

First records of *Cobitis elongatoides* and *Sabanejewia baltica* (Cobitidae) for Germany

by

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RÉSUMÉ. - Première observation de *Cobitis elongatoides* et *Sabanejewia baltica* (Cobitidae) en Allemagne.

Deux nouvelles espèces de cobitidés ont été observées dans les eaux douces germaniques. *Cobitis elongatoides* a été trouvé dans la Haute-Spree à Uhyst (Saxe) et *Sabanejewia baltica* dans le Bas-Oder à Stützkow (Brandebourg). Les deux espèces sont considérées natives d'Allemagne. *Cobitis elongatoides* a été identifiée par analyse du caryotype.

Key words. - Cobitidae - *Cobitis elongatoides* - *Sabanejewia baltica* - Germany - River Spree - River Odra - Spined loaches - Karyotype - First record.

It is tempting to assume that the freshwater ichthyofauna of Germany is known in detail. However, this is not the case. Freyhof (2002) lists five small fish species as expected to occur, but not recorded yet, due to a lack of surveys and probably incorrect identifications. Two of these species belong to the family Cobitidae. The main reason for misidentifications of cobitid species is their high morphological similarity between species as well as their co-existence with hybridogenous biotypes (Bohlen and Ráb, 2001). Consequently, the karyotype proved to be the most suited tool for the identification of *Cobitis*.

Cobitis elongatoides Becescu & Maier, 1969 and *Sabanejewia baltica* Witkowski, 1994 were now recorded for the first time in Germany (Fig. 1).

RECORDS OF *COBITIS ELONGATOIDES* AND *SABANEJEWIA BALTICA*

Cobitis were caught on 03 May 2001 in the river Spree at Uhyst (Niederschlesischer Oberlausitzkreis, M. Pfeifer, pers. comm.). A karyotype analysis revealed 34 females to be triploid hybrids between *C. taenia* (L.) and *C. elongatoides*. The only male in the sample (Fig. 2) was diploid ($2n = 50$) with 46 meta- and submetmeta-, 2 subtelo-, 2 acrocentric chromosomes. This composition is in agreement with that of pure *C. elongatoides* (Ráb et al., 2000). An external character that differentiates *C. elongatoides* from *C. taenia* is the comparably larger size of the dark spot at the upper base of the caudal fin. Unfortunately, this character is not suited for the differentiation between *C. elongatoides* and hybridogenous biotypes.

One specimen of *Sabanejewia baltica* was found on 23 June 2001 in the River Odra within the national park 'Unteres Odertal'. It was caught by JF during night on a sandbar at Stützkow using a

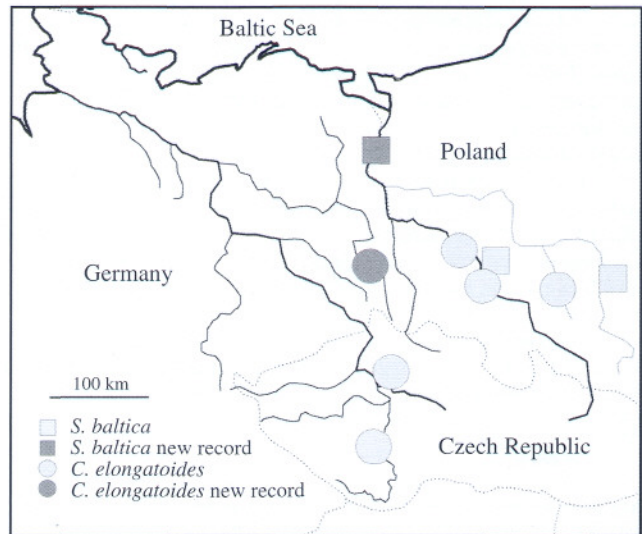


Figure 1. - Records of *Cobitis elongatoides* and *Sabanejewia baltica* in the basins of the rivers Elbe and Odra, after Bohlen and Ráb (2001) and Witkowski et al. (1990). [Captures de *Cobitis elongatoides* et *Sabanejewia baltica* dans les bassins de l'Elbe et de l'Oder; d'après Bohlen et Ráb (2001) et Witkowski et al. (1990).]



Figure 2. - *Cobitis elongatoides*, ZMB 33525, 62.0 mm SL. Germany: River Spree.

beach seine of 3.5 mm mesh size. The identity of the specimen was determined according to Ahnelt and Tiefenbach (1994) and Perdices et al. (2003). In contrast to *C. taenia*, *S. baltica* has one lateral row of dots only and two dark dots at the base of the caudal fin.

Both specimens are registered in the collection of Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (*C. elongatoides*: ZMB 33525; *S. baltica*: ZMB 33526).

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DISCUSSION

Cobitis taenia and different hybridogenous biotypes are widespread in all German river basins draining to the North and Baltic Sea (Bohlen *et al.*, 2002). Until now, *C. elongatoides* was recorded from the Danube basin (Bacescu and Maier, 1969), the Czech part of the Elbe basin (Ráb *et al.*, 2000) and the Polish Odra basin (Boroń and Kotusz, 1999). The new record in the river Spree is geographically close to the Czech and Polish localities. Although there is a canal connection between the catchments of the rivers Odra and Spree (Elbe catchment), fish migration routes are heavily fragmented by weirs for more than 700 years. Because of intense pollution from dyeworks and mining industries, large parts of the upper Spree became nearly totally free of aquatic life for about 100 years (Füllner *et al.*, 1996). Since 1990 the water quality was improved substantially, and many fish species were restocked or recolonised the river. An accidental introduction of *C. elongatoides* cannot be excluded, but its immigration from tributaries or lower river reaches is also possible. However, because the stocking material originated from the Elbe catchment as well, *C. elongatoides* has to be considered as autochthonous. Further populations of *C. elongatoides* have to be expected in other German parts of the Elbe basin and in the basins of rivers Danube and Odra (Bohlen *et al.*, 2002).

Sabanejewia baltica was first recorded from the River Odra basin by Frankiewicz (1985), and further on regularly mentioned from Polish sites (Witkowski *et al.*, 1990; Przybylski and Zielinski, 1991).

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