Key to Norwegian species

Arne Fjellberg – January 2010

(NB! *Isotoma* species may look very similar to *Isotomurus*. Check here!)

Isotoma Bourlet, 1839

1. Body uniformly coloured, not with sharp longitudinal lines 2

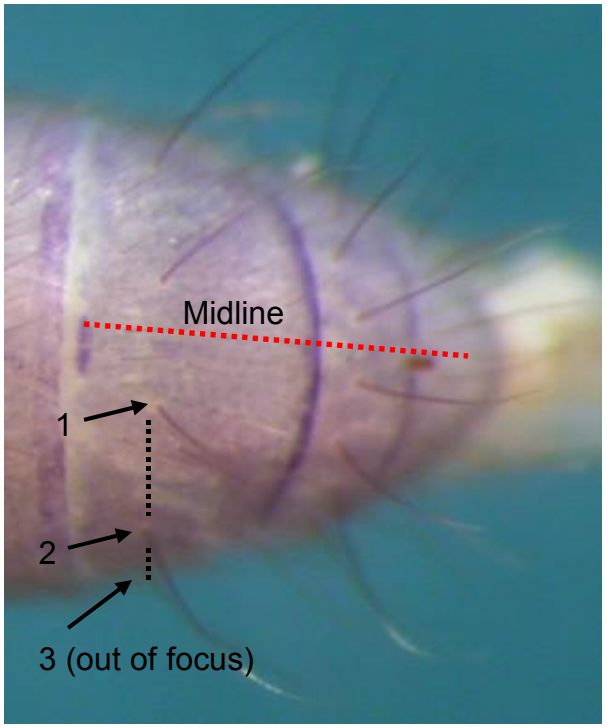
- Body with sharp middorsal line and patchy lateral bands ..... ***riparia*** (Nicolet, 1842)

3. Manubrial thickening bispinose 3

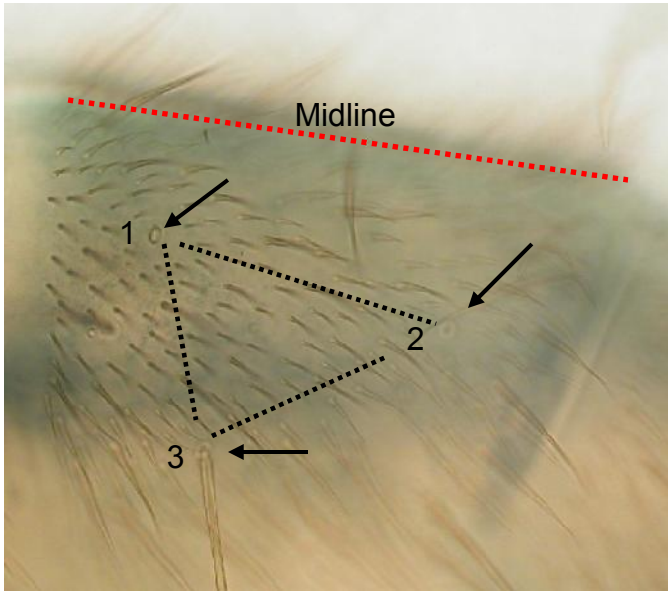
- Manubrial thickening simple ....***viridis*** (Bourlet, 1883)

- Manubrial macrochaeta A>B. Dens with three macrochaetae near base. 1.instar juv. without manubrial setae ..... ***anglicana*** Lubbock, 1862

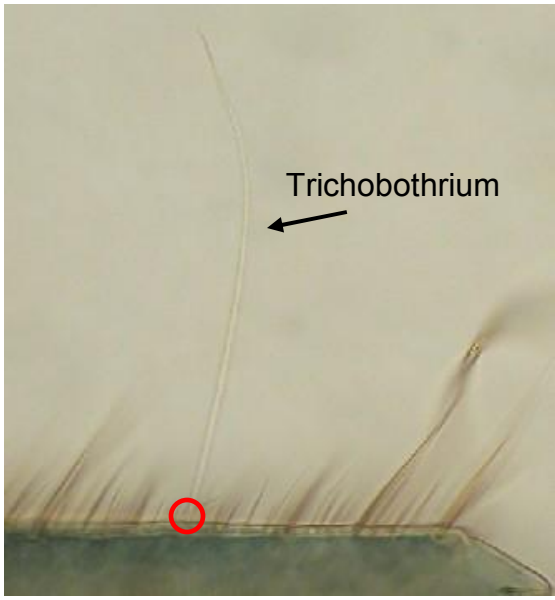
- Manubrial macrochaetae A<B. Dens with two basasl macrochaetae. 1.instar juv. with 1+1 manubrial setae .....***caerulea*** Bourlet, 1839



Isotoma



Isotomurus (left side, lateral view)



Isotomurus

Isotoma

Isotomurus

Differences bewteen *Isotoma* and *Isotomurus*

The head shape of *Isotomurus* is almost triangular in lateral view, while *Isotoma* has a more elongate head.

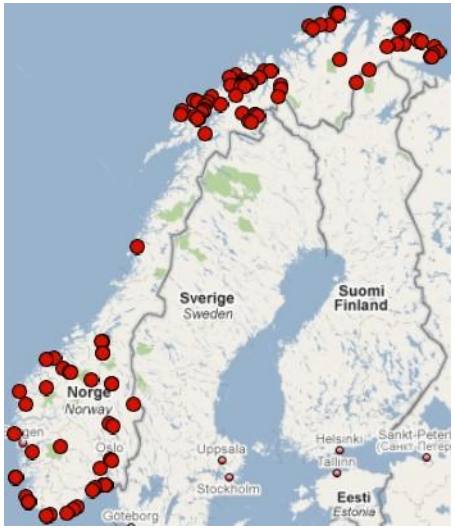
The long macrochaetae on the fourth abdominal segment (3+3 on each side of the midline) are set in a single line in *Isotoma*, while they have a triangular position in *Isotomurus* (these macrochaetae often fall off in *Isotomurus*)

Trichobothria (long ciliated sensorial hairs) are present on the abdomen in *Isotomurus*, absent in *Isotoma*.

Isotoma anglicana Lubbock, 1862

Identification. The bispinose manubrial teeth are shared only with *caerulea* which for a long time was mixed up with anglicana. It was not until the differences in the chaetotaxy of manubrium and dens were discovered, that the species could be identified. The colour is usually violet red, becoming very dark in large specimens.

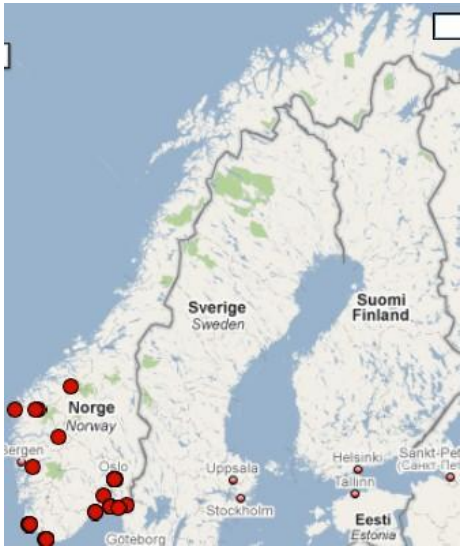
Distribution and ecology. *I.anglicana* is a common species in most of the country, and is the only *Isotoma* species being present in the Arctic islands. Common in many different habitats, avoiding the driest places where it is replaced by *I. caerulea*.

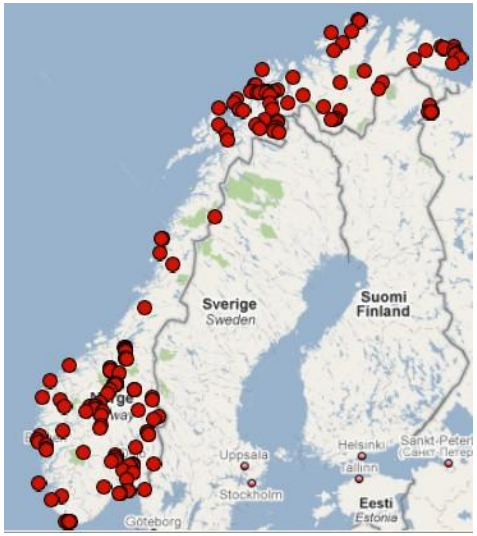


Isotoma caerulea Bourlet, 1839

Identification. The species is often confused with *anglicana*, but the key characters readily separat the species. Colour is usually pale green in small speimens, becoming more blue in large specimens.

Distribution and ecology. Because of confusion with *anglicana* the distribution is not well known, but the species appears to be common in at least South Norway. A characteristic species in open meadow vegetations along the seashores, in particular in dry sandy places.





Many of these records need verification, in particular those from North Norway which are likely to contain a lot of *anglicana*.

Isotoma viridis (Bourlet, 1883)

Identification. *I. viridis* shares simple manubrial spines only with *riparia* which differs by the striped colour pattern. The colour of *viridis* is variable. Large speciemens (like the above) become very dark while smaller ones are usually pinkish or brownish green.

Distribution and ecology. Probably common in most of the country, often in meadows and man-made habitats (gardens).

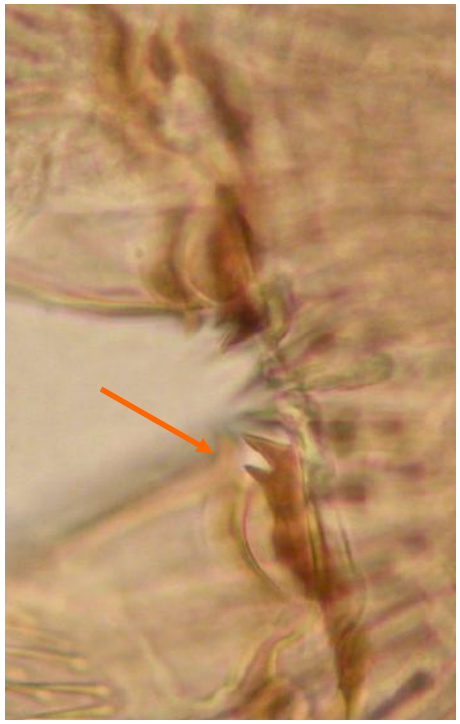
riparia

Isotomurus plumosus

Isotoma riparia (Nicolet, 1842)

Identification. When fully coloured the colour pattern is unmistakeable. Small juveniles (and sometimes adults) may be very pale with only traces of the characteristic striped patterns. In very large specimens the dorsal stripe and the lateral patches may fuse more or less. Look up for the similary large species *Isotomurus plumosus* (above) which has more distinct lateral bands and no dark pigment bewteen the eyes.

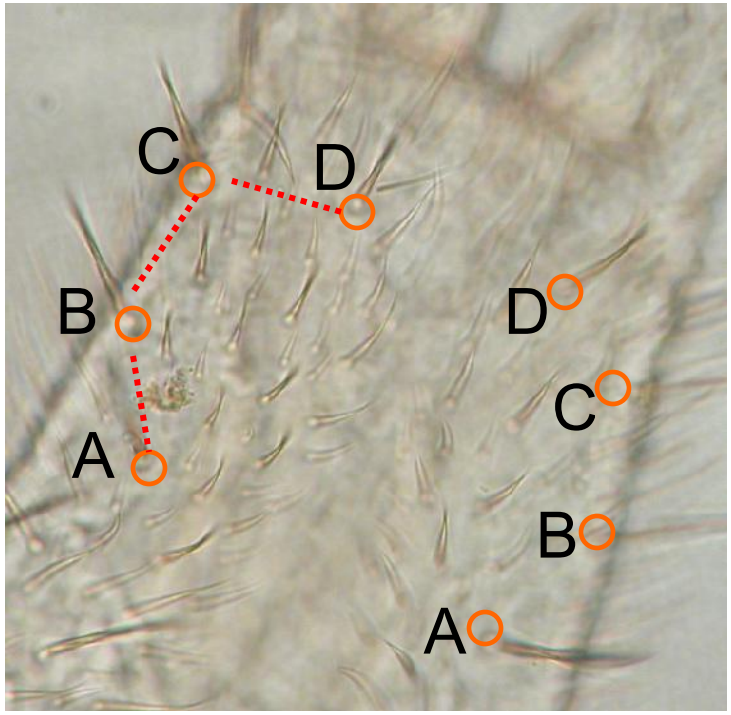
Distribution and ecology. A common species in very damp habitats, particularly along seashores (bogs, fens, *Phragmites* swamps, ponds, salt meadows).



anglicana, bispinose teeth

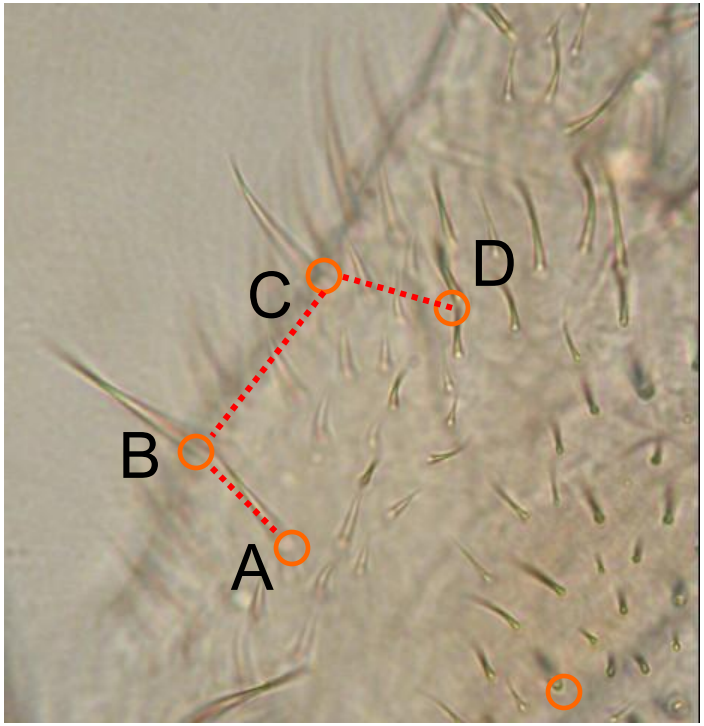
viridis, simple teeth

Ventroapical teeth on manubrium



anglicana, A>B

(slightly out of focus, but A will be thicker and longer than B)

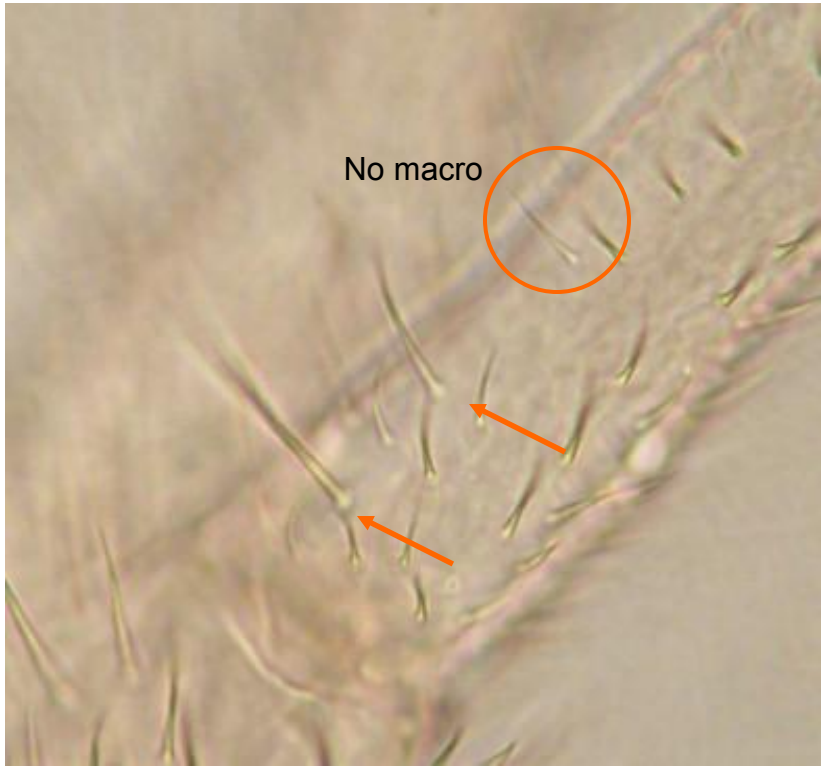


caerulea, A<B

Macrochaetae on dorsal side of manubrium.

Note that in *anglicana* A is moved forward in relation to B. If macrochaetae have fallen off their basal sockets will be visible and size and position will guide you. The macrochaetae are also present in juveniles – even the first instar - and are often more easily observed in them.

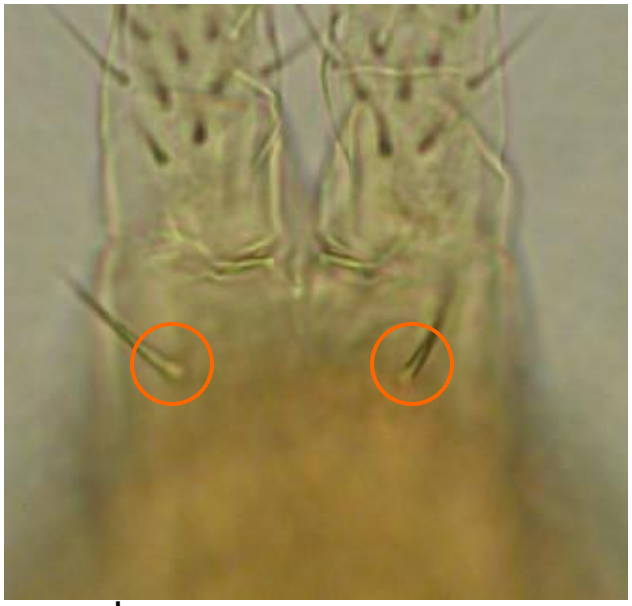
anglicana



caerulea

Macrochaetae at dorsal side of dens, near base

anglicana



caerulea

First instar juvenile, ventroapical part of manubrium