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A new high-alpine Dolerus in Switzerland

(Hymenoptera Tenthredinidae)

by

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In June 1935 at Ferpècle, Val d'Hérens, Valais, Switzerland, I captured a single female of a small black *Dolerus* of a species unknown to me, but closest in structure to *D. anticus* KLUG. As I had found only a single specimen, and that in poor condition, it seemed possible that this might be no more than an abnormal melanic dwarf of some well-known species. Then in June 1962 on the mountains above Saas-Fee, Valais, barely 30 km away, I found a male and female of what is obviously the same species but in good condition ; so I describe it as new.

Although nearly entirely black in colour the new species belongs to the *Red Group* as defined by BENSON 1952, but I have not been able to find any red species, palaearctic or nearctic, of which this could be a melanic race, as the saw is quite distinct from that of any previously known species. Dr. WOLTER HELLÉN most kindly lent me from Helsingfors the type of *Dolerus laevigatus* HELLÉN 1955 from the Austrian Alps but this proved to be a melanic race of *D. madidus* KLUG, **Syn. nov.** *

Dolerus nivalis sp. n. (fig. 1)

♀. Colour black, except only for the apical tergite which is more or less reddish yellow and the white apical margins of tergites 2–8. Wings hyaline with stigma and venation piceous.

Head contracted behind the eyes in dorsal view, with well-marked occipital furrows. Clypeus triangularly excised in front to a depth of about $^1/_3$ its total length. Antenna about twice as long as width of head ; 8th segment less than three times longer than broad (2.7).

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* But the subarctic species he described in the same paper as *Dolerus subarcticus* HELLÉN proved to be same as *D. willoughbyi* BENSON 1956, **Syn. nov.**

Thorax normal ; tibial spurs short (inner hind spur about as long as apical breadth of tibia). Abdomen normal ; sawsheath narrow and parallel-sided with straight lateral setae in dorsal view (as in *D. madidus* Klug, cf. Benson 1952, fig 186) ; saw fig. 1.

Sculpture and *punctation :* Head densely punctate in front but with a ∓ impunctate area stretching from the post-ocellar furrows to the temples. Mesonotal front lobes densely punctate laterally, but sparsely punctate with shining interspaces medially ; lateral lobes mainly impunctate with obsolescent punctures mostly posteriorly ; mesoscutellum densely punctate behind but almost impunctate in front and on post-tergite behind. Mesopleura finely and densely punctate all over but without any crater punctures as large as an abdominal spiracle. Mesosternum shining with sub-obsolete punctures only. Abdomen shining but with faint transverse striae on all tergites.

Pubescence on head and thorax pale, dense and long (up to as long as the 1st antennal segment) ; rest of the insect with short sparse hairs only. Length 7–8 mm.

♂ as ♀, but that the antenna is four times as long as the width of the head, and the 8th segment four times as long as broad. Penis valve very similar to that of *D. anticus* (Benson, 1952, fig. 224). Length 7 mm.

Switzerland, Valais : Saas-Fee, 2100–2400 m. (7000–8000 ft.), 1 ♀ *(Holotype)*. 25.VI.1962, 1 ♂, 21.VI.1962 (R. B. Benson) ; Ferpècle, 1500–2000 m. 1 ♀, 21–27.VI.1935 (R. B. B.).

Dolerus anticus, *D. harakawai* Waterston 1926 and *D. nivalis* are the only *Dolerus* of the *Red Group* with no large crater-like punctures on the mesopleura and yet with teeth on the lateral flanges of the saw. In the following comparison between *D. anticus* and *D. nivalis* I have omitted *D. harakawai* of Japan because in all the structural characters listed below it agrees with *D. anticus*, and its differences from *D. anticus* were adequately given by Waterston.

D. nivalis sp. n.	*D. anticus* Klug.
Colour : ♂ ♀ body all black except ± last ♀ tergite.	♀ Mesothorax black except front lobes of mesonotum ; abdomen red except basal tergite. ♂ Black except ± 4 or 5 middle segments of abdomen.
Sawsheath narrow and parallel-sided in dorsal view with straight lateral hairs as in *D. madidus* (Benson 1952, fig. 186)	Sawsheath rounded and contracted behind in dorsal view (Benson 1952, fig. 187)
Saw with reduced lower tooth on the lateral flange and little developed above apically (see fig. 1)	Saw with strong lower tooth on lateral flange and well developed above apically (Benson, 1952, fig. 172).
Tergites with fine surface striations on all segments.	Tergites without visible surface sculpture at 45 magnification.
Mesonotum with lateral lobes impunctate	Mesonotum with lateral lobes evenly punctured and with shining interspaces.

Size 7–8 mm.
Head contracted strongly behind eyes in ♂ and ♀.

Size 9–10 mm.
Head scarcely contracted behind in ♂, and not in ♀.

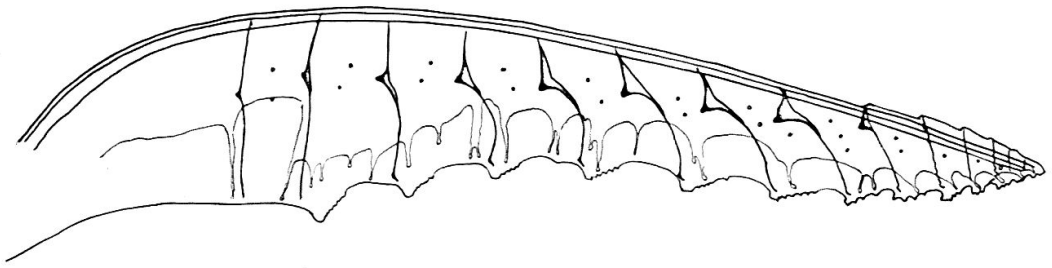

Fig. 1. — Saw of *Dolerus nivalis* sp. n.

High alpine Dolerus.

BENSON (1961) recorded three other *Dolerus* as native in high alpine regions of Switzerland.

Dolerus alpinus BENSON. Restricted to such regions in Switzerland and Austria. Males very scarce.

D. nitens KLUG.
Not restricted to high regions but distributed throughout C. and N. Europe as late winter and very early spring insect. High alpine race and race introduced into N. America apparently obligatorily parthenogenetic, without males.

D. aenesus KLUG.
One of the commonest of sawflies in northern, subalpine and alpine Europe. Abundant in high alpine regions where occurs race with ± shortened antennae.

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