tings may be necessary. Use high-resolution objectives with numeric apertures > 0.200, clean surfaces and light inclined perpendicular to the ripples. Do not include anastomosae between the ripples into the counting.

SL maximum straight line scape length excluding the articular condyle.

sqPDG square root of pubescence distance on dorsum of first gaster tergite. The number of pubescence hairs n crossing a transverse measuring line of length L is counted, hairs just touching the line are counted as 0.5. The pubescence distance PDG is then given by L / n. In order to normalise positively skewed distributions, the square root of PDG is calculated. Exact counting is promoted by clean surfaces and flat, reflexion-reduced il lumination directed perpendicular to the axis of pubescence hairs. Use high-resolution objectives with numeric apertures > 0.200. In each specimen 4 - 6 measuring-lines of 400 µm are averaged under exclusion of surface parts with apparently detached pubescence. If there are no transects with undamaged pubescence possible, PDG can be calculated by the formula PDG = BD2 / PLG where BD is the mean distance of hair base punctures and PLG the mean length of pubescence hairs.

In most of the species groups of *Formica*, body ratios are strongly influenced by allometric growth. In order to make numeric characters directly comparable between the species, predictions for the assumption of all individuals having an identical cephalic size of 1.4 mm were calculated with the following equations calculated as mean of 24 Palaearctic species of the subgenus *Serviformica*:

$CL / CW_{1.4} = CL / CW / (-0.1143 * CS + 1.2936) * 1.1336$

$SL / CS_{1.4} = SL / CS / (-0.1077 * CS + 1.2062) * 1.0554$

$EYE / CS_{1.4} = EYE / CS / (-0.0594 * CS + 0.3752) * 0.292$

$GHL / CS_{1.4} = GHL / CS / (-0.0008 * CS + 0.0852) * 0.0841$

$PEW / CS_{1.4} = PEW / CS / (0.1001 * CS + 0.3039) * 0.444$

$nOCC_{1.4} = nOCC / (3.268 * CS + 1.31) * 5.88$

$nGU_{1.4} = nGU / (1.635 * CS + 0.43) * 2.72$

$nPN_{1.4} = nPN / (10.81 * CS - 6.50) * 8.63$

$nMN_{1.4} = nMN / (6.10 * CS - 5.21) * 3.33$

$nPR_{1.4} = nPR / (5.50 * CS - 3.97) * 3.73$

$nPE_{1.4} = nPE / (3.94 * CS - 1.80) * 3.71$

$nHFFL_{1.4} = nHFFL / (4.13 * CS - 0.45) * 5.34$

$sqPDG_{1.4} = sqPDG / (0.953 * CS + 3.086) * 4.42$

$RipD_{1.4} = RipD / (-0.0632 * CS + 7.29) * 7.2$

Negative or positive signs in the divisor indicate a negative or positive allometry of the ratios but not necessarily in the other characters.

Results and Discussion

1. The current taxonomic status of *F. picea* NYLANDER, 1846, *F. transkaucasica* NASSONOV, 1889, and *F. candida* SMITH, 1878

Lectotype fixation for *Formica picea* NYLANDER, 1846

The type localities of *Formica picea* NYLANDER, 1846 mentioned in the original description are Helsingfors (now Helsinki) and Uleaborg (now Oulu). NYLANDER (1846) gave a quite detailed description of the worker with the following characters diagnostic for our Black Bog Ant (translation from the Latin): "... *entirely black ... frontal triangle rather well-demarcated, as shining as remaining part of head .... thorax with extremely sparse whitish pubescence, a number of erect hairs on pronotum ... abdomen brilliantly shining black (without the smallest greyish-silky shine) ...*" This character combination allows to exclude a synonymy with *Formica fusca* LINNAEUS, 1758, *F. lemani* BONDROIT, 1917, and *F. cunicularia* LATREILLE, 1798 which are the only blackish (or potentially blackish) ants occurring in South Finland. The description could match *F. gagates* LATREILLE, 1798 and does not clearly contradict the characters of *F. gagatoides* RUZSKY, 1904. *Formica gagates* can be excluded by zoogeography: the next population of this Mediterranean species is found 1150 km south. *Formica gagatoides*, in contrast, is highly boreal and its range begins 250 km north of Helsinki. Hence, the record from Uleaborg could possibly refer to *F. gagatoides*. In the Finnish Museum of Natural History in Helsinki is only one worker being in agreement with the geographic and descriptory statements in the original description. This specimen is labelled: "H: fors", "W. Nyland.", "Coll. Nyland.", "42/vii", "picea Nyl.", "Mus. Zool. H: fors Spec. typ. No. 5035 *Formica picea* Nyl". It is strongly damaged: petiole, gaster, left legs and parts of the right middle leg are missing. This specimen was designated by Radchenko in 2003 as lectotype of *Formica picea* but this taxonomic act is not published so far (Radchenko, pers. comm., October 2004). However, independent fixation of a lectotype by different authors in objectively the same specimen cannot produce any taxomic problem and herewith I publish this specimen as lectotype of *Formica picea* NYLANDER under maintainance of Radchenko's label. According to microsculpture, pubescence structure and setae condition on the preserved body parts, the specimen is clearly heterospecific from *F. fusca*, *F. lemani* and *F. gagatoides*, the other black species occurring in Finland. However, the lectotype could not be incorporated into the discriminant ana-