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CONTRIBUTION TO THE LICHEN FLORA OF BRAZIL. XXVI.

Lichens from "Vale do Diabo", Rio Grande do Sul State. *

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ABSTRACT: "Contribution to the lichen flora of Brazil. XXVI. Lichens from "Vale do Diabo", Rio Grande do Sul State." Thirty-four lichens collected in "Vale do Diabo", Rio Grande do Sul State, Brazil, are listed. *Haematomma puniceum*, *Phlyctis pulveracea*, *Punctelia hypoleucites* and *Tephromela americana* are added to the known State flora. Seven species are incorporated to the Rio Grande do Sul Highlands lichen flora and other ten to the Municipality of Santa Maria.

RESUMEN: "Contribución a la flora líquénica del Brasil. XXVI. Líquenes de "Vale do Diabo", Estado de Rio Grande do Sul". Se enumeran treinta y cuatro líquenes colectados en "Vale do Diabo", Estado de Rio Grande do Sul, Brasil. *Haematomma puniceum*, *Phlyctis pulveracea*, *Punctelia hypoleucites* y *Tephromela americana* se citan por primera vez para el Estado. Siete especies se incorporan a la flora del Planalto Riograndense y otras diez a la flora del Municipio de Santa Maria.

The Municipality of Santa Maria is situated in the middle of Rio Grande do Sul State, Brazil and its Capital after the same name is located at the foot of the Highlands which spread through the northern region of this Municipality. The Highway BR 153 which connects Santa Maria with the Cities of the Highlands runs from South to North and climbs along a cliffy slope just to the top. In this slope the Highway crosses a deep gorge named "Vale do Diabo" (Devil's Valley) with a altitudine ca.

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400 m. This site was visited by the authors during a few hours in October 1989 as a stage in the study of the lichen flora of the Rio Grande do Sul Highlands.

"Vale do Diabo" is patched with remnants of the subtropical rain forest. The forests which covered in the last century this slope were severely damaged by logging, farming and settlement. At present only few large trees can be found as a shadow of its former richness. Fragments of a liane of 20 cm diameter found by the authors testified the former asseveration.

The collection site visited by the authors is a small unnamed hill in the close proximity of the western side of the "Vale do Diabo". The large amount of the samples were collected in the S faced slope which is partially wooded and in the top of the hill.

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.

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Caloplaca erythrantha (TUCK.) ZAHLBR.

On *Schinus terebinthifolius*, 89/238.

Chiodecton sanguineum (SW.) VAIN.

On *Cabralea glaberrima*, 89/242.

Cladonia macilenta HOFFM.

On wooden fence post, 89/247.

Cladonia subradiata (VAIN.) SANDST.

On a burnt trunk, 89/251. Recently incorporated to the State flora through a collection from Taim (FLEIG 1988:11).

Collema glaucophthalmum NYL.

On trunk of a Bignoniaceae, 89/216.

Cryptothelium octosporum (VAIN.) ZAHLBR.

On "canela" tree (*Ocotea* or *Nectandra* sp.), 89/232.

Dimerella pyrophthalma (MONT.) VEZDA

On trunk of a tree, 89/234.

Haematomma puniceum (ACH.) MASS.

On *Parapiptadenia rigida*, 89/224.

Heterodermia lutescens (KUROK.) FOLLM.

On trunk of a tree, 89/226.

Heterodermia obscurata (NYL.) TREVIS.

On "canela" tree (*Ocotea* or *Nectandra* sp.), 89/239.

Lecidea piperis (SPRENG.) NYL.

On trunk of a tree, 89/235.

Lecidea sapinea (FR.) ZAHLBR.

On wooden fence post, 89/223. Already reported by MALME (1936:38) from a locality in the Lowlands of this Municipality.

Leptogium phyllocarpum (PERS.) NYL.

On rocks, hill's top, 89/253.

Lobaria pseudoglaberrima ZAHLBR.

On *Cabralea glaberrima*, 89/248.

Parmelina consors (NYL.) HALE

On a liane of 20 cm diameter, 89/245.

Parmelina pilosa (STIZB.) HALE

On *Schinus terebinthifolius*, 89/237.

Parmotrema cetratum (ACH.) HALE

On trunk of a Bignoniaceae, 89/214.

Parmotrema subcaperatum (KREMPH.) HALE

On trunk of a Bignoniaceae, 89/217.

Parmotrema tinctorum (NYL.) HALE

On *Cabranea glaberrima*, 89/246.

Pertusaria superans MÜLL. ARG.

On trunk of a tree, 89/231.

Phaeophyscia hispidula (ACH.) MOBERG

On rocks, top of a hill, 89/254.

Phlyctis pulveracea M. LAMB

On trunk of a tree, 89/229.

Physcia aipolia (HUMB.) FÜRNRÖHR

On trunk of a tree, 89/230. According with MOBERG (1986: 851) the spore type of this species varies from *Physcia* to *Pachysporaria* type. The collection here reported possesses the latter spore type.

Pseudocyphellaria aurata (ACH.) VAIN.

On trunk of a tree, 89/233; on rocks, top of a hill, 89/250.

Pseudoparmelia carneopruinata (ZAHLEBR.) HALE

On *Cabranea glaberrima*, 89/240.

Punctelia constantimontium SÉRUS.

On trunk of a tree, 89/228.

Punctelia hypoleucites (NYL.) KROG

On trunk of a tree, 89/227.

Ramalina celastri (SPRENG.) KROG & SWINSC.

On trunk of a Bignoniaceae, 89/218.

Sticta weigeli (ACH.) VAIN.

On *Cabralea glaberrima*, 89/243.

Teloschistes exilis (MICHX.) VAIN.

On shrubs, 89/236.

Tephromela americana (FÉE) KALB

On *Parapiptadenia rigida*, 89/225.

Usnea rubicunda STIRT.

On *Arecastrum romanzoffianum*, 89/219. Recently incorporated to the Highlands lichen flora (OSORIO & FLEIG 1989:3).

Usnea subcomosa VAIN.

On *Arecastrum romanzoffianum*, 89/220. Already reported for Rio Grande do Sul Highlands from Neu Württemberg (at present Municipality of Panambi) by MOTYKA (1936/38:358).

Usnea subflorida (ZAHLEBR.) MOT.

On trunk of a Bignoniaceae, 89/215. Formerly known from the Municipality of Sao Jeronimo in the Central Lowlands of Rio Grande do Sul as *Usnea dichroa* MOT. var. *spinulosa* MOT. (OSORIO et al. 1983:196).

RESULTS

The study of this lichen collection at the present state of our knowledge can be summarized as follows:

a) New records to the Rio Grande do Sul flora are:

Haematomma puniceum, *Fhlyctis pulveracea*, *Punctelia hypoleucites* and *Tephromela americana*.

- b) The following species are added to the flora of Rio Grande do Sul Highlands:

Cladonia subradiata, *Haematomma puniceum*, *Lecidea sapi-nea*, *Phlyctis pulveracea*, *Punctelia hypoleucites*, *Tephromela americana* and *Usnea subflorida*.

- c) Ten species are recorded for the Municipality of Santa Maria for the first time:

Cladonia macilenta, *Cladonia subradiata*, *Haematomma pu-niceum*, *Phaeophyscia hispidula*, *Phlyctis pulveracea*, *Punc-telia hypoleucites*, *Tephromela americana*, *Usnea rubicunda*, *U. subcomosa* and *U. subflorida*.

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