

F. Schumm (2025):

Images of various Lichens Vol. 17
Teloschistes

Examination methods:

All samples come from the author's private herbarium in Wangen. The macroscopic photos were taken with the "Canon Macro Photo Lens MP-E 65 mm" lens on a tripod and the "Canon 600D" camera. The microscopic sections were made with the "Microm HM 560" cryotome and stained with phenol-lactic acid-aniline blue. The "Olympus BX 51" was used as a microscope and also the "Canon 600D"

The numbers in [...] are the numbers of the bags in the lichen herbarium F. Schumm in Wangen out of which the images are taken. For the pictures I preferred to use specimens from my private herbarium out of the known exsiccatae from Elix, Follmann, Kalb, Kashiwadani, Kurokawa, Ohmura, Vezda.

For the descriptions I used: There one can find also keys inside.

Almborn, O. (1989) Revision of the Lichen genus *Teloschistes* in central and southern Africa. - Nord. J. Bot. 8: 521-537.

Almborn, O. (1992): Some overlooked or misidentified species of *Teloschistes* from South America and a key to the South-American species. - Nord. J. Bot. 121: 361-364.

Hillmann, J. (1930): Studien über die Flechtengattung *Teloschistes* Norm. - Hedwigia Band 69

I often used also the excellent descriptions that are provided in Prof. Nimis *ITALIC* 8.0 under the URL:

<https://italic.units.it/>

the Australian Lichenslist

https://www.anbg.gov.au/abrs/lichenlist/lichenchecklist_e_o.html

Consortium of Lichen Herbaria

<https://lichenportal.org/portal/>

Felix Schumm, 05.2025

[LN663], Australia/Western Australia. Chester Pass Road, N of Stirling Range, northern boarder to Stirling Range National Park, on deciduous trees along the street, 150 m, 34°16' S, 118°13' E. Leg. K. Kalb (CANB, holotype), 13. VIII. 1994 - ISOTYPE - . EX K. KALB & A. APTROOT: LICHENES NEOTROPICI NR 663.

Diagnosis: similar to *Niorma chrysophthalma*, but differing by the wider lobes and the compact growth form with short and dense branching. Description: Thallus in 1–3 cm diam., more or less hemispherical, cushions, fruticose, dorsiventral, densely branched. Lobes 1–6 mm wide, divided every 1–2 mm, upper surface orange yellow, lower surface off white towards the margins, almost black in the center, with numerous conspicuous veins covering almost half of the width, margins covered by numerous yellow cilia of c. 0.2–0.4 mm long. Apothecia abundant, terminal, orange, 0.5–2 mm diam., disc concave, margin yellow, of thallus structure and equally covered by numerous yellow cilia of c. 0.2–0.4 mm long. Ascospores 8/ascus, polaridiblastic, 12–15 × 5.5–7.5 µm. Chemistry: Parietin (major), teloschistin (minor), parietinic acid (minor) anal.: K. Kalb. Etymology: Named for the pulvinate growth form.

Discussion: *Niorma* is a recent segregate of *Teloschistes*, with so far only six species known. The new species is so densely branched and full of apothecia and cilia that the individual lobes are hardly visible from above. This species is most similar to *Niorma chrysophthalma* (L.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur, which differs by the narrower lobes and relatively longer and less dense branching.

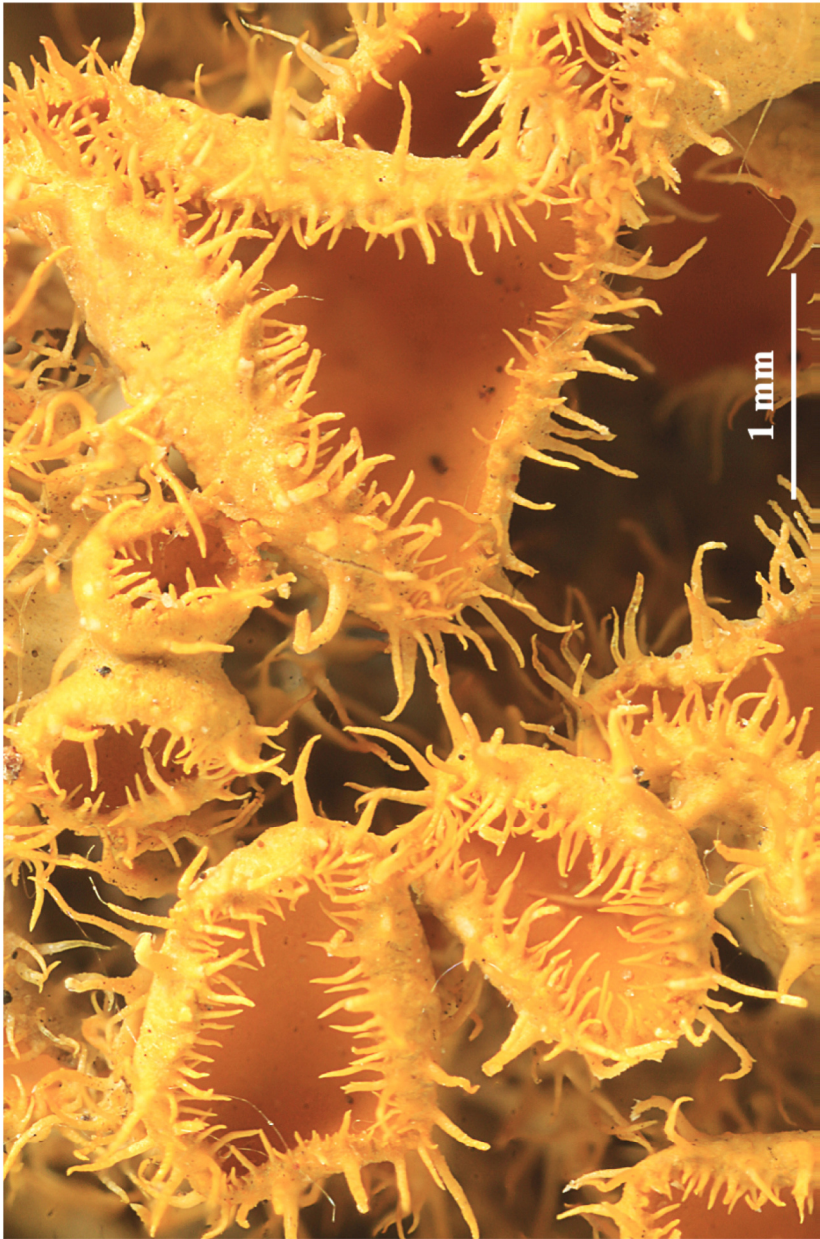


1 cm

Niorma pulviniformis



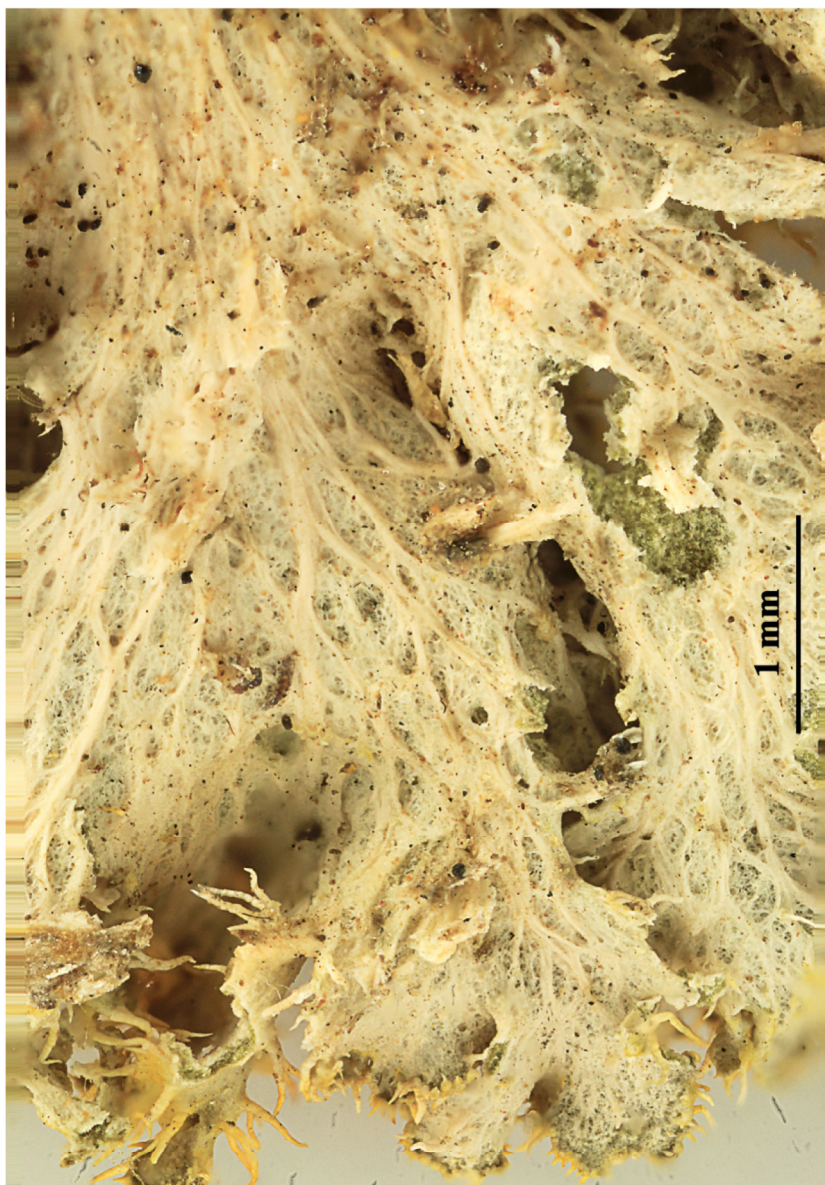
Niorma pulviniformis



Niorma pulviniformis



Niorma pulviniformis



Niorma pulviniformis

Teloschistes californicus Sipman, Willdenowia 23(1-2): 312 (1993)
= *Seiophora californica* (Sipman) Frödén, in Frödén & Lassen 2004

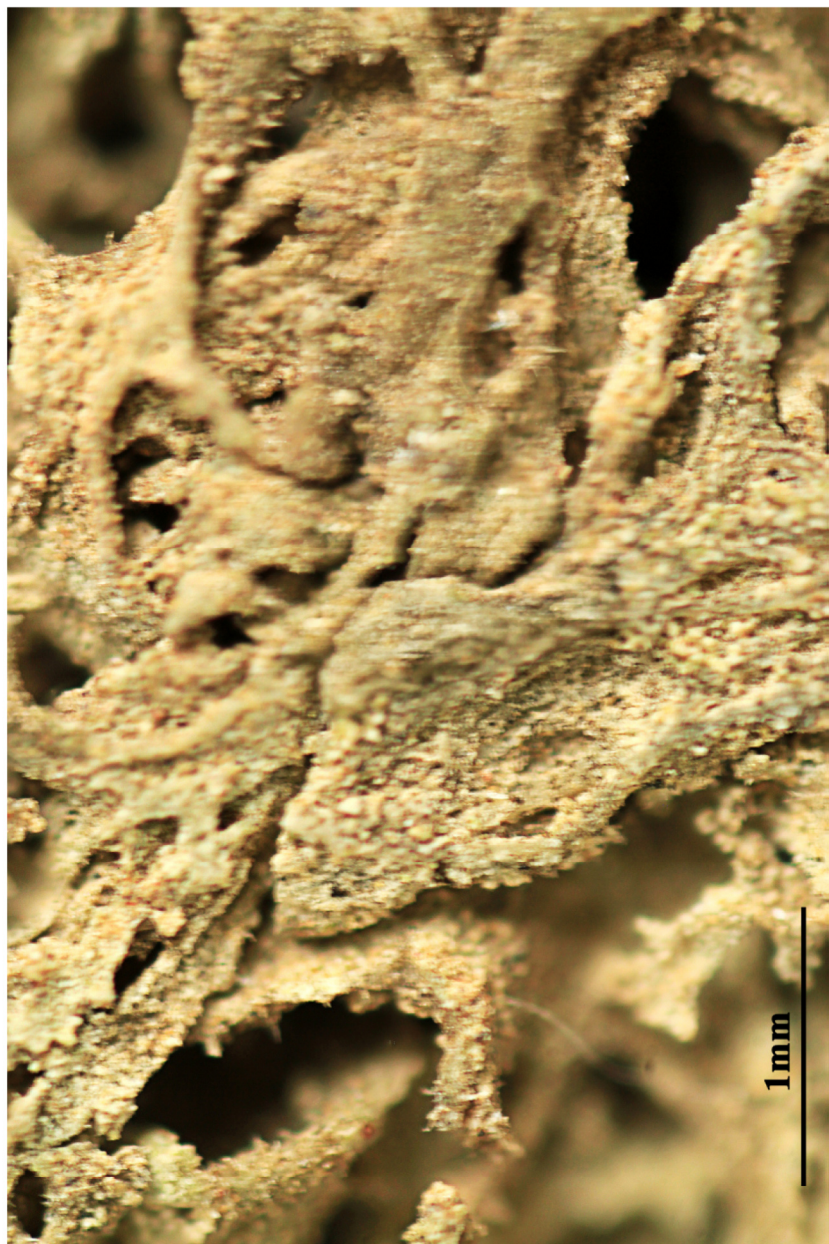
[9477], Mexico, Baja California Sur: 8 km W of Ciudad Constitución, 111°43' W, 25°00' N, 50 m; desert scrub, on *Euphorbia*. Leg. T.H. Nash III, 19. Feb. 1993 (Nr. 33948). det. T. H. Nash.

Diagnosis: A *Teloschistide villosa* simili differt sorediis a latere inferiore productis, thallo minore, tomento brevior, apotheciis minoribus.

Description: Thallus fruticose, 1-2(-3) cm long, rather stiff, composed of one or more blades attached by a permanent basal holdfast, grey with a brownish tinge, growing on twigs; blades dorsiventral, divided from the base into mostly linear, strongly branched, undulate lobes; hymenium 40 µm tall, clear; epithecium yellowish granular, granules K+ dark reddish, dissolving and producing fine crystals; hypothecium hyaline; spores polarilocular, c. 10 x 4 µm, septum occupying about one third of the length, 8 per ascus. Pycnidia immersed in orange warts, c. 0.1 mm in diam., on upper surface of lobes; pycnoconidia c. 3 x 1 µm, elongate with rounded ends, slightly narrower towards one end. *Teloschistes californicus* has been mistaken in the past for *T. villosus* (Ach.) Norm. It differs most conspicuously by the production of soredia on the lower surface. In addition, its thallus is smaller, less densely tomentose, with shorter hairs (c. 0.1 mm instead of c. 0.2 mm long), regularly perforate, with the lower side more strongly ridged. The apothecia and spores seem to remain smaller. Nevertheless *T. villosus* seems the closest relative of *T. californicus*. *T. Iacunosus* (Rupr.) Sav. has much shorter and less divided thallus lobes, and is otherwise closer to *T. villosus*. *T. californicus* is so far known only from Baja California, Mexico, and California, USA, where it grows on twigs of shrubs (*Lycium californicum*, Idria) in coastal desert with abundant fog. All specimens identified as *T. villosus* from this area which Sipman has seen belong to *T. californicus*. Specimens from South America, e.g. Peru, turned out to be true *T. villosus*.



Teloschistes californicus



Teloschistes californicus

Teloschistes capensis (L. f.) Müll. Arg., Ark. Bot. 20A(no. 9): 47 (1926)
= *Lichen capensis* L. f. 1781

[2565], Südwestafrika, Distr. Walvisbaai: koloniebildend auf grobkörnigen nebeloffenen Wüstenböden im Teloschistetum capensis, 25 m, pH .,8, Namibwüste nördlich Swakopmund. Leg. F. Mattick, 10.1968, test. G. Follmann, 04.1969. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI A MUSEO BOTANICO BEROLINENSI EDITI NR. 77.

Thallus fruticose, erect, 3-8 cm, densely ramosae. Main branches c. 0.5 mm diam., in section circular or angularly rounded, sometimes slightly flattened, occasionally longitudinally striate or furrowed, dull, glabrous or pubescent, orange, yellow or greyish. Soralia and isidia absent. Secondary branches similar but thinner, all branches split into 1-2 mm long, orange to yellow-grey fibrils at the margins. Apothecia usually present, lateral or subterminal, sessile, 1-2 mm diam, young stages forming small orange-red verrucae. Disc plane to concave, orange-red, darker than the thallus; margin prominent, covered with numerous long, yellow to orange fibrils. Asci clavate, 48-52 x 12-14 µm. Ascospores bilocular, ellipsoid to subfusiform, 8.5-14 x 4-5.5 µm. *Tornabenia africana* Mass. differs in no essential respects from *Teloschistes capensis* as far as can be gathered.



Teloschistes capensis



Teloschistes capensis

Teloschistes capensis (L. f.) Müll. Arg., Ark. Bot. 20A(no. 9): 47 (1926)
= *Lichen capensis* L. f. 1781

[14327], Namibia: Central Namib Desert, District of Swakopmund, vast series inland of Rock Bay northwest of Wlotzkasbaken, loosely attached to the gravelly ground, up to 10 cm high, often moistened by dew and fog, most characteristic species of the so-called lichen fields (*teloschisteum capensis* Follm.), 1-6 m, AW exposition in large quantities, landscape determining. leg et det. G. Follmann & M. Schulz, 03.1990. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI AB INSTITUTO BOTANICO UNIVERSITATIS COLONIENSIS EDITI NR. 493.

Thallus fruticose, erect, 3-8 cm, densely ramose. Main branches c. 0.5 mm diam., in section circular or angularly rounded, sometimes slightly flattened, occasionally longitudinally striate or furrowed, dull, glabrous or pubescent, orange, yellow or greyish. Soralia and isidia absent. Secondary branches similar but thinner, all branches split into 1-2 mm long, orange to yellow-grey fibrils at the margins. Apothecia usually present, lateral or subterminal, sessile, 1-2 mm diam, young stages forming small orange-red verrucae. Disc plane to concave, orange-red, darker than the thallus; margin prominent, covered with numerous long, yellow to orange fibrils. Asci clavate, 48-52 x 12-14 μm . Ascospores bilocular, ellipsoid to subfusiform, 8.5-14 x 4-5.5 μm . *Tornabenia africana* Mass. differs in no essential respects from *Teloschistes capensis* as far as can be gathered.



Teloschistes capensis



Teloschistes capensis



Teloschistes capensis

Teloschistes chrysophthalmos (L.) Th. Fr. [as 'Teloschistes chrysophthalmus'], Gen. Heterolich. Eur.: 51 (1861)
 = *Lichen chrysophthalmos* L. 1771
 = *Niorma chrysophthalma* (L.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur, in Kondratyuk, Jeong, Yu, Kärnefelt, Thell, Elix, Kim, Kondratyuk & Hur 2013

[10537], Spanien, Kanaren, La Gomera: Nördlich von Arure beim Aussichtspunkt Mirador de Alojera in der nebelreichen Myrica-Erica-Zone, 28°08.995'N, 17°18.483'W, ca. 1000 m. Leg. F. Schumm, 24.04.2003.

Thallus fruticose, tufted, often forming up to 3(-4) cm high, loose cushions, attached by a basal holdfast, bright orange (yellow to grey in shade-forms). Branches at first stellate-radiating and c. 0.5 mm wide, but soon becoming erect, of variable width (usually 1-2.5 mm), rigid, slightly dorsiventral, usually with ciliate tips, smooth or weakly wrinkled especially on the paler lower surface, with laminal and terminal, 0.3-1 mm long cilia. Upper cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands with algae in scattered groups, 40-130 µm thick; lower cortex prosoplectenchymatous. Apothecia almost always present, mostly terminal to subterminal, lecanorine, up to 8 mm across, orange to orange-red, the margin with numerous, radiating, 0.5-1.5 mm long cilia. Epithecium orange, K+ red; hymenium and hypothecium colourless. Asci 8-spored, oblong to clavate, Teloschistes-type. Ascospores 2-celled, polarilocular, hyaline, ellipsoid, (10-)12-17 x 5-8 µm, the equatorial thickening ("septum") 4.5-7 µm. Pycnidia immersed to slightly projecting in 0.1-0.15 mm wide, darker orange warts. Conidia simple, hyaline, narrowly ellipsoid, 3.5-4.5 x 1.5-2 µm. Photobiont chlorococcoid. Spot tests: thallus and apothecia K+ red, C-, KC-, P-. Chemistry: anthraquinones such as parietin (major), fallacinal, teloschistin, and parietinic acid (all minor), and emodin and erythroglaucon (both minor). Note: typical of situations with a dry climate with frequent spells of fog, this species grows on twigs of shrubs and isolated trees in open habitats. It was much more common in the past.



Teloschistes chrysophthalmos

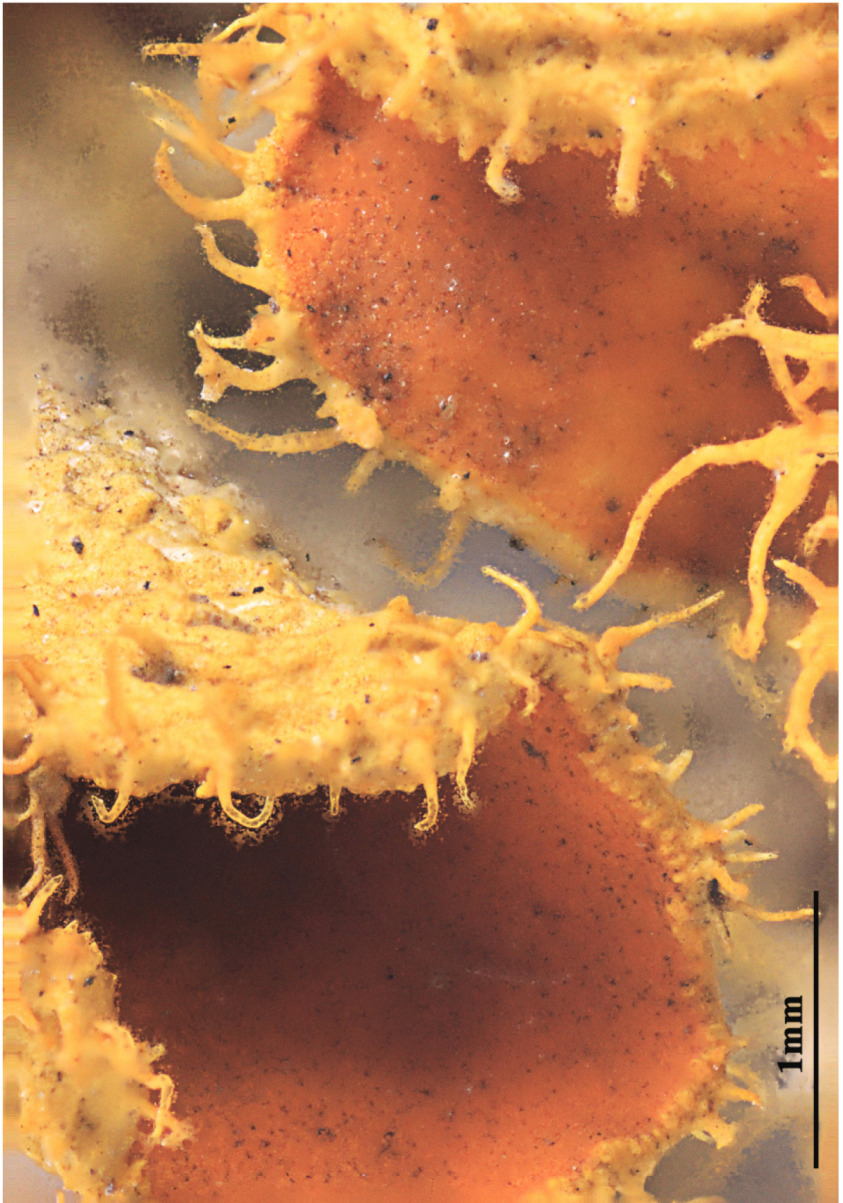
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 = *Lichen chrysophthalmos* L. 1771
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[10268]. Spanien, Kanaren, La Gomera: SO-Rand des Nationalparks Garajonay nahe dem Aussichtspunkt Roque Agando, 28°06.544'N, 17°12.887'W, 1136 m; Erica-Myrica Zone. Legt. et det. F. Schumm, 16.04.2003.

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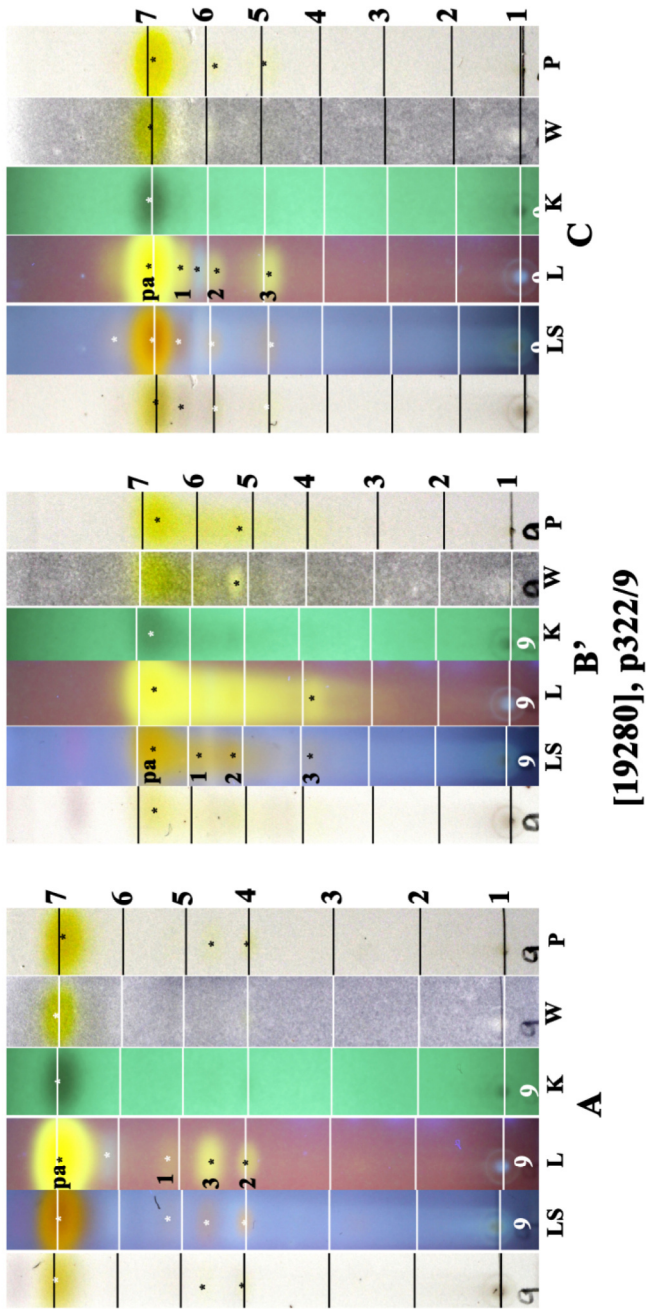
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 = *Niorma chrysophthalma* (L.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur, in Kondratyuk, Jeong, Yu, Kärnefelt, Thell, Elix, Kim, Kondratyuk & Hur 2013

[19280], Australia, South Australia, Kangaroo Island, Playford Highway, 1 km west of Kingscote Airport, 35°43' S, 137°31' E, 15 m, growing on dead twigs in Eucalyptus and Melaleuca dominated scrub. Leg. J. A. Elix (nr. 19667) & L.H.Elix, 27.10.1985 . Chemistry parietin (major), teloschistin, fallacinal, parietinic acid by HPLC, anal. J.A. Jenkins. EX J. A. ELIX: LICHENES AUSTRALASICI EXSICCATI No.123.- Own HPTLC p322/9: parietin, fallacinal, parietinic acid, teloschistin.

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Teloschistes chrysophthalmos



Teloschistes exilis (Michx.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 115
(1890)
= *Physcia exilis* Michx. 1803

[4020], Madagaskar, Süd-Madagaskar, Berenti Park, an Bäumen, ca.
100 m. Leg. F. & D. Schumm, 28.12.1992, det. F. Schumm

Thallus up to 3 cm tall, much branched. Branches notably slender, mostly less than 1 mm and often less than 0.5 mm wide, terete to here and there complanate, smooth to slightly rugose, with sparse elongate pseudocyphellae. Isidia and soredia absent. Apothecia numerous, with thalline exciple either entire or bearing a dense fringe of spinules. Spores bilocular. ECOLOGY: On twigs and small branches of shrubs and trees that are either sheltered or in a frequently humid environment.



Teloschistes exilis

Teloschistes exilis (Michx.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 115
(1890)
= *Physcia exilis* Michx. 1803

[LN77, 18119], Brasilien/ Rio de Janeiro. Serra da Mantiqueira; Itatiaia. An dünnen Ästchen von *Berberis spec.*, zwischen Registro do Picú und Agulhas Negras, in einer Viehweide. 1900 m, 22°20' S, 44°45' W. Leg. K. Kalb und G. Plöbst, 23.07.1978. Ex K. Kalb: Lichenes Neotropici Nr. 77. -Chemie: Parietin, anal. S. Huneck.

Thallus up to 3 cm tall, much branched. Branches notably slender, mostly less than 1 mm and often less than 0.5 mm wide, terete to here and there complanate, smooth to slightly rugose, with sparse elongate pseudocyphellae. Isidia and soredia absent. Apothecia numerous, with thalline exciple either entire or bearing a dense fringe of spinules. Spores bilocular. ECOLOGY: On twigs and small branches of shrubs and trees that are either sheltered or in a frequently humid environment.



Teloschistes exilis

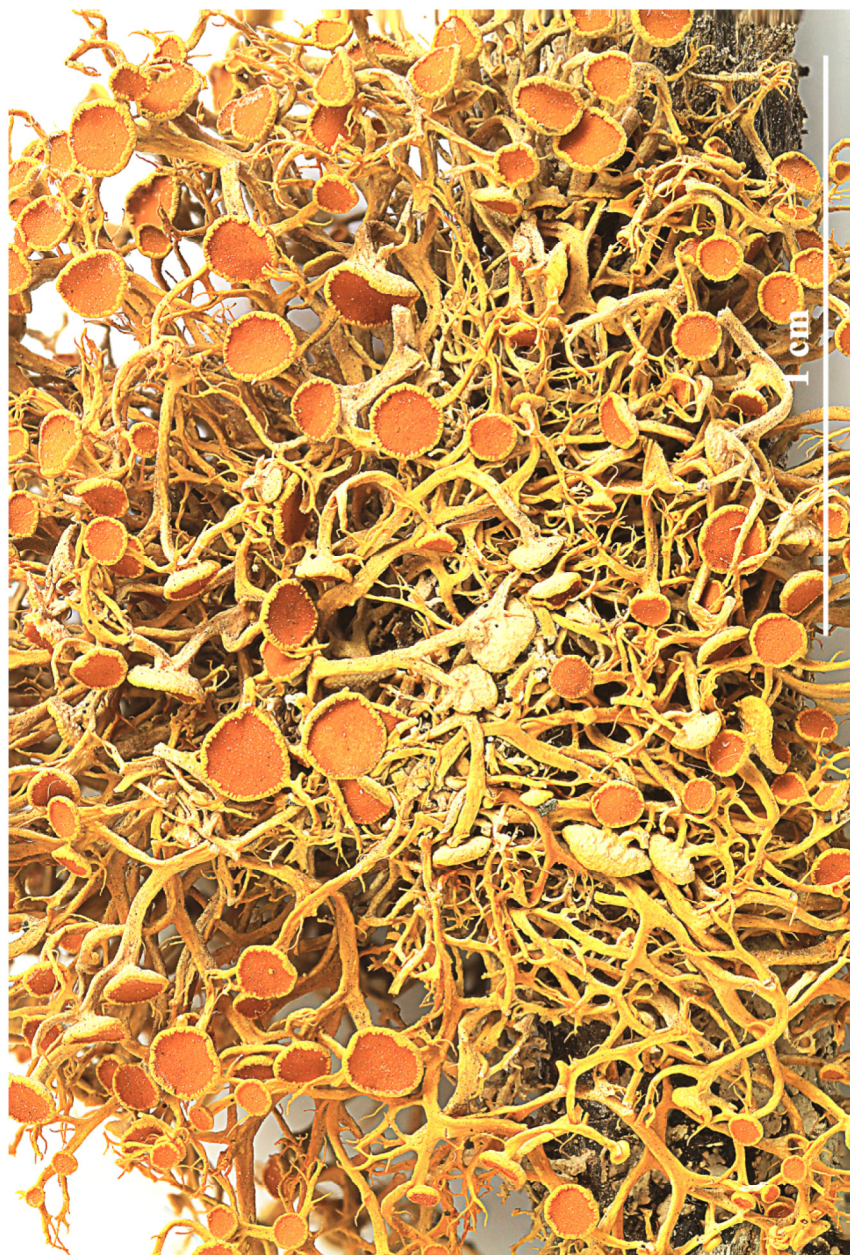


Teloschistes exilis

Teloschistes exilis (Michx.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 115
(1890)
= *Physcia exilis* Michx. 1803

[LN78, 18136], Paraguaij. Gran Chaco, etwa 75 km vor Filadelfia, an
dünnen Ästen von Dornsträuchern, in einem von Kakteen durchsetzten
Wald. 200 m, 22°28' S, 59°27' W. Leg. K. Kalb, 05.06.1980. Ex K.
Kalb: Lichenes Neotropici 78. Chemie: Parietin, anal. S. Huneck.

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Spores bilocular. ECOLOGY: On twigs and small branches of shrubs
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Teloschistes exilis



Teloschistes exilis

- Teloschistes flavicans* (Sw.) Norman, Conat. Praem. Gen. Lich.: 17 (1852)
 = *Anaptychia flavicans* (Sw.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 48 (1861)
 = *Borreria flavicans* (Sw.) Ach., Lich. Univ.: 504 (1810)
 = *Cornicularia flavicans* (Sw.) Schaer., Enum. critic. lich. europ. (Bern): 6 (1850)
 = *Evernia flavicans* (Sw.) Fr., Lich. eur. reform. (Lund): 28 (1831)
 = *Lichen flavicans* Sw., Prodr.: 147 (1788)
 = *Lobaria flavicans* (Sw.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
 = *Parmelia chrysophthalmos* var. *flavicans* (Sw.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 224 (1833)
 = *Parmelia flavicans* (Sw.) Ach., Methodus, Sectio post. (Stockholmia): 268 (1803)
 = *Physcia chrysophthalmos* var. *flavicans* (Sw.) Tuck., Proc. Amer. Acad. Arts & Sci. 4: 385 (1860)
 = *Physcia flavicans* (Sw.) DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 189 (1805)
 = *Teloschistes chrysophthalmus* var. *flavicans* (Sw.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 49 (1882)
 = *Tornabenia flavicans* (Sw.) A. Massal.
 = *Xanthoria flavicans* (Sw.) H. Olivier, Fl. Lich. Orne 1: 81 (1882)

[1505], Costa Rica, Prov. Carthago: Ad viam inter oppidum Carthago et montem ignivomum Irazú dictum, 1820 m, arboricola. Leg. I. M. Lamb & U.V. Metzger, 25.04.1969. EX A. VěZDA: LICHENES SELECTI EXSICCATI NR. 798.

Thallus fruticose, attached by a basal holdfast, almost filamentous, up to 12 cm long, tufted to pendent, more or less dichotomously and richly branched. Branches corticate, rigid, entangled, up to 2 mm wide, narrowing to 0.05-0.2 mm at the tips, terete to angular or somewhat flattened (especially the main ones) yellow-orange to reddish orange, with farinose to granular, yellow soredia arranged in orbicular to elongated, at least at the beginning raised soralia; fibrils and hairs absent or scarce. Cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands. Apothecia extremely rare, lecanorine, 1-4 mm across, with an orange disc and a thin, usually smooth, rarely sparingly ciliate thalline margin. Epithecium orange, K+ red; hymenium and hypothecium colourless. Asci 8-spored, *Teloschistes*-type. Ascospores 2-celled polarilocular, hyaline, oblong to narrowly ellipsoid, (10-)12-18(-20) x 6-11 µm. Pycnidia immersed to slightly projecting, orange. Conidia simple, hyaline, bifusiform, 2.7-3.7 x 1-1.5 µm. Photobiont

chlorococcoid. Spot tests: thallus and soredia K+ red, C-, KC-, P-. Chemistry: parietin and caloploicin (major), teloschistin, fallacinal, parietinic acid, vicanicin and isofulgidin (minor), occasionally also emodin. - Note: a tropical to Mediterranean-Atlantic lichen found on branches, bryophytes and siliceous rocks in a few warm-humid stands of Tyrrhenian Italy, mostly near the coast in areas with frequent fog.



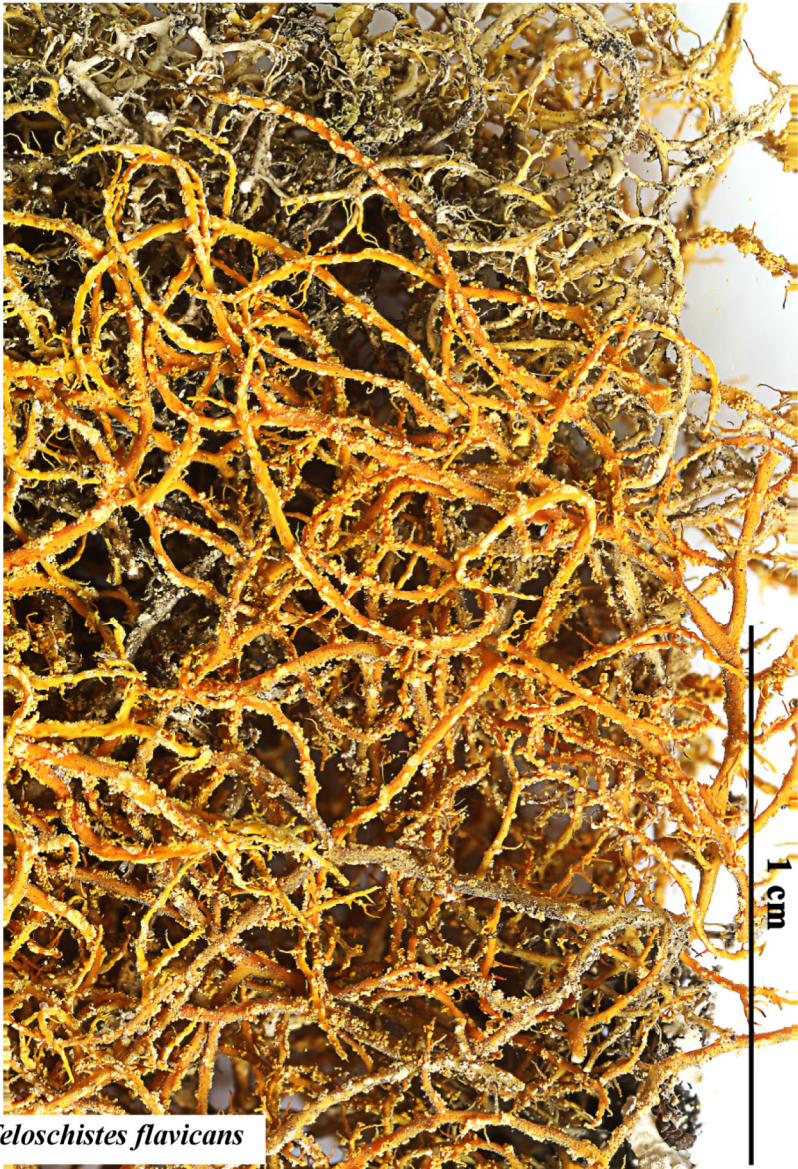
Teloschistes flavicans

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[ABL42588], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42588), 21-23.10.2017. Det. A. Aptroot, 2017.

Thallus fruticose, attached by a basal holdfast, almost filamentous, up to 12 cm long, tufted to pendent, more or less dichotomously and richly branched. Branches corticate, rigid, entangled, up to 2 mm wide, narrowing to 0.05-0.2 mm at the tips, terete to angular or somewhat flattened (especially the main ones) yellow-orange to reddish orange, with farinose to granular, yellow soredia arranged in orbicular to elongated, at least at the beginning raised soralia; fibrils and hairs absent or scarce. Cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands. Apothecia extremely rare, lecanorine, 1-4 mm across, with an orange disc and a thin, usually smooth, rarely sparingly ciliate thalline margin. Epithecium orange, K+ red; hymenium and hypothecium colourless. Asci 8-spored, *Teloschistes*-type. Ascospores 2-celled polarilocular, hyaline, oblong to narrowly ellipsoid, (10-)12-18(-20) x 6-11 µm. Pycnidia immersed to slightly projecting, orange. Conidia simple, hyaline, bifusiform, 2.7-3.7 x 1-1.5 µm. Photobiont

chlorococcoid. Spot tests: thallus and soredia K⁺ red, C⁻, KC⁻, P⁻. Chemistry: parietin and caloploicin (major), teloschistin, fallacinal, parietinic acid, vicanicin and isofulgidin (minor), occasionally also emodin. - Note: a tropical to Mediterranean-Atlantic lichen found on branches, bryophytes and siliceous rocks in a few warm-humid stands of Tyrrhenian Italy, mostly near the coast in areas with frequent fog.



Teloschistes flavicans



Teloschistes flavicans

- Teloschistes flavicans* (Sw.) Norman, Conat. Praem. Gen. Lich.: 17 (1852)
 = *Anaptychia flavicans* (Sw.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 48 (1861)
 = *Borrera flavicans* (Sw.) Ach., Lich. Univ.: 504 (1810)
 = *Cornicularia flavicans* (Sw.) Schaer., Enum. critic. lich. europ. (Bern): 6 (1850)
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 = *Lichen flavicans* Sw., Prodr.: 147 (1788)
 = *Lobaria flavicans* (Sw.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
 = *Parmelia chrysophthalmos* var. *flavicans* (Sw.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 224 (1833)
 = *Parmelia flavicans* (Sw.) Ach., Methodus, Sectio post. (Stockholmia): 268 (1803)
 = *Physcia chrysophthalmos* var. *flavicans* (Sw.) Tuck., Proc. Amer. Acad. Arts & Sci. 4: 385 (1860)
 = *Physcia flavicans* (Sw.) DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 189 (1805)
 = *Teloschistes chrysophthalmus* var. *flavicans* (Sw.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 49 (1882)
 = *Tornabenia flavicans* (Sw.) A. Massal.
 = *Xanthoria flavicans* (Sw.) H. Olivier, Fl. Lich. Orne 1: 81 (1882)

[ABL18085], Brazil, Sergipe, Parque Nacional Serra de Itabaiana. 10°44'35" S, 37°20'25" W, 400 m. On bark in transitional forest to caatinga. Leg. M. Cáceres & A. Aptroot, (no. 18085), 27 July 2013, det. A. Aptroot 2013. - Thallus fruticose, attached by a basal holdfast, almost filamentous, up to 12 cm long, tufted to pendent, more or less dichotomously and richly branched. Branches corticated, rigid, entangled, up to 2 mm wide, narrowing to 0.05-0.2 mm at the tips, terete to angular or somewhat flattened (especially the main ones) yellow-orange to reddish orange, with farinose to granular, yellow soredia in orbicular to elongated, at least at the beginning raised soralia; fibrils and hairs absent or scarce. Cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands. Apothecia extremely rare, lecanorine, 1-4 mm across, with an orange disc and a thin, usually smooth, rarely sparingly ciliate thalline margin. Epithecium orange, K+ red; hymenium and hypothecium colourless. Asci 8-spored, *Teloschistestype*. Ascospores 2-celled polarilocular, hyaline, oblong to narrowly ellipsoid, (10-)12-18(-20) x 6-11 µm. Pycnidia immersed to slightly projecting, orange. Conidia bifusiform, 2.7-3.7 x 1-1.5 µm. Photobiont chlorococcoid. Spot tests: thallus and soredia K+ red, C-, KC-, P-, UV+

intensely orange-red. Chemistry: anthraquinones such as parietin (major), teloschistin, fallacinal, and parietinic acid (all minor).

Thallus fruticose, attached by a basal holdfast, almost filamentous, up to 12 cm long, tufted to pendent, more or less dichotomously and richly branched. Branches corticate, rigid, entangled, up to 2 mm wide, narrowing to 0.05-0.2 mm at the tips, terete to angular or somewhat flattened (especially the main ones) yellow-orange to reddish orange, with farinose to granular, yellow soredia arranged in orbicular to elongated, at least at the beginning raised soralia; fibrils and hairs absent or scarce. Cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands. Apothecia extremely rare, lecanorine, 1-4 mm across, with an orange disc and a thin, usually smooth, rarely sparingly ciliate thalline margin. Epithecium orange, K⁺ red; hymenium and hypothecium colourless. Asci 8-spored, Teloschistes-type. Ascospores 2-celled polarilocular, hyaline, oblong to narrowly ellipsoid, (10-)12-18(-20) x 6-11 μ m. Pycnidia immersed to slightly projecting, orange. Conidia simple, hyaline, bifusiform, 2.7-3.7 x 1-1.5 μ m. Photobiont chlorococcoid. Spot tests: thallus and soredia K⁺ red, C⁻, KC⁻, P⁻. Chemistry: parietin and caloploicin (major), teloschistin, fallacinal, parietinic acid, vicanicin and isofulgidin (minor), occasionally also emodin. - Note: a tropical to Mediterranean-Atlantic lichen found on branches, bryophytes and siliceous rocks in a few warm-humid stands of Tyrrhenian Italy, mostly near the coast in areas with frequent fog.

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 = *Tornabenia flavicans* (Sw.) A. Massal.
 = *Xanthoria flavicans* (Sw.) H. Olivier, Fl. Lich. Orne 1: 81 (1882)

[LN38]Brazil. Rio de Janeiro: Serra da Mantiqueira; Itatiaia, between Registro do Picú and Agulhas Negras, growing on granit boulders over moss, 1900 m, 22°20' S, 44°45' W, 20. VII. 1978, leg. K. Kalb & G. Plöbst. Ex K. Kalb: Lichenes Neotropici Nr 38 -Chemistry: parietin (Schmp.), anal.: S. Huneck.

Thallus fruticose, attached by a basal holdfast, almost filamentous, up to 12 cm long, tufted to pendent, more or less dichotomously and richly branched. Branches corticate, rigid, entangled, up to 2 mm wide, narrowing to 0.05-0.2 mm at the tips, terete to angular or somewhat flattened (especially the main ones) yellow-orange to reddish orange, with farinose to granular, yellow soredia arranged in orbicular to elongated, at least at the beginning raised soralia; fibrils and hairs absent or scarce. Cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands. Apothecia extremely rare, lecanorine, 1-4 mm across, with an orange disc and a thin, usually smooth, rarely sparingly ciliate thalline margin. Epithecium orange, K+ red; hymenium and hypothecium colourless. Asci 8-spored, *Teloschistes*-type. Ascospores 2-celled polarilocular, hyaline, oblong to narrowly ellipsoid, (10-)12-18(-20) x 6-11 µm. Pycnidia immersed to slightly projecting, orange.

Conidia simple, hyaline, bifusiform, $2.7\text{--}3.7 \times 1\text{--}1.5 \mu\text{m}$. Photobiont chlorococcoid. Spot tests: thallus and soredia K⁺ red, C⁻, KC⁻, P⁻. Chemistry: parietin and caloploicin (major), teloschistin, fallacinal, parietinic acid, vicanicin and isofulgidin (minor), occasionally also emodin. - Note: a tropical to Mediterranean-Atlantic lichen found on branches, bryophytes and siliceous rocks in a few warm-humid stands of Tyrrhenian Italy, mostly near the coast in areas with frequent fog.



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 = *Xanthoria flavicans* (Sw.) H. Olivier, Fl. Lich. Orne 1: 81 (1882)

[5081], Spanien, Gran Canaria, Straße zwischen Artenara und Pinar de Tamadaba, nebelfeuchter Nordhang mit dichtem *Pinus-canariensis* Wald mit viel Usnea und Teloschistes; N 28°01.682, W 15°41.058, Höhe 1140 m. Leg. F. Schumm & U. Schwarz, 04.01.1999, det. F. Schumm, 13.12.1999.

Thallus fruticose, attached by a basal holdfast, almost filamentous, up to 12 cm long, tufted to pendent, more or less dichotomously and richly branched. Branches corticate, rigid, entangled, up to 2 mm wide, narrowing to 0.05-0.2 mm at the tips, terete to angular or somewhat flattened (especially the main ones) yellow-orange to reddish orange, with farinose to granular, yellow soredia arranged in orbicular to elongated, at least at the beginning raised soralia; fibrils and hairs absent or scarce. Cortex of longitudinally arranged hyphae; medulla interrupted by cortical strands. Apothecia extremely rare, lecanorine, 1-4 mm across, with an orange disc and a thin, usually smooth, rarely sparingly ciliate thalline margin. Epithecium orange, K+ red; hymenium and hypothecium colourless. Asci 8-spored, *Teloschistes*-type. Ascospores 2-celled polarilocular, hyaline, oblong to narrowly ellipsoid, (10-)12-18(-20) x 6-11 µm. Pycnidia immersed to slightly projecting, orange.

Conidia simple, hyaline, bifusiform, $2.7\text{--}3.7 \times 1\text{--}1.5 \mu\text{m}$. Photobiont chlorococcoid. Spot tests: thallus and soredia K+ red, C-, KC-, P-. Chemistry: parietin and caloploicin (major), teloschistin, fallacinal, parietinic acid, vicanicin and isofulgidin (minor), occasionally also emodin. - Note: a tropical to Mediterranean-Atlantic lichen found on branches, bryophytes and siliceous rocks in a few warm-humid stands



Teloschistes flavicans

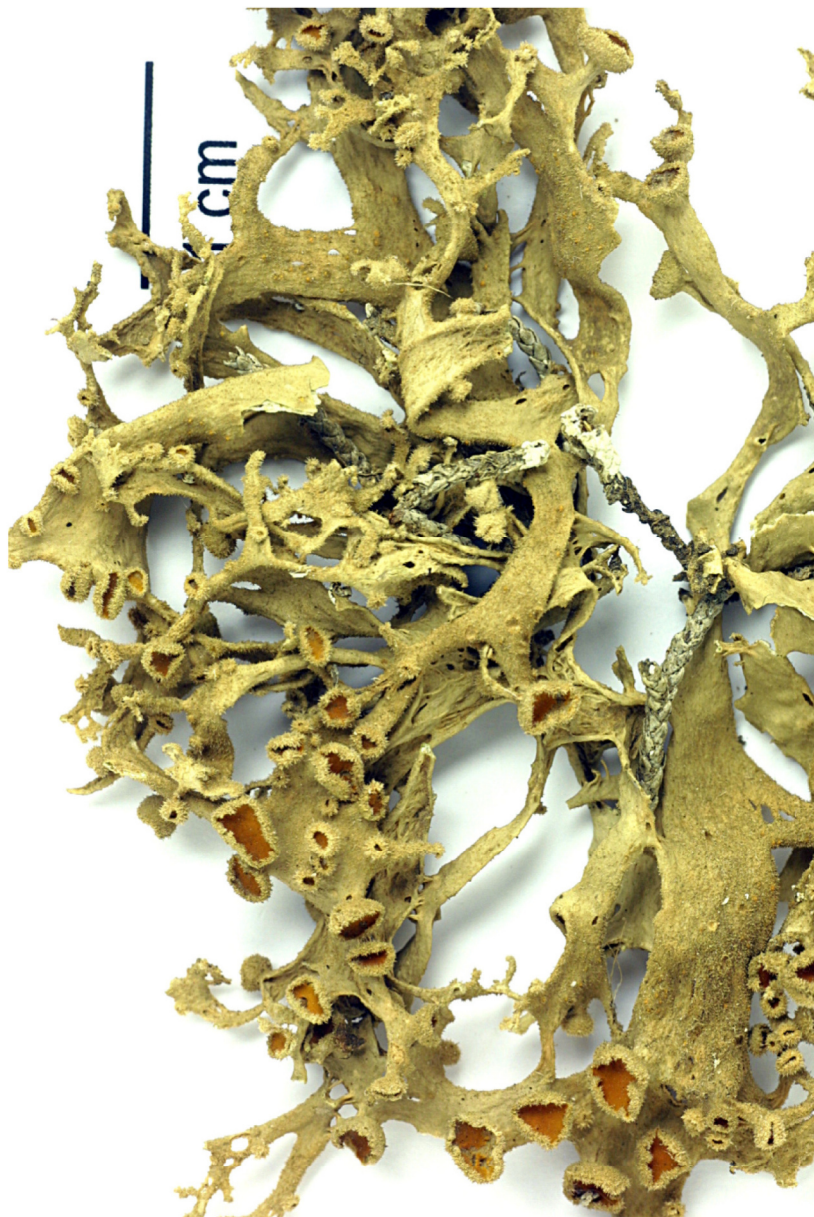


Teloschistes flavicans

Teloschistes lacunosus (Rupr.) Savicz, Acta Inst. Bot. Acad. Sci. USSR
Plant. Crypt., Ser. II 2: 313 (1935)
= *Ramalina lacunosa* Rupr. 1845
= *Seiophora lacunosa* (Rupr.) Frödén, in Frödén & Lassen 2004

[12233], Spain: Andalucía, Provincia de Almería, hilly semidesertic grassland southeast of Tabernas ("El Desierto"), loosely attached to, or more rarely detached from, consolidated rugged clods of gypsum-marl soil (yermosol), characterized by mass vegetation of *Buellia zoharyi* Galun, *Diploschistes ocellatus* (Vill.) Norm. and other whitish gypsophytic crusts producing the impression of a snow covered landscape, 310- 450 m, NE- NW exposition, scattered. Leg. et det. G. Follmann, 05.1988. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI AB INSTITUTO BOTANICO UNIVERSITATIS COLONIENSIS EDITI NR. 494.

Thallus is fruticose, forming cushions with characteristic smooth irregularly divided, rigid, greyish laciniae, 2-5 cm high and 2-15 mm broad and about 2-(4-5) cm long. Laciniae upper surface quite smooth, slightly tomentose covered with thick multiseriated hairs, showing scattered elongated holes which cross over to the lower surface. Lower surface can be wrinkled and canaliculated particularly on older laciniae. Sometimes fertile with deep concave orange apothecia up to 6 mm across with a greyish tomentose, persistent thalline margin. a species of saxicolous (rock-dwelling), fruticose lichen, It is endemic to the semi-arid regions of southeastern Spain.



Teloschistes lacunosus

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Plant. Crypt., Ser. II 2: 313 (1935)
= *Ramalina lacunosa* Rupr. 1845
= *Seiophora lacunosa* (Rupr.) Frödén, in Frödén & Lassen 2004

[2816], Ostspanien, Prov. Teruel: zerstreut als Wanderflechte um Zwergsträucher auf kaum geneigten Salzböden zusammengetrieben im Sphaerothallio-Xanthoparmelion vagantis Creso er Barr, 350 m, NW-SW, pH 7.9. lichte Strandsodenbestände im Uferbereich der Salada Grande westlich Alcañiz. Leg. A. G. Bueno et V. J. Rico, 07.1979, det. A. Crespo 01.1980. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI A MUSEO HISTORIAE NATURALIS CASSELENSI EDITI NR. 318.

Thallus is fruticose, forming cushions with characteristic smooth irregularly divided, rigid, greyish laciniae, 2-5 cm high and 2-15 mm broad and about 2-(4-5) cm long. Laciniae upper surface quite smooth, slightly tomentose covered with thick multiseriated hairs, showing scattered elongated holes which cross over to the lower surface. Lower surface can be wrinkled and canaliculated particularly on older laciniae. Sometimes fertile with deep concave orange apothecia up to 6 mm across with a greyish tomentose, persistent thalline margin. a species of saxicolous (rock-dwelling), fruticose lichen ,It is endemic to the semi-arid regions of southeastern Spain.



Teloschistes lacunosus

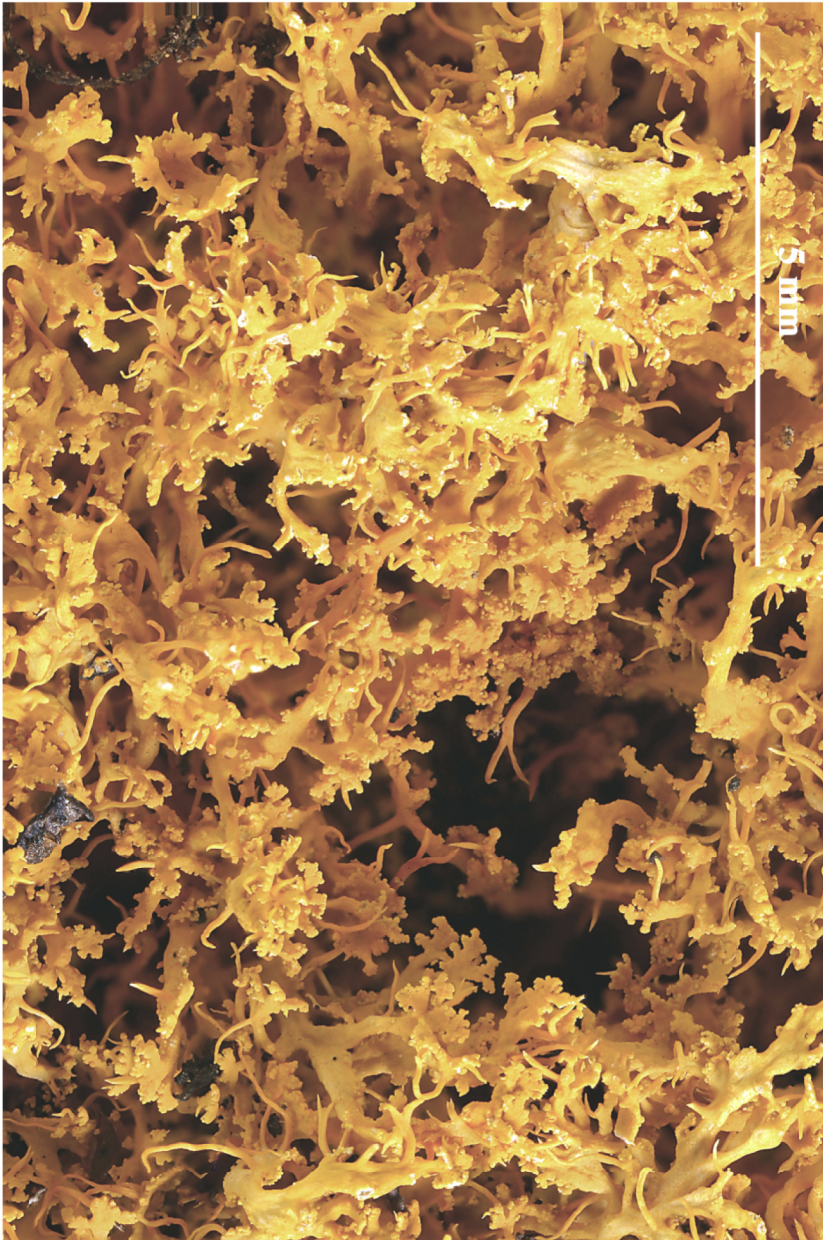


Teloschistes lacunosus

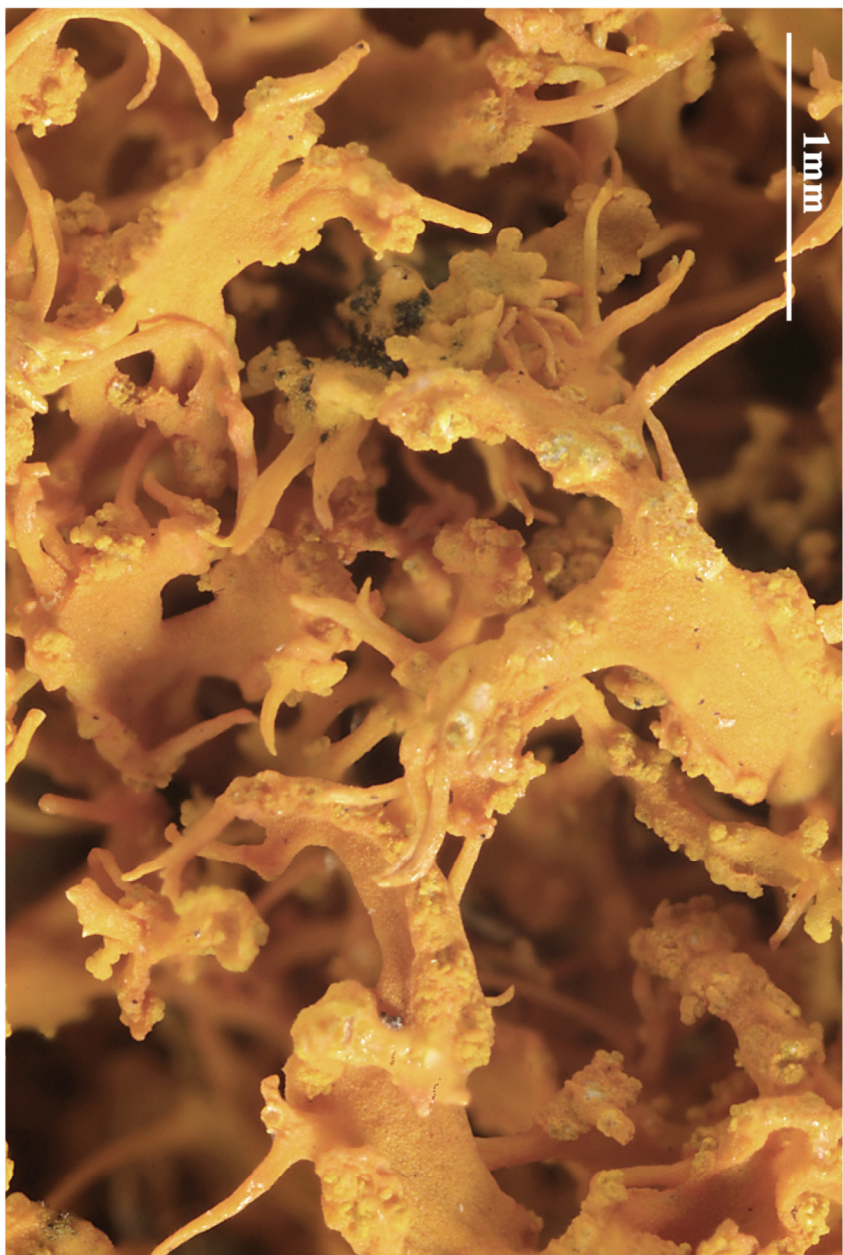
Teloschistes fasciculatus Hillmann, Reprium nov. Spec. Regni veg. 49: 176 (1938)

[19281], Australia, Victoria, Basalt Hill, Alpine National Park, Bogong High Plains, 20 km south-east of Mt. Beauty, 36°53' S, 147°18' E, 1650 m, growing on rock crevices in exposed alpine grasslands with basalt outcrops and southerly aspect . Leg. J. A. Elix (nr. 40388) & H. Streimann, 17.02.1994. Chemistry parietin by TLC, anal. J.A. & S.A. Elix. EX J. A. ELIX: LICHENES AUSTRALASICI EXSICCATI NO. 297. - Own Chemistry p323/1: parietin, fallacinal, parietinic acid, teloschistin.

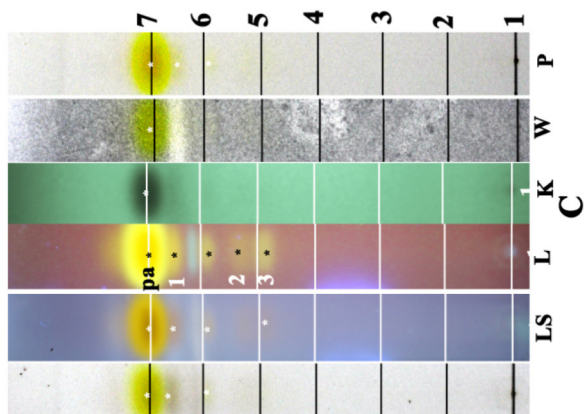
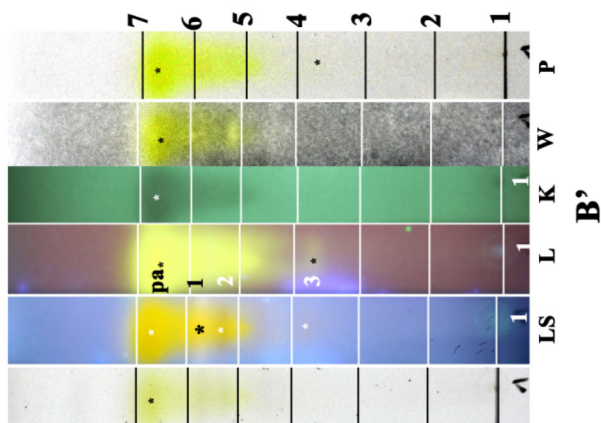
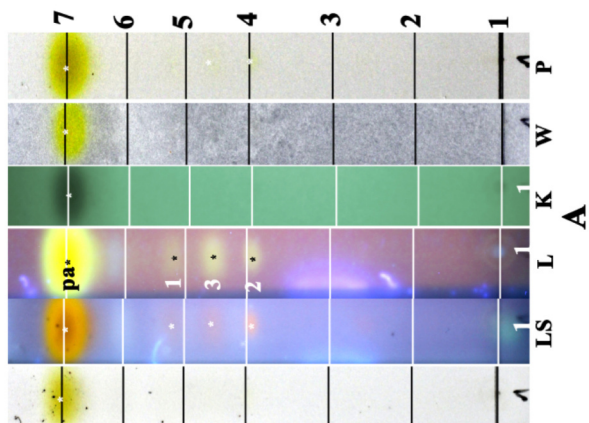
characterized by the saxicolous thalli which form distinctive pulvinate clumps 0.5-10(-12) cm diam. composed of prostrate to $\pm$ erect, narrow (0.2-1mm) lobes which are flattened, laterally compressed to $\pm$ subterete to terete, coticate on both surfaces, somewhat snarled and striate to $\pm$ smooth, tapering to sharp, blunt, ragged or spinulose apices. Lobes have marginal and terminal cilia, but only on the lower surface (but as the thallus often twists and turns it is often difficult to determine which exactly is the öowr surface !) and $\pm$ prominent marginal or submarginal sessile or somewhat knobby and protuding, to excavate soralia ($\pm$ closely to widely scattered in terete branches) containing orange to yellow-green blastidious soredia



Teloschistes fascicula-



Teloschistes fascicula-



[19281], p323/1

Teloschistes perrugosus Müll. Arg., Flora, Regensburg 74(3): 376 (1891)

[4021], Madagaskar, Süd-Madagaskar, Berenti Park, an Bäumen. Leg. F. & D. Schumm, 28.12.1992, det. F. Schumm .

Thallus up to 5 cm tall, much branched. Branches terete to complanate, smooth to rugose, with elongate pseudocyphellae. Isidia and soredia absent, but non-corticate or pseudocorticate granules produced here and there at margins of pseudocyphellae. Apothecia with pseudocyphellae on thalline exciple; in some forms numerous immature apothecia appear as nodules along the branches. Spores bilocular. ECOLOGY: On twigs and small branches of exposed shrubs and trees from sea level up to c. 2700 m alt., locally common. - South Africa.



Teloschistes perrugosus

Teloschistes scorigenus (Mont.) Vain., in Hiern, Cat. Afr. Pl. 2(2): 407 (1901)
= *Evernia scorigena* Mont., in Webb & Berthelot 1840
= *Seirophora scorigena* (Mont.) Frödén, in Frödén & Lassen 2004

[19762}. Spain, Canary Islands, Lanzarote, an der Straße von Teguisse nach Haria, an Lavagestein, 29.13517° N, 13.50750° W, 375 m. leg. et det. F. Schumm & P. Richter, 24.01.2018. Thallus kleinstrauchig, fein behaart.

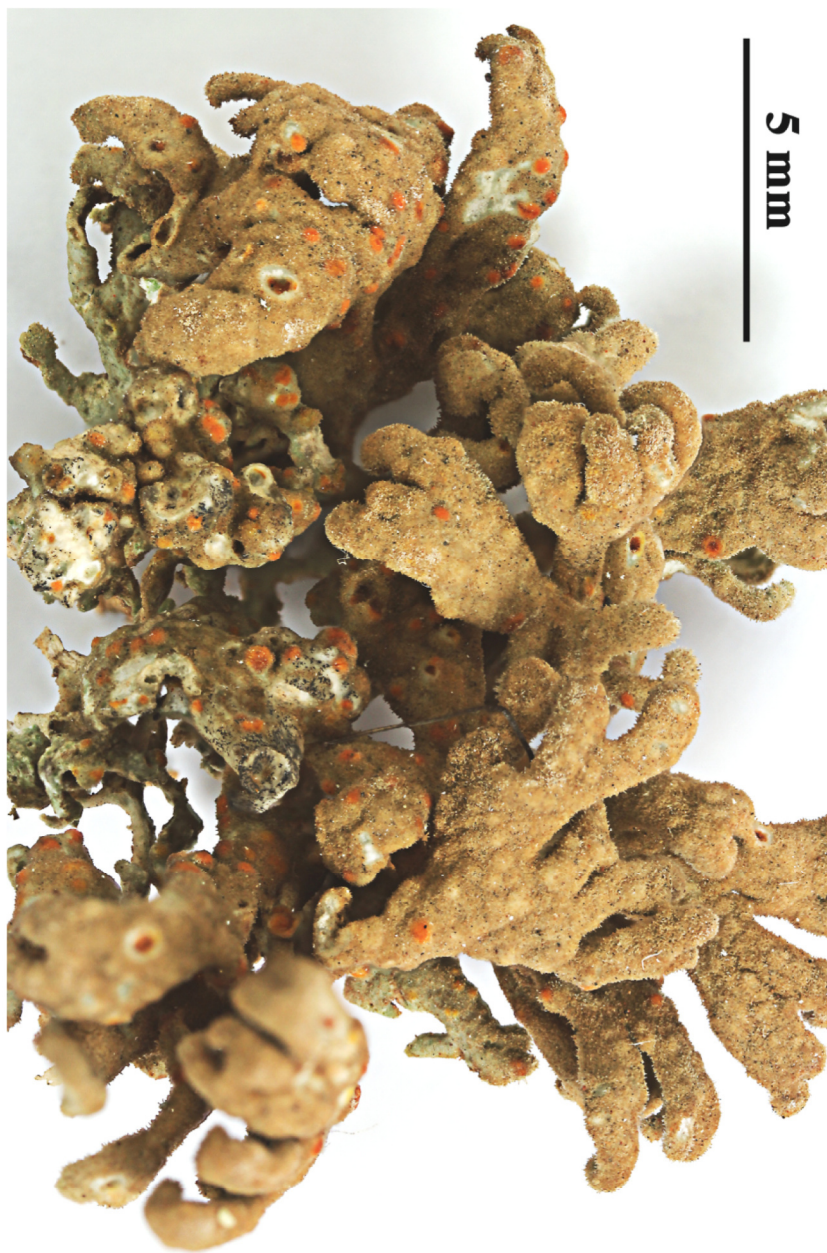
Lager unscheinbar, knorpelig, kleine angedrückte Polster bildend, die bald dunkelgrau, bald mehr oder weniger gelblich gefärbt sind und von Kalilauge nur stellenweise verändert werden. Lagerabschnitte nur bis 4 mm lang und 1.5 mm breit, mit hornartigen Verzweigungen, oberseits filzig, etwas gewölbt, unterseits gleichfarbig oder heller, schwach rinnig. Apothezien klein, gedrängt, kurz gestielt. Gehäuse nicht filzig. Scheiben goldgelb bis bräunlich. Rand nicht bewimpert, bald zurückgedrängt. Schläuche und Sporen wie bei *T. villosus*. Pykniden wenig hervortretend, wachsfarben, durch KOH gerötet. Pyknokonidien 3.5-4.6 x 1.0—1.4 µm. Dem *Teloschistes villosus* sehr nahestehend und nur in der Tracht, durch die Größe der Lappen und das kahle Gehäuse von ihm verschieden. Anatomische Einzelheiten bei W a i n i o und Steiner a. a. O. Auf Gestein (Kalk, Lava). Von den Kanarischen Inseln und aus Angola bekannt.



Teloschistes scorigenus



Teloschistes scorigenus



Teloschistes scorigenus



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= *Evernia scorigena* Mont., in Webb & Berthelot 1840
= *Seiophora scorigena* (Mont.) Frödén, in Frödén & Lassen 2004

[2495], Spanien, Kanarische Inseln, Tenerife: gesellig an offenen Stirnflächen rauher Lavafelsen des oberen Ärohalins im Caloplacion marinae, 100 m, pH 7.9; Punta Tamadite nahe Playa Fajana nordöstlich Bajamar. Leg. et det. L. Gallo, 12.1973, test G. Follmann 04.1974. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI A MUSEO HISTORIAE NATURALIS CASSELENSI EDITI NR. 139.

Lager unscheinbar, knorpelig, kleine angedrückte Polster bildend, die bald dunkelgrau, bald mehr oder weniger gelblich gefärbt sind und von Kalilauge nur stellenweise verändert werden. Lagerabschnitte nur bis 4 mm lang und 1.5 mm breit, mit hornartigen Verzweigungen, oberseits filzig, etwas gewölbt, unterseits gleichfarbig oder heller, schwach rinnig. Apothezien klein, gedrängt, kurz gestielt. Gehäuse nicht filzig. Scheiben goldgelb bis bräunlich. Rand nicht bewimpert, bald zurückgedrängt. Schläuche und Sporen wie bei *T. villosus*. Pykniden wenig hervortretend, wachsfarben, durch KOH gerötet. Pyknokonidien $3.5\text{--}4.6 \times 1.0\text{--}1.4 \mu\text{m}$. Dem *Teloschistes villosus* sehr nahestehend und nur in der Tracht, durch die Größe der Lappen und das kahle Gehäuse von ihm verschieden. Anatomische Einzelheiten bei W a i n i o und Steiner a. a. O. Auf Gestein (Kalk, Lava). Von den Kanarischen Inseln und aus Angola bekannt.

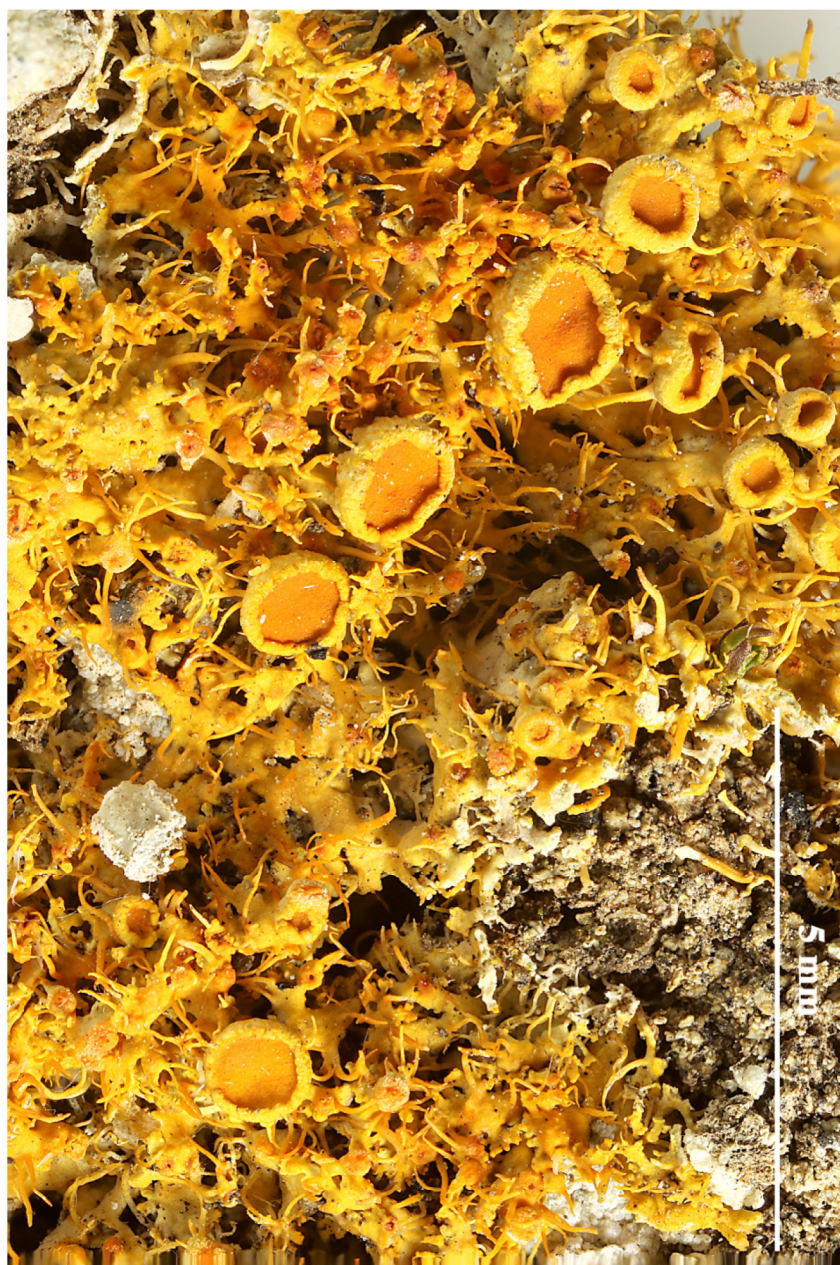


Teloschistes scorigenus

- Teloschistes sieberianus*** (Laurer) Hillmann, Hedwigia 69: 315 (1930)
 = *Blasteniospora sieberiana* (Laurer) Trevis., Tornab. Blasteniosp. (Padova): 2 (1853)
 = *Parmelia sieberiana* Laurer, Linnaea 2: 38 (1827)
 = *Physcia chrysophthalmos* var. *sieberiana* (Laurer) Shirley, Lich. Fl. Queensland 4: 193 (1890)
 = *Physcia excelsior* Stirt., in Bailey, Queensland Agric. J. 5: 40 (1899)
 = *Physcia sieberiana* (Laurer) A. Massal., Memor. Lich.: 44 (1853)
 = *Teloschistes chrysophthalmus* var. *sieberianus* (Laurer) Müll. Arg., Flora, Regensburg 66(5): 77 (1883)
 = *Teloschistes excelsior* (Stirt.) I.M. Lamb, Lilloa 26: 429 (1953)

[19282], Australia, New South Wales, Weddin State Forest, 14 km south-west of Greenfell, 34°00' S, 148°01' E, 300 m, growing on *Callitris* woodland. Leg. J. A. Elix (nr 17672) & H. Streimann, 17.11.1984. Ex J. A. ELIX: LICHENES AUSTRALASICI EXSICCATI NO. 100. - Chemistry p323/2: parietin, fallacinal, parietinic acid, teloschistin.

Lager rosettig oder rasig ausgebreitet, locker oder dicht anliegend, goldgelb bis rotgelb, kleinblättrig. Lagerblättchen unregelmäßig durcheinander wachsend, nur am Rande manchmal strahlig, oft etwas aufsteigend, verlängert, 1— 3 mm lang, schmal, 0,2— 0,5 mm breit, linear, gablig oder fast fiedrig verzweigt, am Rande und auf der Fläche mit zahlreichen 0,5— 1,5 mm langen, gleichfarbigen Wimpern, oberseits matt, nicht filzig, ohne Soredien oder selten am Rande etwas körnig-sorediös, unterseits weißlich oder gelblich. Apothezien 1- 6 mm breit, sitzend, mit hohler bis flacher, dem Lager gleichfarbiger oder dunklerer Scheibe und dünnem, bis zuletzt bleibendem, unbewimpertem Rande. Gehäuse wenig runzlig oder warzig, im Alter außen mit vereinzelt Wimpern. Epithecium gelb, körnig. Hymenium farblos, einschließlich des Epitheciums 64- 72 µm hoch. Paraphysen gegliedert, kopfig, einfach oder oben gegabelt. Schläuche 60- 70 x 14 - 21 µm. Sporen zu 8, ellipsoidisch, gut polarisch, mit Kanal, 13— 17 x 6,5— 9,5 µm; Pykniden reichlich vorhanden, manchmal in so großer Zahl, daß das Lager körnig erscheint. Pyknokonidien eingeschnürt, 2,0- 3,5 x 0,8 — 1,0 µm. Auf Rinden und über Moosen. In Australien weit verbreitet. - *Teloschistes sieberianus* ist eine gute Art, die sich von *T. chrysophthalmus* hauptsächlich durch die viel schmälere, anders gestalteten, unregelmäßig wachsenden Lagerlappen leicht unterscheiden läßt.

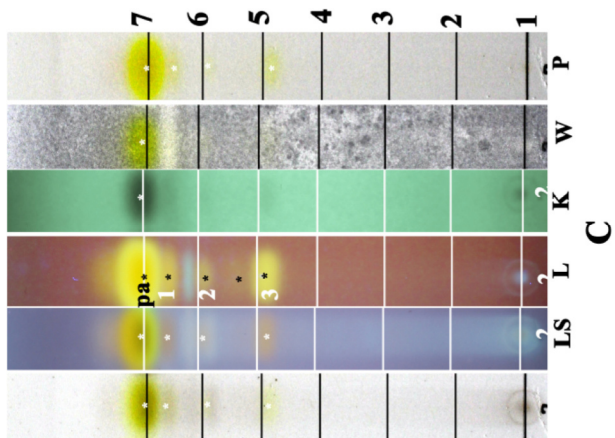
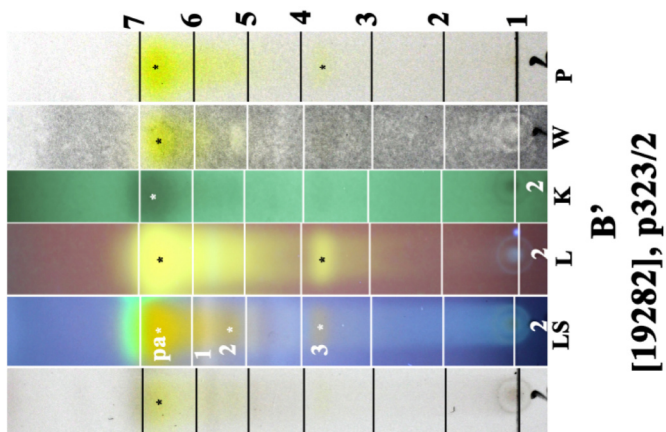
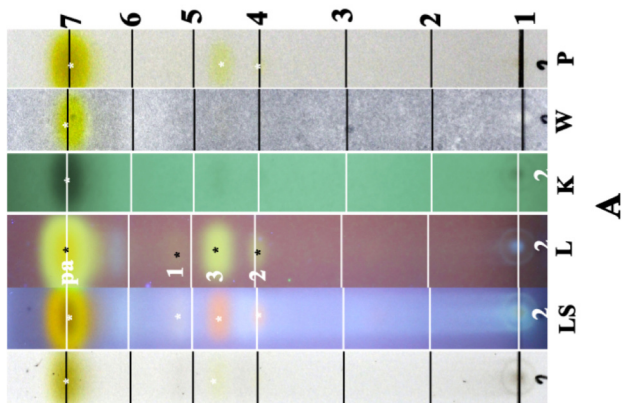


Teloschistes sieberianus



Teloschistes sieberianus

Teloschistes sieberianus



Teloschistes stenophyllus (Tav.) Sipman, Willdenowia 32(1): 130 (2002)
= *Teloschistes villosus* var. *stenophyllus* Tav. 1964
= *Seiophora stenophylla* (Tav.) Frödén, in Frödén & Lassen 2004

[12219], Cape Verde Islands: Ilhas de Barlavento, Sao Vicente, foggy summit region of Monte Verde east of Mindelo, mostly on solitary lava blocks, more rarely on lower shrubs, associated with *Heterodermia leucomela* and *Tornabea scutellifera*, 600 - 700 m. Leg. et det. G. Follmann & M. Schultz, 04.1986. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI AB INSTITUTO BOTNICO UNIVERSITATIS COLONIENSIS EDITI NR. 559.

From Sipman aus Willdenowia (2002):

Teloschistes stenophyllus (C. Tavares) Sipman, comb. & stat. nov. - *Teloschistes villosus* var. *stenophyllus* C. Tavares in Revista Biol. 4: 142. 1964. In order to ascertain the status of *Teloschistes austroarabicus*, numerous specimens of *T. villosus* were investigated. This showed that the latter species is well characterised by the fairly persistent hairs on the upper side, the strap-shaped lobes, c. 0.5 mm wide near the tips and gradually increasing to 1-2 mm, or occasionally c. 5 mm wide in older parts, with a convex upper side and a concave lower side with swollen marginal rims. Specimens from the Cape Verde Islands which corresponded to var. *stenophyllus* C. Tavares, however, deviate by having sparse or no hairs on the upper side, except at the tips; the lobes are narrower and do not exceed 0.5 mm in width over most of their length. The most distinct difference is that the lobes in cross section are rounded for much of their length, and are applanate only over short distances. Accordingly, the lower side is mostly convex, and somewhat concave only over short distances between the vein-like ridges. This was already observed by Tavares (1964) who mentions "not clearly dorsiventral laciniae". Furthermore the soralia-like patches reported by the same author are a feature not found in *T. villosus*. Therefore, contrary to the opinion expressed by Follmann & Mies (1988: 63), it is proposed here to raise the variety to species level. Investigated specimens. - CAPE VERDE ISLANDS: Brava, SW of Fundo Grande, 900 m, 1.11.1986, A. Kalnins 417b (B); id., Fundo Grande, 980 m, 19.11.1987, B. Mies 709e (B); Sao Nicolao, Monte Agua de Jose, 650 m, 3.1986, G. Follmann, Lich. Exs. 417 (B).



Teloschistes stenophyllus

Teloschistes stenophyllus (Tav.) Sipman, Willdenowia 32(1): 130 (2002)
= *Teloschistes villosus* var. *stenophyllus* Tav. 1964
= *Seiophora stenophylla* (Tav.) Frödén, in Frödén & Lassen 2004

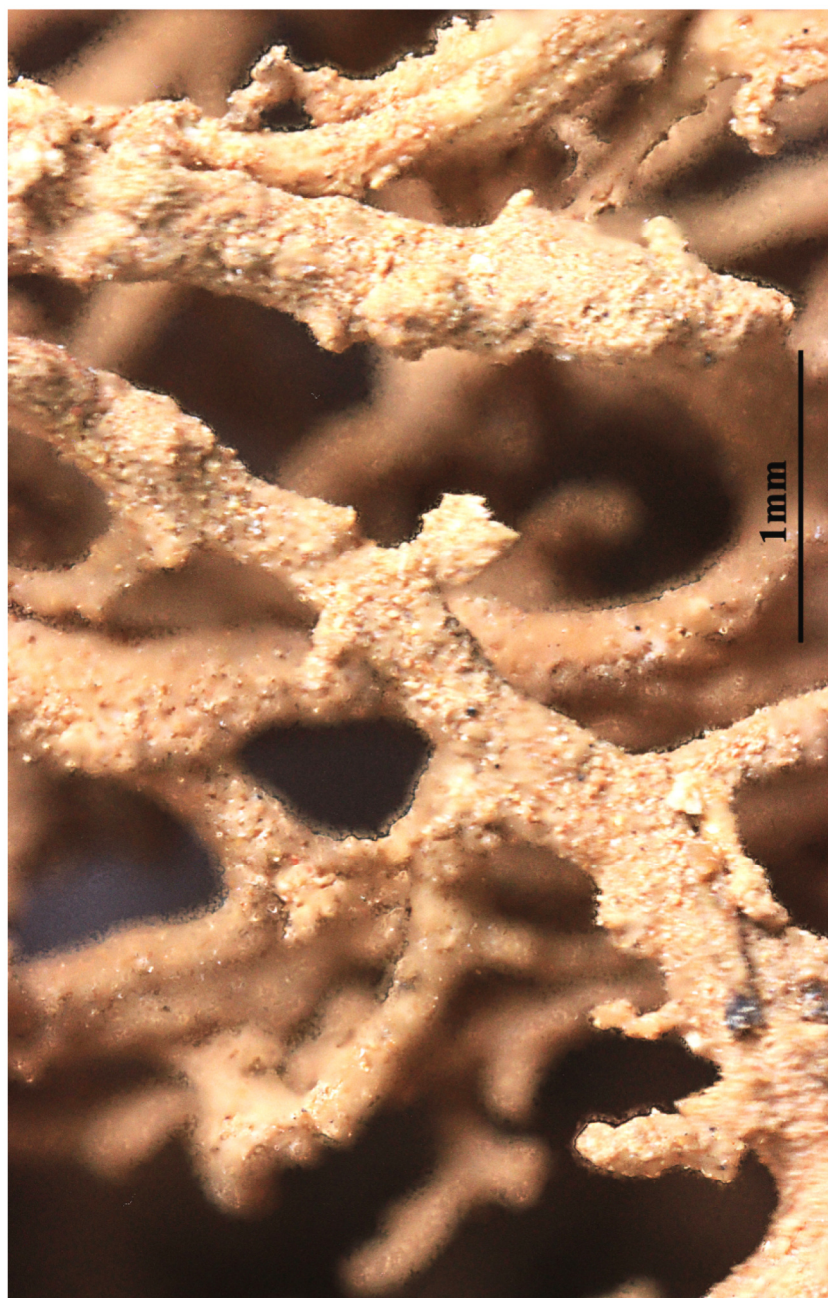
[11978]. . Cape Verde Islands: Ilhas de Barlavento, São Vicente, foggy summit region of Monte Verde east of Mindelo, mostly on solitary lava blocks, more rarely on lower shrubs (e.g. *Euphorbia tuckeyana* Steud.), associated with *Heterodermia leucomela* (L.) Poelt and *Tornabea scutellifera* (With.) Laund. , 600 - 700 m. (*Teloschistetum flavicantis* Follm.), NW-SW exposition, gregarious. Leg. G. Follmann & M. Schultz 04.1986. Ex G. Follmann: LICHENES EXSICCATI AB INSTITUTO BOTANICO UNIVERSITATI COLONIENSIS EDITI NR. 559.

From Sipman aus Willdenowia (2002):

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Teloschistes stenophyllus



Teloschistes stenophyllus

Teloschistes villosus (Ach.) Norman, Conat. Praem. Gen. Lich.: 17 (1852)
= *Parmelia villosa* Ach. 1803
= *Seirophora villosa* (Ach.) Frödén, in Frödén & Lassen 2004
= *Teloschistes brevior* (Nyl.) Hillmann

812020], Spanien: Andalucía, Provincia de Almería, coastal strip of the Llanos de Almería, on fairly protected portions of branches and trunks of *Juniperus phoenicea* and *Pistacia lentiscus* between Playa de Cerillos and Punta del Sabinal, 10-20 m. Leg. G. Follmann, 05.1988, det. G. Follmann. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI AB INSTITUTO BOTANICO UNIVERSITATIS COLONIENSIS EDITI NR. 495. - associated with *Dirina ceratoniae* and *Tornabea scutellifera*.

Thallus fruticose, attached by a basal holdfast, consisting of strap-shaped, flattened, dichotomously branched lobes forming dense, up to 15 cm wide and tall tufts. Lobes 2-6 mm wide in lower part, narrower in apical parts, finely tomentose, brownish, with a more or less canaliculate, often reticulately ridged lower surface. Cortex strongly conglutinated after treatment with K, 3-7 μm thick, of thick-walled cells. Apothecia common and usually abundant, lecanorine, slightly stipitate, with an orange, 2-7(-10) mm wide disc and a grey or brownish, thick thalline margin covered in short, fine white hairs. Epithecium orange-brown, K+ red; hymenium and hypothecium colourless. Asci 8- spored, clavate, functionally unitunicate, apically thickened with a broad internal beak, the inner part of apex and external cap I+ blue, *Teloschistes*-type. Ascospores 2-celled, polarilocular, hyaline, ellipsoid, 10-15 x 5-7 μm , the equatorial thickening ("septum") (1.5-)2-3(-4) μm . Pycnidia common, orange, c. 0.1-0.2 mm diam. Conidia bacilliform to narrowly ellipsoid, 3-4 x 1.5-1.7 μm . Photobiont: chlorococcoid. Spot test: thallus K-, C-, KC-, P- ; disc of apothecia K+ red. Chemistry: apothecia with parietin (major), fallacinal, teloschistin, and parietinic acid (all minor), and emodin (minor). - Note: on twigs of shrubs and small trees subject to spells of dry situations and frequent humid maritime winds.



Teloschistes villosus



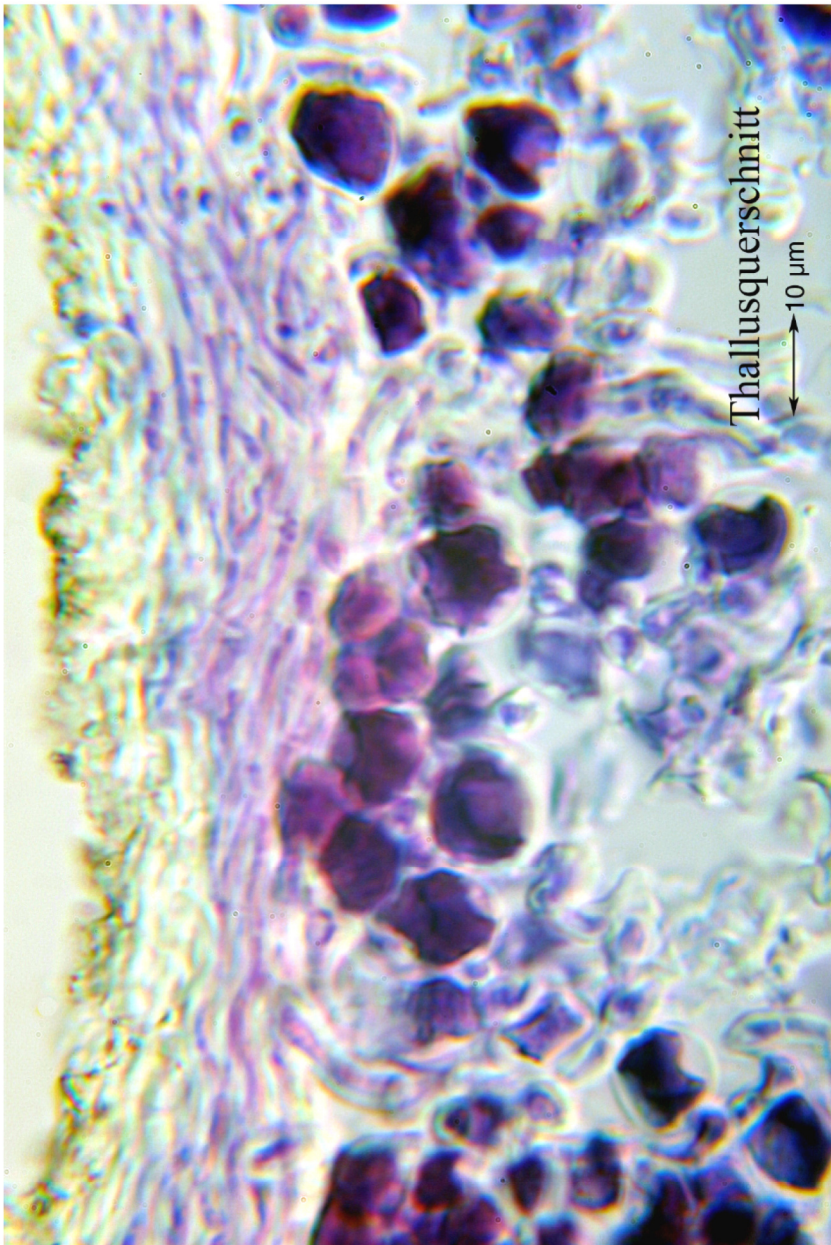
Teloschistes villosus



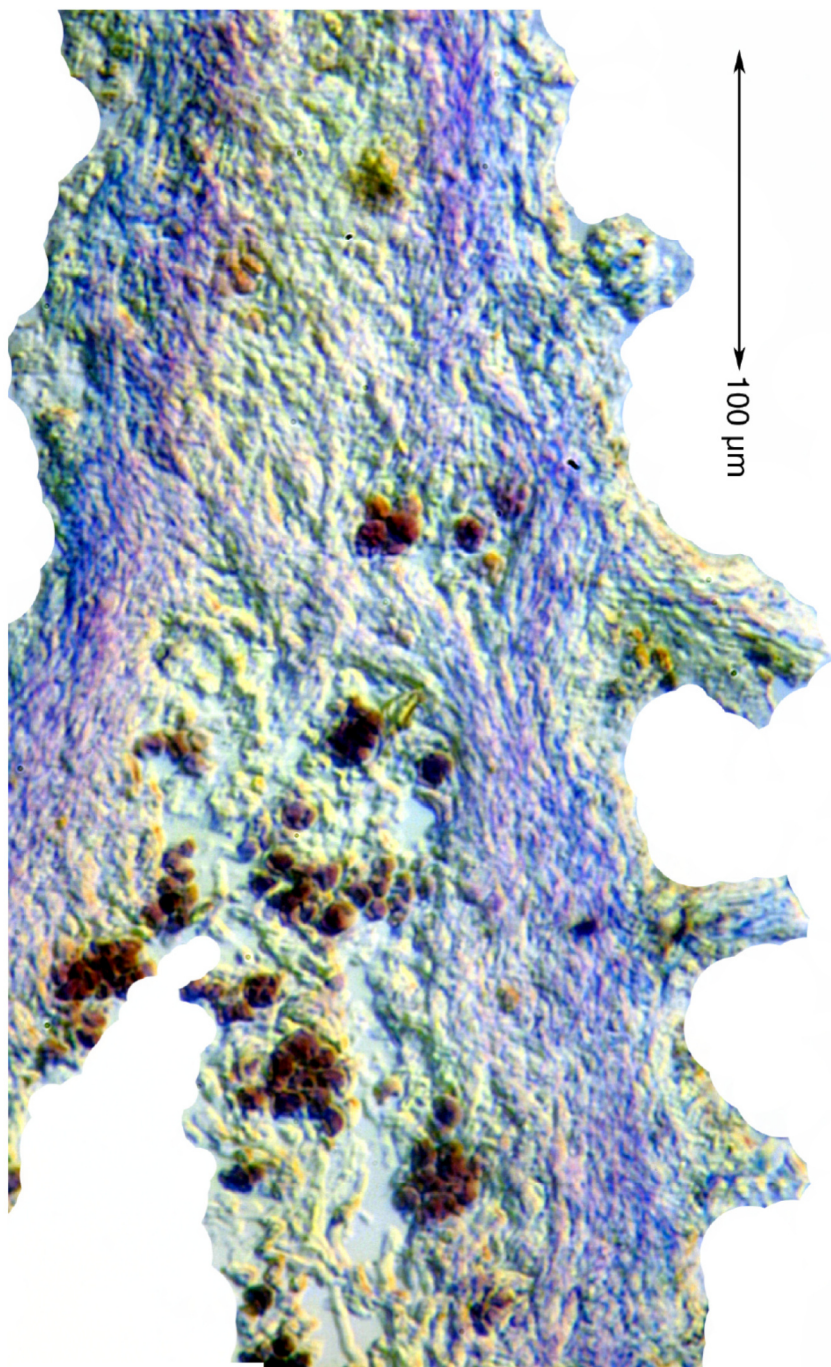
Teloschistes villosus



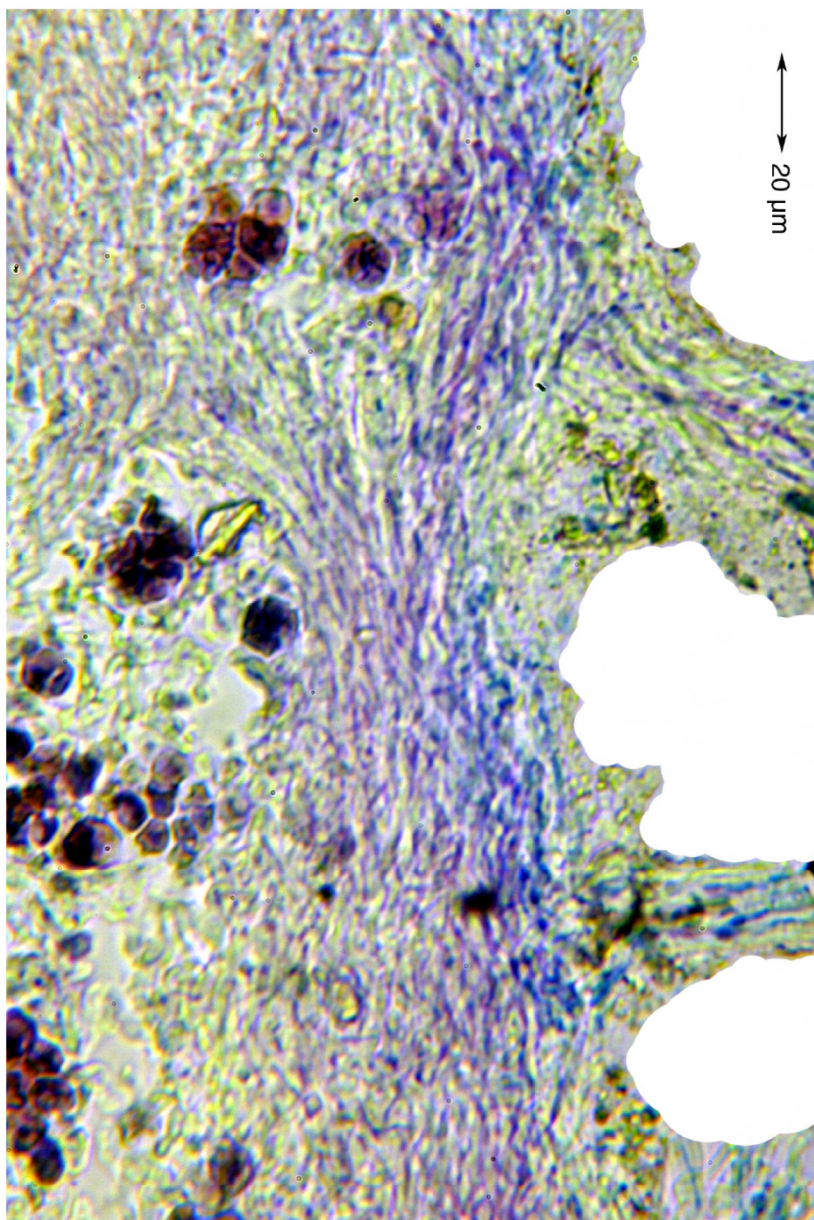
Teloschistes villosus



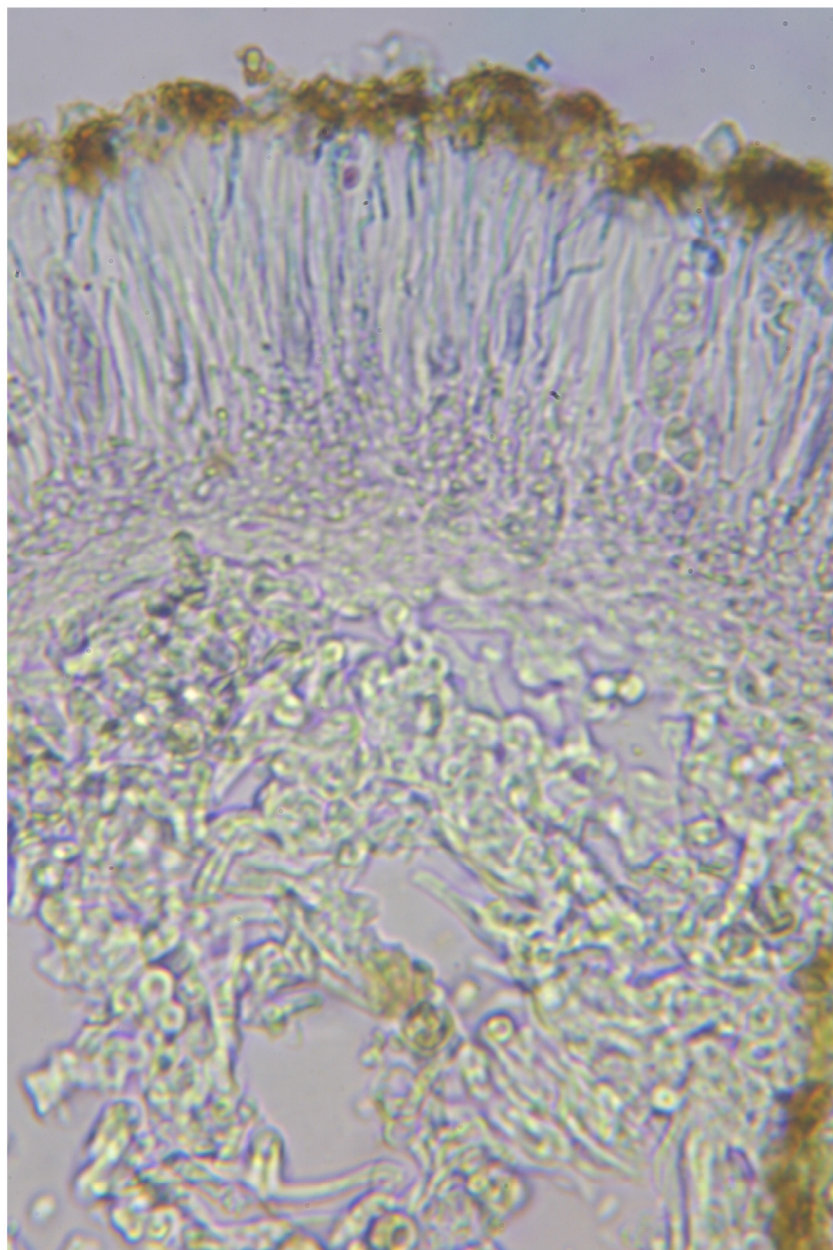
Teloschistes villosus



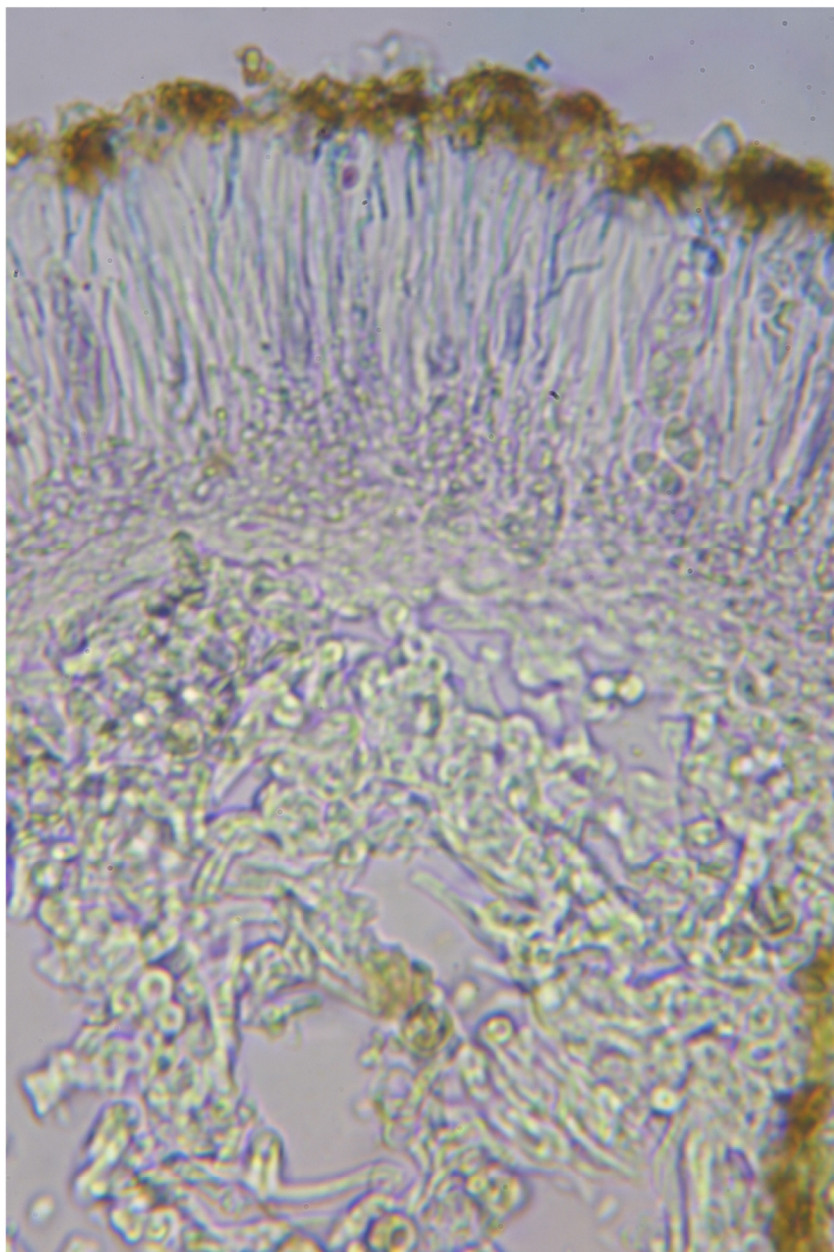
Teloschistes villosus



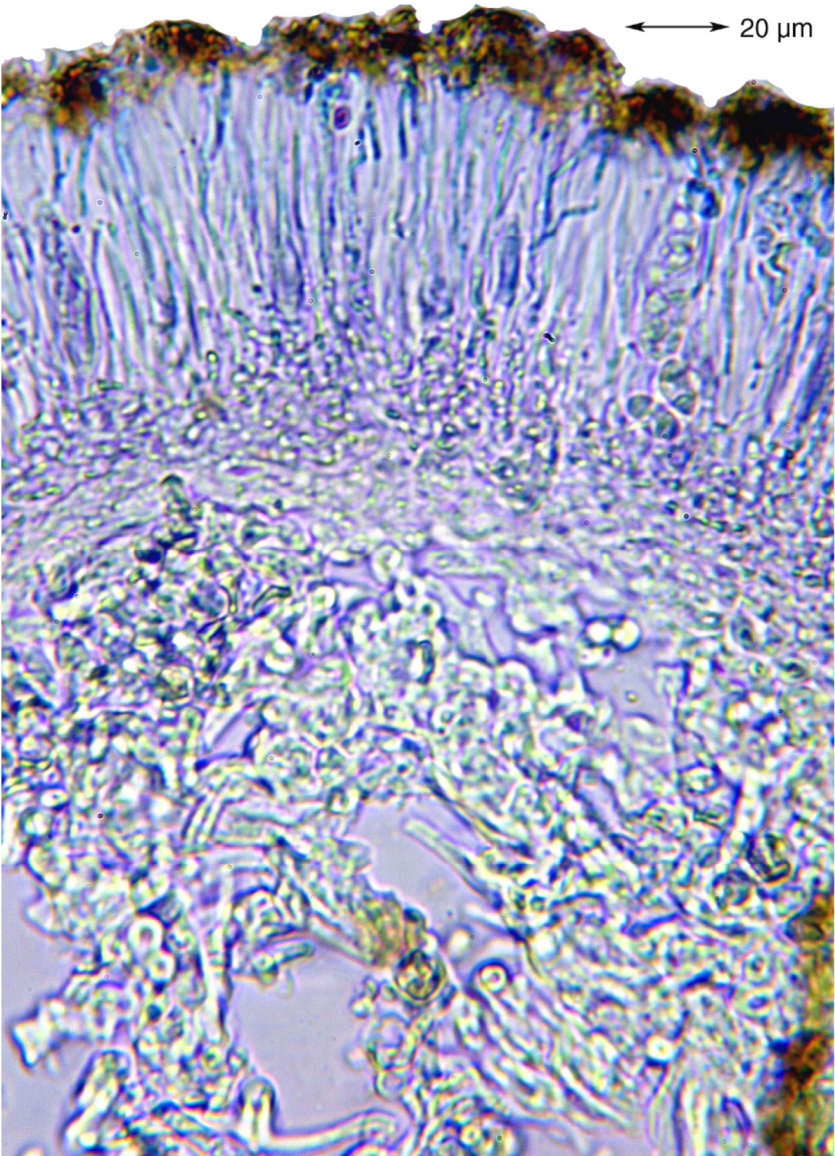
Teloschistes villosus



Teloschistes villosus



Teloschistes villosus



Teloschistes villosus

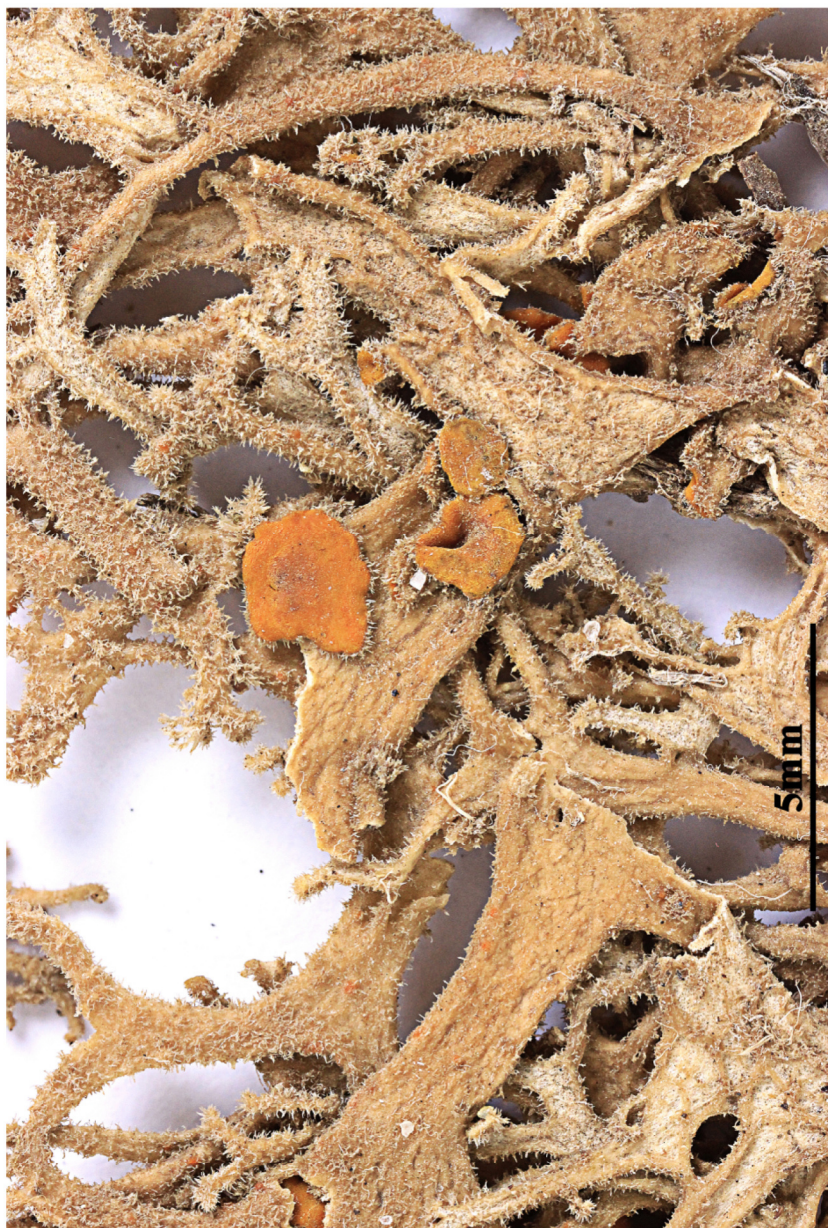


Teloschistes villosus

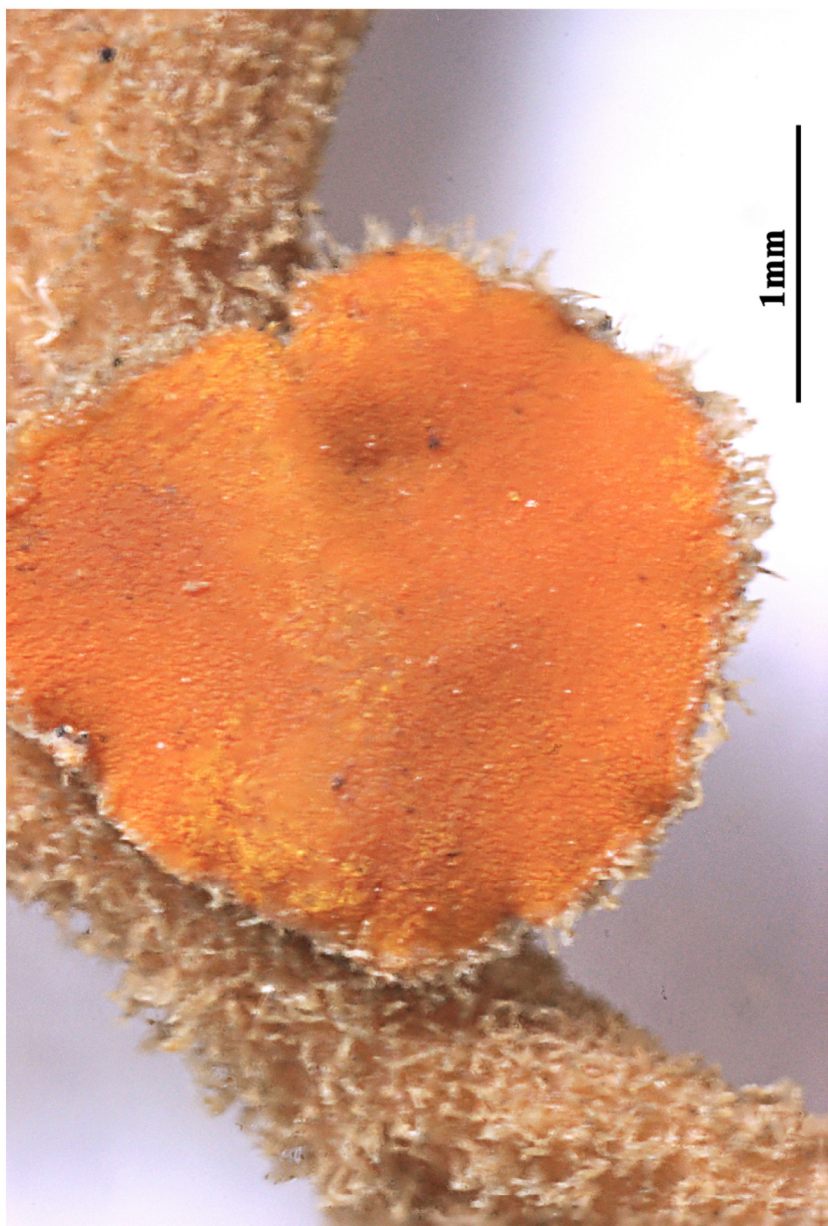
Teloschistes villosus (Ach.) Norman, Conat. Praem. Gen. Lich.: 17 (1852)
= *Parmelia villosa* Ach. 1803
= *Seiophora villosa* (Ach.) Frödén, in Frödén & Lassen 2004
= *Teloschistes brevior* (Nyl.) Hillmann

[20882], Italy, Lazio, prov. Roma, 26 km SSW of the centre (Piazza de la Repuplica) of Rome, 9.4 km W of the centre of Pomezia, Tenuta di Caccia di Castel Porziano, 41°49'43" N, 12°23'17" E, 5 m, naccia vegetation close to the beach, on twigs of unnamed shrubs in a low maccia stand. Leg. et det. H. Mayrhofer (no 21843) & J. Poelt, 8.5.1986. EX W. OBERMAYER: LICHENOTHECA GRAECENSIS NR. 498. distributed as *Seiophora villosa* (Ach.) Frödén.

Thallus fruticose, attached by a basal holdfast, consisting of strap-shaped, flattened, dichotomously branched lobes forming dense, up to 15 cm wide and tall tufts. Lobes 2-6 mm wide in lower part, narrower in apical parts, finely tomentose, brownish, with a more or less canaliculate, often reticulately ridged lower surface. Cortex strongly conglutinated after treatment with K, 3-7 µm thick, of thick-walled cells. Apothecia common and usually abundant, lecanorine, slightly stipitate, with an orange, 2-7(-10) mm wide disc and a grey or brownish, thick thalline margin covered in short, fine white hairs. Epithecium orange-brown, K+ red; hymenium and hypothecium colourless. Asci 8- spored, clavate, functionally unitunicate, apically thickened with a broad internal beak, the inner part of apex and external cap I+ blue, *Teloschistes*-type. Ascospores 2-celled, polarilocular, hyaline, ellipsoid, 10-15 x 5-7 µm, the equatorial thickening ("septum") (1.5-)2-3(-4) µm. Pycnidia common, orange, c. 0.1-0.2 mm diam. Conidia bacilliform to narrowly ellipsoid, 3-4 x 1.5-1.7 µm. Photobiont: chlorococcoid. Spot test: thallus K-, C-, KC-, P- ; disc of apothecia K+ red. Chemistry: apothecia with parietin (major), fallacinal, teloschistin, and parietinic acid (all minor), and emodin (minor). - Note: on twigs of shrubs and small trees subject to spells of dry situations and frequent humid maritime winds.



Teloschistes villosus



Teloschistes villosus

Teloschistes villosus (Ach.) Norman, Conat. Praem. Gen. Lich.: 17 (1852)
= *Parmelia villosa* Ach. 1803
= *Seiropora villosa* (Ach.) Frödén, in Frödén & Lassen 2004
= *Teloschistes brevior* (Nyl.) Hillmann

[14326], Spain: Andalucia, Provincia de Almeria, coastal strip of the Llanos de Almería, on fairly protected portions of branches and trunks of *Juniperus phoenicea* and *Pistacea lentiscus* L. covering the largely stabilized ridges of higher dunes between Playa de Cerillos and Punta del Sabinal, not rarely associated with *Dirina ceratoniae* (avh.) E. M. Fries and *Tornabea scutellifera* (With.) Laund., 10-20 m, SE-SW exposition, gregarious, leg. et det. G. Follmann, 05.1988. EX G. FOLLMANN: LICHENES EXSICCATI SELECTI AB INSTITUTO BOTANICO UNIVERSITATIS COLONIENSIS EDITI NR. 495.

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Teloschistes villosus



Teloschistes villosus

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