

Usnea christinae spec. nov. from South America

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A new lichen species *Usnea christinae* Bystrek is described from the Patagonia Andes, the reserve upon lake Onelli in the National Park Los Glaciares. It belongs to subgenus *Protousnea* Motyka emend. Bystrek, and is closely related to *U. cavernosa* Tucker.

Key words: *Usnea christinae*, species nova, Patagonia.

During their stay in Argentina, Krystyna and Marian Harasimiuk the geographers from the Institute of Earth Sciences of the Maria Skłodowska-Curie University, visited the reserve upon lake Onelli in the National Park Los Glaciares in the Santa Cruz prov. at the southern slope of the Patagonia Andes. They enriched the collection of lichens of the herbarium at the Department of Plant Taxonomy by the two *Usnea* species, one of which turned out to be new for the studies, and the other one was *U. nidulifera* Motyka.

On the occurrence of the afore-mentioned species Dr. Krystyna Harasimiuk wrote as follows: "This most glaciated area on the southern hemisphere (aside from the Antartcis) obtained the status of the national park as early as in 1937. The protected area is situated between 51°21"-73°5" south latitude and 74° west longitude. The Andes glaciers descend to the two lakes within the park: Lago Viedma in the northern part and Lago Argentino in the southern part. The climate of Los Glaciares is typical of the Patagonian Andes, cool and moist and a sharp differentiation of moisture conditions results from the exposition to rain-carrying western winds. In the Andes part, Lago Argentino by a 1 km long river. Along this river spreads a fluvioglacial terrace, rising c. 4 km above the water level of Lago Argentino. The terrace is covered with forests with *Notofagus pumilio*, which is magnificently contrasted with the sheet of lake Onelli, covered in summer with a great amount of icebergs of fantastic shapes. On the trunks and branches of live and dead trees there grow numerous epiphytes, including many lichen species different shapes and colours of thalli".

I wish to pay honour to Dr. Krystyna H a r a s i m i u k by giving her name to a new species and also thank her for sending the collected specimens to the herbarium LBL-L.

Usnea christinae Bystrek spec. nov.

Thallus ochroleucus vel pallidus, ca 25 cm longus, tenuis, elasticus, pendulus, substratu parte basali indistincta affixus, in tota longitudine repetitio irregulariter dichotome ramosus, eciliatus et eramulosus. Axilis inter ramos latis, inter tenuiores angustis. Rami supra basi et parte mediali 0.1-0.4 (0.5) mm in diametro, ad apices capillaceo attenuati, ad summitates indistincte serpentino flexuosi, crassiores passim indistincte deformati, indistincte angulati et foveolati, tenuiores fere teretes, indistincte irregulariter fissurati, ad omnes ramulos non papillati et non tuberculati. Cortex ad ramos secundariis et apicalis nitidus, ad ramos primarii distincte scrobiculatus, impressulus et distincte obscuratus vel nigratus, crebre pseudocyphellatus, irregulariter fractus, hic illinc algae distinctae per cortex visae. Pseudocyphellae minus numerose, indistincte fissuriformes, albidis, minuscule, 0.1-0.8 (1.0) mm, solraliis similis vel stigmatus et pallidis.

Structura anatomica: Thallus in parte mediali 0.2-0.4 mm in diametro. Cortex et hyphis incoloribus, extus indistincte ochroleucus, valde conglutinatis, intus in tota peripheria inaequaliter sinuoso inaequalis, 3-45 μ m crassus. Medulla alba, creberrima, ex hyphis ramificantibus inaequaliter, 5-60 μ m crassa, algae ad Trebouxia pertinentes. Axis filamentosus, albus, ca 70 μ m in diametro, irregulariter cylindricus. Apothecia ignota, soralia ignota.

Reactione chemicae. Cortex et axis K-, C-, Medulla KC + lutescens, medulla Pd + lutescens. Continens acidum usnicum.

Nomen in honorem dr Christina Harasimiuk dedicatum.

L o c u s c l a s s i c u s: Argentina, Patagonia, Los Glaciares: Lago Argentino, Lago Onelli, 200 m s.m., *Notofagus pumilio*, January 1994, leg. Krystyna Harasimiuk. Holotypus: LBL-L 1.660.

C h a r a c t e r s. Thallus pale green, up to 25 cm long, tenuous, flexilibe, pendent, fixed to the substratum by indistinctly black early withering base, repeatedly dichotomically ramose on its total length, without lateral ramifications. Ramifications irregularly cylindrical, slightly angular or foveolate, deformed also by scars, without papilles. The ramifications of the thallus above the base and in the medial part 0.1-0.4 (0.5) mm in diameter, regularly attenuated at apices; capillary and indistinctly flexuose at summits. The cortex surface on younger ramifications slightly shiny, pale green, in some places with algae distinctly showing through; above the base, up to about half of its length; on the obscured parts of ramifications the fissures cicatrized or filled with medulla similar to soredia; on the unobscured part the

fissures are less distinct and not cicatrized. Pseudocyphellae unnumerous, lenticular, tiny, 0.1-0.8 (1.0) mm, filled with medulla, forming along the axis of the ramification or obliquely. It does not form soralia proper. Apothecis on the holotype lacking.

A n a t o m i c s t r u c t u r e. The thallus on medium-thick ramifications 0.2-0.4 mm in diameter; white cortex, slightly brownish in its most outer layer, unequally thick (3-25 μm) both outside and inside, formed from conglutinated fragments placed perpendicularly. Medulla white, dense, paraplectenchymatica, unequally thick, 4-50 μm . It is formed of hyphae growing, thin, smooth, straight or very rarely ramified, slightly intertwined. *Trebouxia* the phycobiont, placed all over the medulla. The axis is white, filamentous, solid, irregularly cylindrical, 60 μm in diameter.

C h e m i c a l p r o p e r t i e s. The cortex and medulla do not stain with K and C, medulla turns slightly yellow when stained with Pd and KC. It produces usnine acid. Other substances were not existed.

T a x o n o m y. *Usnea christhinae* is a distinct species, easy to distinguish from other *Usnea* species. As regards the habit and thickness of ramifications it approximates *U. cavernosa*. The differences are distinct. The cortex surface ornamentations is different. Pseudocyphellae are present. There are differences in chemical composition. *Usnea alectoroides* has a different habit as well as ornamentation or ramifications. In the *Usnea* genus taxonomy I include *U. christhinae* among the subgenus *Protousnea* and list it beside *U. cavernosa*. The accuracy of allocating *U. christhinae* among the *Protousnea* species will not be possible to evaluate before finding fructifications.

D i s t r i b u t i o n s. So far recorded at one location only. The southern confices of the South America continent are characterized by rich in species lichen flora. An important role there play the *Usnea* species; in the *Usnea* collection in our herbarium the following species come from this area: *Usnea alectoroides* Motyka, *U. amblyococlada* Müll. Arg., *U. antarctica* Du Rietz., *U. aurantiaca* Motyka, *U. aurantiacoatra* Bory, *U. aureola* Motyka, *U. chilesis* Motyka, *U. condensata* Motyka, *U. dasycera* (Nyl.) Motyka, *U. dusenii* Du Rietz., *U. fuegiana*, *U. granulifera* (Vain.) Motyka, *U. igniaria* Motyka, *U. lethariformis* Motyka, *U. magellanica* (Mont.) Motyka, *U. nidulans* Motyka, *U. nidulifera* Motyka, *U. nobilis* Motyka, *U. oxygona* (Müll. Arg.) A. Zahlbr., *U. pallida* Motyka, *U. poeppigii* (Nees et Flotow) Vain., *U. sulphurea* (Koenig) Th. Fr., *U. trachycarpa* (Stirt.) Müll. Arg.

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Usnea christhinae spec. nov. z Ameryki Południowej

S t r e s z c z e n i e

Z pobytu w rezerwacie Onelli (Andy Patagońskie) dr Krystyna Harasimiuk przywiozła do zielnika uniwersyteckiego LBL-L w Lublinie dwa okazy *Usnea*. Jednym z nich jest *U. niduliferu* Motyka, drugi to *U. christhinae* Bystrek, nowy dla nauki gatunek z podrodzaju *Protousnea*, spokrewniony z *U. cavernosa* Tucker.

Plecha *U. christhinae* jest zwisająca, przytwierdzona do podłoża niezaczernioną nasadą, delikatna, elastyczna, na całej długości wielokrotnie widelkowato rozgałęziona, bez bocznych gałązeczek. Gałązki powyżej podstawy i w środkowej części 0,2-0,4 mm średnicy, na zakończeniach włosowate i nieco kędzierzawe. Powierzchnia kory bez brodawek, miejscami z prześwitującymi glonami, do połowy długości wyraźnie przyciemniona, nieregularnie popękana, z nielicznymi lecz wyraźnymi pseudocycfellami. Nie tworzy soraliów. Na holotypie brak apotecjów. Miąższ K-, C-, Pd + żółto. Wytwarza kwas usninowy.