
LICHENES NEOTROPICI

ausgegeben von Klaus Kalb & André Aptroot

Fascikel XVI (No. 628–650)

gewidmet unserem Freund und Kollegen Dr. Harrie Sipman

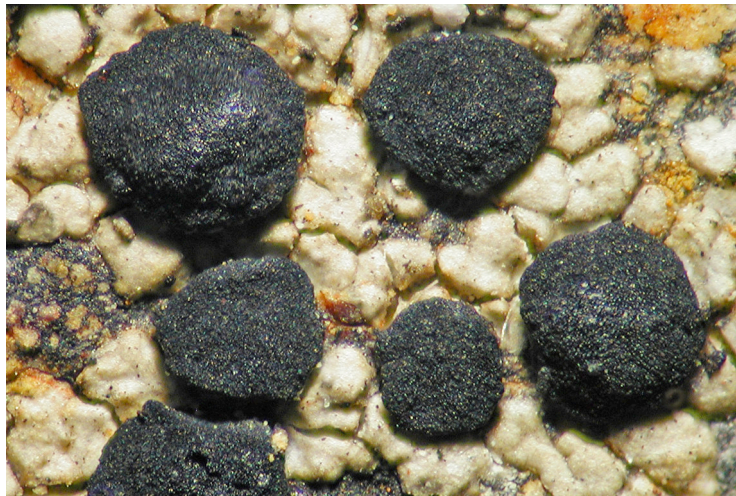


Fig. 1. *Rhizocarpon sipmanianum* Kalb & Aptroot



Fig. 2. *Lecanactis caceresiana* Kalb & Aptroot

**Neumarkt/OPf.
30. March 2017**

Dear Harrie,

We are very happy to devote this fascicle of LICHENES NEOTROPICI to you. You are one of the very few experts in tropical lichenology, and you have helped us in very many instances with identifications, suggestions or corrections. But we are by no means the only ones that benefited from your vast knowledge. Your keys to various groups and to tropical lichen genera are used by all students and you completed the Recent Literature of lichens-database with the older literature, typing these in yourself from Mattick's card index. You made numerous publications on lichen taxonomy, often including keys. Over the years, you have collected over 75,000 lichens all over the world, and almost all have been identified, labeled and databased. I (the senior author) first met you in September 1973 during the first IAL field excursion, and for the second time when you visited me in September 1979, while I was working in Brazil. I still remember with great pleasure our collecting trips (partly together with Prof. Poelt) through rainforests and mangroves. From that time onwards, you generously shared your excellent expertise whenever I was in need of it. Thank you so much for all your help.

We wish you all the very best for the future.

Your colleagues and friends Klaus & André

Acknowledgements

We thank the head of the Institute of Plant Sciences, University of Regensburg, Prof. Dr. P. Poschlod, who kindly placed the TLC equipment to our disposal. And last but not least, we thank all people mentioned in the schedae, who have collected lichen material for distribution, partly under difficult conditions.

Abstract

Fascicle XVI of the exsiccate "K. KALB & A. APTROOT: LICHENES NEOTROPICI" (new name for "K. KALB: LICHENES NEOTROPIC" from fascicle XVI onwards) with 23 lichen specimens (No. 628–650) from Brazil, Chile, Dominican Republic, Ecuador, Kenya, Peru and Venezuela is distributed.

Three species are described as new, namely *Lopadium subcoralloideum* Aptroot & Kalb, *Lecanactis caceresiana* Kalb & Aptroot and *Rhizocarpon sipmanianum* Kalb & Aptroot. The holotypes of the new species are deposited at Universidade Federal de Mato Grosso do Sul (UFMS).

Range extensions are reported for *Hypocenomyce tinderreyensis* (new to the Neo-tropics; so far only known from Australia, but apparently austral), *Ocellularia baorucensis* (new to Brazil), *Physcidia striata* (recently described from Rondônia and the Venezuelan Amazon, and subsequently reported from Amapá and Brazilian Amazonas. The collection from Brazil/Mato Grosso do Sul represents a major range extension to the South), *Tephromela campestricola* (new to the Neotropics; not different in any way from European material) and *Xanthoparmelia arvidssonii* (new to Venezuela).

K. KALB & A. APTROOT: LICHENES NEOTROPICI

628. *Buellia xanthinula* (Müll. Arg.) Malme

Brazil/Santa Catarina. Ilha de Santa Catarina; northwestern part, Ponta das Canas; on sunny granitic boulders at the beach, 27°58' S, 48°50' W.

leg.: K. Kalb
4. V. 1980

det.: A. Aptroot

Chemistry: Arthothelin (major) anal.: K. Kalb

Remarks: Thallus not markedly radial at the margin; excipulum black outside, hymenium clear, hypothecium dark brown; spores brown, $10 \times 5 \mu\text{m}$, ends rounded. This species does not belong in *Buellia* s. str.

A specimen of this species from Paraguay was first described in *Rinodina* (Müller 1888a). Subsequently, he improved the description, based on material from Brazil (Müller 1888b). Malme (1927) combined the species into *Buellia*, and also synonymized *Buellia lucens* Vainio with it. When Müller described the Brazilian species, he mentions that it better shows the radial margin of the thallus. This might suggest that it is a synonym of *Dimelaena oreina* (Ach.) Norman. Both specimens are present in G, and none of them shows conspicuous marginal lobes, and neither does the specimen distributed here. It should be noted that the Brazilian specimen is not a syntype as is indicated on the envelope.

Literature

Müller Arg., J. (1888a) [April 1888] Lichenes Paraguayenses a cl. Balansa lecti et a Prof. Dr. Müller elaborati. *Revue Mycologique* 10 (38): 53–68.

Müller Arg., J. (1888b) [December 1888] Lichenologische Beiträge 30. *Flora* 71: 528–552.

Malme, G.O.A. (1927) *Buelliae itineris Regnelliani primi*. *Ark. Bot.* 21 A (14): 1–42.

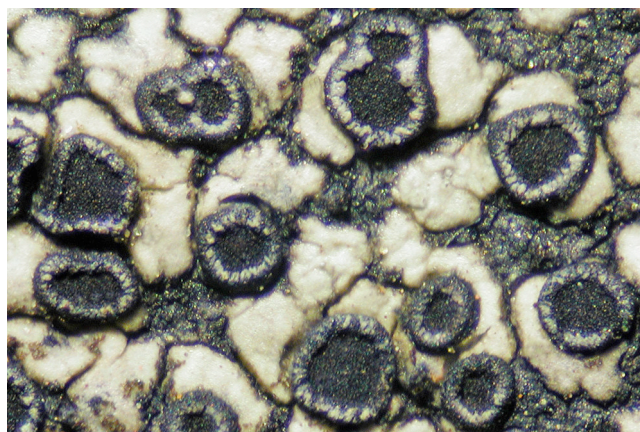


Fig. 3. *Buellia xanthinula* (Müll. Arg.) Malme

K. KALB & A. APTROOT: LICHENES NEOTROPICI

629. *Caloplaca cerinelloides* (Erichsen) Poelt

Ecuador/Azuay. Along the road between Paute and Gualcéo, c. 10 km S of Paute, on the bark of an unidentified deciduous tree, 2300 m. 2°52' S, 78°47' W.

leg.: K. & A. Kalb.
27. VIII. 1987,
det.: A. Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

630. *Caloplaca subvitellina* (Müll. Arg.) Zahlbr.

Ecuador/Tungurahua. Northern slope of Mt. Tungurahua, W of Baños, on granitic boulders, 1800–1900 m. 1°24' S, 78°27' W.

leg.: K. & A. Kalb.
16. VIII. 1987
det.: A. Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

631. *Chaenotheca brunneola* (Ach.) Müll. Arg.

Brazil/Rio de Janeiro. Serra da Mantiqueira; Itatiaia, between Registro do Picú and Agulhas Negras, on wood within a mossy bank along the road, 2000 m. 22°20' S, 44°45' W.

leg.: K. Kalb.
12. VII. 1979
det.: A. Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

632. *Hypocenomyce tinderreyensis* Elix

Chile/Magallanes. Peninsula Brunswick; Fuerte Bulnes, c. 60 km S of Punta Arenas, in a *Nothofagus* forest, 100 m. 53°40' S, 71°00' W.

leg.: K. Kalb.
5.–6. I. 1981
det.: A. Aptroot

Chemistry: Lecanoric acid (major)

anal.: K. Kalb

Remarks: New to the Neotropics!

K. KALB & A. APTROOT: LICHENES NEOTROPICI

633. *Lecanactis caceresiana* Kalb & Aptroot *sp. nov.***ISOTYPE**

Mycobank 820556

Similar to *Lecanographa lyncea* (Sm.) Egea & Torrente, but that species differs by apothecia that are not sessile but erumpent, no brown colours (only black and white) and slender ascospores with more septa and a surrounding gelatinous sheath.

Thallus epiphloeodic, dull, continuous, milky whitish to very pale ochraceous, surrounded by an almost black prothallus line of c. 0.2 mm wide. Algae *Trentepohlia*, copious, colouring the medulla yellow when the thallus is scratched.

Apothecia sessile, very variable in shape and pruinosity but not in colour; from almost round to very long and sometimes branched and contorted, older apothecia often becoming dissected into lines of groups of part apothecia, up to 5 mm long and 0.6 mm wide; margin c. 0.15 mm wide, higher than the disc, surface brown, inside black, hyphal structure dense; disc brown, flat, sparingly to usually thickly whitish pruinose. Hymenium c. 125 µm high, asci c. 75 × 13 µm, epihymenium brown, hypothecium black; spores clavate but with rounded ends, 3-septate, hyaline, 29–33 × 5–6.5 µm, not curved, without gelatinous sheath.

Pycnidia usually present, sessile, punctiform, dark brown, in thallus warts of c. 0.2 mm diam., typically occurring in a small zone along the outer margin of the thallus. Conidia filiform, hyaline, not septate, curved, 10–12 × 0.5–0.7 µm.

Etymology: This species is named in honour of our friend and colleague Prof^{dr}. Dr. Marcela Cáceres.

Brazil/ Bahia. Between Feira de Santana and Milagres, c. 10 km NE of Milagres, in a light caatinga on thin branches of deciduous trees, 200 m. 12°50' S, 39°50' W (UFMS, holotype).

leg.: K. Kalb & M. Marcelli

21. VII. 1980

det.: A. Aptroot

Chemistry: no lichen substances by TLC

anal.: K. Kalb

Remarks: Cáceres (2007) first reported and illustrated this species. It was initially published as *Lecanographa lyncea* (Sm.) Egea & Torrente, but that species differs by apothecia that are not sessile but erumpent, no brown colours (only black and white) and slender ascospores with more septa and a surrounding gelatinous sheath. This new species clearly belongs to *Lecanactis s. str.* and is for instance quite close to *L. elaeocarpa* (Nyl.) Tehler, but it differs from all known species by the partly much branched and contorted apothecia. This species occurs also in coastal Brazil, and usually grows together with *Opegrapha subdictyospora* M. Cáceres, E.L. Lima & Aptroot (Fig. 4), which is also present in some of the isotypes of the new species.

Literature: Cáceres, M.E.da Silva (2007) Corticolous crustose and microfoliose lichens of northeastern Brazil. *Libri Botanici* 22, IHW-Verlag, Eching bei München, 168 pp.



Fig. 4. *Opegrapha subdictyospora* M. Cáceres, E.L. Lima & Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

634. *Lecanactis fraudans* (Räsänen) Tehler

Chile/Magallanes. Peninsula Brunswick; Fuerte Bulnes, c. 60 km S of Punta Arenas, in a *Nothofagus* forest, 100 m. 53°40' S, 71°00' W.

leg.: K. Kalb.

5.–6. I. 1981

det.: A. Aptroot

Chemistry: Schizopeltic acid (major)

anal.: K. Kalb

Remarks: This is the first report of the chemistry of this species and the first recollection after its description from Fuegia.

K. KALB & A. APTROOT: LICHENES NEOTROPICI

635. *Leptogium isidiosellum* (Riddle) Sierk

Ecuador/Tungurahua. Ascent to Zumbahua, c. 20 km W of Baños, 3470 m. 0°57' S, 78°54' W.

leg.: K. & A. Kalb

17. VIII. 1987

det.: A. Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

636. *Lopadium subcoralloideum* Aptroot & Kalb *sp. nov.***ISOTYPE**

Mycobank 820557

Similar to *L. coralloideum* (Nyl.) Lyngé, but that species differs in having much longer isidia and a more glossy surface.

Thallus dull, grey, more or less continuous, mostly obscured by globose to cylindrical or irregularly botryosely branched isidia-like structures of 50–100 µm wide and up to 0.5 mm high, surrounded by an up to 1 mm wide, hyphale whitish hypothallus; algae chlorococcoid, 5–7 µm diam.

Apothecia sessile, black, initially flat and glossy, later somewhat convex and dull, round to lobate, up to 0.9 mm diam.; margin black, initially somewhat higher than the disc, c. 0.1 mm wide. Excipulum hyaline outside structure somewhat gelatinous, dark brown inside, contiguous with thin dark brown hypothecium. Paraphyses copious, c. 1.5 µm wide. Spores 1/ascus, densely muriform, hyaline, 54–65 × 22–30 µm. Chemistry: no lichen substances by TLC, anal.: K. Kalb.

Etymology: The species name refers to the similarity to *L. coralloideum* (Nyl.) Lyngé

Brazil/Rio de Janeiro. Serra da Mantiqueira; Itatiaia, between Registro do Picú and Agulhas Negras, in a dense, dark rainforest, 1900 m. 22°20' S, 44°45' W. (UFMS, holotype)

leg.: K. Kalb & G. Plöbst

23. VII. 1978

det.: A. Aptroot

Remarks: This is a *Lopadium s.str.* with rather wide, not hyaline paraphyses. It has a thallus full of small isidia-like structures. Only five species are currently accepted in the genus; the only isidioid one, *L. coralloideum* (Nyl.) Lyngé, has much longer isidia and a more glossy surface.



Fig. 5. *Lopadium subcoralloideum* Aptroot & Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

637. *Ocellularia baorucensis* Lücking

Brasilien/São Paulo. Grande Anel Rodoviário between Via dos Imigrantes and Via Anchieta, in a dry forest on sand dunes, on bark of an old tree trunk, 670 m. 23°50' S, 46°35' W.

leg.: K. Kalb
1. VII. 1979

det.: A. Aptroot

Chemistry: Protocetraric acid

anal.: K. Kalb

Remarks: A new addition to the lichen biota of Brazil!

K. KALB & A. APTROOT: LICHENES NEOTROPICI

638. *Parmeliella nigrocincta* (Mont.) Müll. Arg.

Chile/Magallanes. Peninsula Brunswick; Fuerte Bulnes, c. 60 km S of Punta Arenas, in a *Nothofagus* forest, 100 m, 53°40' S, 71°00' W

leg.: K. Kalb
5.–6. I. 1981

det.: A. Aptroot

Chemistry: no lichen substances by TLC

anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

639. *Phyllopsora confusa* Swinscow & Krog

Brazil/Mato Grosso. Serra dos Coroados; Chapada dos Guimarães, in a submontane rainforest, on the bark of an unidentified deciduous tree, 800 m. 15°30' S, 55°40' W.

leg.: K. Kalb & M. Marcelli.

6. VII. 1980

det.: A. Aptroot

Chemistry: no lichen substances by TLC anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

640. *Phyllopsora furfuracea* Zahlbr.

Venezuela/Merida. Monte Zerpa, a few km N of Mérida, above "Hechincera", in a pristine cloud forest, on the bark of an unidentified deciduous tree, 2200 m. 8°40' N, 71°10' W.

leg.: K. & A. Kalb & M. Lopez-Figueiras

14. VIII. 1989

det.: A. Aptroot

Chemistry: Furfuracaeic acid (major) anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

641. *Phyllopsora furfuracea* Zahlbr.

Brazil/Mato Grosso. Between São Vicente and Aquas Quentes, c. 90 km ESE of Cuiaba, in a cerrado, on the bark of an unidentified deciduous tree, 750 m. 15°50' S, 55°20' W.

leg.: K. Kalb.

2. VII. 1980

det.: A. Aptroot

Chemistry: Furfuracaeic acid (major) anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

642. *Phyllopsora striata* Aptroot, M. Cáceres & Tindal

Brazil/Mato Grosso do Sul. c. 50 km SW of Campo Grande, on bark of an unidentified deciduous tree in a humid gallery forest, 500 m. 21°00' S, 54°40' W.

leg.: K. Kalb & G. Plöbst

16. XI. 1979

det.: A. Aptroot

Chemistry: Divaricatic acid (major) anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

643. *Porina melanops* Malme

Brazil/Bahia. Chapada Diamantina; Serra do Tombador, between Mundo Novo and Morro de Chapeú, on the bark of an unidentified tree, in a dark rainforest, 800 m. 11°50' S, 40°45' W.

leg.: K. Kalb & M. Marcelli

20. VII. 1980

det.: A. Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

644. *Porina subnucula* Lumbsch, Lücking & Vězda

Dominican Republik. La Altagracia; El Macao, at the end of the road from La Cruz del Isleño to Punta Macao, in a disturbed coastal rainforest, 5 m. 18°47' N, 68°33' W.

leg.: K. Kalb

26. VIII. 1996

det.: A. Aptroot

K. KALB & A. APTROOT: LICHENES NEOTROPICI

645. *Rhizocarpon sipmanianum* Kalb & Aptroot *sp. nov.***ISOTYPE**

MycoBank 820558

Similar to *R. eupetraeum* (Nyl.) Arnold, but differs by the smaller ascospores with fewer cells and the often flat and not regularly areolate thallus.

Thallus ochraceous grey, somewhat glossy, partly contiguous but mostly areolate; areoles variable, irregular in outline, flat to uneven with partly convex parts, 0.2–0.6 mm diam.; hypothallus black, hyphal, present between areoles and around the thallus.

Apothecia black, sessile, round to somewhat lobate, dull, slightly convex; margin black, barely visible, c. 0.05 mm wide. Hymenium vinaceous in upper part; epiphymenium grey, hypothecium dark brown, excipulum thin, dark brown. Spores 8/ascus, grey from an early stage of the development, submuriform, 3–4 × 1–2 septate, halonate, 18–21 × 9–11 µm.

Etymology: The new species is named in honour of our friend and colleague Dr. Harrie Sipman

Brazil/Rio de Janeiro. Serra da Mantiqueira; Itatiaia, between Registro do Picú and Agulhas Negras, on granitic boulders at the edge of a dense rainforest (Mata Atlântica), 1900 m. 22°20' S, 44°45' W. (UFMS, holotype)

leg.: K. Kalb & G. Plöbst

1. XI. 1978

det.: A. Aptroot

Chemistry: Norstictic acid (major), connorstictic acid (minor)

anal.: K. Kalb

Remarks: The new species keys out as *R. eupetraeum* (Nyl.) Arnold, but differs by the small ascospores with fewer cells, and the often flat and not regularly areolate thallus. *Rhizocarpon* species are surprisingly rare in Brazil. So far only one other *Rhizocarpon* was described from Brazil, and none other reported.

K. KALB & A. APTROOT: LICHENES NEOTROPICI

646. *Rinodina colobinoides* (Nyl.) Müll. Arg.

Venezuela/Lara. District Torres; ca. 35 km E of Barquisimeto, in a light and dry half steppe, on the bark of an unidentified tree, 650 m. 10°10' N, 69°50' W.

leg.: K. & A. Kalb

20. VIII. 1989

det.: A. Aptroot

Chemistry: no lichen substances by TLC

anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

647. *Scytinium imbricatum* (P.M. Jørg.) Otálora, P.M. Jørg. & Wedin

Venezuela/Merida. District Rivas Davila; Paramo la Negra, ca. 20 km W of Bailadores, on the ground on plant debris, 2750 m. 8°15' N, 71°50' W.

leg.: K. & A. Kalb

12. VIII. 1989

det.: A. Aptroot

Chemistry: no lichen substances by TLC

anal.: K. Kalb

Remarks: New to the Neotropics and to the southern Hemisphere; the specimens distributed are not different in any way from European material.

K. KALB & A. APTROOT: LICHENES NEOTROPICI

648. *Tephromela campestricola* (Nyl.) Rambold & Triebel

Brazil/Santa Catarina. Ilha de Santa Catarina; northwestern part, Ponta das Canas; growing on the thallus and apothecia of *Lecanora vainioi* Vänskä, on sunny granitic boulders at the beach, 27°58' S, 48°50' W.

leg.: K. Kalb

4. V. 1980.

det.: A. Aptroot (parasite and host)

Chemistry (of the host): Atranorin (major), zeorin (major), epanorin (minor)

anal.: K. Kalb

Remarks: New to the Neotropics!

K. KALB & A. APTROOT: LICHENES NEOTROPICI

649. *Usnea complanata* (Müll. Arg.) Motyka

Ecuador/Azuay. Remnants of a cloud-forest in Paramo vegetation, c. 35 km S von Cuenca, on the bark of an unidentified freestanding deciduous tree, 3200 m. 3°10' S, 79°00' W.

leg.: K. Kalb

24.–26. VIII. 1987

det.: A. Aptroot

Chemistry: Usnic acid (major), salazinic acid (major), consalazinic acid (minor) anal.: K. Kalb

K. KALB & A. APTROOT: LICHENES NEOTROPICI

650. *Xanthoparmelia arvidssonii* T.H. Nash & Elix

Venezuela/Merida. District Miranda; Paramo between Almorzadero and Pinango, on the ground between dwarf-shrubs, 4200 m. 8°55' N, 70°50' W.

leg.: K. & A. Kalb

17. VIII. 1989

det.: A. Aptroot

Chemistry: Usnic acid (major), norstictic acid (submajor), stictic acid (major), cryptostictic acid (minor), constictic acid (submajor)

Remarks: A new addition to the lichen biota of Venezuela!



Figs. 6–8. Ascospores of *Lecanactis caceresiana*, *Lopadium subcoralloideum* and *Rhizocarpon sipmanianum*



Fig. 9. *Lecanactis fraudans* (Räsänen) Tehler

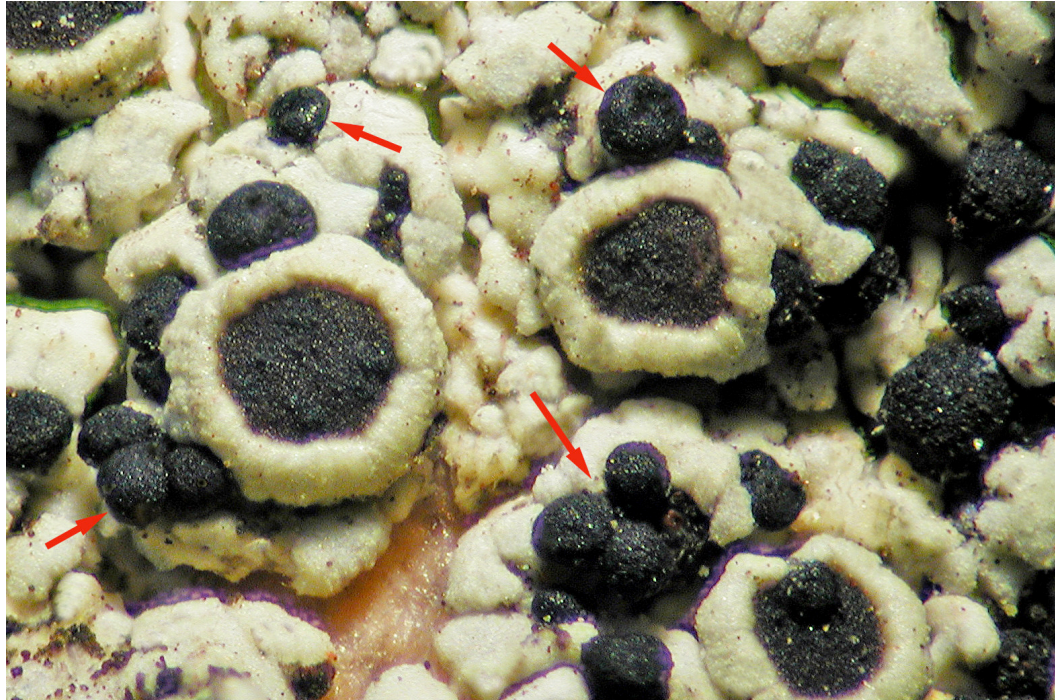


Fig. 10. *Tephromela campestricola* (Nyl.) Rambold & Triebel