**Appendix. Estimate of *h* from oblique sections**

This method was applied to oblique sections of cylindrical thalli with inclined laterals. The oblique section sketched in Fig. 1 [insert Fig 1 app] corresponds to Fig. 9(**3**) (PSM 901-18, specimen N015 of *Dragastanella transylvanica* n. gen., n. sp.). It shows the following three parameters used to calculate height between whorls (h): inner diameter (d), length of ellipse (lellipse), and the apparent height between whorls (happ). The inclination of laterals (α), the fourth parameter, is obtained from axial sections. The value of α in *Dragastanella transylvanica* is 80°.

Fig. 2 [insert Fig 2 app] shows the relationships of parameters in axial view.

OP= *d*, (1)

OQ = *lellipse*, (2)

OP=OQ *sinβ* then, (3)

*d*=*lellipse sinβ*, where *β* is the inclination of the oblique section (4)

*β*=*arcsin*(*d/lellipse*) (5)

On the other hand:

AB=*happ* , and (6)

BC=*h* (7)

The angles of the triangle ABC on each vertex A, B and C are *180-α-β*, *α* and *β*, respectively.

According to the sine law:

AC / *sinα*=BC / *sin*(*180-α-β*) then, (8)

*h=happ\*sin(180-α-β) / sinα* (9)

This method has been applied to several oblique sections of *Dragastanella transylvanica*. The calculation is given in Table 1. [insert Table 1 app]

A similar method can be used to calculate *h* in cylindrical thalli with euspondyl orthogonal laterals (Fig. 3) [insert Fig 3 app]:

BC=*h* and AC=*happ* as in (6) and (7). The triangles OPQ and ABC are similar, therefore:

OQ/PQ=AC/BC (10)

According to Pythagoras' theorem

PQ=$\sqrt{lellipse^{2}-d^{2}}$ (11)

From (10) and (11) then,

*h=happ\**$\sqrt{lellipse^{2}-d^{2}}$*/**lellipse* (12)

Otherwise

*h=happcos β*, where, from (5), *β=arcsin(d/lellipse)* (13)

**Figure captions**

**Figure 1.** Parameters in an oblique section (drawing from *Dragastanella transylvanica* n. gen. n. sp. (PSM 901-18, specimen N015).

**Figure 2.** Calculation of height between whorls (h) from the oblique cut OC. Axial scheme from *Dragastanella transylvanica*. α, inclination of laterals; β, inclination of cut.

**Figure 3.** Calculation of height between whorls (h) from the oblique cut OC. Axial scheme of a verticillate cylindrical thallus with orthogonal laterals. β, inclination of cut OC.

**Table 1.** *Dragastanella transylvanica* n. gen. n. sp. Calculation of height between whorls (h) from oblique sections. Table of main parameters: d, inner diameter; lellipse, major axis of the ellipse; happ, apparent height between whorls from the oblique section; number of identifications are the same as in the text. All dimensional values are in millimeters.