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A new flea from Switzerland

by

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Although the flea-fauna of Switzerland is comparatively well known, one may expect that eventually the names of another ten species or so will be added to the present Swiss list. No collecting has yet been done in the lower northern cantons (Schaffhausen, Lucerne, Unterwalden, Zug, Schwyz, St. Gall, Appenzell), while only very few fleas have been collected in Glarus and Fribourg. Collecting at high altitudes (2000 m. and over) has so far been rather haphazard and insufficient ; this is shown once again by the find of a new subspecies of *Ctenophthalmus nivalis*, which is described below. The material of this new flea was found by Dr. C. BESUCHET in moss at 2000 m. altitude ; the host of the flea is doubtless the snow vole *Microtus nivalis*. Hitherto fleas had been collected from that host in ten Swiss localities (*Bern :* Alpiglen, Saus Alpen, Steingletscher ; *Valais :* Lovenex, Zermatt ; *Uri :* Göschenen ; *Ticino :* Val Piora ; *Graubünden :* Juf, Thusis, Val Roseg), but only once before — almost half a century ago — has a subspecies of *Ctenophthalmus nivalis (i. e. C. n. cervinus* J. & R.) been found on this host (at Zermatt). I hope that the new discovery will stimulate collectors to brave the mountains so that many more parasites from the snow vole will be obtained.

My grateful thanks are due to Dr. C. BESUCHET of the Muséum d'Histoire Naturelle, Genève, not only for having collected specimens of the new flea and of many other species in various localities, but also for generously presenting the holotype and allotype of the new subspecies to the British Museum collection of fleas at Tring. Dr. V. AELLEN's kind services in being instrumental in obtaining for me the opportunity of examining much recent Swiss material are also gratefully acknowledged.

Ctenophthalmus nivalis helvetius subsp. nov. (Figs. 3, 4, 7)

Type material : Male holotype, female allotype and one male paratype from the Simplon Pass, 8.5 km. S.E. of Brig, 2000 m., Valais, Switzerland, from moss, 29.VI.1962, leg. C. BESUCHET. Holotype and

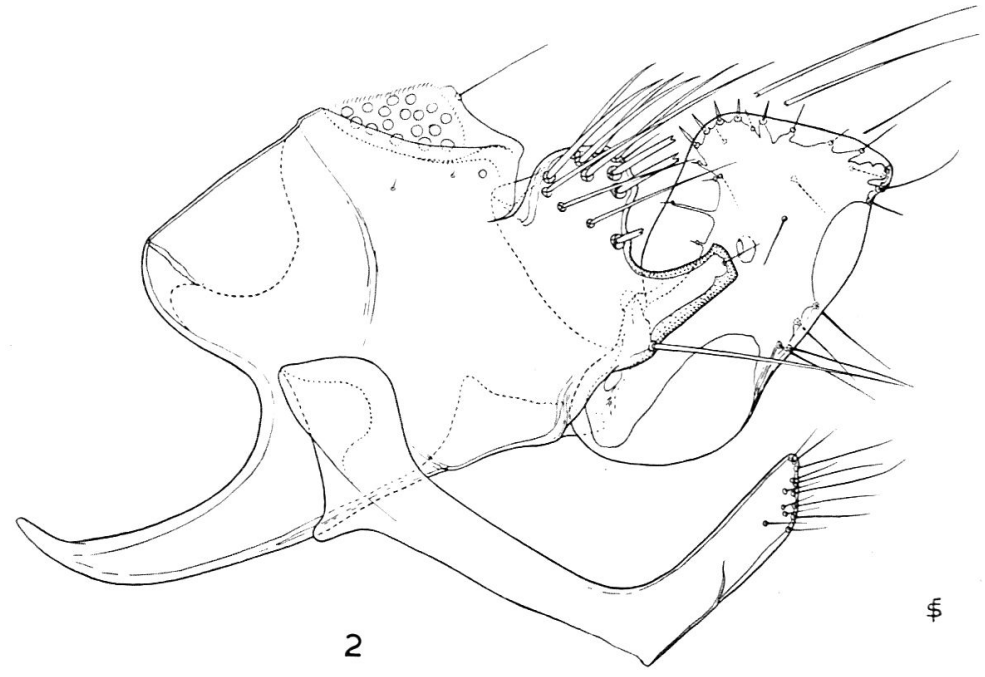
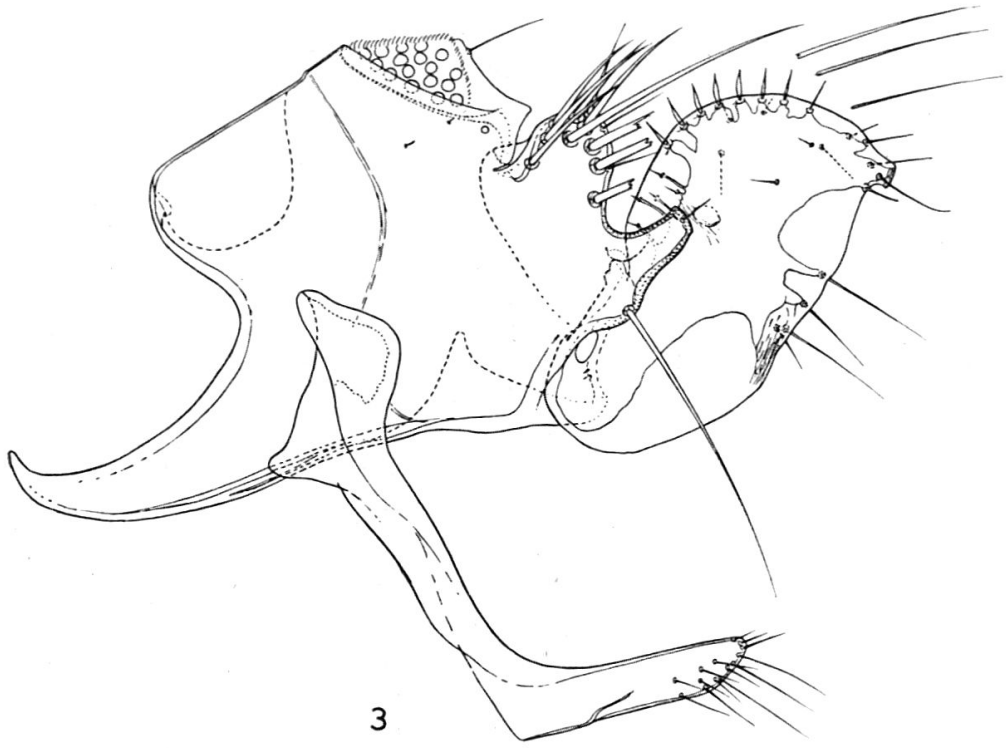
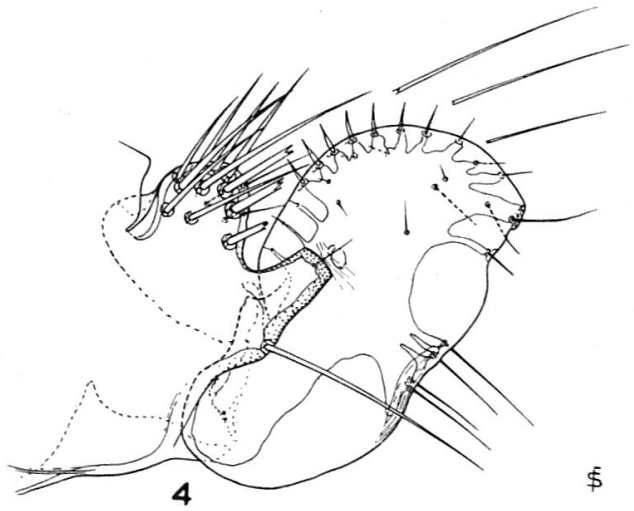


Fig. 1. *Ctenophthalmus nivalis nivalis* R. Segment IX of male from Bonnenuit.

Fig. 2. — *C. nivalis cervinus* J. & R. Segment IX of male holotype (Zermatt).

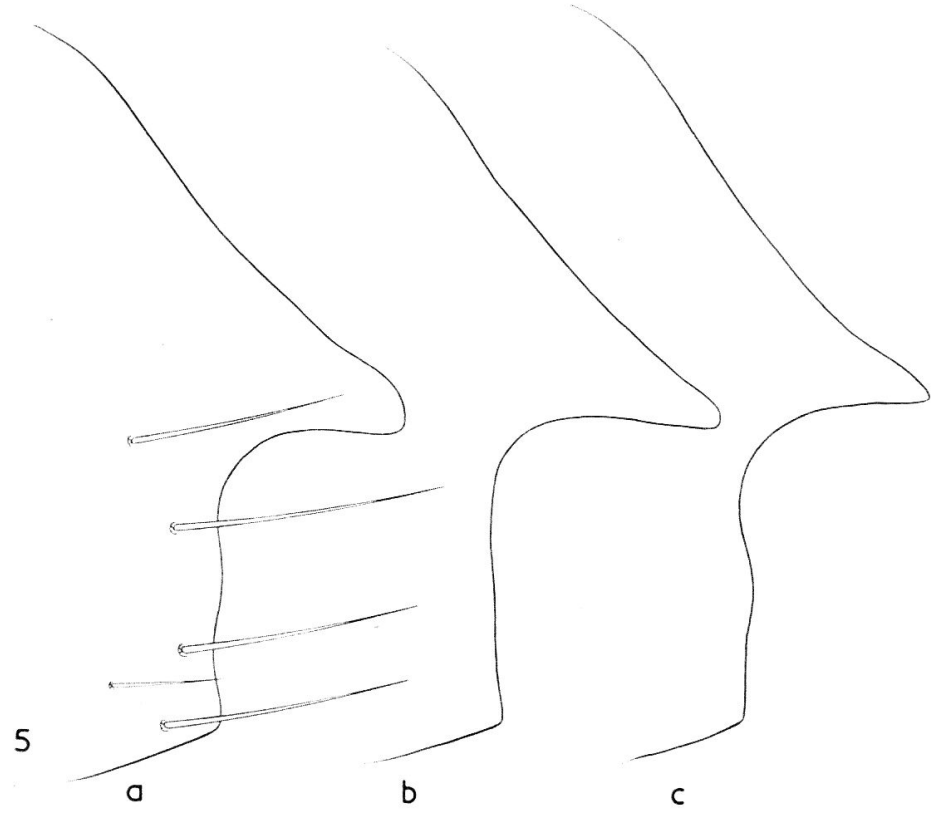




Figs. 3, 4. *Ctenophthalmus nivalis helvetius* subsp. nov. — 3. Segment IX of male holotype. — 4. Clasper of paratype.

Fig. 5. — *Ctenophthalmus nivalis nivalis* R. Sternum VII of three females from Bonnenuit.

Fig. 6. — *C. nivalis cervinus* J. & R. Sternum VII of three female paratypes (Zermatt).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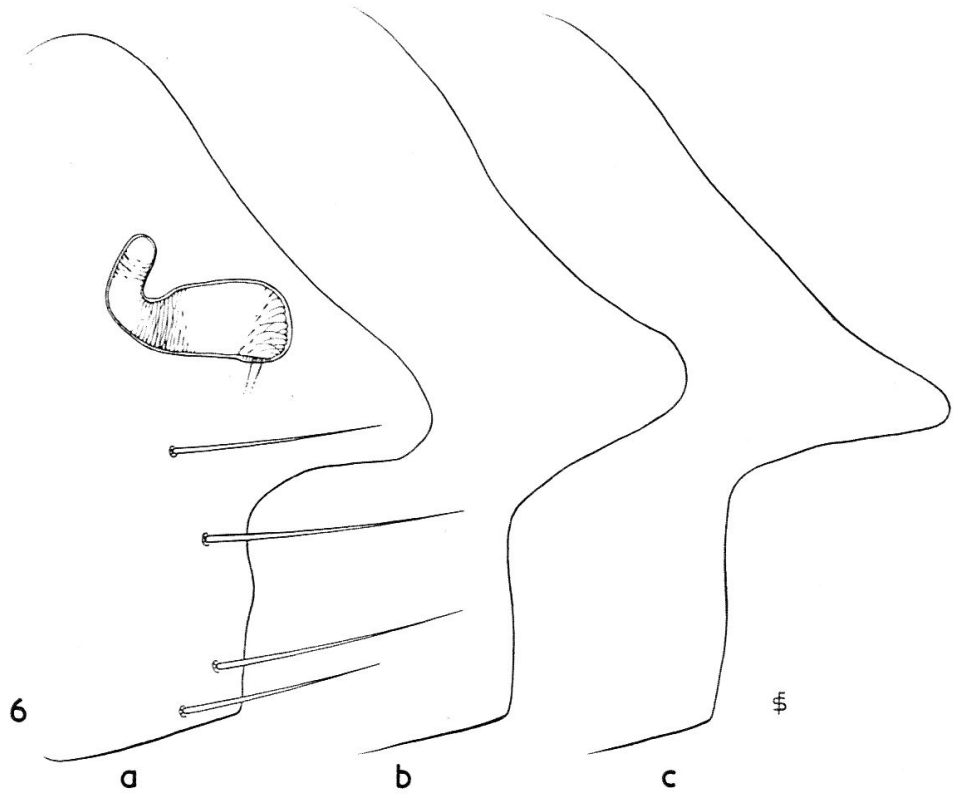
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a
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allotype in the British Museum collection of fleas at Tring, paratype in the Muséum d'Histoire Naturelle, Genève.

The new subspecies differs in the male (Figs. 3, 4) from that of *C. n. nivalis* ROTHSCHILD (Fig. 1) and *C. n. cervinus* JORDAN & ROTHSCHILD (Fig. 2) mainly by the shape of the movable process of the clasper, which has the dorso-anterior angle markedly rounded off, as a result of which the marginal sensilla are more widely spaced than in the other subspecies ; the fixed process of the clasper tends to be shorter than that of the other subspecies. Sternum VII of the female (Fig. 7) resembles that of *C. n. cervinus* (Fig. 6) rather than that of *C. n. nivalis* (Fig. 5) but the lobe of the posterior margin is somewhat shorter and blunter than that of *C. n. cervinus*. In other respects females of the three subspecies are inseparable.

Remarks : Ctenophthalmus nivalis is a poorly known species. The nominate species is still known only from 6 ♂ 5 ♀ collected at Le Lautaret, Hautes-Alpes, France, from *Microtus nivalis* in 1908, and from 5 ♂ 6 ♀ collected at Bonnenuit, above Valloire, Savoie, France, from *Microtus agrestis* in 1910 ; *C. n. cervinus* has not been collected since 1917 when it was taken from *Microtus nivalis* and *Clethrionomys glareolus* at Zermatt. It is rather surprising that the new subspecies was found only 37 km. N.E. of Zermatt, especially since the Alpine range between Zermatt and the Simplon Pass is quite continuous and without any major barriers. Both geographically and structurally *C. n. cervinus* occupies a position between the other two subspecies.

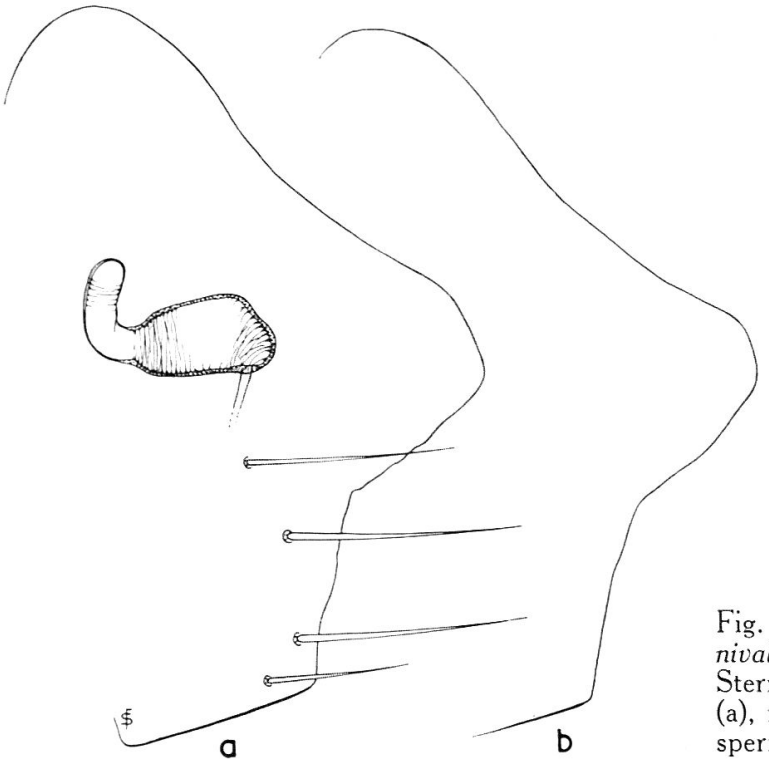

Fig. 7. — *Ctenophthalmus nivalis helvetius* subsp. nov. Sternum VII left-hand side (a), right-hand side (b) and spermatheca of female allotype.