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CONTRIBUTION TO THE LICHEN FLORA OF BRAZIL XV. LICHENS FROM TORRE SUL AND MORRO ITAPEVA, TORRES, RIO GRANDE DO SUL STATE.

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In a very recent date the authors gathered lichens in the vicinity of Torres City in the northeastern corner of the brazilian State of Rio Grande do Sul as a part of the "Plan de Ciencias del Mar" (URU/82/009, PNUD/UNESCO).

The collection sites visited in this opportunity were the hills (Morro in portuguese language) Torre Sul and Morro Itapeva. The first one is the southernmost of the four hills situated in the close proximity of Torres City. The second hill is situated already four kilometers South from this main group.

The five hills are located in the shore of the Atlantic Ocean and all the collection sites visited by the authors are exposed to a variable but always evident maritime influence. The hill Torre Sul exhibits a ocean-faced side formed by a cliff and in this opportunity it was possible to collect in its lower part due to a very low tide.

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The Morro Itapeva in contrast with the other four hills ends on a lengthy and gently inclined slope in the Atlantic Ocean.

The lower forty meters of this slope are formed by a meadow with several basaltic outcrops covered with a rich lichen vegetation. The remaining part of the hill is covered with shrubby vegetation and flying sands which support no lichen vegetation.

Two identical series were made with the materials collected and deposited in the Departamento de Botanica, Instituto de Biociencias, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brasil and in the private herbarium of the senior author.

Caloplaca americana (MALME) ZAHLBR.

Morro Itapeva: south end, on rocks, upper hygrohalin, 3T/12; eastern slope, on flat rocks, common, hygrohalin, 3T/27.

Caloplaca festiva (FR.) ZW.

Morro Itapeva: south end, on rocks, not common, upper hygrohalin, 3T/17.

Coccocarpia palmicola (SPRENG.) L. ARVIDSS. & D. GALL.

Torre Sul: perpendicular rocks, western slope, scarce, lower aerohalin, 3T/3.

Diploschistes actinostomus (PERS.) ZAHLBR.

Morro Itapeva: south end, on rocks, upper hygrohalin, 3T/11, 3T/23.

Dirinaria applanata (FÉE) AWASTHI.

Morro Itapeva: south end, perpendicular rocks, upper hygrohalin, 3T/18, 3T/20.

Heterodermia albicans (PERS.) SWINSC. & KROG.

Morro Itapeva: south end, perpendicular rocks, upper hygrohalin, 3T/19.

Lecanora farinacea FÉE.

Torre Sul: western slope, on rocks, aerohalin, 3T/1; south end, flat rocks, bottom of the hill, common, lower hygrohalin, 3T/10.

Lecidea oreinodes (KÖRB.) WEB. & HERTEL.

Torre Sul: south end, on rocks, scarce, hygrohalin, 3T/5.

Morro Itapeva: south end, on rocks, upper hygrohalin, common, 3T/21; eastern slope, on flat rocks, very common, hygrohalin, 3T/26.

This species is notoriously more abundant in Morro Itapeva that in the other four hills. The collection 3T/26 covered many square decimeters on the rocks and was the only species observed growing on large parts of this substract.

Leptogium cyanescens (ACH.) KÖRB.

Torre Sul: south end, perpendicular rocks, not common, hygrohalin, 3T/8.

Parmotrema cetratum (ACH.) HALE.

Morro Itapeva: eastern slope, on flat rocks, common, hygrohalin, 3T/28.

Parmotrema tinctorum (NYL.) HALE.

Morro Itapeva: south end, perpendicular rocks, upper hygrohalin, 3T/13.

Punctelia constantimontium SÉRUSIAUX

Torre Sul: south end, perpendicular rocks, bottom of the hill, hygrohalin, 3T/6.

Morro Itapeva: south end, perpendicular rocks, hygrohalin, 3T/15.

Physcia aipolia (HUMB.) FURNROHR.

Morro Itapeva: south end, perpendicular rocks, upper hygrohalin, 3T/16.

Ramalina usnea (L.) R. HOWE. ...

Torre Sul: on crevices of rocks, bottom of the hill, hygrohalin, 3T/7.

Teloschistes flavicans (SW.) NORM.

Torre Sul: western slope, on crevices of rocks, scarce, aerohalin, 3T/2.

Morro Itapeva: south end, on crevices of rocks, scarce, upper hygrohalin, 3T/14.

Xanthoparmelia conspersa (ACH.) HALE.

Morro Itapeva: south end, on flat rocks, very common, lower hygrohalin, 3T/25.

This species, which is added to the local flora, forms very large patches on the rocks. It is the main component of the lichen community placed in the close proximity to the sea.

RESULTS AND DISCUSSION.

Among the sixteen species listed in this paper, four are additions to the already published local flora (OSORIO & FLEIG 1984): *Diploschistes actinostomus, Heterodermia albicans, Physcia aipolia* and *Xanthoparmelia conspersa.*

Thus, we record for this locality twenty four maritime lichen species. The main interest of the present study was, of course, the identification of the greatest number of species as possible. Ecological and sociological investigations should be carried out "a posteriori".

The authors have already emphasized (OSORIO & FLEIG 1984) about the very poor information referable to marine or maritime lichen flora of South America. In the literature at our disposal the only quotations we could find about this group of lichens in Brazil are reduced to those pointed out by VAINIO (1890). This author reported the following species from the oceanic coast near to Rio de Janeiro City: *Lecanora pallidofuscescens, Placodium isidiosum, P. mülleri, P. peragratum, Rinodina theioplacoides, Heppia tortuosa, H. clavata, H. bolanderi, H. leptophylla, Pterygiopsis atra* and *Pyrenopsis brasiliensis.*

None of these species could be found by the authors during the field work in Torres.

Within the limits of the Marsden Square 413 (30° - 40°S and 50° - 60°W) some results recently published (OSORIO 1983, 1984 and OSORIO, SILVA and HAREAU 1984) can be used as comparison.

Compiling the species listed in these papers with some unpublished records preserved at (MVM) at the present state of our knowledge we can join thirty maritime lichens species from Uruguay.

Twelve species occurs both in Torres and Uruguay and can be grouped as follows: *Pertusaria colorans* var. *sanguinea, Ramalina usnea,* and *Teloschistes flavicans* are recorded in Uruguay from the oceanic coast. The remaining nine species occur along the coast of the Rio de la Plata which possess the characteristics of an estuary: *Caloplaca americana, C. festiva, Diploschistes actinostomus, Lecanora farinacea, Lecidea montevidensis, L. oreinodes, Ochrolechia osorioana, Parmotrema cetratum* and *Xanthoparmelia conspersa.* The occurrence of such a high number of species in habitats which differ in many aspects is a remarkable fact. The lack of information of the lichen flora from the Brazi-

lian coast north of Torres turns impossible for us to make further distributional considerations.

SUMMARY.

Sixteen maritime lichen species collected in Torres, Rio Grande do Sul, Brazil, are listed. Four species are added to the known local flora which reaches the amount of twenty four species. Comparisons with already published local floras from Brazil and Uruguay are discussed.

SUMARIO.

Se enumeran dieciséis especies de líquenes marítimos colectados en Torres, Río Grande do Sul, Brasil. Cuatro especies se incorporan a la flora local ya conocida que totaliza de este modo veinticuatro especies. Se hacen comparaciones con floras locales de Brasil y Uruguay.

LITERATURE CITED.

OSORIO, H. S. — 1983. Contribution to the lichen flora of Uruguay. XIX. Lichens from Rio de la Plata coast. Phytologia 54(4): 279-282.

OSORIO, H. S. — 1984. Contribution to the lichen flora of Uruguay. XXI. Additions to the Rio de la Plata lichen flora. Mycotaxon (in press).

OSORIO, H. S. & M. FLEIG. — 1984. Contribution to the lichen flora of Brazil. XIII. Maritime lichens from Torres, Rio Grande do Sul State. International Journal Mycology Lichenology 1(3): 273-279.

OSORIO, H. S., S. SILVA & A. HAREAU. — 1984. Contribution to the lichen flora of Uruguay. XX. Lichens from Isla Gorriti, Maldonado Department. Comunicaciones Botánicas Museo Historia Natural de Montevideo 4(66): 1-4.

VAINIO, E. — 1980. Etude sur la classification naturelle et la morphologie des lichens du Brésil. Pars I & II. Acta Societatis Fauna et Flora Fennica 7:1-247; 1-256.