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CONTRIBUTION TO THE LICHEN FLORA OF BRAZIL. XXII.

Lichens from Canela, Rio Grande do Sul State. *

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ABSTRACT: "*Contribution to the lichen flora of Brazil. XXII. Lichens from Canela, Rio Grande do Sul State*". Nineteen lichens collected in the Municipality of Canela, Rio Grande do Sul State, Brazil, are listed. *Usnea rubicunda* is added to the known flora of Rio Grande do Sul Highlands.

RESUMEN: "*Contribución a la flora líquénica del Brasil. XXII. Líquenes de Canela, Estado de Rio Grande do Sul*". Se enumeran diecinueve líquenes colectados en la Municipalidad de Canela, Estado de Rio Grande do Sul, Brasil. *Usnea rubicunda* se cita por primera vez para el Planalto Riograndense.

This paper is another contribution to the long-term planned study of the lichen flora of the Highlands of Rio Grande do Sul State (Planalto Riograndense), Brazil. During April 1988 the authors visited the Municipality of Canela and "Parque do Sesi" was chosen as collection site. This is a large *Araucaria angustifolia* forest located 1 km eastwards from Canela City (29°20'S-50°53'W, alt. ca. 800 m) and crossed by many roads recently built.

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A remarkable car traffic was noted during our visit and therefore a relentless damage to the lichen flora is to be expected in a near future.

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.

Brigantiaea leucoxantha (SPRENG.) R. SANT. & HAF. On trunk of *Araucaria angustifolia*, (88/15).

Caloplaca granularis (MÜLL. ARG.) C. SAMBO On trunk of *Araucaria angustifolia*, (88/14).

Cryptothelium octosporum (VAIN.) ZAHLBR. On "canela" tree along a road in *Araucaria angustifolia* forest, (88/18, 88/20).

Chiodecton sanguineum (SW.) VAIN. On stump of *Dicksonia sellowiana*, inner part of the *Araucaria angustifolia* forest. (88/35).

Dictyonema glabratum (SPRENG.) D. HAWKSW. On soil along a road, (88/27).

Heterodermia leucomela (L.) POELT On trunk of a broad-leaved tree, (88/29).

Hypotrachyna imbricatula (ZAHLBR.) HALE On stump of *Dicksonia sellowiana*, inner part of the *Araucaria angustifolia* forest, (88/34).

Lobaria conformis VAIN. On "canela" tree, (88/26).

Lobaria patinifera (TAYL.) HUE On trunk of a broad-leaved tree, (88/43.a).

Lobaria pseudoglaberrima ZAHLBR. On "canela" tree, (88/25), on root of a broad-leaved tree, (88/28).

Lobaria pseudolivacea ZAHLBR. On trunk of a broad-leaved tree, (88/43.b).

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CONTRIBUTION TO THE LICHEN FLORA OF URUGUAY. XXIII.

New or additional records.

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ABSTRACT: "Contribution to the lichen flora of Uruguay. XXIII. New or additional records". Eight lichen species are listed. They are new or additional records to the Uruguayan lichen flora and a very important extension of his distributional range in South America. The genus *Relicina* is reported for Uruguay for the first time.

RESUMEN: "Contribución a la flora líquénica del Uruguay. XXIII. Registros nuevos o adicionales". Se enumeran ocho especies de líquenes. Ellos son registros nuevos o adicionales para la flora uruguaya así como importantes ampliaciones de sus áreas de distribución en América del Sur. El género *Relicina* se cita por primera vez para el Uruguay.

As a result of the study of collections housed in the Museo Nacional de Historia Natural, Montevideo, Uruguay (MVM) and in the author's private herbarium, new or additional records could be found.

Some of the taxa listed, besides being additions to the Uruguayan flora, enlarge significantly their distributional range in South America.

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Bulbothrix tabacina (MONT. & BOSCH.) HALE

ROCHA: La Esmeralda (Hwy. 9: km 280), on *Acacia*, MONES 25.V.1986 (Herb. OSORIO, MVM).

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New to Uruguay. The southernmost record previously known in South America is located in the Brazilian State of Sao Paulo (HALE 1976:24).

Caloplaca ochraceofulva (MÜLL. ARG.) JATTA

This interesting species is known from high altitudes in Africa (ALMBORN 1987:410, KÄRNEFELT 1988:450) and in NW Argentina (MALME 1926:41, as *C. subnitida*). It has been reported from Uruguay from two localities (OSORIO 1966:3 and 1981:394 as *C. subnitida*). The below listed gatherings indicate that it is widespread in the whole country. According to ALMBORN (1987:411) this species belongs to the group of "montane lichens with disjunct areas in southern hemisphere". However, in Uruguay, all the samples studied occur at very low altitudes, only one collection (OSORIO 4688) reaches an altitude 100-150 m high. This *Caloplaca* is also very common in the hills located on the seashore in Torres in the NE corner of the Brazilian State of Rio Grande do Sul (OSORIO & FLEIG, unpublished records). The Brazilian collections and some from Uruguay (OSORIO 4256, 8345) grow in habitats with a strong maritime influence.

CANELONES: Parador Tajés, El Cerrito, on siliceous sandstone, OSORIO 2139, conf. O. ALMBORN.

COLONIA: Colonia del Sacramento, on stones of a old wall BERRÓ IV.1913 (MVM); on rocks, Rio de la Plata coast, lower hygrophalin zone, OSORIO 5282, conf. O. ALMBORN.

FLORIDA: Arroyo Casupá, on granitic rocks, DEL PUERTO 11.II.1972 (MVM).

LAVALLEJA: Cerro Arequita, on perpendicular rocks, SW facing slope, shady place, scarce, alt. 100-150 m, OSORIO 4688, conf. O. ALMBORN.

MALDONADO: Punta Colorada, on rocks in a meadow, aerohalin zone, OSORIO 4256, conf. O. ALMBORN; Rio de la Plata, Isla Gorriti, on rocks, S from Puerto Cañon, only specimens seen, upper hygrophalin zone, OSORIO 8345.

RIO NEGRO: Bopicuá, on a old wall, XIMÉNEZ TRIANÓN 23.IX.1973 (MVM).

ROCHA: Fortaleza de Santa Teresa, on rocks at the entrance of fortress, locally very common, OSORIO 5697; Laguna Negra, on rocks, inner part of the marginal forest of the lake, OSORIO 5677.

Dimerella subdiluta MALME

MONTEVIDEO: Parque Rivera, on trunk of *Cupressus*, inner part of the park, shaded place, OSORIO 8850, conf. A. VEZDA.

New to Uruguay. Formerly known from Brazil: Mato Grosso State and Paraguay: Asunción (MALME 1935:6).

Hypotrachyna microblasta (VAIN.) HALE

ROCHA: Vivero de Santa Teresa (Hwy. 9: km 285), on bark of a tree, MONES 5.I.1986 (MVM).

New to Uruguay. The southernmost record previously known in South America is located in the Brazilian State of Minas Geraes (HALE 1975:47).

Peltigera austroamericana ZAHLBR.

The genus *Peltigera* is known in Uruguay through two collections: *P. austroamericana* (MAGNUSSON 1950: 228 as *P. americana*) and *P. degeni* (OSORIO 1975:8). The study of the below listed samples demonstrates that the first species is distributed mostly in the SE of Uruguay and the second species is a misidentification.

LAVALLEJA: Aguas Blancas, banks of a brook, OSORIO 4957, conf. O. VITIKAINEN; Arroyo Marmarajá and Hwy.8: km 162, AMARAL DE GAMBARDELLA 20.IV.1976 (MVM); Villa Serrana, banks of a brook, OSORIO 3842, det. O. VITIKAINEN.

MALDONADO: Aiguá, Gruta de Salamanca, LAGE DE XI-MÉNEZ 26.VIII.1967 (MVM); Sierra de las Animas, Pozo Azul, wooded ravine, OSORIO 4991, 5017, conf. O. VITIKAINEN.

TREINTA Y TRES: Cuchilla de Dionisio, Estancia La Teja,
N slope of a ravine, OSORIO 6090, det. O. VITIKAINEN.

All the above mentioned specimens were gathered growing on mossy rocks. The sample from Aiguá, Gruta de Salamanca has been already published under the name of *P. degeni* (OSORIO 1975:8).

Phaeographina lecanographa (NYL.) MÜLL. ARG.

CANELONES: Balneario Cuchilla Alta, on trunk of *Acacia longifolia*, *Pinus* and *Acacia* plantation, OSORIO 8609.

Formerly known from Central and East Uruguay (OSORIO 1975:8).

Phaeographis lobata (ESCHW.) MÜLL. ARG.

ROCHA: La Esmeralda (Hwy. 9:km 280), on *Acacia*, MONES 25.V.1986 (MVM).

This is the second collection of this species in Uruguay. The former was collected in the easternmost region of the same Department (OSORIO 1983:84).

Relicina abstrusa (VAIN.) HALE

LAVALLEJA: Minas, Cerro Arequita, on rocks, TH. NASH & C. GRIES 13.VI.1989 (Herb. OSORIO); road from Hwy. 8 to Cascada del Penitente, on rocks, TH. NASH & C. GRIES 13.VI.1989 (Herb. OSORIO).

ROCHA: Sierra de San Miguel, Cerro de la Guardia Perdida, on perpendicular N exposed rocks, OSORIO 9011 & 9012.

First report of this genus for Uruguay. The southernmost record previously known in South America of this genus was the locality of Nova Petropolis in the Rio Grande do Sul Highlands, Brazil (OSORIO & FLEIG, in press).

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