

COMUNICACIONES BOTANICAS DEL MUSEO DE HISTORIA NATURAL DE MONTEVIDEO

Número 96

1991

Volumen V

CONTRIBUTION TO THE LICHEN FLORA OF BRAZIL. XXVIII.

Lichens from northern Santa Maria,
Rio Grande do Sul State. *

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ABSTRACT: "Contribution to the lichen flora of Brazil. XXVIII. Lichens from northern Santa Maria, Rio Grande do Sul State." Sixty one lichens collected in the northern region of the Municipality of Santa Maria, Rio Grande do Sul are listed. *Dimerella isidiigera* is added to the known flora of Brazil and *Xanthoparmelia cumberlandia* to the State flora. Several species are reported to the flora of the Municipality of Santa Maria or to the flora of the Rio Grande do Sul Highlands for the first time.

RESUMEN: "Contribución a la flora líquénica del Brasil. XXVIII. Líquenes del norte de Santa Maria, Estado de Rio Grande del Sur." Se enumeran sesenta y un líquenes de la región norte de la Municipalidad de Santa Maria, Rio Grande del Sur. *Dimerella isidiigera* se cita por primera vez para el Brasil y *Xanthoparmelia cumberlandia* para la flora del Estado. Numerosas especies se señalan por primera vez para la Municipalidad de Santa Maria o para la flora del Planalto de Rio Grande del Sur.

During May 1989 the authors collected lichens in two localities situated in the northern region of the Municipality of Santa Maria, Rio Grande do Sul State, Brazil. Both collection sites are placed along the Highway BR 158 which connects Santa Maria City (29°41'S-53°43'W) with Julio de Castilhos City (29°13'S-53°40'W) and will be briefly described:

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- *) Field work was supported by Grant 870.592.9 ROSTLAC/UNESCO.
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Fazenda Rincao Mineiro (FRM): situated 26 km N from Santa Maria City and 500 m E from BR 158. It is a farm dedicated to cattle breeding with very large grazing fields. The collection site chosen by the authors was a small ravine with several native and exotic trees surrounding an abandoned grange. Isolated trees in the grazing fields supported also a rich lichen flora.

CORSAN Dam (CD): this place is located 5 km SW from the small town "Val de Serra" which is situated in the cross of the Hwy. BR 158 and the limit between the Municipalities of Santa Maria and Julio de Castilhos. This dam was built by the CORSAN Company for providing water to Santa Maria City and it is situated in the headwaters of the Ibicuí-mirim river approximately 3 km W from de Hwy. BR 158. Downstream of the dam there is a net of small waterstreams bordered by 3-4 m high evergreen forests which provided very interesting gatherings.

In the species list this collection site is quoted as "marginal forest". The dam ended by the W in a rocky slope covered only by a grassy vegetation with a very rich lichen flora. Wooden fence posts and rocky outcrops in grazing fields yielded interesting collections. Both localities possess an altitude closely 500 m about sea level and the study of their floras is other contribution to the long-term project of the lichen flora of the Rio Grande do Sul Highlands.

Two identical series were made with the lichens gathered and deposited in the Herbarium of the Departamento de Botânica, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil and in the private herbarium of the senior author.

Thanks are due to ROSTLAC/UNESCO, Montevideo, Uruguay, for the financial assistance of the field work and to Dr. TEUVO AHTI for the identification below listed.

Anthracothecium goniostomum MÜLL. ARG.

FRM: on *Sapium*, 89/44.

Brigantiaea leucoxantha (SPRENG.) R. SANT. & HAF.

CD: on shrubs, marginal forest, 89/51.

Caloplaca americana (MALME) ZAHLBR.

CD: on rocks, slope near the dam, 89/83, 89/96.

Caloplaca crocea (KREMPH.) HAF. & POELT

FRM: on *Casuarina*, 89/23.

Caloplaca granularis (MÜLL. ARG.) C. SAMBO

CD: on wooden fence post, grazing field, 89/63.

FRM: on *Araucaria angustifolia*, 89/2.

Candelaria concolor (DICKS.) STEIN.

FRM: on *Araucaria angustifolia*, 89/1, on *Melia azedarach*, grazing field, 89/19 pr.p.

Cladonia ochracea SCRIBA

CD: among rocks, slope near the dam, det. T. AHTI, 89/96.

Cladonia subradiata (VAIN.) SANDST.

FRM: in trunk of *Grevillea*, det. T. AHTI, 89/32.

Coccocarpia erythroxyli (SPRENG.) SWINSC. & KROG

CD: on rocks, slope near the dam, 89/87.

Collema glaucophthalmum NYL.

CD: on trunk of a tree, marginal forest, 89/56.

Dirinaria applanata (FÉE) AWASTHI

FRM: on *Melia azedarach*, grazing field, 89/16.

Dirinaria confluens (FR.) AWASTHI

FRM: On *Melia azedarach*, 89/6, 89/41; on *Araucaria angustifolia*, 89/12.

Dimerella isidiigera VEZDA et OSORIO

FRM: on *Melia azedarach*, grazing field, 89/17. This species was recently reported from Uruguay and Argentina (VEZDA 1989:2).

Glyphis cicatricosa (ACH.) VAIN. f. *confluens* (ZENK.) ZAHLBR.

FRM: on *Fagara*, marginal forest of a brook, 89/43.

Haematomma similis BAGL.

FRM: on *Melia azedarach*, grazing field, 89/21.

Heterodermia diademata (TAYL.) AWASTHI

FRM: on *Melia azedarach*, 89/9; on *Araucaria angustifolia*, 89/13.

Heterodermia lutescens (KURŌK.) FOLLM.

CD.: on fallen trunk, 89/72.

Heterodermia obscurata (NYL.) TREVIS.

CD: on trunk of a tree, marginal forest, 89/53.

Hypotrachyna livida (TAYL.) HALE

FRM: on *Melia azedarach*, 89/8, 89/36.

Karoowia saxeti (STIZENB.) HALE

CD: on rocks, slope near the dam, 89/92. This genus was incorporated to the State Flora in a very recent date through a collection from the Central Lowlands (HALE 1989:190).

Lecidea oreinodes (KOERB.) WEB. & HERTEL

CD: on rock, grazing field, 89/66.

Lecidea russula ACH.

CD: on rocks, slope near the dam, 89/94.

FRM: on *Araucaria angustifolia*, 89/3, on *Melia azedarach*, 89/5, 89/40.

Leptogium austroamericanum (MALME) DODGE

FRM: on *Casuarina*, 89/24.

Leptogium phyllocarpum (PERS.) MONT.

CD: on trunk of a tree, marginal forest, 89/54.

Lobaria cuprea (MÜLL. ARG.) ZAHLBR.

CD: on trunk of a tree, marginal forest, 89/79.

Lobaria erosa (ESCHW.) TREVIS.

CD: on trunk of a tree, marginal forest, 89/48.

Megalospora sulphurata MEY. var. *sulphurata*

CD: on shrubs, marginal forest, 89/62, 89/75.

Normandina pulchella (BORR.) NYL.

FRM: on *Melia azedarach*, grazing field, 89/19 pr.p.

Ochrolechia pallescens (L.) MASS.

FRM: on *Araucaria angustifolia*, grazing field, 89/14.

Parmelina consors (NYL.) HALE

CD: on trunk of a tree, marginal forest, 89/60.

FRM: on trunk of a fallen tree, 89/30, on *Ficus organensis*, 89/33.

Parmelina minarum (VAIN.) SKOREPA

FRM: on *Melia azedarach*, grazing field, 89/15, on *Pinus* 89/25.b.

Parmotrema delicatulum (VAIN.) HALE

CD: on rocks, slope near the dam, 89/89.

Parmotrema eciliatum (NYL.) HALE

CD: on *Salix*, marginal forest, 89/46, on trunk of a tree,
marginal forest, 89/55.

Parmotrema subcaperatum (KREMPH.) HALE

CD: on shrubs, marginal forest, 89/57.

Parmotrema tinctorum (NYL.) HALE

FRM: on trunk of a fallen tree, 89/29.

Feltula euploca (ACH.) POELT ex PISUT

CD: on rocks along water drainage, slope near the dam,
89/91.

Pertusaria flavens NYL.

FRM: on *Melia azedarach*, grazing field, 89/18.

Pertusaria pulchella MALME

CD: on fallen branches, 89/71.

Phaeographina caesiopruinosa (FÉE) MÜLL. ARG.

FRM: on *Sapium*, marginal forest of a brook, 89/42.

Phaeographina lecanographa (NYL.) MÜLL. ARG.

FRM: on *Melia azedarach*, grazing field, 89/22.

Phlyctis pulveracea M. LAMB

FRM: on *Ficus organensis*, 89/37.

Physcia aipolia (HUMB.) FÜRNRÖHR

FRM: on *Jacaranda*, 89/31.

Pseudocyphellaria aurata (ACH.) VAIN.

CD: on shrubs, marginal forest, 89/52.

FRM: on *Ficus organensis*, 89/34.

Pseudoparmelia caroliniana (NYL.) HALE

FRM: on *Pinus*, 89/25.a.

Pseudoparmelia rupicola (LYNGE) HALE

CD: on rocks, slope near the dam, 89/95.

Pseudoparmelia texana (TUCK.) HALE

CD: on wooden fence post, grazing land, 89/65.

FRM: on *Araucaria angustifolia*, 89/4, on *Pinus*, 89/26.

Porina subpungens MALME

CD: on trunk of a tree, marginal forest, 89/76.

Punctelia constantimontium SÉRUS.

CD: on trunk of a tree, marginal forest, 89/61.

Fyrrine subcinerea STIRT.

FRM: on *Melia azedarach*, 89/39.

Ramalina celastri (SPRENG.) KROG & SWINSC.

CD: on wooden fence post, grazing field, 89/64.

FRM: on *Araucaria angustifolia*, grazing field, 89/11, on
Chorisia speciosa, 89/28.

Ramalina usnea (L.) HOWE

CD: on fallen trunk, 89/70.

Rimelia cetrata (ACH.) HALE & FLETCHER

FRM: on *Melia azedarach*, grazing field, 89/20.

Sticta variabilis (BORY) ACH.

CD: on trunk of a tree, marginal forest, 89/78.

Sticta weigeli (ACH.) VAIN.

CD: on mossy trunk, marginal forest, 89/80.

Teloschistes exilis (MICHX.) VAIN.

CD: on *Salix* near a waterstream, 89/47, on *Hexachlamys humilis*, slope near the dam, 89/88.

FRM: on *Chorisia speciosa*, 89/27.

Trypethelium ochroleucum (ESCHW.) NYL.

CD: on trunk of a tree, marginal forest, 89/58.

Usnea densirostra TAYL.

CD: on rocks, slope near the dam, 89/85. This is the second record of this species from the Highlands. The first one belongs to the locality of Itaimbezinho in the NE corner of the State (OSORIO & FLEIG 1986:6). This species seems to be surprisingly scarce in the Highlands contrasting with its abundance in Uruguay. In the latter country this species is at present known from 35 localities (OSORIO, unpublished data) being the most common saxicolous *Usnea*.

Usnea poliotrix KREMPH.

FRM: on *Melia azedarach*, 89/38.

Xanthoparmelia cumberlandia (GYELN.) HALE

CD: on rocks, slope near the dam, 89/93.

Xanthoparmelia hypopsila (MÜLL. ARG.) HALE

CD: on rocks, grazing field, 89/69.

Xanthoparmelia plittii (GYELN.) HALE

CD: on rocks, slope near the dam, 89/90.

CONCLUSIONS

The results obtained from the study of these collections can be summarized according with the same plan used in former papers dealing with this project:

- a) *Dimerella isidiigera* is added to the known flora of Brazil.
- b) *Xanthoparmelia cumberlandia* is reported for Rio Grande do Sul for the first time.
- c) The following taxa are added to the known flora of the Municipality of Santa Maria: *Cladonia ochracea*, *Karoowia saxeti*, *Coccocarpia erythroxyli*, *Ochrolechia pallescens*, *Parmotrema delicatulum*, *P. eciliatum*, *Peltula euploca*, *Pseudoparmelia rupicola*, *Usnea densirostra*, *U. poliotrix*, *Xanthoparmelia hypopsila*, *X. plittii*.
- d) Besides *Dimerella isidiigera* and *Xanthoparmelia cumberlandia*, eleven species are incorporated to the flora of the Rio Grande do Sul Highlands: *Cladonia ochracea*, *Karoowia saxeti*, *Ochrolechia pallescens*, *Parmotrema delicatulum*, *P. eciliatum*, *Peltula euploca*, *Pertusaria flavens*, *Pseudoparmelia rupicola*, *Usnea poliotrix*, *Xanthoparmelia hypopsila*, *X. plittii*.

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