Pictorial key to common surface dwelling species of Collembola from the Netherlands

This key is still under construction. Note that missing figures will be provided as soon as possible. Currently, the key is in the feasibility study phase to find out how to integrate in the checklist in a modular way a key that has been generated with DELTA.

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Preamble

This experimental and macrophotographically illustrated key is intended to key out the most common surface dwelling species of Collembola from the region of Hardenberg, the Netherlands, based on habitus inspection of alive specimens in the field using at most a magnification of 5 times.

All illustrations courtesy of macrophotographer Ab H. Baas.

Key

1(0). Body form elongate (fig.1a)................................. 2
Body form subglobular (fig.1b)................................. 23

Fig.1.

2(1). Body iridescent, covered with scales (fig.2).............. 3
Body not iridescent, not covered with scales.................. 6

Fig.2.

3(2). Apical antennomere about equal to subapical antennomere (fig.3); antenna with 5 segments (fig.4): basal
antennomere subdivided................... Heteromurus major
Apical antennomere much shorter than subapical antennomere;
antenna with 4 segments.................................4

Fig.3.

Fig.4.

4(3). Third antennal segment subcylindric (fig.5).............5
Third antennal segment tapering (fig.6)......................
..................................................... Pogonognathellus flavescens

Fig.5.

Fig.6.

5(4). Body dark purplish with transversal goldish bands at
intersegmental margins (fig.7)........... Tomocerus vulgaris
Body uniform bluish-grey (fig.8)............. Tomocerus minor
6(2). Head blackish...................................................... 7
Head not blackish.................................................... 8

7(6). Abdomen with distinct whitish transversal band (fig.9),
      (fig.10)................................. Orchesella cincta adult
Abdomen without whitish transversal band (fig.11)............
      ...................................... Isotoma viridis var violacea
8(6). Body with long dorsal setae................................. 9
Body without long dorsal setae................................. 22

9(8). Body with few long dorsal setae.......................... 10
Body with many long dorsal setae............................. 15

10(9). Body background colour not uniform..................... 11
Body background colour uniform.............................. 13

11(10). Body pigmentation in longitudinal pattern............. 12
Body pigmentation in transversal pattern (fig.12)...........
.............................. Isotoma viridis var annulata

12(11). Lateral thoracic pigmentation distinctly patchy; middorsal
segmental pigmentation in the shape of a crown (fig.13);
tibiotarsi distinctly differently coloured than femora.....
.............................. Isotomurus maculatus
Lateral thoracic pigmentation indistinct; middorsal segmental
pigmentation in the shape of a solid line (fig.14);
tibiotarsi and femora equally coloured. Isotomurus palustris
13(10). Body background colour greenish (fig.15).... Isotoma viridis
Body background colour not greenish......................... 14

14(13). Body background colour brownish with pale random dot pattern
(fig.16)................................. Isotoma anglicana juvenile
Body background colour dark violet with distinct pale dot
pattern lateral on abdomen (fig.17). Isotoma anglicana adult

15(9). Antenna with 4 segments; trunk with one abdominal segment
distinctly longer than the others (fig.18)................. 16
Antenna with 6 segments (fig.19): basal two antennomeres
subdivided; trunk with subequal abdominal segments....... 20
16(15). Thoracic dorsal pigmentation absent........................... 17
Thoracic dorsal pigmentation present......................... 18

17(16). Dorsal pigmentation of the second and third abdominal segment
in distinct transversal bands (fig.20).........................
................................. Entomobrya nivalis forma dorsalis
Dorsal pigmentation of the second and third abdominal segment
in indistinct transversal patches (fig.18), (fig.21)........
................................. Entomobrya nicoleti

18(16). Thoracic dorsal pigmentation in longitudinal bands (fig.22)....
................................. Entomobrya muscorum
Thoracic dorsal pigmentation in transversal bands......... 19
Fig. 22.

19(16). Dorsal abdominal pigmentation in irregular transversal bands (fig. 23).......................... Entomobrya multifasciata
Dorsal abdominal pigmentation in the shape of a capital U (fig. 24).................................. Entomobrya nivalis

Fig. 23.

20(15). Body pigmentation pattern in complex pattern of patches (fig. 25).............................. Orchesella villosa
Body pigmentation pattern in distinct bands............... 21

Fig. 24.

21(20). Body pigmentation in longitudinal bands (fig. 26)...............
.......................... Orchesella flavescens
Body pigmentation in transversal bands (fig. 27).................

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............... Orchesella cincta juvenile

![Image](image_url1)

**Fig.26.**

![Image](image_url2)

**Fig.27.**

22(8). Body colour greenish (fig.28)................. Desoria olivacea
Body colour greyish (fig.29)......................... Desoria tigrina

![Image](image_url3)

**Fig.28.**

![Image](image_url4)

**Fig.29.**

23(1). Body background colour brownish............... 24
Body background colour yellowish with patchy brown
pigmentation........................................... 26

24(23). Body texture dull........................................ 25
Body texture glossy (fig.30)......................... Allacma fusca
25(24). Dorsum uniformly coloured (fig.31)............. Dicyrtoma fusca
        Dorsum with middorsal yellow longitudinal stripe (fig.32).....
        .................................................................. Dicyrtomina ornata ¹

26(23). Dorsal posterior patch multi barred cross shaped (fig.33);
        second antennomere colour distinctly more pale then that of
        third antennomere, especially at the joint (fig.34b)........
        .................................................................. Dicyrtomina saundersi
        Dorsal posterior patch solid rectangular (fig.35); second
        antennomere colour gradually fading into that of third
        antennomere (fig.34a)......................... Dicyrtomina ornata
Endnotes

1 Very dark colour form lacking the typical patchy pigmentation.

Differential diagnoses

**Allacma fusca**
Body background colour brownish. Body form subglobular (fig.1b). Body texture glossy (fig.30).

**Desoria olivacea**
Body not iridescent, not covered with scales. Body without long dorsal setae. Body colour greenish (fig.28). Body form elongate (fig.1a). Head not blackish.

**Desoria tigrina**
Body not iridescent, not covered with scales. Body without long dorsal setae. Body colour greyish (fig.29). Body form elongate (fig.1a). Head not blackish.

**Dicyrtoma fusca**
Body background colour brownish. Body form subglobular (fig.1b). Body texture dull. Dorsum uniformly coloured (fig.31).

**Dicyrtomina ornata**
Body background colour yellowish with patchy brown pigmentation. Body form subglobular (fig.1b). Dorsal posterior patch solid rectangular (fig.35). Second antennomere colour gradually fading into that of third antennomere (fig.34a).

**Dicyrtomina ornata** 1
Body background colour brownish. Body form subglobular (fig.1b). Body texture dull. Dorsum with middorsal yellow longitudinal stripe (fig.32).
Dicyrtomina saundersi
Body background colour yellowish with patchy brown pigmentation. Body form subglobular (fig.1b). Dorsal posterior patch multi barred cross shaped (fig.33). Second antennomere colour distinctly more pale then that of third antennomere, especially at the joint (fig.34b).

Entomobrya multifasciata

Entomobrya muscorum

Entomobrya nicoleti
Antenna with 4 segments. Body not iridescent, not covered with scales. Body with long dorsal setae. Body form elongate (fig.1a). Body with many long dorsal setae. Dorsal pigmentation of the second and third abdominal segment in indistinct transversal patches (fig.18), (fig.21). Head not blackish. Thoracic dorsal pigmentation absent. Trunk with one abdominal segment distinctly longer than the others (fig.18).

Entomobrya nivalis

Entomobrya nivalis forma dorsalis

Heteromurus major
Antenna with 5 segments (fig.4): basal antennomere subdivided. Apical antennomere about equal to subapical antennomere (fig.3). Body iridescent, covered with scales (fig.2). Body form elongate (fig.1a).

Isotoma anglicana adult
Isotoma anglicana juvenile

Isotoma viridis

Isotoma viridis var annulata

Isotoma viridis var violacea
Abdomen without whitish transversal band (fig.11). Body not iridescent, not covered with scales. Body form elongate (fig.1a). Head blackish.

Isotomurus maculatus

Isotomurus palustris

Orchesella cincta adult
Abdomen with distinct whitish transversal band (fig.9), (fig.10). Body not iridescent, not covered with scales. Body form elongate (fig.1a). Head blackish.

Orchesella cincta juvenile

Orchesella flavescens

Orchesella villosa
Antenna with 6 segments (fig.19): basal two antennomeres subdivided. Body not iridescent, not covered with scales. Body with long dorsal setae. Body form elongate (fig.1a). Body pigmentation
pattern in complex pattern of patches (fig.25). Body with many long dorsal setae. Head not blackish. Trunk with subequal abdominal segments.

**Pogonognathellus flavescens**
Antenna with 4 segments. Apical antennomere much shorter then subapical antennomere. Body iridescent, covered with scales (fig.2). Body form elongate (fig.1a). Third antennal segment tapering (fig.6).

**Tomocerus minor**
Antenna with 4 segments. Apical antennomere much shorter then subapical antennomere. Body iridescent, covered with scales (fig.2). Body uniform bluish-grey (fig.8). Body form elongate (fig.1a). Third antennal segment subcylindric (fig.5).

**Tomocerus vulgaris**
Antenna with 4 segments. Apical antennomere much shorter then subapical antennomere. Body iridescent, covered with scales (fig.2). Body dark purplish with transversal goldish bands at intersegmental margins (fig.7). Body form elongate (fig.1a). Third antennal segment subcylindric (fig.5).

References