

Ceutorhynchus turbatus new for The Netherlands (Coleoptera: Curculionidae)

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Abstract: *Ceutorhynchus turbatus* is reported from The Netherlands for the first time. Characters are presented, male and female genitalia and the adult male are figured. Notes on biology and distribution are given. A comparison with the very common *C. floralis* is made.

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One male specimen of *Ceutorhynchus turbatus* Schultze (fig. 1) was taken from the flowers of *Lepidium draba* L. (= *Cardaria draba* L.) on 27 June 1985 near Brouwershaven, province of Zeeland (leg. J. C. van de Sande) but was not recognized until recently. On 6 June 1996, five males and two females were found on the same plant species near Oostvoorne, Oostvoornse meer (Amersfoort-Coordinates 64-439), province of Zuid-Holland, together with several specimens of *Ceutorhynchus floralis* (Paykull) (leg. J. C. van de Sande). All specimens were captured in the flowers or at least in the inflorescence. Brakman (1966) as well as Heijerman (1993) did not list *C. turbatus* for The Netherlands, so these records are

the first Dutch ones. In the Museum of Amsterdam (ZMA) no further specimens of *C. turbatus* were found.

Dieckmann (1961, 1972) mentions no West European records of *C. turbatus* from before 1900. In the twentieth century it has spread all over Europe and it can now be found in almost all countries, including Great Britain. *Ceutorhynchus turbatus* is known from Middle Asia, Asia Minor, Turkey, The Balkan, Central Europe, France and Great Britain (Hoffmann, 1954; Morris, 1982; Lohse, 1983).

At first sight *C. turbatus* has the same appearance as *C. floralis*, which is a very varia-



Fig. 1. *Ceutorhynchus turbatus*, ♂.

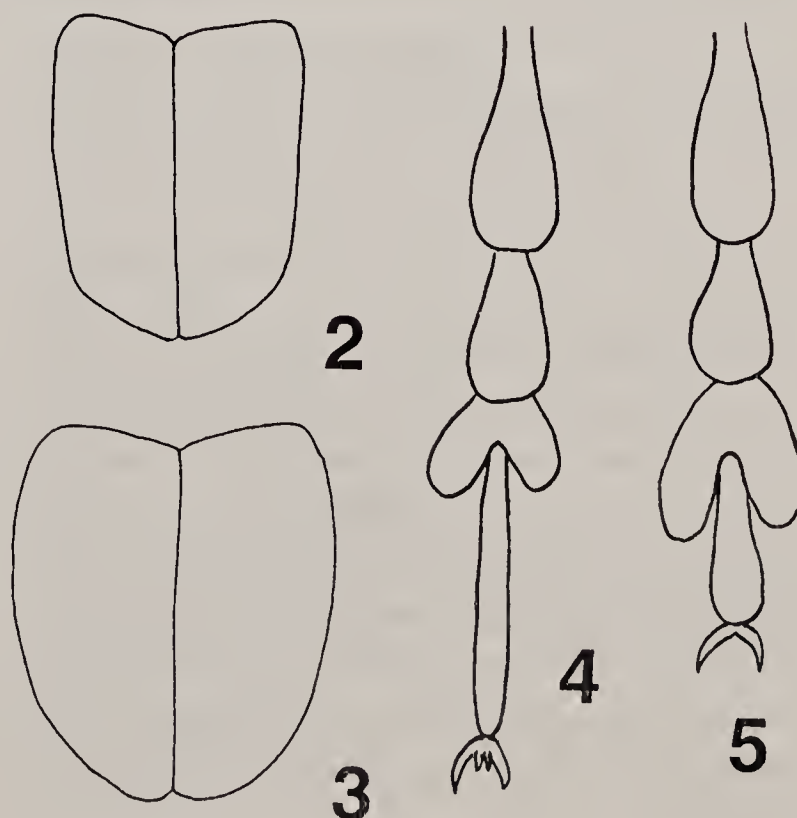


Fig. 2-5. *Ceutorhynchus* spec. 2, 4, *C. turbatus*; 3, 5, *C. floralis*; 2-3, shape of elytra; 4-5, hind tarsus.

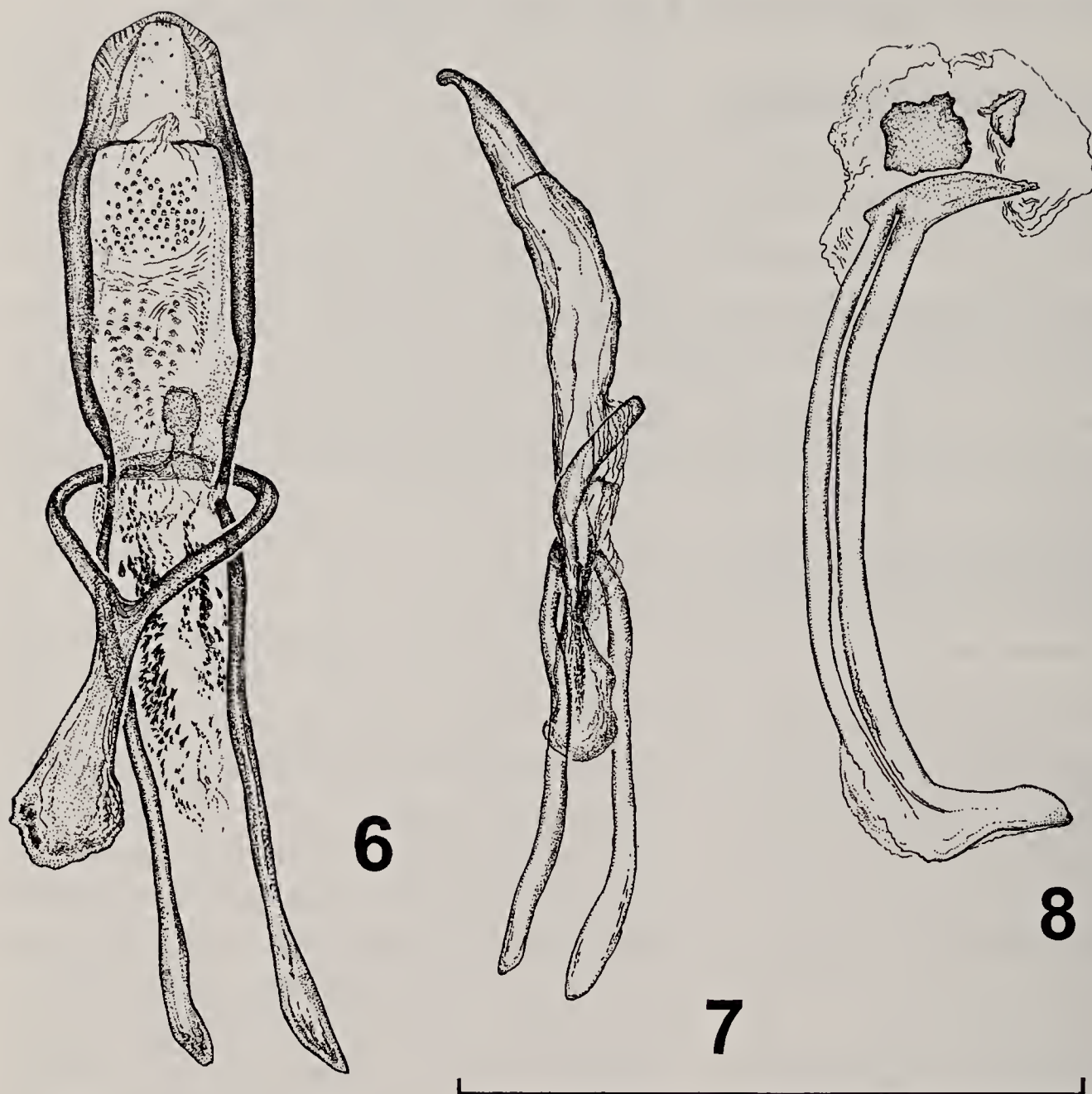


Fig. 6-8. *Ceutorhynchus turbatus*, ♀, genitalia. 6, aedeagus, ventral view; 7, aedeagus, lateral view; 8, spiculum gastrale (scale line: 0.5 mm).

ble species (Scheibner, 1963; Dieckmann, 1972) and very common in The Netherlands on a large number of Cruciferae, including *Lepidium draba*. At a closer view the body of *C. turbatus* is somewhat more oblong and the sides are less rounded (fig. 2) in comparison with *C. floralis* (fig. 3). In *C. turbatus* the scales are clear white and a little more dense, which gives the animal a whitish appearance. Furthermore both species are easily distinguished from each other because in *C. floralis* the antennae have only six segments between the scape and the club, whereas in *C. turbatus* there are seven, and because the last tarsal joint is three times longer than the third in *C. turbatus* and less than two times in *C. floralis*, which also has more robust tarsi (fig. 4-5). The aedeagus (fig. 6-8) and spermatheca with spiculum ventrale (fig. 9) of *C. turbatus* are depicted.

As far as known *C. turbatus* only breeds on *Lepidium draba*. The adult female deposits

her eggs in almost ripe seedpods through a hole made near the stalk. The larva feeds on the seed. It leaves the pod and makes a cocoon in the soil. There the larva rests some time before it pupates. Although there is only one generation a year, the pupal stage is very short (less than a month) and some adults leave the soil in the same year they develop (Scherf, 1964; Urban, 1924).

Lepidium draba originates from Southwest Asia and has settled in the nineteenth century in southern Europe. After the first Dutch record in 1865 it spread rapidly over the southern and western part of The Netherlands. Within this region it remained scarce until the last few decennia, when it strongly increased. In the northeastern part of the country the plant is almost absent (Weeda et al., 1987; Van der Meijden et al., 1989). It seems therefore, that *C. turbatus* only recently has expanded its area to The Netherlands. *Ceutorhynchus turbatus* is univoltine and develops in

almost ripe seedpods only. Most of the habitats in The Netherlands where *Lepidium draba* occurs, are at least mown once a year in or just after the flowering period and before the female can deposit her eggs in the ripening seedpods. Therefore the beetle will probably never become very common.

Until Hoffmann (1954) and Koch & Koch (1956) gave characters to distinguish *C. turbatus* from *C. parvulus* Brisout they were considered to be a single species, breeding on different *Lepidium* species. *Ceutorhynchus parvulus* breeds on *Lepidium campestre* (L.) R. Br. and probably also on *Lepidium rudera-*
le L. As both plants occur in The Netherlands, it is possible that *C. parvulus* is present as well.

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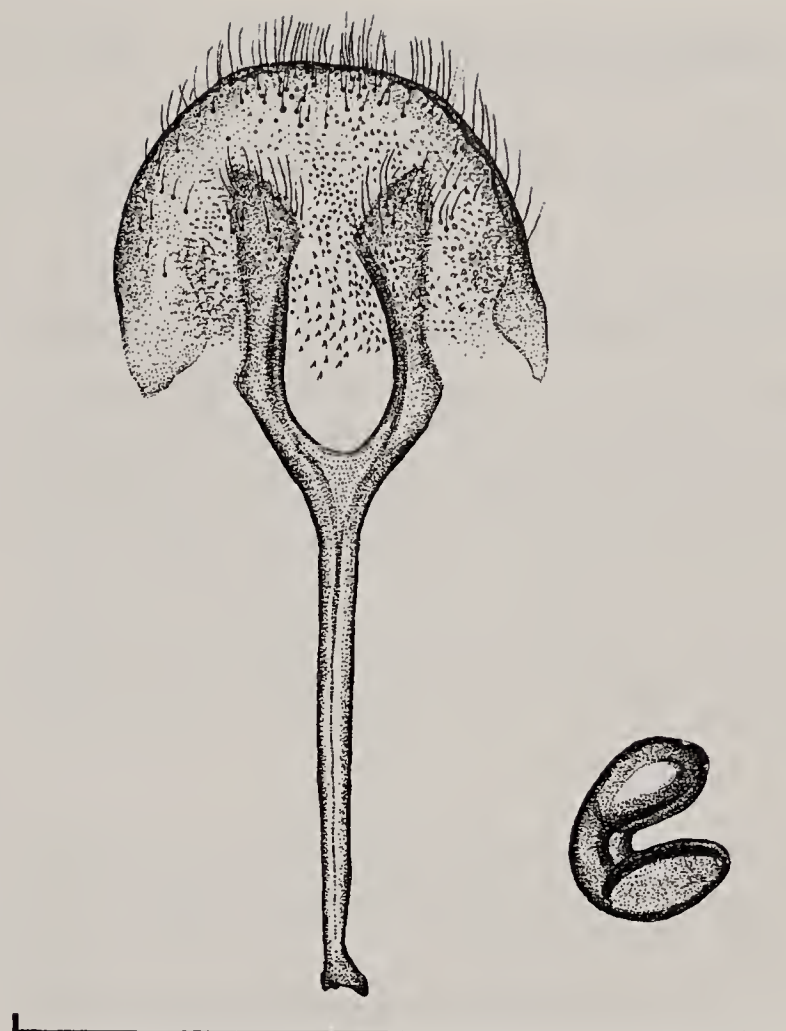


Fig. 9. *Ceutorhynchus turbatus*, ♂, spermatheca and spiculum ventrale (scale line: 0.5 mm).