

## Notes on *Panurginus Romani* Auriv. (Hym.)

By

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In this journal Aurivillius (1914) described the female of the new species *Panurginus Romani*. The holotypus of this species (leg. A. Roman) belongs to the entomological department of the Museum of Natural History of Stockholm. But unfortunately there is no information on the locality, the date and the year of collecting. On the little label there is only the abbreviation Hls (=the province of Hälsingland). In all probability Roman captured this bee in the summer of 1913 when he visited Prof. Chr. Aurivillius, who was staying in Järvsö, or Mr. J. Rudolphi resident in Delsbo.

Already the following year Dr. O. Sjöberg captured both the female and the unknown male of *P. Romani* (♂ allotypus) in Ludvika. This interesting discovery was unknown until the year 1927, when this specimens were sent together with other bees by Dr. A. Jansson, Örebro, to the well-known entomologist J. D. Alfken, Bremen. These specimens remained in Alfken's collection which after his death was sent to the zoological department of the Humboldt-University, Berlin. I have been successful in acquiring these specimens in exchange for material from my collection.

Before Alfken was able to investigate these specimens he took up an attitude of doubt as to the justification for the existence of this new species. But now he could describe the male and give a detailed description of the female and put both descriptions in relation to those of *P. montanus* Gir., a closely allied species living in the Alps (Alfken 1927).

The taxonomical position of *P. Romani* is partly assuming another aspect since Richards (1932) described the species *P. tyrolensis*. This species is likewise living in the Alps. I have had an opportunity to compare *P. Romani* with both *P. montanus* (♀ ♂) and *P. tyrolensis* (♀ ♂). This comparison shows that *P. Romani* is a well separated species, which appears in the structure of the male genitalia and the shape of the seventh and eighth sternit (Fig. 1). Nor does *P. Romani* seem to be identical with any species

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Fig. 1.

living in the USSR. Prof. V. Popov, Leningrad, has informed me that there are no specimens of *P. Romani* in the extensive collections of the museum in Leningrad.

In the summer of 1955-57 I have had the opportunity of investigating the distribution of the bees and humble-bees in Norrland. During these investigations I have also directed my attention to the occurrence of *P. Romani* in as much as this species is captured only in a few specimens in some few localities in Sweden and in two in Finland (Elfving 1954).

In the summer of 1956 I discovered *P. Romani* in three localities viz. Edefors, Döda Fallet and Bispgården. At the two first mentioned localities there were numerous individuals of both sexes. In 1957 I had the luck to discover a colony of these bees in Dorotea



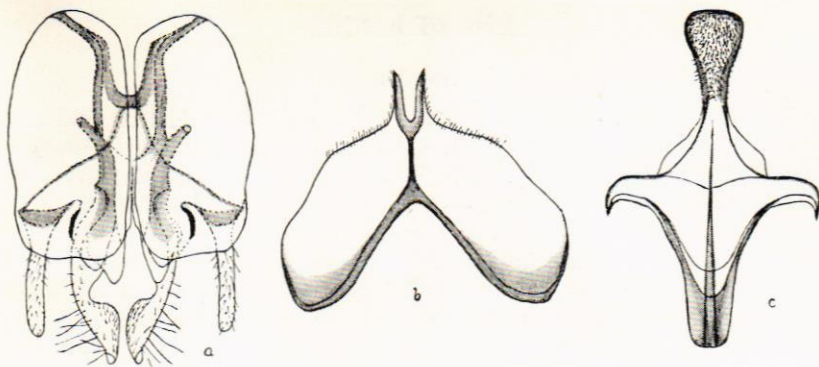


Fig. 2. *Panurginus Romani* Auriv. ♂. a. The male genitalia, dorsal view. b. 7th sternite. c. 8th sternite.

situated in southern Lappland. The nests were situated on a ditch-bank at the edge of a wood, where the soil was composed of fairly hard clay mixed with sand.

The first time I observed *P. Romani* in this locality was on the 3rd of July, but not until two days later did I notice that the females had begun nesting. I had the change of following their work only for a few days, but I had time to establish that the first cell was built on a depth of about 6 cms. It appears to me that the nest of *P. Romani* is of the same type as the one that Malyshev (1924) has described in *P. labialis* Ev.

It is very peculiar that I have found *P. Romani* only in these four localities in spite of intense field work. It seems that this species has very special demands on the climatic conditions as well as the soil-condition. In all localities an intense heat prevailed. The places Edefors, Döda Fallet and Bispgården are all situated in river-vallies known for high temperature in summer.

As I said before, up to now, *P. Romani* is found only in Sweden and Finland (Fig. 2), but in all probability it should occur in the USSR too. It would be remarkable if this species should be endemic in Fennoscandia.

The females of this bee have been taken on the following flowering plants: *Rubus idaeus* and *Vaccinium vitis idaea*. Elfving (1954) mentions also *Geranium silvaticum*. The males have been captured on their flight around shrubs of *Salix spp.* and *Betula verrucosa*.

My thanks are due to Prof. J. de Beaumont, Lausanne, Forest off. R. Elfving, Kuopio, Prof. V. Popov, Leningrad, and Dr. G. Steinbach, Berlin, for information and help with material.

## List of habitat

### Sweden

Dalarna: Vika sn. Hosjö July 1915 (♀). O. Sjöberg (det A. Roman). — Ludvika, 15.8.1915. (♀ ♂). O. Sjöberg (det. J. D. Alfken). Ludvika: Ställviksberget 1.7.1926 (♀). K. H. Forsslund. — Hälsingland: Järvsö or Delsbo 1913 ? (♀). A. Roman. — Jämtland: Fors sn. Döda Fallet 15.7. and 16.7.1956 (several ♀ ♂). S. Erlandsson. Bispgården 16.7.1956 (♂). S. Erlandsson. — Västerbotten: Bodarna near Hällnäs 26.6.1937 (♂). K. J. Hequist. Edefors, tourist inn 5.7. and 6.7.1956 (several ♀ ♂). S. Erlandsson. — Åsele lappmark: Dorotea 3—5.7.1957 (several ♀ ♂). S. Erlandsson.

### Finland

Ostrobothnia australis: Kaskö 8.7. and 10.7.1928. Å. Nordström. Savo-  
nia borealis: Kuopio 20.6. and 23.6.1948, 2.8. 1951 and during the sum-  
mers 1953 and 1954. R. Elfving, Kuopio ♂. N. Nauha (Elfving 1954).

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