

## The arcto-alpine moss *Andreaea obovata* THED. in the Tatra Mts., Slovakia

RUDOLF ŠOLTÉS

Research Station of the Tatra National Park, SK-05960 Tatranská Lomnica, Slovakia; e-mail: soltes@vstanap.sk

---

ŠOLTÉS R. (2001): The arcto-alpine moss *Andreaea obovata* THED. in the Tatra Mts., Slovakia. – Thaiszia – J. Bot. 10: 111-114. – ISSN 1210-0420.

ABSTRACT: The species *Andreaea obovata* was recorded on the summit rocks of Lomnický štít peak in 1880'-s. Now, nearly 120 years later, the species has been refound. The summit area was heavily damaged due to construction of a rope railway. The species has survived on undamaged, rather inaccessible slopes in the summit area. The phytocoenological relevé is included.

KEYWORDS: *Andreaea obovata*, Bryophyta, Slovakia

---

According to SMITH (1978), the moss *Andreaea obovata* occurs in N. Europe, Siberia, N. America and Greenland, the same distribution reported by MÖNKEMEYER (1927).

The Tatra Mountains were omitted from the distribution area despite the fact that the species was collected here by CHAŁUBIŃSKI (1886) on the summit rocks of Lomnický štít peak (2632 m asl). ŠMARDÁ & VANĚK (1955) published the occurrence of *Andreaea obovata* in the West Tatra Mountains, but this was erroneous, the plant being *Andreaea rupestris* (PILOUS 1958). In 1955 PILOUS (1958) collected an *Andreaea* at the summit of Satan peak (2432 m asl) which he had no doubt was *A. obovata* (Fig. 1).

*A. obovata* forms black cushions, and has nerveless leaves which are widest near base, imbricate when dry and patent to spreading when moist (Fig. 2).

This species was refound on the top of Lomnický štít peak in September 2000. It occurs on exposed, rather inaccessible areas. Only two small cushions 2 cm in diameter were found, nevertheless, on steep and vertical inaccessible walls.

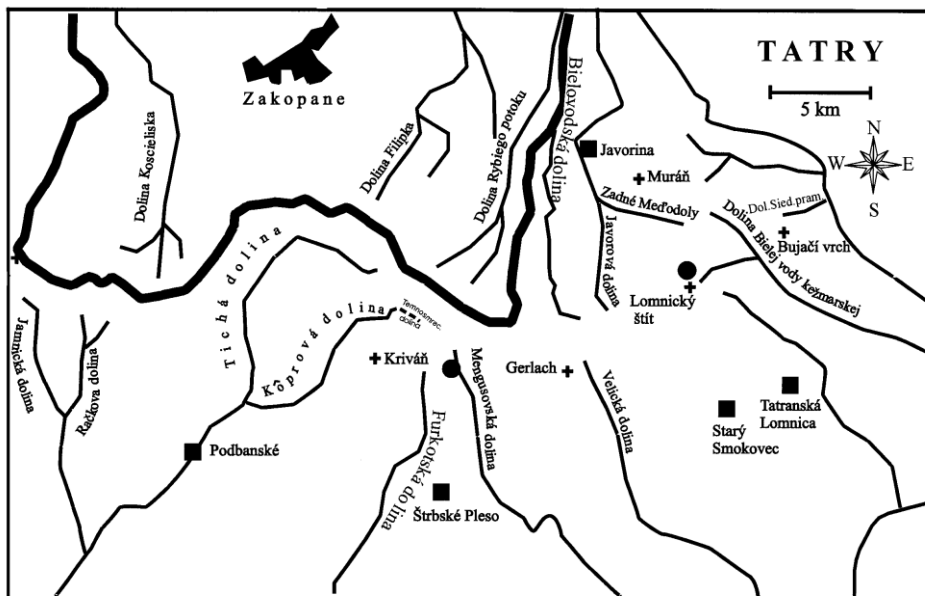


Fig. 1. Distribution of *Andreaea obovata* (●) in the Tatra Mts.

Further cushions may survive in the summit area. The species was found sterile and survived here despite the fact that the peak area was heavily damaged by the construction of the terminal of a rope railway in the 1930'-s.

#### Locality:

The High Tatra Mts., Lomnický štít peak, summit area, mylonite rocks, 2625 m asl, SE aspect, slope  $45^{\circ}$ , area  $12 \text{ m}^2$ , September 27, 2000, total cover 75%,  $E_1$  65%,  $E_0$  35%. (leg. PACLOVÁ & ŠOLTÉS)

#### Relevé:

$E_1$ : *Saxifraga bryoides* 3, *S. moschata* 2b, *Poa alpina* 2m, *Festuca supina* 1, *Leucanthemopsis alpina* 1, *Gentiana frigida* +, *Saxifraga carpatica* +, *Cerastium uniflorum* +, *Ranunculus glacialis* +,

$E_0$ : *Racomitrium canescens* 2b, *Grimmia incurva* 2m, *Cetraria nivalis* 2m, *Sanionia uncinata* 1, *Cetraria islandica* +, *Alectoria ochroleuca* +, *Andreaea obovata* +, *Brachythecium turgidum* +, *Distichium capillaceum* +, *Polytrichum alpinum* +, *Thamnoia vermicularis* +, *Cladonia* sp. +.

According to HERZOG (1926) and PILLOUS (1954) *Andreaea obovata* belongs to the group of glacial relic species. The moss is red-listed in the Checklist of non-vascular and vascular plants of Slovakia (KUBINSKÁ & JANOVIČOVÁ 1998) as Vulnerable.

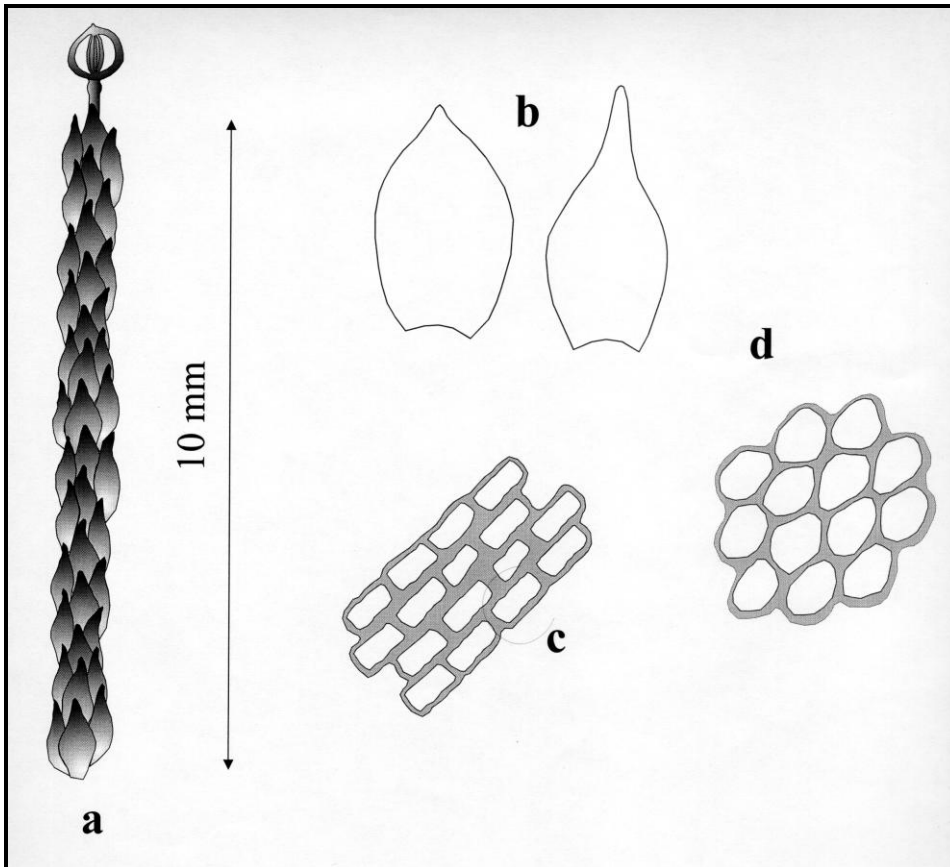


Fig. 2. *Andreaea obovata*: a – plant including a sporophyte, habit; b – leaves; c – basal cells; d – cells from widest part of leaf

The nomenclature of bryophytes follows KUBINSKÁ & JANOVIČOVÁ (1998), that of vascular plants MARHOLD (1998).

### Acknowledgements

The author wish to thank to Prof. JIŘÍ VÁŇA, DrSc., Prague, Czech Republic, for confirmation of the specimen and to Mr. NICK HODGETTS, Peterborough, England, for editing the English.

### References

- CHAŁUBINSKI T. (1886): Enumeratio Muscorum frondosum Tatrensiu. Pamietnik fizyograficzny, 6: 1-207.  
 HERZOG T. (1926): Geografie der Moose. – Jena

- KUBINSKÁ A. & JANOVICOVÁ K. (1998): Bryophytes. – In: MARHOLD, K. & HINDÁK F. (eds.): Zoznam nižších a vyšších rastlín Slovenska. Checklist of non-vascular and vascular plants of Slovakia, pp. 297-332. – Veda, Bratislava.
- MARHOLD K. (1998): Ferns and flowering plants. – In: MARHOLD, K. & HINDÁK F. (eds.): Zoznam nižších a vyšších rastlín Slovenska. Checklist of non-vascular and vascular plants of Slovakia, pp. 333-687. – Veda, Bratislava.
- MÖNKEMEYER W. (1927): Die Laubmoose Europas. – Leipzig.
- PILOUS Z. (1954): Arktický mech *Cinclidium arcticum* C.M. ve střední Evropě. – Ochr. Přír., 9: 112-115.
- PILOUS Z. (1958): Fragmenta bryologica 31-40, 36. *Andreaea obovata* opět v Tatrách. – Preslia, 30: 172-173.
- SMITH A.J.E. (1978): The Moss Flora of Britain and Ireland. – Cambridge.
- ŠMARDA J. & VANĚK R. (1955): Třetí doplněk k Mechům Slovenska. – Pr. II. Sekcie SAV, Sér. Biol. 1/9: 5-42.

Received: 27 December 2000  
Revised: 12 March 2001  
Accepted: 12 March 2001