**

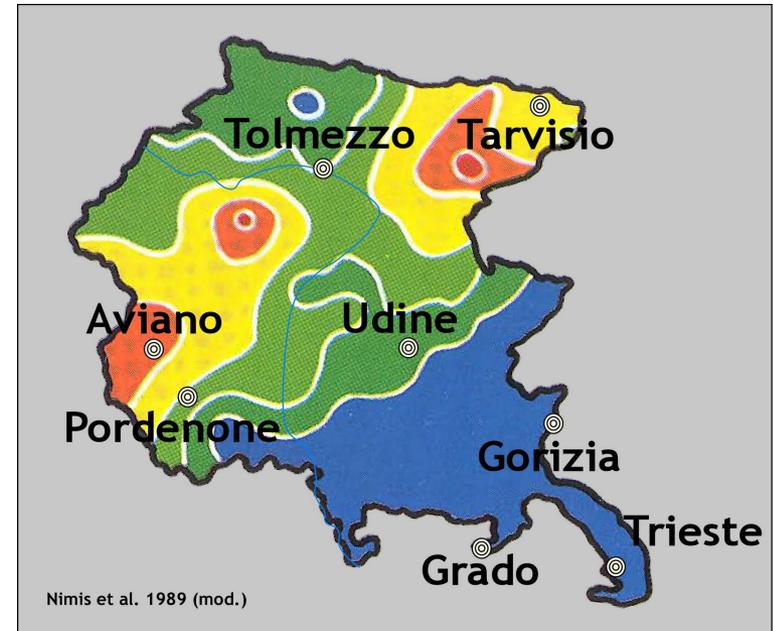
# **Assessing radiocontamination in forest ecosystems**

**Pier Luigi Nimis**

**Dept. of Life Sciences – University of Trieste (Italy)**



Mosses 1990 (Bq/m<sup>2</sup>)



Mushrooms 1986 (Bq/kg)

The results of the 1990 campaign (less than a week):  
**mosses are optimal bioaccumulators!**



Images		
	<p>37 Apothecia perithecioid, or immersed in thalline warts</p>	40
	<p>38 Thallus C+ and KC+ red. Varioliaric acid absent</p>	<p><i>Ochrolechia balcanica</i> Veseghy [1256]</p>
	<p>Thallus C-, or C+ faintly yellow (only the apothecia sometimes C+, KC+ red/pink). Varioliaric acid present</p>	39
	<p>39 C+ yellow, KC- or KC+ yellow. Gyrophoric acid absent</p>	<p><i>Ochrolechia szatalensis</i> Veseghy [1259]</p>
	<p>40 Apothecial disc C+ or at least KC+ red. Gyrophoric acid present</p>	<p><i>Ochrolechia pallascens</i> (L.) A. Massal. [930]</p>

*Portularia portuensis* var. *rapaestris* (DC.) Dalla Torre & Sacc.



Felix Schmitt - CC BY-SA 4.0

Image from: F. Schmitt (2009) - Flechten-Makroziele, der Kantone und Anstalt, Birk, (BRG) - ISBN: 978-3-03-021700-3

Thallus crustose, epibiotic, continuous to (rarely) finely cracked, yellowish white to pale grey or cream-colored, smooth to tuberculate, sometimes zoned at margin, forming large patches. Apothecia perithecioid, completely immersed in scattered, heavily crowded, 1-3 mm wide, sordid-brown leafy warts with often slightly flattened apex, opening through a punctiform, black ostiole (3-10 ostioles per wart). Epithecia dark brown to black-brown, K-hymenium colorless; paraphyses long, branched and richly anastomosing; hyphectium colorless to pale yellow. Anzi 2(-4)-spored, cylindrical, with thick amyloid walls, *Portularia*-type. Ascospores 1-celled, hyaline, ellipsoid, (120-)150-190 x (15-)40-80-90 µm, with a 7-15 µm thick, 2-layered, smooth wall. Pycnidia rare, immersed. Conidia asexual, yellow, 8.5-9.7 µm. Phycobiont chlorococcoid. Spot tests: Thallus K+ yellow, C-, KC+ yellow, P+ orange-yellow UV+ pale orange. Chemistry: 4,5-dibromoisovanilic, stictic acid, conioctic and norstictic acids (minor).



06/10 Tue 10 Mar Not Secure - italc.unife.it

<p>37 Apothecia perithecioid, or immersed in thalline warts</p>	<p>37 Thallus C+ and KC+ red. Varioliaric acid absent</p>	<p><i>Ochrolechia balcanica</i> Veseghy</p>
<p>Thallus crustose, epibiotic, white to cream-colored, smooth to verrucose and uneven, sometimes delimited by a white prothallus. Apothecia lecaniote, 2-6 mm across, with a pale brown to pale reddish brown, epurine, slightly convex to flat disc, and a thick, prominent, smooth thalline margin. Cortex of the thalline margin well developed, with a well-differentiated medulla; epithecia pale brown, granular; the granules dissolving in K; hymenium colorless; paraphyses thin, densely branched and anastomosing; hyphectium colorless to yellowish, underlain by a continuous algal layer. Anzi 16-18-spored with thick, amyloid walls, <i>Portularia</i>-type. Ascospores 1-celled, hyaline, broadly ellipsoid, 45-65 x 20-32 µm. Pycnidia pale pinkish brown. Conidia cylindrical, straight. Phycobiont chlorococcoid. Spot tests: Thallus K+ pale yellow, C+ red, KC+ red, P+; disc of apothecia C+ carmine red. Chemistry: gyrophoric and lecanoric acids. Note: common and abundant in humid beech forests of the Apennines, rare in oak forests of Tyrolean Italy. Apparently absent from the Alps, this cosmopolitan lichen probably belongs to an ancient, pre-glacial, Mediterranean-montane element which is well worthy of further study.</p>	<p>38 Varioliaric acid present</p>	<p><i>Ochrolechia szatalensis</i> Veseghy</p>
<p>Thallus C-, or C+ faintly yellow (only the apothecia sometimes C+, KC+ red/pink).</p>	<p>39 C+ yellow, KC- or KC+ yellow. Gyrophoric acid absent</p>	<p><i>Ochrolechia szatalensis</i> Veseghy</p>
<p>Thallus crustose, endosubstrate or epibiotic, continuous to rimose-areolate, yellowish grey, whitish grey or pale brown, usually without a distinct prothallus. Apothecia lecaniote, 1-2.5 mm across, sessile, rounded or irregular, with a slightly convex to flat, flesh-colored but densely yellowish or brownish grey pruinose disc, and a thick, entire or rarely fissured, smooth or rough thalline margin. Amphibosium coriaceous, the cortex laterally thinner and a well-differentiated, the medulla rich in algal cells, excupular ring or discoid like tissue absent, proper exciple well-developed; hymenium colorless, 100-120-300 µm high; hyphectium yellowish. Anzi 14-16-spored, with thick, amyloid walls, <i>Portularia</i>-type. Ascospores 1-celled, hyaline, ellipsoid but often deformed, rather variable in size: 10-80 x (13-)20-43 µm. Phycobiont chlorococcoid. Spot tests: Thallus K-, C-, KC+ pink, P-, UV+ white; medulla C-, KC+; apothecial margin C+ yellow and partially (inner part only) C-, KC+ pink, pruinose of the apothecial disc usually C+ yellow. Chemistry: thallic with varioliaric acid (major), accompanied by different unknown substances, often with abietonic acid, and substances of the mucic acid complex. Note: a cool-temperate to boreal-montane species with optimum on twigs in humid and cold sites, widespread both in the Alps and along the Apennines.</p>	<p>39 Apothecial disc C+ or at least KC+ red. Gyrophoric acid present</p>	<p><i>Ochrolechia pallascens</i> (L.) A. Massal.</p>

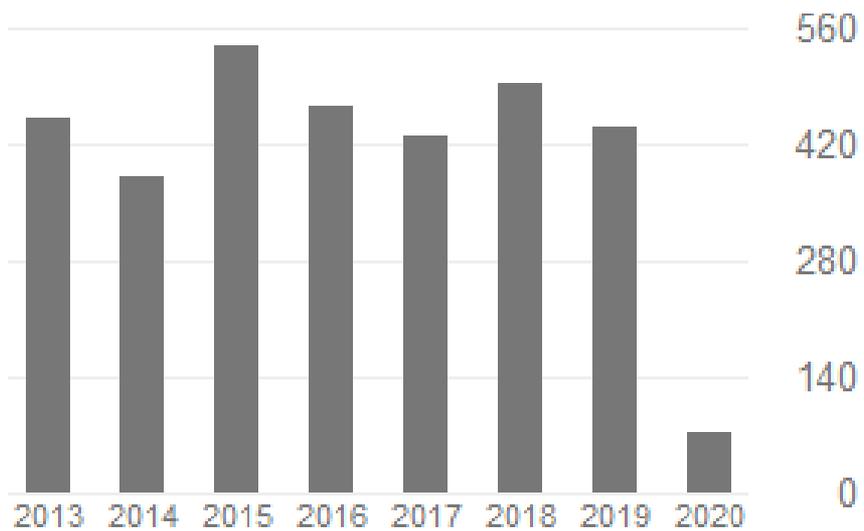
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	All	Since 2015
Citations	8226	2458
h-index	44	23
i10-index	168	52

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# **ORGANIZZAZIONE DEL CORSO ¶**





- 1) · **SISTEMATICA**¶
- 2) · **EVOLUZIONE·DEI·CICLI·METAGENETICI**¶
- 3) · **MICOLOGIA**¶
- 4) · **GEOBOTANICA**¶

# ERBARIO ?

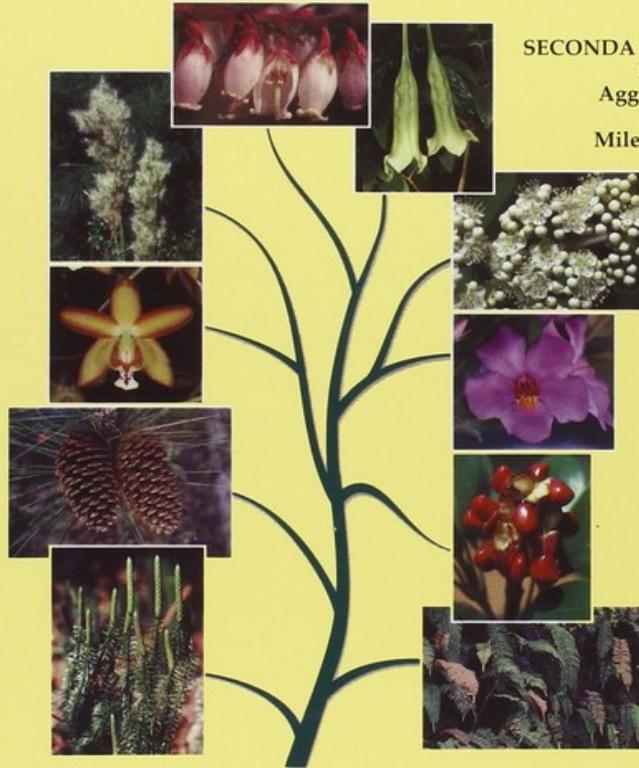


Judd · Campbell · Kellogg · Stevens · Donoghue

# BOTANICA SISTEMATICA

Un approccio filogenetico

SECONDA EDIZIONE  
Revisione e  
Aggiornamento  
a cura di  
Milena Rizzotto



Edizione italiana a cura di  
M. Bigazzi, F. Bracco, L. Cornara, F. Macchia, M. Mariotti,  
C. Nepi, A. Papini, M. Raffaelli, M. Rizzotto, F. Selvi

**PICCIN**



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Corsi Dipartimento di Scienze della Vita Laurea triennale (DM270) SM40 - SCIENZE E TECNOLOGIE PER L'AMBIENTE E LA NATURA A.A. 2019 - 2020

074SM - BOTANICA SISTEMATICA CON LABORATORIO 2019 Opzioni di iscrizione

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- ▼ Corso in uso
  - 074SM - BOTANICA SISTEMATICA CON LABORATORIO 2019
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## Opzioni di iscrizione

074SM - BOTANICA SISTEMATICA CON LABORATORIO 2019

Teacher: PIERLUIGI NIMIS

### ▼ Iscrizione spontanea (Student)

Gli ospiti non possono entrare in questo corso, per favore autenticati.

Continua



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